INVESTIGATING SUSTAINABILITY OF COMMUNITY GARDENS AS A MECHANISM TO POVERTY ALLEVIATION IN THE NELSON MANDELA BAY MUNICIPALITY

By

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Submitted in fulfillment of the requirements of the degree of Magister Artium in Development Studies in the Faculty of Business and Economic Sciences at the Nelson Mandela Metropolitan University

January 2012

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DECLARATION

I, Ntombizodwa Matshotyana 20042894, hereby declare that in accordance the treatise for Magister Artium in Development Studies is my own original work has not previously been submitted for assessment or completion of any postgraduate qualification to any other University or for another qualification.

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ABSTRACT

Poverty is one of the social problems plaguing South Africa. In South Africa it is required of municipalities as entities in the socio-economic and political transformation process and agents of change, to eradicate poverty and unemployment by facilitating local economic development in their respective areas. Local economic development has to be implemented in a way that takes cognisance of the different challenges that exist within various areas and contexts. Various district and local municipalities have initiated an array of agricultural programs such as community or food gardens as aspect of their Local Economic Development strategies. In this study I investigated the sustainability of community gardens as a mechanism to poverty alleviation in the Nelson Mandela Bay Municipality. The study focused exclusively on community gardens in Bloemendal, KwaZakhele, Motherwell and Walmer. A mixed methods research approach was employed to gather data from the community garden members and municipal official who administers the community gardens. Semi-structured interview was conducted with the municipal official administering community gardens in Nelson Mandela Bay. A structured questionnaire was used to gather data from the community garden members. Observations were made on types of crops grown in the gardens, in order to supplement and validate data collected and information gathered during interviews. Community garden members identified funding as their main challenge. Community gardens have a potential to be sustainable if the requisite support structures that need to exist to support the micro-farmers are in place.
ACKNOWLEDGEMENTS

First and foremost I would like to thank the community garden members in Nelson Mandela Bay for willingly sharing their experiences.

Secondly I would like to express my sincere gratitude to Prof. Deon Pretorius, my supervisor, for his assistance, support and dedication to improving the quality of this research.

Thirdly, I would like to thank the Nelson Mandela Bay official for his support and willing participation in the interviews.

Finally, my sincere thanks go to my family and friends for their personal support. In particular, I would like to thank my mother Nophethile, for raising me to become the person I am today. To my sisters, Zameka, Ntombiyakhe, Bulelwa, Boneka and Nomfundiso, I’m here because of you and may God bless you for your support. To all my friends, especially Mzukisi Tyuwa, thank you for your support.
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LIST OF ACRONYMS

ANC: African National Congress
BEE: Black Economic Empowerment
DEDEA: Department of Economic Development and Environmental Affairs
DPLG: Department for Provincial and Local Government
EU: European Union
GDP: Gross Domestic Product
GEAR: Growth, Employment and Redistribution Strategy
HDI: Human Development Index
IDP: Integrated Development Planning
LED: Local Economic Development
MDGs: Millennium Development Goals
NGOs: Non-Government Organizations
NMBMM: Nelson Mandela Bay Metropolitan Municipality
PE: Port Elizabeth
RDP: Reconstruction and Development Programme
SMME's: Small Medium and Micro Enterprises
UN: United Nations
CHAPTER ONE: INTRODUCTION AND CONTEXT

1.1 Introduction
Poverty is one of the social problems plaguing South Africa. South Africa is faced with the challenge of reducing poverty, which is a key legacy of the country’s historical racial inequality policy. In 1994, the Reconstruction and Development Programme (RDP) was adopted as a national framework to address the issues of poverty and inequality (White Paper on RDP, 1994:1). The RDP was basically the blueprint that outlined the new democratic government’s strategy of attempting to reverse the poverty situation in the country. Aliber (2003:475) points out that in 1996, the RDP office was closed down, in the midst of a public debate on what the RDP really meant for economic policy.

In the same year, the national government adopted the Growth, Employment and Redistribution Strategy (GEAR) to alleviate poverty and attend to inequality problem. Poverty reduction strategy aligned to GEAR includes Integrated Development Plans (IDP) for district and local municipalities, which are tools for integrated planning (Province of the Eastern Cape IDP, 2003:33).

The theoretical underpinning for the study is based on Local Economic Development (LED) which, according to Manona (2005:2) is crucial to achieve improved living conditions and promote sustainability. It is required of municipalities as entities in the socio-economic and political transformation process and as agents of change, to eradicate poverty and unemployment by facilitating local economic development in their respective areas (see Local Government: Municipal Systems Act [Act 32 of 2000]; Local Government: Municipal Structures Act [Act 117 of 1998]). Based on the LED of the Nelson Mandela Bay Municipality, urban agriculture is viewed as key economic driver (NMBM, 2011:1). Manona (2005:2) is of the view that the common theme in many municipal strategies is that local people should make the resources at their disposal work for them.

According to World Bank (2005:2) in poor household, agriculture can help overcome some of critical constraints they face in meeting their basic needs. Some of the
effects of agriculture come about through broad, economy-wide process, while others, particularly those operating at community level will be felt more immediately. Alongside the initiatives of the Department of Agriculture and the Department of Health, various district and local municipalities have initiated an array of agricultural programs such as community or food gardens as aspect of their Local Economic Development strategies. Primarily, this research seeks to investigate the sustainability of community garden projects as mechanism to poverty in the case of a community in the Nelson Mandela Bay Municipality.

1.2 The study area and background
According to NMB (2011:1), Port Elizabeth is South Africa’s second oldest city and also the commercial capital of the Eastern Cape. The city is often shortened to PE and nicknamed “The Friendly City”, stretches 16km along Algoa Bay, and is one of the major seaports in South Africa. PE forms part of the Nelson Mandela Bay Metro which also includes the towns of Uitenhage and Despatch. According to Lemon (1991:43), Port Elizabeth was laid out in 1815 as a British colonial port to handle import and export trade of the Eastern Cape. The city got its name when the acting governor of the colony at that time, Sir Rufane Donkin, named the city after his late wife, Elizabeth.

In 1836 it was made a free warehousing port, and in 1837 the capital of small adjacent district. The prosperity of the port was followed by the construction of railways to the interior for the port the designation of “the Liverpool of South Africa”. The port is now in direct communication with all other parts of South Africa. The port is home of the South Africa’s motor vehicle industry. It hosts General Motors, Volkswagen, Ford, Continental Tyres and many more automotive companies.

Lemon (1991:43) is of the opinion that the influx of Africans into the town in the decades was such that the municipality established a new location, the Native Strangers Location, adjacent to the original in 1855. The town grew rapidly in the second half of the 19th century as the trade of the Eastern Cape expanded (Lemon, 1991:44). In 1901 the bubonic plague broke out in Gubb’s location, and the
municipality took the opportunity to remove all the existing Africans and re-housed the population at New Brighton. Figure 1.1 below shows the map of Port Elizabeth.

![Figure 1.1 Map of Port Elizabeth (source http://cybercapetown.com/maps/portelizabeth.)(n the top image)](image)

With the dismantling of apartheid and the election of a democratic government, there has been some black migration to the wealthier white suburbs including Summerstrand.

### 1.3 The research problem
Befile (2009:5) is of the view that most people in Port Elizabeth experience high levels of poverty. Black Sash (2010:1) argues that more than a third of household live below the poverty line. This has led to the Municipality and NGOs (Non-Governmental Organizations) to encourage poor communities to establish food gardens with the intention to alleviate poverty and assist people achieve household food security and become instrument for the economic growth and development. Agriculture is seen as key element of local economy development strategy, which would eventually reduce local poverty.

However, the enthusiasm over the potential of agriculture to boost local economic development is not matched by the number of existing community gardens in Port
Elizabeth. Wilkinson (2011:2) points out that all too often a project is funded just long enough to see the food garden established, without ensuring that the requisite support structures that need to exist to support the micro-farmers are in place. This study seeks to investigate the sustainability of community gardens as mechanism to alleviate poverty in the Nelson Mandela Bay.

1.3.1 The research question
This study aims on answering the following research question:
1. How sustainable have community garden projects been as a mechanism to alleviate poverty in NMBM?
This question further points to the following sub-foci:
1. What are the success factors of community gardens?
2. What fundamental reasons account for the poor performance or failure of community garden projects?
3. What role has the municipality played in respect to sustainability of community garden projects?
4. What is the management strategy of these projects?
5. What are the opportunities associated with being part of the project?
6. Should current poverty alleviation policies be changed?

1.4 The research aims and objectives
The aim of this study is to investigate the sustainability of community gardens in specific areas in the NMBMM.

The study has the following objectives:

1. To identify the areas where community gardens are being implemented and the socio-economic status of the people in the area.
2. To analyze the potential opportunities of being part of garden projects.
3. To explore the success factors and challenges to community garden projects.
4. To evaluate the role of the municipality with regard to sustainability of the projects.
5. To assess the management strategy.
6. To evaluate the current poverty alleviation projects.

1.5 Scope and scale of research
Port Elizabeth, along with neighboring towns of Despatch and Uitenhage was incorporated into the Nelson Mandela Bay Metropolitan Municipality in 2001. Nelson Mandela Bay has an estimated population of 2 million (IDP, 2006-2011:14). The metropolitan area is densely populated in comparison with both the provincial and national population density. The unemployment rate is higher than the national average, but lower than of the Eastern Cape. The unemployment rate among the economically active sector of the community is approximately 38% (IDP, 2008).

The age and gender distribution in the NMBM reflects a very youthful population, with 55% of residents falling in the age group below 30 years, with female/male ratio of 48.52%. An estimated 35 257 households live in informal settlements. Over 36% of households earn less than R1 600 per month. According to the NMBM Economic Development Strategy (2009:8) the relatively low levels of educational attainment limit employment prospects for people living in NMB.

The NMBM is comprised of eight Business Units (directorates). This research will concentrate on the Directorate for Economic Development and Recreation Services. This directorate is located on the third floor of the Kwantu Towers Building, on Govan Mbeki Avenue, in Nelson Mandela Bay.

1.6 Literature review
This section gives a brief overview of the literature relating to poverty and poverty alleviation.

1.6.1 An International perspective on poverty alleviation
During the United Nations (UN) Millennium Summit in the year 2000, 147 heads of state gathered and adopted the Millennium Development Goals (MDGs) to address extreme poverty in its many dimensions such as income poverty, hunger, disease, lack of adequate shelter etc. (UN, 2000:1). They set 2015 as the target date for
achieving most of the MDGs, which established quantitative benchmarks to halve extreme poverty in all its forms. According to NMB Report on War on Hunger (2010:12) progress has generally been sluggish and uneven. Many of the regions of the world, most notably in sub-Saharan Africa, are far off-track to achieve the goals.

The world finds itself in an ongoing economic crisis that is unprecedented in its severity and dimensions. The encouraging trend in the eradication of hunger since the early 1990s was reversed in 2008, largely due to higher food prices. The prevalence of hunger in the developing regions is on the rise, from 16% in 2006 to 175 in 2008 (NMB Report: War on Hunger, 2010:12). According to World Bank (2008:1) food insecurity affects human and economic development. Children who are malnourished when they reach their second birthday could suffer permanent physical and cognitive damage, thereby affecting their future health, welfare, and economic well-being. World Bank further states that for developing countries, the impact on their ability to raise a productive workforce can last for generations, while in the shorter-term rising food prices can exacerbate inequality and lead to conflict and political instability.

Poor communities around the world let themselves down by remaining in a state of expectation and dependency, assuming that the solution to poverty will come via some externalized avenue of local political representation. This rarely happens and the harsh reality is that most of the world’s populations remain in a state of poverty despite successive political transformation and exchanges of leadership (NMB Report: War on Hunger, 2010:13.)

1.6.2 Local economic development in the Eastern Cape
World Bank (2011:1) believes that the purpose of local economic development (LED) is to build up the economic capacity of a local area to improve its economic future and the quality of life for all. Local economic development according to Nel (2009:225) first appeared on the development scene in South Africa in the early 1990s with the demise of apartheid in 1994. He is of a view that within a remarkably short space of time it experienced a radical transformation in its acceptance and
credibility, from being regarded as a rural curiosity to becoming mainstream development policy.

In South Africa local economic development is an integral part of the Department of Economic Development and Environmental Affairs (DEDEA). DEDEA is the provincial institution with central responsibility for defining and driving LED policy in the Eastern Cape Province. Approaches to LED have developed and changed as local economies responded to the changing local impacts of the global economy. The emphasis in LED has grown beyond a preoccupation with local self-sufficiency towards understanding, developing and exploiting economic linkages from district and national, through to the global level (LED booklet, 2009:4). The priority outcomes of the LED Unit within DEDEA are aimed at:

- Fostering opportunities for economic development to create innovative and sustainable local economic development opportunities.
- Identifying and creating opportunities to expand the economy in terms of new sources of jobs and economic activities for local communities (LED booklet, 2009:5).

Walmer Hydroponics Project in the NMBM seeks to address food security, creation of job opportunities and Black Economic Empowerment. Micro-Manufacturing Centre project in the Alfred Nzo District Municipality manufactures pottery, crafts, and upholstery. Amalinda Fish Farm project in Amathole District Municipality is small-scale fish farming; growing and selling fresh water crayfish and Koi fish. These are just a few of many local success stories related to the LED Unit.

1.6.3 Integrated poverty eradication strategy development approach in the NMB

The impact of the global economic events on the Metro has introduced a sense of extreme urgency for some programmes to be offered immediately while work on the long term strategy is continuing. The Nelson Mandela Metro Poverty Alleviation and Action Plan will deal with immediate and medium term projects.

The following is the proposed approach:

2. The submission of specific project business plans and budgets dealing with urgent poverty relief projects identified in the strategy. These are projects aimed at providing urgent relief which will be funded on a project-by-project basis.

3. In terms of poverty relief and assistance programme budgets and integration, a working document for the financial year 2011/2012 will be submitted to the metro to form part of the metro’s formal strategic and budgetary planning for the next financial year.

4. The Integrated Poverty Eradication Strategy will be aligned with the Local Economic Development Strategy and the Industrial Development Strategy, and will be informed by these documents (NMBM Poverty Alleviation Framework and Work plan, 2010-2012:23).

1.6.4 Nelson Mandela Bay war on hunger
On 25 July 2010, a commitment of R10-million for a “War on Hunger” to be used to bring relief to the 10 most distressed areas of the Metro was made by the honourable Executive Mayor of Nelson Mandela Bay, Zanoxolo Wayile. According to the report on war on hunger (2010:7) the project is the feeding scheme, tied with skills development, social grants, as well as temporary community jobs. As soon as the individual enters the programme and becomes a beneficiary or member of the centre, one or a combination of interventions or exit strategies need to be developed in order to take the person out of the feeding scheme system.

It was felt that the war on hunger should be brought down to Ward level as this is consistent with the idea of Development Local Government. Ward Councilors are expected to perform the role of developmental agents. To lay the foundation for War Level sustainable poverty alleviation strategy, it was agreed that:

- Ongoing food provision to thousands of households across the Metro will not be financially sustainable and
- Food provision should only be a short-term intervention and that, in the medium and long term, it is vital that the emphasis be shifted to more sustainable and
developmentally orientated approaches to poverty alleviation (Report: War on Hunger, 2010:8).

More literature related to the study is examined in Chapter Two.

1.7 Methodology
This section presents an overview of the methods that were used in the study to gather data that would answer the research questions.

1.7.1 Research design
The study investigated the sustainability of four community gardens - in Bloemendal, Walmer, Motherwell and KwaZakhele in the Nelson Mandela Bay. Consequently, the research was designed to achieve the objectives set out by the researcher. This study employed a mixed method research approach. According to Creswell (2003:216), mixed methods research combines elements of both qualitative and quantitative research approaches, for in-depth understanding of a phenomenon. Mixed method offers better generality and particularity, as well as magnitude and dimensionality (Greene, 2008:60).

Data collection tools that were used in this study are semi-structured interviews, structured questionnaire and direct observation. Semi-structured interview was conducted with the municipal official administering community gardens in Nelson Mandela Bay. A structured questionnaire was used to gather data from the community garden members. Observations were made on types of crops grown in the gardens, in order to supplement and validate data collected and information gathered during interviews.

1.7.2 Data collection
Primary and secondary data was used in this study. Document analysis, interviews, and questionnaires were used in order to gather primary data. Secondary data was gathered from published reports, government policy documents and other published case studies and analyses of the same topic.
1.7.3 Data analysis and interpretation
The data was analysed and interpreted in the form of categorising, coding, and thematic analysis. Afterwards, the researcher summarised all the information, made a conclusion and provided insightful recommendations. Further details of the research methodology are discussed in Chapter Three.

1.8 Research outline
The research is reported in five chapters:

- **Chapter One** provides a general background/introduction to the research, such as the problem statement, the research questions, aims and objectives of the study, overview of the research methodology and research outline.
- **Chapter Two** deals with literature review looking at the various relevant debates and issues related to poverty alleviation and urban agriculture.
- **Chapter Three** outlines the research methodology followed and describe the tools and techniques used for data collection, as well as methods of data analysis and interpretation.
- **Chapter Four** deals with results of the research.
- **Chapter Five** draws conclusions based on discussions presented in previous chapters, and also provides recommendations.
CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction
Poverty is a multi-faceted concept which embraces not only insufficient levels of income but also lack of access to essential services such as education, water and sanitation, health care and housing. According to May (2002:2) South Africa is characterized by high levels of poverty and economic inequality not usually found in an upper middle income country. The experience of the majority of South African households is either one of outright poverty, or of continued vulnerability to becoming poor. “The distribution of income and wealth in South Africa may be the most unequal in the world”. (May, 2002:2). In this regard Carter and Barrett (2006:226) are of the view that South Africa is economically two worlds: one, populated by black South Africans where the Human Development Index (HDI) is the equivalent to the HDI of Zimbabwe or Swaziland. The other, is the world of predominantly white South Africans in which the HDI rests comfortably between that of Israel and Italy.

Although significant progress has been made over the last years 17 years, many South African households have unsatisfactory access to clean water, energy, health care and education facilities. The government has recognized that planning needs to be focused on the objectives of narrowing inequality, breaking down the barriers that hamper participation in the economy, and reducing poverty (Hunter, May & Padayachee, 2003:3).

According to World Bank (2005:2) agriculture can help the poor households to overcome some of critical constraints they face in meeting their basic needs. Some of the effects of agriculture come about through broad, economy-wide process, while others, particularly those operating at community level will be felt more immediately. In the Nelson Mandela Bay Municipality, urban agriculture is viewed as the key economic driver for LED (NMBM, 2011:1). Manona (2005:2) is of the view that the common theme in many municipal strategies is that local people should make the resources at their disposal work for them. This chapter explores the various definitions of poverty. The link between poverty and unemployment will also be discussed. Urban agriculture, household food security and community gardens and sustainability will be reviewed in this chapter.
2.2 Definition of poverty

According to van der Walt (2004:3) poverty was only identified as a serious social ill during the latter parts of the industrial revolution, i.e. 19th century. With the onset of wealth and the creation of the middle class, poverty and inequality became serious issues that were expressed in many ways. During the 20th century poverty became more of an economic development issue, with Mencher (1967:11) stating that “poverty must be kept independent of the variety of social and economic problems with which it may be associated.”

As alluded above, poverty is defined differently by different authorities. The Report on Poverty and Inequality in South Africa (May, 1998:4) defined poverty as the inability to attain a minimal standard of living, measured in terms of basic consumption needs or the income required to satisfy them. According to Mrs Witbooi from Philipstown in the Karoo (as in Wilson and Ramphele, 1989), “Poverty is not knowing where your next meal is going to come from, and always wondering when the council is going to put your furniture out and always praying that your husband must not lose his job. To me that is poverty.”

Poverty was considered as below a certain level of income or expenditure. This level was called the poverty line. van der Walt (2004:4) argues that the result was a clear targeting of poverty by providing some form of income to the poor, considered as those whose income were below the poverty line, in the form of social welfare grants. This is still the practice in many countries in the world.

Currently the definition of poverty by the World Bank (2002:1) is as follows:

Poverty is hunger. Poverty is lack of shelter. Poverty is being sick and not being able to see a doctor. Poverty is not being able to go to school and not knowing how to read. Poverty is not having a job, is fear for the future, living one day at a time. Poverty is losing a child to illness brought about by unclean water. Poverty is powerlessness, lack of representation and freedom.

In developing a definition of poverty that is applicable to the social development, the participation of the poor is extremely important, since only they would know what they consider to be poverty.
2.3 Growth, development, poverty and inequality

Poverty, development and inequality are at the heart of development studies for two reasons. The first is that development studies concerns itself for the largest part with the nature and origins of poverty and inequality, both within individual countries and also across many countries. Development studies seek to understand the causes of these phenomena, to construct theories about their origins, and from there to formulate practical policies for alleviating those conditions. Secondly, and more importantly, development studies is, above all else, a moral enterprise. It is about compassion for, and empathy with, those who are less fortunate than us, for those who struggle to survive. This is a sentiment which runs deep in most of the world’s cultures and religions. It is not difficult to find injunctions in holy books the world over to seek out, to nurture, to assist, the poor (Graaff, 2003:6).

Views tend to converge on several sources of market failure that might call for some form of state intervention. It is also argued that the state also has a central role to play in the development of non-tradable goods such as infrastructure and public administration. There has also been widespread agreement on the importance of the state in provision of social safety nets such as employment guarantees and other public works programmes, food distribution and other types of nutrition programmes and micro-enterprise credit (May, 2000:11). To this list, strengthening the abilities of poor people to fight poverty may be added. So growth, development, poverty and inequality are all linked to one another in interesting and complex ways.

2.4 The links between employment and poverty

The relationship between poverty and employment runs in both directions: poverty can increase total household employment, often in more marginal activities, and particularly among women and children. However, it is also important to recognize that the additional employment income earned in this way will be combined with other sources of household income, ultimately influencing the depth and incidence of poverty (UN Research Institute for Social Development, 2010:52).

According to UN Research Institute for Social Development (2010:52) two sets of institutions are critical in shaping the employment-poverty connection: the labour
market and the household. Employment status is defined and analyzed at the level of individual or the job. Poverty – income poverty in particular is most commonly defined and measured at the level of the household. Therefore, the structure of the household, in terms of the composition of dependents and earners will directly influence how employment opportunities translate into changes in poverty outcomes.

Overall labour force participation is determined by prevailing economic conditions, as well as the social and cultural context, in particular gender norms. Households often respond to adverse economic shocks, including rising unemployment, by increasing their rate of labour force participation. The UN Research Institute (2010:52) pointed out that the labour market dynamics in Latin America have shown that women’s labour force increased in times of economic crisis and as a result of policies that trigger labour displacement, job instability and higher rates of unemployment. Economic changes that cause women to enter the labour are also associated with deterioration in the average quality of employment opportunities, that is, greater reliance on informal or precarious forms of paid work. Households also increase their labour force participation in response to long-term structural unemployment. For instance, research in South Africa has shown that women’s labour force participation has responded to increases in household joblessness. Finally, household poverty also raises the likelihood that children enter the paid labour force.

2.5 Poverty in South Africa
Luyt (2008:1) is of the view that South Africa has an excellent Constitution and Bill of Rights, justifiable economic and social rights and generally good pro-poor policies. As many as 29 966 government funded projects have been established for reducing poverty; yet as mentioned in the introduction to this chapter, poverty levels in South Africa remain high, and have not been greatly reduced since 1994. The poverty headcount rate in South Africa (based on poverty line set at R250 per person per month in 2000 Rand values, or roughly $35 per month) was 50,1 percent in 1993 and 44,4 percent in 2006, which represents a decline of 5,7 percent over the first 12 year period of South Africa’s new democracy (Luyt, 2008:1).
All measures of inequality uniformly indicate a widening gap between the rich and the poor. According to Luyt (2008:1) there is a consensus that income, particularly within race groups, has increased. Luyt notes that between 1993 and 2006 inequality between races has declined, while inequality within race groups has grown.

Despite the commendable achievements of the African National Congress (ANC) government in the delivery of services to the poor, especially in the fields of housing, water and sanitation, electrification, health and education, the benefits resulting from increased pro-poor social expenditure by the state have proved disappointing in terms of reducing poverty and to addressing ongoing socio-economic problems.

Seekings (2007:15-16) is of the opinion that unemployment rates in South Africa are exceptionally high, in fact higher than anywhere else in the world excepting Iraq. Since 1994, South Africa has continued a primarily capital and skills intensive economic development path, and its moderate growth rate has failed to absorb unskilled workers in anywhere near enough numbers to reduce overall unemployment in ways that contribute significantly to poverty reduction. Unemployment in South Africa, using the expanded definition, currently stands at around 40 percent, and around 23 percent using the narrow definition (Seekings, 2007:16).

The major obstacle to poverty alleviation in South Africa is poor governance, which includes not only simply corruption, but also poor performance of government officials in their management of public resources and lack of political will to act against underperforming officials. According to Luyt (2008:3), the poor management of public resources translates directly into poor public service delivery implementation, and thus obviously undermines poverty alleviation policies. The absence of adequate accountability mechanisms may lead to frustration with poor service delivery manifesting in more confrontational and violent ways, such as the service delivery protests which have swept through South Africa over the past few years.
2.5.1 The causes of poverty and inequality in South Africa
Hunter et al (2003:3) outline the specific causes of poverty in the South African context as follows:

- The impact of apartheid which stripped people of their assets, especially land, distorted economic markets and social institutions through racial discrimination, and resulted in violence and destabilization;
- Under-mining of the asset base of individuals, households and communities through ill health, over-crowding, environmental degradation, the mis-match of resources and opportunities, race and gender discrimination and social isolation;
- The impact of a disabling state, which included the behaviour and attitudes of government officials, the absence of information rights, roles and responsibilities, and the lack of accountability by all levels of government.

These triggers have shaped the nature of poverty in South African. Importantly, they have the potential to ensure the persistence of poverty even though many other aspects of the South African political economy are being transformed (Hunter et al, 2003:3).

2.6 The competing development ideals that have informed poverty alleviation strategies in post-apartheid South Africa
Historical responses to poverty can be traced through examining the sociopolitical mechanisms or policies put in place at any particular time. Welfare policies provide evidence of past attempts to take care of the diverse needs of vulnerable populations. According to Mubangizi (2008:176) the nature and scale of these provisions is directly dependent on ideological explanations of poverty and inequality dominant in a given society at any given time. She further states that in South Africa, policy discourses on poverty and inequality in the post-apartheid era reflect competing ideologies and diverse initiatives to address poverty and inequality.

On the one hand, there is South Africa’s macroeconomic framework called GEAR (Growth, Employment and Redistribution Strategy). This neoliberal strategy was adopted by the South African government, at least in part as a result of its
assessment that within the geopolitical and economic constellations there were few alternatives to a conservative, supply-side oriented economic policy, especially in emerging markets. With GEAR and subsequent policy initiatives, such as the Accelerated and Shared Growth Initiative for South Africa (ASGISA Task Force, 2006), South Africa has shown a leaning towards a market-oriented economic ideology (Mubangizi, 2008:176). As such, the development discourse in post-apartheid South Africa, evident in the Reconstruction and Development Programme [African National Congress, 1994] and the White Paper for Social Welfare (Department of Welfare, 1997) has been overlaid by a residual welfare agenda, which calls for community self-reliance and warns against the creation of dependencies among welfare-service users.

On the other hand, there exists a leftist counter discourse of social justice and solidarity from proponents within government and civil society. Here, the ideology of collective responsibility to overcome the legacy of colonialism and apartheid is dominant. Mubangizi (2008:176) is of the view that poverty and inequality are seen as structural problems requiring structural solutions. Historically, poverty is seen to arise from centuries of colonial and apartheid oppression wherein indigenous populations were systematically robbed of their land, their productive assets, their cultural heritage and their self-respect. The historic disinheritance of the vulnerable and poor has been exacerbated and entrenched by contemporary global political and economic conditions (Mubangizi, 2008:176). While the poor and disadvantaged are seen to have agency, i.e. their ability to make and sustain positive changes in their own lives, for personal efforts and community-based initiatives to succeed, poverty and inequality must be simultaneously addressed on a structural level by means of redistributive economic and welfare policies, both globally and nationally.

2.7 Poverty Alleviation Projects (PAPs)
Tshitangoni, Okori, & Francis (2010:1006) argue that the use of projects as a means to alleviate poverty originated in western industrial societies and became the universal language of international development by the 1970s. As the uncertainties and complexities of development became appreciated, projects tended to be more
and more inclusive and multi-sectoral, particularly in rural development (Tshitangoni et al, 2010:1006).

The need for poverty alleviation is widely recognized in all sectors of government and social institutions. However, according to Mubangizi (2008:178), the Department of Social Development bears the primary responsibility for reaching ‘the poorest of the poor’, most of whom live in the rural areas. To this end, it has developed targeted programmes for women, youth and people with disabilities, which include the formation of collectives with a view to providing basic skills training in conjunction with start-up capital and ongoing support for income generation projects. PAPs are funded mainly from the Poverty Relief Fund which was introduced by the National Treasury in 1997. Social workers, who were not always trained in nurturing community development initiatives, implemented the projects (Mubangizi, 2008:178).

The facilitation of poverty alleviation projects remained the exception and depended largely on the creativity of social workers in using gaps that opened from time to time in their statutory. The Department of Social Development has been unsuccessful in spending [its allocation of the Poverty Relief Fund] appropriately – if at all. It seems that lack of capacity and effective administrative systems and processes are issues that the Department of Social Development needs to pursue routines (Poggenpoel and Oliver, 2005:31). This is not to say that no poverty alleviation projects have been implemented at all, or that those that have been implemented have not made an impact on the lives of project participants, or that poverty alleviation programmes are not welcomed by South Africans. For example, Zungu (2006:15) counted 46 income-generating projects in the rural district of Nongoma in KwaZulu-Natal alone, including poultry farming, carpentry, sewing, leatherworks, vegetable gardening and block making. He claimed that while not all of these projects were successful, others were able to generate incomes of up to R1, 000 (approximately 105 Euros) per month per project member.

However, according to Taylor Committee (2002:56) on the whole, the current range of poverty relief projects, while in many cases innovative and responsive, are unable to make any significant impact on mass based unemployment and levels of income poverty in the immediate term. Many of these projects are also not cost efficient in
terms of their outcomes. This concurred with the views of Manyeli (2003) that poverty alleviation projects did not generate income, thus, they were unable to satisfy the needs of members.

2.8 Local economic development and poverty alleviation
Economic development is the key element in truly empowering people and alleviating poverty (World Bank (2010:1). According to the Department of co-operative governance and traditional affairs (2009:1) local economic development had to be implemented in a way that took cognizance of the different challenges that existed within various areas and contexts. Approaches to LED would be different in a rural environment as opposed to an urban setting. The former minister of cooperative governance and traditional affairs, Mr. Sicelo Shiceka, emphasized this during an address at the local economic development (LED) summit in Johannesburg. Local government should drive LED through various activities such as service delivery programmes, infrastructure expansion, local skills development and public employment programmes. LED is dependant on a collaborative effort involving provincial government, municipalities, state-owned enterprises and other key stakeholders.

A study entitled Pro-Poor Local Economic Development in South Africa which was commissioned by the World Bank (2010:2) compiled generic recommendations for municipalities based on case studies as follows:

- Municipalities should address growth of the formal sectors, but also target the small-scale and informal sectors.
- Although there should be interaction within different sectors of municipalities and other tiers of government, municipalities should also interact with other stakeholders such as business and non-profit organizations.
- They should create an environment in which businesses can develop, and also that attracts investment.
- Municipalities should devote realistic budgets and appropriate staff to local economic development units and services.
- Interventions need to be accepted as part of all municipal functions in practice and policy.
• Municipalities should initiate defined monitoring and evaluation programmes to gauge the success of their initiatives (Kgafela, 2010:2).

Although these recommendations could help municipalities improve the state of economic development in their communities, municipalities need to ascertain which aspects will be useful to deal with their specific challenges.

2.9 Urban agriculture in South Africa
Based on the LED of the Nelson Mandela Bay Municipality, urban agriculture is viewed as key economic drive (NMBM, 2011:1). Manona (2005:2) is of the view that the common theme in many municipal strategies is that local people should make the resources at their disposal work for them. Urban agriculture includes household gardening, community gardens, and small-to medium-scale farming activities for commercial, subsistence and/or recreational purposes.

The United Nations Development Programme (1996:148) defined urban agriculture as an industry that produces, processes and markets food and fuel, largely in response to daily demand of consumers within a town, city or metropolis, on land and water dispersed throughout the urban and peri-urban area, applying intensive production methods using and reusing natural resources and urban wastes to yield a diversity of crops and livestock.

In South Africa, the importance of urban agriculture has also been on the rise. May and Rogerson (1995:167) are of the opinion that it has developed into one of the ways in which urban dwellers supplement their low incomes. Maswikaneng, Averbeke, Bohringer & Albertse (2002:15) note that research in South Africa showed the majority of urban gardeners to be female. Generally, they engaged in agriculture to save on household food expenditure, and to generate income through sales of surplus produce. Maswikaneng et al further states that many South African NGOs and welfare organizations have recognized the importance of small-scale urban agriculture in terms of food security and social functions. They promote gardening activities through extension, training and occasional supply of seeds and fertilizers. Eglin (2009:2) believes that urban agriculture brings with it many advantages:
processed urban solid and liquid waste can be used as nutrients and compost to improve soil fertility and productivity; food production and markets can be brought closer together, reducing travel costs and the need for middle agents; more varied crops can be grown to meet urban market tastes, urban farmers can still have access to urban amenities like schools and recreation facilities; and it is easier to set up and maintain value-added production activities like canning, packaging, drying, and other food processing activities in urban areas.

Urban agriculture can be used to both grow the local economy and contribute towards reducing poverty. As Eglin (2009:2) states urban agriculture is just a small share of total agricultural production, but it can make a significant contribution to livelihood and health of many urban poor. One of the main problems preventing the emergence of urban agriculture becoming widespread is the way that the urban market functions at the moment. Most land owners on the edge of or in urban areas which is suitable for urban agriculture want to make money from selling or developing the land. Farmers are usually unable to pay the price that non-agricultural land users are prepared to pay for the land with the result that agricultural activity is pushed further away from urban areas (Eglin, 2009:3).

Municipalities face the same market forces when it comes to the commonage and other public open space for urban agriculture. There is no incentive for urban farmers to invest in the property they own or rent as there is always the threat that some developer will come and offer a land price the farmer or municipality cannot refuse (Eglin, 2009:3).

2.9.1 Urban agriculture in Nelson Mandela Bay
Agriculture is the most effective and frequently the only viable lead sector to generate economic growth. According to Brown and Haddad (1994:1) very few countries have experienced rapid economic growth without agricultural growth preceding or accompanying it. The Urban Agriculture sub-directorate in the Nelson Mandela Metropolitan Municipality aims to provide infrastructure for commercial and
emerging agricultural activities to take place. The sub directorate’s role also involves soliciting training and development for capacity building amongst emerging farmers. In addition, it assists stakeholders in the commercial agriculture and research in the development of products, diversification and value addition through processing (Nelson Mandela Bay Municipality, 2011:1).

2.9.1.1 The role of urban agriculture sector in the Nelson Mandela Metro
This directorate defines its role as follows:

- To provide competitive facility and diverse infrastructure for agriculture commercial business to take place.
- To coordinate the allocation of resources and fundamental support for emerging farmers to grow in business.
- To solicit training and development for capacity building aimed at the emerging farmers as an outreach program
- To assist in the development of the product and promote diversification including value addition through processing.
- To coordinate and render extension services to the farming community.
- To establish strategic partnerships with other government and private sector for better improved governance (sector).
- To facilitate the development of urban agricultural policy in the NMBM.
- To promote and provide platform for establishment of the BEE businesses thereby creating job opportunities throughout the value chain (Nelson Mandela Bay Municipality, 2011:1).

2.10 Household food security in South Africa
Household food security is defined by Bonti-Ankomah, (2001:2) as access by all households at all time to adequate, safe and nutritious food for a healthy and productive life. The current food security challenge in South Africa consists of two dimensions: the first tries to maintain and increase South Africa’s ability to meet its national food requirements, and the second seeks to eliminate inequalities and poverty amongst households that is made apparent by inadequate and unsustainable food production, lack of purchasing power, poor nutritional status and
weak institutional support networks and disaster management systems. According to AGIS (2005) despite national food security, many South African households experience continued food insecurity and malnutrition and unemployment.

The South African Department of Health’s Integrated Nutrition Programme includes a number of interventions to address problems of undernutrition, most of which function by improving household food security. Charlton and Rose (2001:383) pointed out that food fortification programmes operate by improving the nutritional quality of food available to households. Community gardens are designed to improve the household’s access to certain types of foods. Even individual food transfer programmes, such as primary school feeding, improve household food security by augmenting the total amount of food available to household members.

2.11 Community gardens
Urban community gardening is a phenomenon that is spreading throughout the world. In developed countries the most common reasons for participating in community gardens are access to fresh/better tasting food, to enjoy nature, and because of health benefits, including mental health. There is evidence that community gardens benefit the psychological well-being of gardeners and local residents. According to Armstrong (2000:319) community gardens have long been used to improve psychological well-being and social relations, to facilitate healing and to increase supplies of fresh foods to the people. During and after both World Wars, community gardens provided increased food supplies which required minimal transporting. Research on community gardening suggests a variety of additional benefits, for both individuals and for communities.

In South Africa, particularly in the Nelson Mandela Bay, community gardens are established mainly because people, most of all in the townships, are extremely poor and need food.

2.12 Sustainability
According to Commonwealth of Australia (2000:1) managing sustainability is a process aimed at maximizing the flow of sustainable benefits. It should be an
ongoing process and needs to be reviewed and updated as circumstances change and lessons are learned from experience.

2.12.1 Factors affecting the sustainability of food projects
Project sustainability is a major challenge in many developing countries (Khan, 2000:1). Large number of projects implemented at huge costs often tends to experience difficulties with sustainability. All major donors, such as the World Bank, the Asian Development bank and the bilateral aid agencies have been expressing concerns on this matter.

Commonwealth of Australia (2000:3) outlines factors affecting the sustainability of projects as follows:

- **Policy environment** - Programs and projects are implemented within a wider policy environment. A policy framework that is compatible with and supportive of program objectives is a key factor in promoting sustainability. The policy framework therefore needs to be carefully analysed during design and policy factors taken into account. If it is appropriate, policy reform could be included as part of the design. Programs and projects which ‘fit ’ with Partner Government policies have much better prospects for sustainability as they are more likely to have high-level political and institutional support both during implementation and beyond. Notwithstanding, in some circumstances programs and projects may be ahead of government policy, and may need to initially emphasize awareness and policy change.

- **Reconciling different agendas** - Many factors interact as individuals and organisations attempt to reconcile different responsibilities, objectives and agendas. The way in which these issues are handled affects the sustainability of the project, either fostering good working relationships between all those involved, or alienating individuals and organisations. Local food projects work best when all involved, professionals and local people, feel that their concerns are being addressed.

- **Funding** - Secure funding is a critical factor in determining whether a project is sustainable. Local food projects tend to need two types of funding: money
to help them set up and funding to cover running costs. Both are equally important but many projects find funding for running costs very difficult to obtain. As a result, projects have constantly to reinvent themselves so that they qualify again for set-up funding. Some projects are trapped in this cycle; this is not only time-consuming but hinders the natural development of the project. This is where generating increasing levels of income through trading may help some community food projects break from this cycle of funding dependence.

- **Community involvement** - An important factor for the sustainability of projects is the genuine involvement of local people as active participants and equal partners whose concerns and experience are intrinsic to the project's success. The level of community support determines whether a project becomes established, how quickly and successfully it consolidates, and how it responds and adapts to meet changing needs. It is therefore important that involving local communities’ starts at the planning stage, when decisions are being made about what type of project is required.

- **Professional support** - Professionals can play a number of different roles in food projects, all of which require trust and good working relationships with local people and other professionals. In order to establish good rapport professionals need time, resources and authority to invest in a project. Flexibility is critical in the way professionals interpret their own and others' roles and in the activities they and the projects undertake.

- **Credibility** - A project has to be seen as plausible in terms of ideas and activities, structure and organisation, by all those who come in contact with it. Without such credibility it will lack support and fail to obtain financial support.

- **Shared ownership** - Where project ownership is exclusive, those in control are less likely to respond positively to the needs and ideas of the wider group. This can have a long-term impact on project sustainability.

- **Dynamic individuals** - In most projects, one or more dynamic individuals are crucial because they generate enthusiasm and support. In some instances this is enough to compensate for the absence of other factors. These individuals can either be professionals or community members.
• **Responsiveness** - To maintain interest and support, projects have to be responsive to the changing agendas and needs of users, volunteers and professionals. This means ensuring that the activities provided address local needs, and that all those involved with the project - volunteers and professionals - have the skills they require.

• **Networking or building partnerships** - Projects that build links with different organisations are more likely to be sustainable. They support and learn from each other, and are able to exploit others' agendas, for example, for new funding opportunities (Commonwealth of Australia, 2000:3).

**2.13 Conclusion**
This chapter has attempted to explore various definitions of poverty and urban agriculture. It has also showed the links between growth, development, poverty and inequality. Global trends in inequality were also explored. This chapter also mentioned the causes of poverty and inequality in South Africa.

Urban agriculture in South Africa and the role of urban agriculture directorate in Nelson Mandela Bay were also reviewed. It has been revealed that community gardens in South Africa are established mainly because people, most of all in the townships, are extremely poor and need food.

The challenge facing the South African government is immense. The current progress does not appear to have met the expectations of the poor. There are many reasons for this, the most important of which relate to the underlying distortions in economic markets and social institutions introduced by apartheid that continue to reproduce poverty and inequality in South Africa.
CHAPTER THREE: RESEARCH METHODOLOGY

3.1 The research design
Denzin and Lincoln (2003) view research design as a plan that indicates how the researcher intends to investigate the research problem. For the purposes of this study, a mixed methods research approach was employed. According to Creswell (2003:216), mixed methods research combines elements of both qualitative and quantitative research approaches, for in-depth understanding and verification. It offers better generality and particularity, as well as magnitude and dimensionality (Greene, 2008:60). Matveev (2002:6) argued that the researcher experiences a number of advantages of applying both qualitative and quantitative methods of inquiry. Using both methods ensure high reliability of data, understanding the contextual aspects of the research, flexibility and openness of the data collection, and more holistic interpretation of the research problem.

The qualitative part of this study obtained an in-depth understanding of the meanings and definitions of the situation presented by the informants. On the other hand, the quantitative part quantified and measured data about age, gender and socio-economic status in order to make the interpretation easy and comprehensible.

3.2 Identification of study area and sites
The study was conducted during the period between July and August 2011 in four townships namely Bloemendal, KwaZakhele, Motherwell and Walmer in Port Elizabeth. According to NMB (2011:1) Walmer was the first township in Port Elizabeth. It formed part of the Welbedaght farm before it was laid out as a township by Mr. McDonald, a government surveyor in 1851. KwaZakhele was established in 1956. It was established to accommodate families that were moved from Korsten, a nearby mixed-race township. Motherwell was formed in the late 1980’s to accommodate the expanding population. It is the largest township in the Port Elizabeth region. Bloemendal is a disadvantaged coloured community (NMB, 2011:1).

The study was conducted in two phases. During the first phase, the researcher identified four areas in Port Elizabeth. A purposive sample was drawn to identify
garden projects from Bloemendal, Motherwell, KwaZakhele and Walmer. According to Kumar (2005:24) a purposive sample is a sample selected in a deliberative and non-random fashion to achieve a certain goal. This phase focused on in-depth interview with community garden members. The aim of the in-depth interview was to examine the garden member’s perspectives on sustainability of community gardens. The study focused on community gardens that have been fully operational for at least three years.

The second phase focused on a semi-structured interview with the municipal official administering community gardens in Nelson Mandela Bay. This phase concentrated on obtaining the views of the official concerning community gardens.

3.3 Methods of data collection
According to Merriam (2009:85) data are nothing more than ordinary bits of information found in the environment. They can be concrete and measurable, as in class attendance, or invisible and difficult to measure, as in feelings. Whether or not a bit of information becomes data in a research study depends solely on the interest and perspective of the investigator.

Written documents and studies were used to verify evidence from the interviews. Policy documents on community gardens were also reviewed. For the purpose of this research, the data collection techniques used are as follows:

3.3.1 Structured questionnaire
A structured questionnaire was used in the first phase of this 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 and Douglas, 1994). The aim of this structured questionnaire was to ascertain the participants’ perspective on sustainability of community gardens, as seen by the members, and how the gardens affect the lives of the people working in them. Arrangements to interview the community garden members were made with the municipal official. Interviews were conducted indoor at different community gardens.
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. Some 30 questionnaires were printed and handed out, but only 22 of those came back.

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; challenges; crops grown and reasons for planting; management of community gardens; awareness of the policy guiding the funding of community gardens and opportunities realised.

3.3.2 Semi-structured interview
Semi-structured interview was conducted with the municipal official administering community gardens in Nelson Mandela Bay. Since this technique is relatively informal, it allows for a relaxed discussion based on a few predetermined topics. Kajornboon (2005:5) is of the view that in this type of interview the order of the questions can be changed depending on the direction of the interview. The interview was conducted in Kwantu Towers building. A recording device was used during the interview. The leading questions were written down so as to direct the interview into the desired direction and most of the questions were designed by the researcher.

The key discussion points aimed at examining the community garden projects through the eyes of the official are as follows:

- Establishment of community gardens
- Objectives of community gardens
- General status of these gardens (in terms of commitment of members etc.)
- Role of officials (municipal, social development official and ward councilors).
- Policy on community gardens
- The success factors of community gardens
- The reasons that account for failure or poor performance of community gardens
These discussion points were used as guidelines during the interviews. Broad and open questions were formulated around them.

3.3.3 Direct observation
All four community gardens identified were visited; observations on types of crops grown were made. This involved investigating activities performed in the gardens. Observations were used to supplement and validate data collected and information gathered during interviews.

3.4 Data analysis
The data analysis began with the researcher identifying segments in the data set that are responsive to her research questions. In qualitative research, analysis starts with coding the data. An effort was made to quantify the qualitative data. This was done by grouping together the respondents with similar responses. From their input, frequencies were deduced and the numbers entered into Microsoft Excel®. These answers are also called categories or themes or findings (Charmaz, 1983:112). From their input, frequencies were deduced and the numbers entered into Microsoft Excel® and graphs were made from that data.

3.5 Ethical considerations
Ethics concern the morality of human conduct. In relation to social research, it refers to the moral deliberation, choice and accountability on the part of researchers through the research process (King and Horrocks, 2010:104). In this study respondents were assured that whatever information collected from them through the survey questionnaire will be kept confidential. The researcher informed the interviewees that the information collected from them will be used for academic purposes and not for any other purpose.

3.6 Conclusion
This chapter has described the research methodology followed and used to collect data as well as tools to analyse and interpret data in this study. An account has been given on the research approach and the choice of the tools/techniques has been justified.
CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction
This chapter deals with the analysis of and interpretation of research data by using a thematic analysis. Structured questionnaires were used for in-depth interviews with 22 community garden members from 4 community gardens (Sililitha Primary Agricultural Co-operation, Njongweni Co-operative, Bloemendal Hydroponics and Walmer Hydroponics and Agricultural Co-operative) in Port Elizabeth in the Nelson Mandela Bay Metropolitan Municipality. The aim of the in-depth interview was to determine from the garden members the sustainability of community gardens and how these gardens affected the lives of the people working in them. The interpretation of the research findings is divided into three sections, namely Section A, B and C.

4.2 Section A: Garden member information

4.2.1 Gender profile
With relation to gender: the people involved in community gardens are mostly women. In this study, 68,1% of the respondents were female while the other 31,8% were male. This is an indication that community garden projects attract more women than men, which concur with the findings of Maswikaneng et al (2002:15). Figure 4.1 below shows that most community garden members were female.

![Gender profile of community garden members](image)

Figure 4.1: Gender profile of community garden members
4.2.2 Age of community garden members
The age range of participants in this research is shown in Figure 2.2 Out of 22 respondents, 41% were above the age of 50; 36% were above 60 years; 18% were between 40 and 49 years. There were few members (4.5%) below the age of 40. This can be interpreted to mean that community gardens are dominated by middle age people and pensioners. Figure 4.2 below shows that people involved in community gardens in Port Elizabeth are mostly older people.

Figure 4.2: Age of respondents

4.2.3 Education level of community garden members
The chart shows that the large majority (64%) of respondents had Secondary level of education, but did not finish Matric. A further 27.2% of the members had Primary level of education and very small proportion (4.5%) managed to acquire Matric certificates. A further (4.5%) of the respondents had no education at all. This can be interpreted to mean that there might have previously been a general lack of money as the garden members have a poor background and did not proceed further than Matric. Education is critical in ensuring project sustainability because educated members may easily grasp and implement skills that they received during training. This justifies the argument of Commonwealth of Australia (2000:3) that food gardens require professionals which can play a number of different roles in food projects, all of which require trust and good working relationships with local people and other professionals. Percentages of participants holding the different educational levels are presented in Figure 4.3 below.
4.3 Section B: Household information

4.3.1 Monthly income
Household income range of community garden members is presented in Figure 4.4. The socio-economic status of these people indicated poverty. This was demonstrated by the fact that the large majority of people (45.4%) survive on less than R500 family income a month. However, a smaller proportion of the respondents (4.5%) earn R2501 to R4001 a month. A further 22.7% earn R951 to R2500 a month and 27.2% live on R501 to R950 a month. Income was derived mainly from salaries and wages. State transfers in the form of old age pensions, disability grants and child support grants were the second most important source of income. This is an indication that the garden members lived in poverty.
4.4 Section C: Garden member's perspectives on community gardens

This section will share the findings regarding each question on the garden member's perspective on community gardens. The analysis will be based on the 22 completed questionnaires.

4.4.1 Who was involved in this project establishment?
The community gardens in this study were established between the years 2004 and 2008. The respondents reported that the Nelson Mandela Bay Municipality was involved in the establishment of the community gardens.

4.4.2 Reasons for entering community gardens
Reasons behind people entering community gardens are very diverse. The majority of respondents entered community gardens because they wanted to generate income as indicated by 40.9%. They expressed that being involved in community garden project meant that they can generate income by selling their produce.

Out of 22 respondents, 22.7% reflected that they entered community garden because they were interested in gardening. A further 13.6% stated that they entered community garden because they wanted to help the community by creating jobs for unemployed people. The respondents entered community gardens because they wanted to produce food for their families as acknowledged by 13.6%. An opportunity to acquire gardening skills was another reason for entering community garden as stated by 9% of the participants.

Figure 4.5 below can be interpreted to mean that the majority of respondents are very poor and that they entered the garden projects to make money in order to improve their livelihoods. Community gardens have allowed people to generate some sort of income by selling their produce. This can also be interpreted to mean that poverty and hunger alleviation were the main reasons why people enter community gardens.
4.4.3 Expectations by community garden members

The expectations of community garden members as per responses show that 31.8% of respondents enter community gardens so that they can acquire crop production skills while 27.2% expected to produce food for the family. One (4.5%) respondent reported that he expect to lead a healthy life as a result of eating fresh food. A further 27.2% stated that they expected to generate income for family, and 9% of participants mentioned that they expected to get experience in gardening. Figure 4.6 below indicates that the garden members’ expectation is to acquire crop production skills and have access to food. The members entered into community gardens expecting to be able to feed themselves and put something on the table without necessarily having to buy them.

Figure 4.5: Reasons for entering community gardens

Figure 4.6: Expectations by garden members
4.4.4 Crops grown in Port Elizabeth community gardens
The most commonly grown crops in community gardens include cabbage, carrots, spinach, green pepper and tomatoes. Patty pans, baby marrows, brinjals, lettuce and potatoes are some of the different types of vegetables produced in community gardens.

The reason for planting these types of crops, according to one group of community garden members was informed by market demand. The other reason given by respondents was household food consumption and knowledge of community garden members about the different vegetable types. The particular crop selection characteristic of these projects indicated that the garden members intended to sell their produce.

4.4.5 Skills learnt by community garden members
The respondents mentioned a number of skills that they have learned from being part of community garden projects. Crop production, marketing and gardening are some of the skills mentioned by the respondents. Few garden members indicated that book-keeping, pest control and irrigation were some of the skills that they acquired. With the different skills that the garden members have acquired this means that the members will be able to start their own gardens in future.

4.4.6 Targeted Beneficiaries
The main targeted beneficiaries of community gardens as reported by the respondents are the garden members themselves. There was mention of the ability to give surplus produce to charities that provided food for people in need. People with disabilities are also reported to be benefiting from the garden as they get food parcels at the end of the month. The respondents mentioned that the people they employ are also beneficiaries of the projects. The responses indicate that these garden projects are there for the community. The members are not only seeking to benefit but to assist the community where they can.
4.4.7 Support for community gardens
The garden members indicated that community gardens are funded by the Nelson Mandela Bay Municipality (NMBM) and the Department of Agriculture. This means that a group of community garden members received fencing material, office furniture and irrigation system, which were installed in their community garden.

The municipality as reported by the respondents also supplies the gardens with tools, containers, fertilizers and seedlings. One group of community garden members mentioned that they received funding from Thina Sinako, a European Union (EU) Donor. The funding, according to the group was spent wisely as they were able to buy two vehicles (bakkies) to assist with deliveries.

4.4.8 Community Involvement
The respondents stated that the community is involved in these gardens. The participants revealed that a number of people from the community are now employed in the gardens. One group of community garden members noted that when they are having trainings, they normally take a group of unemployed people from the community to develop and provide them with gardening skills.

Others stated that the community supports their projects by buying vegetables from them. The community also assists with maintenance of the gardens as reported by the garden members.

4.4.9 Community garden benefits
Benefits are deliberated upon in terms of social and economic benefits of community gardens to the respondents.

4.4.9.1 Economic benefits
Out of 22 respondents, 9 (40,9%) indicated that community gardens did not guarantee an acceptable level of financial and economic return. The greatest economic benefit from community gardens was selling their produce and thus gaining income as reflected by 31,8% of respondents. A further 18% of respondents
noted that producing fresh food for the family was part of community garden economic benefit. Two (9%) participants indicated that supplying markets was another economic benefit that they drew from involvement in community garden.

Figure 4.7 below reflects that community gardens do not guarantee acceptable level of financial and economic return. The results show a relatively small material benefits derived from community gardens by participants. This is an indication that these projects performed poorly. This is also a factor for poor sustainability of projects. This confirmed the observations of Manyeli (2003) that poverty alleviation projects did not generate income to satisfy the needs of the members.

![Bar Chart](image)

**Figure 4.7: Economic benefits of community gardens**

### 4.4.9.2 Social benefits

As stated above, 41% reported that community gardens did not guarantee acceptable level of benefits. Participants (23%) view working together as the major social benefit. The respondents (14%) further identified job creation as another social benefit. Participants further identified sharing knowledge as a social benefit and this was agreed upon by 14% of respondents. The respondents (4.5%) acknowledged feeding family as another social benefit of community gardens. A further 4.5% of respondents reported that the gardens provided more opportunity for regular social interaction. This concurred with the findings of Armstrong (2000:319) in a study of community gardens in upstate New York.
The majority of people showing negative attitude to these projects indicate lack of commitment from their side. Figure 4.8 below shows the social benefits of community gardens.

![Figure 4.8: Social benefits of community gardens](image)

### 4.3.10 Opportunities associated with being part of community gardens

The participants reported different opportunities provided by being part of community gardens. Eleven (50%) respondents felt that the gardens provided opportunity for attending trainings and workshops thus acquiring more gardening skills. The participants thought that the trainings and workshops that they are exposed to will enable them to start their own gardens projects in future. However, eight (36.3%) respondents reported that there were no opportunities associated with community gardens. One (4.5%) respondent thought that his health has improved since he started the project. A belief was that he is able to lead a healthy life through increased fresh vegetable consumption. A further 4.5% mentioned customer care as an opportunity provided. Income is another opportunity as indicated by 4.5% of participants. Figure 4.9 below shows opportunities provided by the gardens.
4.3.11 Markets supplied by the community gardens
One group of community garden members reported that they supply two Spar and two Fruit and Veg Supermarkets with all types of vegetables they grow. Other group of members mentioned that they supply one Spar supermarket in the location with beetroot, cabbage and spinach. A further group mentioned one Spar as the supermarket they supply with vegetables. Shansens supermarket is supplied with vegetables as indicated another group of community garden members.

4.3.12 Distribution of project benefits
All respondents indicated that the gardens guaranteed equitable access to and distribution of project benefits on a continuous basis. This is hard to believe when a majority of people did not realise benefits as stated above. The respondents did not mention the mechanism incorporated to ensure this, which is an indication that there is no mechanism in place. This is a very important dimension to project sustainability, weakening of it has a potential to jeopardize the sustainability of the entire project in the long run.

4.4.13 Environmental implications
All of the participants acknowledged that they considered environmental implications. They noted that the municipality is responsible for carrying out an environmental impact assessment.
4.4.14 Challenges to community gardens
The community garden members identified finance as their main challenge. The respondents reported that the funding they receive from the Nelson Mandela Bay Metropolitan Municipality (NMBMM) is not enough. This confirmed the study by Commonwealth of Australia (2000:3) that funding is a critical factor in determining whether a project is sustainable. The weather conditions were also identified as a challenge. The participants described Port Elizabeth as being very windy. The participants further noted lack of proper marketing strategy as a challenge. The community garden members believed that a proper marketing strategy will enable them to break through a bigger market.

The respondents also complained about a tractor not being available when required. The members mentioned that they wait up to two weeks for a tractor to come to their garden as the entire Port Elizabeth shares one tractor. Lack of men power was also viewed a challenge by female respondents. Another challenge identified by the respondents was absence of youth in community gardens. The garden members admitted that they need young people to join the projects in order to learn how to do things like setting up irrigation system and growing vegetables. Poor soil conditions were reported to be a challenge by respondents. Theft is also reported to be a challenge by the respondents.

The response shows that closer involvement of government and private sectors is needed. It is also clear that adequate funding is needed as this is a key resource that dictates the success of such projects.

4.4.15 Management strategy of community gardens
Three groups of community garden members have a committee, which consists of a chairperson, secretary and treasurer. The chairperson plays a leading role to other garden members. He or she forms a formal link between the garden members and the municipal official. One group of garden members did not have a committee. If the community gardens are properly managed, the chances of their being sustainable are good. The management of community gardens affects the success or failure of a garden.
4.4.16 Poverty alleviation policy in Port Elizabeth
The majority of participants (63.3%) expressed dissatisfaction with poverty alleviation policy in Nelson Mandela Bay Metropolitan Municipality, while 36.3% were satisfied. The community garden members noted that they are not informed about the distribution of funds from the municipality budget to projects. The respondents also complained of lack of proper infrastructure. Figure 10 below shows the majority of members are not satisfied with policies with regard to community gardens.

![Figure 4.10 Garden member's perspective on policy](image)

4.4.17 Sustainability assessment
Only one group of community garden members reported to carry out sustainability assessment. The group reported that it holds sessions where the members identify and analyze the presence or absence of factors that are likely to impact, either positively or negatively on the prospects of sustained delivery of project benefits.

Sustainability assessment or monitoring and development of a strategy for sustainability form a core of a project. Therefore, it is imperative that a well-planned monitoring mechanism is put in place to assess the status of sustainability, at a regular interval. The one group reported to carry out sustainability assessment is the only successful and sustainable of the four. It is the same group that supplies two Spar and two Fruit and Veg supermarkets.
4.5 Analysis of the interview

In this section the interview with the Municipal official is analysed and interpreted. The findings are presented in a narrative format and are categorized.

Category 1: Establishment of community gardens
The response indicated that community garden project was a pilot initiative of the Nelson Mandela Bay Municipality for food security. It was mentioned that the members were elected within various wards to become the beneficiaries. This implies therefore that the gardening project is aimed at assisting and equipping unemployed people to produce vegetables for their own use and for sale to members of their community through small commercially viable vegetable gardens.

Category 2: The objectives of community gardens
The analysis revealed that the main objective of community garden is to improve the diet of people by making variety of vegetables available within communities and to bring about household food security. The other objectives include:

- alternative employment for people by training them to be productive and be self-reliant (Creating jobs)
- Poverty alleviation
- Maximization of gross margin

This therefore implies that the 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.

Category 3: General status of community gardens
In the response provided by the municipal official it is revealed that although there are various factors affecting the status quo of the gardens, beneficiary’s commitment remain unchanged. The response indicated that the factors affecting the commitment of garden members include inadequate budget to carry on with production. The analysis revealed that climate change also affects the commitment of members as well as lack of resources such as a tractor not being available when it is required.
This therefore implies that there is a need for budget increase for the members to be able carry on with production. The municipality needs to make more tractors available to the farmers.

Category 4: The role of municipal official
The response indicated that the role of the municipal official is to provide technical and advisory services to garden members. The analysis revealed that the municipal official ensures that skills transfer and capacity building takes place through the appointment of competent consultants to undertake project management. This therefore implies that the role of the municipality is to ensure the garden members develop the necessary expertise and experience to be able to achieve the objectives of the projects.

Category 5: Policy on community gardens
The municipal official indicated that a policy with regard to community gardens has not yet been developed. This is a cause for concern. If there is no policy in place on community gardens it is thus clear that there are no regulations regarding the projects. This implies therefore that these farmers have no constitution.

Category 6: The success factors of community gardens
The response of the official revealed that the success factors of community gardens include abundant production of vegetables thus contributing to poverty alleviation; opening of job creation opportunities and access to markets. Some farmers make plans for selling/distributing the food they grow as an important first step of their operation.

Category 7: The reasons that accounts to failure or poor performance of community gardens
The response to this category revealed that poor soil conditions and inadequate budget were the fundamental reasons that accounts for failure of community gardens. This confirms the responses received from the garden member’s questionnaire that the budget to the project is not enough. The official revealed that
group dynamics is also a factor. Some members are active participants while others are more withdrawn and passive. The response also revealed that gardens are managed by pensioners. This is caused by a lack of interest by the youth. The official also mentioned climate change as another reason that accounts for poor performance of community gardens.

4.6 Conclusion
This chapter has presented the analysis and interpretation of the qualitative and quantitative data collected through the questionnaires and interviews. The findings from the perspectives of the respondents’ views expressed in responses to the questionnaire have been analysed together with their socio-economic profile. In chapter five the conclusions drawn from the study and the recommendations will be presented.
CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter will present the conclusion based on the findings discussed in Chapter Four, in line with the aims of the study. A summary of the findings and recommendations based on the findings will be provided. This research attempted to investigate the sustainability of community gardens as a mechanism to poverty alleviation in Port Elizabeth in the Nelson Mandela Bay Metropolitan Municipality. Specifically the study sought to investigate the following issues:

I. What were the success factors of community gardens?
II. What fundamental reasons accounted for the poor performance or failure of community garden projects?
III. What role has the municipality played in respect to sustainability of community garden projects?
IV. What was the management strategy of these projects?
V. What were the opportunities associated with being part of the project?
VI. Should current policy on community gardens be changed?

The previous chapters have provided the information necessary to fulfill the objectives of the study.

5.2 Conclusive summary
The community garden project was a pilot initiative of the Nelson Mandela Bay Municipality for food security. The main objective of community garden is to improve the diet of people by making variety of vegetables available within communities and to bring about household food security.

The people involved in community gardens are unemployed and live in poverty. The current study showed that community garden projects attract more women than men. The project members had no formal education, which is critical in ensuring project sustainability because educated members may easily grasp and implement skills that they received during training.
In terms of the success factors of community gardens, the study showed that they included abundant production of vegetables thus contributing to poverty alleviation; opening of job creation opportunities and access to markets. The community gardens provided a number of economic benefits such as fresh food, income generation, and market supply. The majority of people indicated that community gardens did not guarantee acceptable levels of financial and economic return. This is an indication that these projects performed poorly. This is also a factor for poor sustainability of projects. The members believed that working together, sharing knowledge and social interaction were the main social benefit derived from community gardens.

A number of factors constrained production, namely; poor soil conditions and inadequate budget. These were the fundamental reasons that accounts for failure of community gardens. Lack of proper marketing strategy was also a challenge as the garden members believed that a proper marketing strategy will enable them to break through a bigger market. The fact that these gardens are managed by older people accounts for poor performance or failure of community gardens. This is caused by a lack of interest by the youth. The findings suggested that climate change was also a factor as it caused significant losses in vegetable production. This therefore implies that there is a need for budget increase for the members to be able carry on with production.

With regard to the role of the municipal official, the mandate entails providing technical and advisory services to garden members. The municipal official ensures that skills transfer and capacity building takes place through the appointment of competent consultants to undertake project management. This implies that the role of the official is to ensure that garden members develop the necessary expertise and experience to be able to achieve the objectives of the projects.

In terms of the management strategy, the community garden members have a committee which consists of a chairperson, secretary and treasurer. The chairperson plays a leading role to other garden members. He or she forms a formal link between the garden members and the municipal official. However, one group of garden members did not have a committee.
With regard to opportunities associated with being part of the projects, the gardens provided opportunity for attending trainings and workshops thus acquiring more gardening skills. The trainings and workshops will enable members to start their own gardens projects in future. Members are also able to lead a healthy life through increased fresh vegetable consumption.

In terms of the policy on community gardens, the findings revealed that the policy has not yet been developed. This is a cause for concern. If there is no policy in place on community gardens it is thus clear that there are no regulations regarding the projects. This implies therefore that these farmers have no constitution.

Community gardens have a potential to be sustainable if the requisite support structures that need to exist to support the micro-farmers are in place.

5.3 Summary of chapters

5.3.1 Chapter one
This chapter provided a general background/introduction to the research, such as the problem statement, the research questions, aims and objectives of the study, overview of the research methodology and research outline.

5.3.2 Chapter two
This chapter dealt with a literature review looking at the various relevant debates and issues related to poverty alleviation and urban agriculture.

5.3.3 Chapter three
In this chapter, the research methodology followed and the tools and techniques used for data collection, as well as methods of data analysis and interpretation were described. The survey consisted of both qualitative and quantitative data.

5.3.4 Chapter four
In this chapter, the quantitative and qualitative data collected through the questionnaires and interview were analysed and interpreted.
5.3.5 Chapter five
This chapter contains a conclusive summary and proposes a number of recommendations. Recommendations are proposed strictly based on the findings of the study.

5.4 Recommendations
In the light of the findings derived from the study, the researcher makes the following recommendations:

5.4.1 There is a need for adequate funding
An important mechanism for continuing and sustainable projects is adequate funding. It is recommended that the Nelson Mandela Bay Metropolitan Municipality must focus its efforts on adequate funding for community gardens. This will enable the community garden members to maintain or expand the projects from where they were a year ago.

5.4.2 Promote youth involvement
It is recommended that the Municipality together with the councilors promote youth participation. These projects have great potential to empower youth by involving them in decision-making, addressing their needs and priorities and promoting their active engagement in building a better future for their communities. The young people will learn how to set up irrigation systems and growing vegetables.

5.4.3 Policy on community gardens
It is recommended that the Municipality develop policy on community gardens. The policy should seek to achieve goals that are considered to be in the best interest of the whole society, often by targeting specific groups within society. The policy provides guidance for addressing a concern through a process of formulation that involves the identification of a desired goal, and the identification and analysis of a range of actions that can result in promoting the realization of that goal in society.
5.4.4 There is a need for availability of more tractors
The farmers strongly depend on their agricultural machinery specifically to provide high tractive effort. To enhance the production of vegetables and project sustainability, it is recommended that the Nelson Mandela Bay Metropolitan Municipality make more tractors available to community garden projects.

5.4.5 Promote sustainability assessment
Poor sustainability is depriving the projects from the returns expected of them. Factors for poor sustainability of a project can be taken care of right at the design stage of a project, whereas, others can be tracked and corrected during implementation, through monitoring. It is therefore, recommended that community garden members develop a strategy for sustainability monitoring of a project. Sustainability Assessment is the identification and analysis of degree of presence or absence of the factors that are likely to impact, either positively or negatively on the prospects of sustained delivery of projects benefits.
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Annexure A: Example of survey questionnaire

Section A: Garden Member Information

1. What is the name of your Community Garden? ....................................................
2. How long have you been involved in this Garden? ..................................................
3. Gender
   (Please tick as appropriate)
   
<table>
<thead>
<tr>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
</tr>
</tbody>
</table>

4. Age
   (Please tick against the range that includes your age)
   
   | Less than 18 |
   | 18 – 29      |
   | 30 – 39      |
   | 40 – 49      |
   | 50 – 59      |
   | 60+          |

5. What is your educational level?
   (Please tick as appropriate)
   
   | Primary   |
   | Secondary |
   | Matric    |
   | Post – Matric |
   | None      |

Section B: Household Information

1. Monthly Income
   (Please tick against the income range that includes your household income)
   
   | R0 – R500 |
   | R501 – R950 |
Section C: Garden Member’s Perspectives on Community Garden
   Sustainability

1. How long has this garden project been running? ........................................

2. Who was involved in its establishment? ...........................................................
   ............................................................................................................................
   ............................................................................................................................

3. Why did you become a member of this garden? ............................................
   ............................................................................................................................
   ............................................................................................................................

4. What did you expect to gain? ........................................................................
   ............................................................................................................................
   ............................................................................................................................

5. What crops do you grow in this garden? .........................................................
   ............................................................................................................................
   ............................................................................................................................

6. What skills have you learnt from this garden? ..............................................
   ............................................................................................................................
   ............................................................................................................................

7. Who are the targeted beneficiaries of this garden? ......................................
   ............................................................................................................................
   ............................................................................................................................

8. Has the project received necessary support (both budgetary and institutional)
   to enable it to maintain required level of facilities?
8.1 If Yes, what kind of support and from who? ..............................................................
 ........................................................................................................................................
 ........................................................................................................................................

9. Has the project involved the community?

9.1 If Yes, how has the community been involved in this project? .....................
 ........................................................................................................................................
 ........................................................................................................................................

10. Does this garden guarantee an acceptable level of financial and economic
     return?

10.1 If Yes, what are the economic benefits to household from the
     community garden? ........................................................................................................
 ........................................................................................................................................
 ........................................................................................................................................

10.2 What are the social benefits of community gardens? ...................
 ........................................................................................................................................
 ........................................................................................................................................

11. What are the opportunities associated with being part of this garden?
 ........................................................................................................................................
 ........................................................................................................................................

12. Is there any supermarket (s) that your garden project supplies?

12.1 If Yes, which supermarket and what do you supply? ..............................
 ........................................................................................................................................
 ........................................................................................................................................
13. Does this garden guarantee equitable access to and distribution of project benefits on a continuous basis?  

Yes  No

13.1 If Yes, what mechanism incorporated to ensure this?  

.........................................................................................................................
.........................................................................................................................

14. Has the project considered environmental implications?  

.........................................................................................................................
.........................................................................................................................

14.1 If Yes, how did you ensure that negative impacts on environment are either avoided?  

.........................................................................................................................
.........................................................................................................................

15. What are the main challenges to for your garden?  

.........................................................................................................................
.........................................................................................................................

15.1 What are you doing to overcome these challenges?  

.........................................................................................................................
.........................................................................................................................

16. Does this garden have a management strategy?  

.........................................................................................................................
.........................................................................................................................

16.1 If Yes, what is the management strategy?  

.........................................................................................................................
.........................................................................................................................

17. Are you happy with the current poverty alleviation policies?  

Yes  No

17.1 If No, what do you think should change with the policy?  

.........................................................................................................................
.........................................................................................................................

18. Does this garden carry out Sustainability Assessment?  

Yes  No

18.1 If Yes, when and how?  

.........................................................................................................................
.........................................................................................................................
18.2 If No, Why not?...........................................................................................................
....................................................................................................................................
....................................................................................................................................... 
....................................................................................................................................... 
....................................................................................................................................... 

THANK YOU FOR YOUR CO-OPERATION
Annexure B: Example of interview questions

Guiding Questions

1. Tell me about the process involved in the establishment of community gardens.

2. What are the objectives of community gardens?

3. What is the general status of these gardens (in terms of commitment of members etc.)?

4. What is the role of the municipal official with regard to community gardens and its sustainability?

5. Poverty alleviation policies with regard to community gardens. Tell me about the policy.

6. What are the success factors of community gardens?

7. What are the reasons that accounts for failure or poor performance or failure of community gardens?