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Attitudes of Women in Sefikile to Food Garden Cooperatives and Permaculture Methods for Income Production

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A research report submitted to the Faculty of Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree Master of Management (in the field of Public and Development Management).

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ABSTRACT

This feasibility study was conducted in Sefikile, a rural community in the North West Province with a complex social background. It aimed to examine the willingness of the women of Sefikile to become involved in a cooperative food garden project using sustainable methods for food production and income security. A survey of the literature provided evidence that community engagement and participation are central to the success of such an initiative as failure to engage the community could negatively impact on its implementation. The methodology employed during this study was a qualitative survey using a cross sectional design and a non-probability purposive sample. The findings indicated that while the women were willing to become involved in a food garden cooperative, their main desire was to create other types of income generating activities such as pig and chicken farming and other small enterprises. (142)

DECLARATION

I declare that this report is my own unaided work. It is submitted in partial fulfilment of the requirements of the degree of Master of Management (in the Field of Public and Development Management) in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

_____

Erushka Pillay

30 October , 2013

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To the women of Sefikile who allowed me to interview them and who shared their insights and thoughts with me.

DEDICATION

This report is dedicated to my parents for your commitment, love and unwavering support throughout my life and to my son Rahul who came into my life a few short months ago but who has brought me nothing but joy and light. Love you my son.

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Chapter 1: *INTRODUCTION*

Rural areas in South Africa face disadvantages including high levels of unemployment, an increase in unskilled female headed households as well as poor food security and limited income generating activities. Empowering the women, within these communities, with additional skills may afford them the opportunity to wholly improve their quality of life.

This feasibility study focussed on women in Sefikile, a rural community, situated close to a mine in the Bojanala Platinum District of the North West Province (Appendix A). It was conducted to determine the willingness of these women to participate in entrepreneurial activities which would improve nutritional security and potentially economic development. One such activity was the development of a cooperative food garden utilising permaculture methods.

The reasons for conducting this feasibility study were twofold. Firstly, to ascertain whether such activities would be seen as beneficial and uplifting for the community, and secondly, to establish whether the community would be invested and engaged in a project of this nature. The latter reflecting the project's viability.

Often programmes are developed in rural areas in order to empower local communities, in many of instances the recipients are not consulted and not having an opportunity to discuss their needs, challenges and desires for a project. This study aimed to actively engage the women in Sefikile in discussions regarding their subsistence requirements, perceptions of cooperative food gardens and willingness to be part of a programme; thus assessing if this type of initiative would meet the needs of the community.

This study falls within the sphere of academic research since the type of research undertaken is to inform real world decision making and policies, while also providing valuable evidence and analysis into real world scenarios. This allows a researcher in an academic environment to test real life situations that require further investigation and are conducted within the arm of applied research arm. The study uses an applied research approach as it sets to answer a specific question within a specific environment within a short time frame. This approach will help to plan and shape the decision made regarding the proposed project and whether a new strategy or implementation plan should be undertaken or if the project should be developed further (Neuman, 2011).

1.1 CHAPTER OUTLINE

This report consists of six chapters; chapter one provides a background to the study, a summary of the problem statement, a purpose statement and study questions. Chapter two is a review of the literature and academic sources consulted to explore and support the findings of this feasibility study. Chapter three is an explanation and review of the methodologies utilised during the course of this study. Chapter four is a presentation of the data in terms of the findings from the interviews conducted. Chapter five consists of an analysis and summary of the findings supported by theory and evidence based literature. Chapter six is a conclusion of the feasibility study coupled with recommendations regarding its findings as well as the perceived needs of the community.

1.2 Background To The Study

South Africa's apartheid past dictated where people were allowed to reside, many were forced to live in specially designated areas known as the Homeland States. Homelands were meant to function as states (into which movement of Black South Africans was forced) within states under the control of the apartheid government. Power structures and leaders within these Homelands were controlled by the government through high levels of corruption by officials (Howcroft, retrieved 15/08/2012). Ensuring the development and infrastructure within the Homelands was neither prioritised nor planned by the previous government and even though these former

homelands are now incorporated into the new South Africa, they are still largely underdeveloped with service delivery occurring at a snail's pace (Howcroft, retrieved 15/08/2012). Leahy (2011, 37) adds that the rural areas of South Africa are where many of the Homelands existed and are where the highest level of rural poverty exists with "over 70 percent of poor people living in rural areas, half of these being chronically poor". This exacerbates the risk that people in these areas experience in relation to food security and having their basic human rights met.

Bophuthatswana (a former Homeland) was incorporated to become the North West Province in 1994, an area that continues to experience many similar challenges from the past such as under development and limited or non-existent infrastructure (Howcroft, retrieved 15/08/2012). In the Moses Kotane sub district it is estimated that 18% of the population has not had any schooling and that only 6% of the population completed grade twelve (World Fact Book, 2010). Employment in the area is limited to opportunities in mines, a few small factories, on farms, in the tourism industry (including holiday resorts such as Sun City and Pilanesburg lodges) and as small entrepreneurs (offering services such as hair braiding, wood cutting or all-purpose informal stores, known as spaza shops). Mining is the area's largest employer but brings both benefits to the community and its ensuing health risks (USCF & UW, 2012).

There are five major operational mines in the area which prompted the establishment of informal settlements to accommodate migrant workers. These settlements are located close to the mines, “creating a concentration of unemployment, poverty, under- and malnourishment, alcohol and substance abuse, poor sanitation, and a low literacy level” (USCF & UW, 2012:18).

Sefikile, which is located in the Moses Kotane sub district that falls within the Bojanala Platinum district in the North West Province, is an example of this. Fifty kilometres north of Sun City, Sefikile is a rural community located close to a mine with inadequate access to services such as health care, water and sanitation. This community consists of two distinct sub-communities living side by side. The first is a formal rural community of Sefikile, with a long existing Tshwana speaking people, who albeit a rural community still receive governmental services such as running water, electricity, sewerage and access to a local school and basic health services.

The other is an informal settlement established in 2000 also in close proximity to the mine. The residents of this community, who are predominantly isiXhosa speaking, also migrated to the area in search of employment. Being an informal settlement, however, entitles this sub-community to no support from the local municipality leading to a lack of formal infrastructure such as schools or health facilities; children attend school in official Sefikile. The closest area for residents of Sefikile to access commercial services is in Northam, Limpopo

Province which is a great distance and access to affordable transportation is limited. Even though many of the men work at the mine, the community does not receive any type of development or infrastructure support from the mine. An added disadvantage is that the women have little formal education or skills and are not able to provide and ensure adequate nutritional food security for their families because they are unable to obtain any type of employment. The mine does however provide a stable source of income for those in their employ. The mine is the main provider of employment in this community; with limited other formal opportunities or other sources of employment as there no centres of economic activity within close proximity.

Even though the two communities exist side by side, interaction between them is limited due to deep seated cultural tensions that negatively impact any opportunities there may be for engagement or collaboration between them. The situation is exacerbated as residents of the informal settlement do not receive the same services as the formal community. The Xhosa speaking community are also resistant to collaborating with the Tshwana community and this further impedes an opportunities for growth and development.

The above point illustrates that a need exists for the development of skills and abilities within the women of Sefikile and that this may provide the community with an opportunity for growth and development. The study attempted to assess the willingness of the women in this community to become involved in a

community cooperative food garden using sustainable and environmentally safe practices as a safer option to ensuring food security and possible economic empowerment. It is within this community where the research was conducted due to the challenges faced by members of this community and the limited number of resources and supports this community receives.

1.3 PROBLEM STATEMENT

Women in Sefikile encounter significant challenges in securing employment due to lack of work opportunities and skills, which lead to food insecurity for themselves and their families as well as their potential engagement in HIV risk-related activities such as transactional sex. Due to the rural setting and limited resources in Sefikile they are unable to access effective support that would provide opportunities for making more informed life choices. As such these women are at extreme risk for both physical and emotional abuse due to their economic dependence on miners in the community.

There exists a knowledge gap around what would best fit a community such as Sefikile, because unlike like many other rural settings this community is unique because the inhabitants are Xhosa speaking and migrated to this area many years ago. They receive limited supports because they are not seen as members of the larger community who are Tswana speaking. They require

additional options so that they can make informed choices and ensure that basic necessities such as food to feed their families are obtained. Food garden cooperatives may provide the women of this community with an opportunity to ensure that the nutritional needs of their families are met and could also help generate income to further support themselves and their families. By teaching and equipping the women with the skills to use permaculture methods for food production helps ensure that their environment is not compromised through the use of unsustainable agriculture practices which are not viable long term.

1.4 PURPOSE STATEMENT

The purpose of this feasibility study was to assess whether the women in Sefikile would be interested in a community food garden cooperative as an option for food security and alternative economic empowerment. The following points were taken into consideration:

- To assess the willingness of the women of Sefikile to engage in a community food garden cooperative.
- To assess the willingness of these women to learn new methods of agriculture using permaculture methods and practices.
- To assess the willingness of the community to ensure the sustainability of the proposed project.
- To assess whether there are perceived risks or benefits for the women involved in such a project.

1.5 *Study Question*

Would women in Sefikile be enthusiastic to participate in a community food garden cooperative using permaculture methods to promote nutritional security for families and increase income to households?

1.5.1 Is there investment and commitment from the women in Sefikile to be part of a project that will equip them with skills in permaculture practices?

1.5.2 What benefits or costs will the women of Sefikile experience from a cooperative food garden?

1.5.3 What is the perceived impact of this type of project on this community regarding food security, economic and skills development?

1.6 *Methodology*

This feasibility study was conducted using a qualitative approach which can assist in understanding and improving social circumstances that help to provide answers in a real world setting. This method ensured an active learning process with interrelated purposes and processes (Rossman and Rallis, 2003) and allowed a degree of flexibility and the ability to connect with the respondents in a more personal way.

1.7 *Conclusion*

This chapter provides an introduction to the topic and its related themes which will be reviewed in chapter two.

Chapter 2: *LITERATURE REVIEW*

This review provides a background to community food garden cooperatives that are undertaken to promote nutritional security for families and increase income to households. The willingness of communities to invest in community food gardens, the perceptions and experiences related to food garden projects, the methods and technologies used in permaculture practice are reviewed as well.

There are six key themes related to the topic which is the focus of this literature review: - *sustainable development, economic development, community empowerment, education, training and skills development, female headed households and improved life outcomes*.

The literature provided evidence regarding possible costs and benefits associated with projects of this nature. Clear evidence regarding the willingness and commitment of the communities in the initial projects has yet to be found. Little evidence exists to suggest that engagement of communities was conducted, even though current findings infer community involvement during the implementation phase. The former of which could contribute to the short lifespan of such projects (Leahy, 2011).

2.1 *SUSTAINABLE DEVELOPMENT*

This section covers topics related to community food gardens and farming projects, and food security as a means to ensuring sustainable development. Sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Agostino & Lizarde, 2012:91).

Evidence suggests that for sustainable development to occur within a community the members of said community are required to be routinely interacting and engaging robustly around the ideas of sustainable development (Dale & Newman, 2010; Leahy, 2011). Onyx, et al (cited in Dale and Newman, 2010), present community development as innovation that incorporates the social, environmental and economic aspects into the decision making process whilst engaging and fostering the ongoing support and involvement of members of the community.

Moller’s (2005) study in the Eastern Cape Province revealed that respondents of rural communities had knowledge of community food garden projects, but their commitment was to their own individual gardens. Reasons for this attitude included the perception that beginning a community food garden project was challenging to launch and sustain given the varied levels of commitment and investment in a community- versus individual-garden project (Moller 2005).In addition a negative stigma, that such an undertaking was something for the poor, was also perceived Moller (2005). These findings indicate that while

communities may grow individual food gardens there is a justifiable level of resistance toward becoming involved in a larger scale community.

Okvat and Zautra (2011) found evidence suggesting that community food gardens have a positive impact on the environment by reducing or reversing the impact of green house gases (GHG) because plants absorb harmful carbon dioxide (CO_2) and release much needed oxygen. Community food gardens also reduce the demand for energy, because the production and delivery mechanism used to deliver the food is reduced. Stocker and Barnett (2007) found that by using permaculture techniques in rural Australia, communities not only became hubs of science, technology and expertise but also developed skills around safer agriculture practices and organic farming. They also found that the gardens evolved to encompass sustainable food production in a manner that was ecologically safer, more energy efficient and utilised water conversation techniques (grey water from homes) (Stocker and Barnett2007).

Food security is explained as “all people at all times having access to sufficient, safe, nutritious food to maintain a healthy and active life, the concept is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences” (World Health Organisation [WHO], 2012).

According to Crush and Frayne (2011), the debate regarding food security in Africa is on the role of the small farmer, as central to ensuring local food security in rural and urban communities as food prices escalate and access to food becomes challenging particularly for the poor. Milburn and Vail (2010), Leahy (2011) and Moller (2005) all provide evidence that community gardens help to ensure food security in local communities through the harvesting of crops, thus reducing the costs of purchasing fresh produce resulting in increased savings to be used for other basic needs such as schooling for children or building a home.

The study by Sseguya (et al, 2009:124 in, Food and Agriculture Organization [FAO], 2005) found that food insecurity issues "lead to nutrition insecurity (malnutrition) because the amount and quality of nutrients required for effective body functioning is limited. The most affected population groups in developing countries are pregnant women and children under the age of five", this highlights the challenge that while people may have access to food, the quality of that food will have an impact on the nutritional needs of these women and children. Wills (et al, 2009), found that the Siyakhana project in Johannesburg lacked enough evidence to suggest that the community food garden project addressed the issue of food insecurity for the members of the project. These two articles highlight the importance that any food gardening cooperative

undertaken in a community, particularly a rural community has to ensure that those involved are also educated about the nutritional value attached to food.

2.2 Successes And Challenges Of Economic Development

Economic development in a community such as Sefikile is dependent on, amongst others, employment, job creation, entrepreneurial initiatives and savings all of which could be satisfied within a cooperative farming venture.

Cooperative farming is defined as “a collectively owned and managed enterprise or project that will benefit those who are involved in the means of production and distribution of the product for economic benefit” (http://www.thefreedictionary.com/cooperative).

Smith’s (2012) Kenya case shows that engaging women in cooperative farming projects enables them to transfer their knowledge and skills to others whilst simultaneously generating an income and ensuring future food security for themselves and their families. Women who participate in such initiatives have also been known to share surplus crops with those less fortunate than themselves, suggesting that investment by the local community could possibly have long term benefits thus creating less dependence on an already overburdened state.

The costs and obstacles associated with community food cooperatives according to Leahy (2011) are that community gardens have resulted in

conflict as different groups being unable to work together; infrastructure development is costly to set up and maintain if a project is not able to sustain itself financially then maintenance and up keep of the infrastructure is neglected. Additionally (Leahy, 2011) found that although government subsidised income generation projects and activities such as the Kooringkoppies project that covered numerous activities for entrepreneurial activity. Projects often fail due to the short foresight and vision in equipping the community with necessary skills to sustain and develop those opportunities into successful businesses (Leahy, 2011).

These are possible problems and challenges that may possibly arise in a community like Sefikile, where resources are few and unemployment levels high. However with proper planning these obstacles and challenges can be identified and with foresight plan for such possibilities and develop avenues in the project that allow for entrepreneurial activities that could be applied to other initiatives involving members of a particular community.

2.3 Education, Training And Skills Development Using Permaculture Practices

The education, training and skills development theme incorporates several aspects related to the development of skills, harnessing opportunities that allow for the development of knowledge, and hands on practical experience that contributes to an individual's body of knowledge. It is for this

reason that permaculture was included under this theme, as the members of this community would learn new skills and techniques to improve not only their current circumstances but those in their future as well.

The concept of permaculture can be understood as a set of ethics, comprising of three core principles (each attached with the same value): earth care, people care and fair share. These are often represented as a set of three interlocking circles, the shared centre of which represents where sustainable development exists (Milbourne, 2011: 8). The permaculture website (http://www.permaculture.net/about/definitions.html, 2012) also explains it as "a system that works toward establishing productive environments - providing for food, shelter, energy, waste recycling, material and non-material need - as well as the social & economic infrastructures that support them. It aims to create systems that will sustain the present as well as future generations".

Smith's (2012) case study, illustrated how a farm in Kenya, run by women from the community and conducted under the auspices of "ethical practices" ensured that those women were adequately compensated for their labour and that the crops grown were ecologically sustainable. Benefitting the women and their families has a wider impact on communities, influencing how farming practices affect the environment and the precautions needed to protect it.

The economic and skills development tied to the community gardens are evident (Leahy, 2011; Milburn &Vail, 2010) in the number of off shoot opportunities that arise from community garden projects, this is usually in the form of recycling of waste materials, live stock subsistence farming, the opportunities to test new technologies and learn skills related to those technologies. Learning sustainable and safe method of agriculture promotion, leads to the development of skills used to train others and provide access to employment opportunities in the broader agriculture sector. Ranasignhe (2003) has also found evidence to suggest that women in rural areas in Sri Lanka and Vietnam used the opportunities to develop skills around crop management, post harvest technology and landscaping, that have given them opportunities for movement and development beyond their rural settings but most of all these newly acquired skills have ensured adequate nutrition and wellbeing of their families.

Leahy (2011) suggests in South Africa at any time there are projects implemented with the intention of successfully empowering the local community economically through skills, in reality these projects typically last for a period of two years or until the funding runs out , he attributes this to the level of skill, with a vast majority of rural inhabitants in South Africa never accessing or successfully obtaining formal employment they have not experienced the formal work environment as a result they are not able to

integrate in situations related to work. Thus they are unable to sustain themselves in an organised manner for economic empowerment, even though initial buy-in toward a project may be high, the process to plant and harvest crops are long-term and the results are not fast enough, they lose interest in the project (Leahy, 2011). The key point to note with Leahy's (2011) study is that many projects in South Africa fail due to poor foresight and vision.

The success of permaculture does not depend solely on sustained communal interest, investment and commitment. It is also reliant on a willingness to learn new cultivation techniques and to share knowledge and experience with others.

2.4 COMMUNITY EMPOWERMENT

Communities hampered by unemployment and theft often feel helpless which could perpetuate the unemployment/theft cycle. It could also lead to a sense of communal responsibility and the desire for upliftment thus addressing unemployment and crime by creating a sense of worth and empowerment within these communities.

Litt (et al, 2011: 1467) provides evidence to suggest that there is a correlation between "social involvement, neighbourhood aesthetics and community garden participation on the daily consumption of fruit and vegetables." In communities where members share knowledge and food with others in the

community they form closer links. These closer ties to others in the community have a knock on effect where members take of each other and this has an impact on the reduction of crime. Ohmer's (et al, 2009) findings suggest that when community food garden projects succeed it creates a wider sense of community with a reduction in crime rates, greater community involvement and improved social interactions. Some other benefits noted also "include improved, nutritional and exercise benefits (people eating healthier, get physical activity form gardening), economic benefits from selling the crops and from no longer spending money of buying perishable foods" (Milbourne, 2011: 11). These benefits could help market the concept in rural areas.

2.5 FEMALE HEADED HOUSEHOLDS

The theme female headed households refers to the role that women play in raising a family and the strides they make to overcome daily hardships and provide better opportunities for their children and families.

Smith (2012) argues that when the concepts of safe and sustainable farming practices, fair and equitable labour practices are used in relation to projects benefiting the community they are considered sustainable. This is especially true when women are equitable partners who have the capacity to drive such projects. Fortier (2012), adds that this drive benefits the women as they are

able to use the income generated from such initiatives to support their families, educate their children and access health care.

The reality faced by many South African families is one of the female headed household, the study conducted by Posel and Rogan (2012) regarding the gender trend of poverty in South Africa found that male headed households have reduced the burden of poverty between 1997-2006 talks to the improved quality of life men in South Africa have received. In stark contrast female headed household continue to subsist and their research had shown that the gaps has widened.

The concept of female headed households is not unique to South Africa. A study conducted in Nigeria (Bammeke, 2010:26) found that the outcomes for children in male or female headed households is not that different but that in female headed households where women have a higher level of education their children's level of educational performance improved. In an area like Sefikile this could mean that if women in this community do not have access to educational opportunities, the outcomes for their children are diminished. This also means that women in female headed household place more value on their children receiving an education, however this is also dependent upon the support factors in the household. Even though female headed households may be more constrained in term of resources they work tirelessly to ensure that their children receive an education.

This could prove problematic in a community like Sefikile where there are a great number of female headed households and when the partners or other men observe these women earning an income and being less dependent upon them, there could be implications of abuse and violence against these women.

2.6 IMPROVED LIFE OUTCOMES

Improved life outcomes occur when there are opportunities for growth and development and life is no longer focussed of daily survival but of living a life.

Okvat and Zautra (2011) have proposed that the short- and long-term benefits gained from community food gardens often outweighs the initial challenges such projects may face. Such benefits may include stress reduction from gardening, creating and enhancing the sense of community wellbeing and a reduction in crime rates (Okvat and Zautra, 2011).

Majee and Hoyt's (2010) study further demonstrated how a sense of ownership can empower a community through individual self-belief where the process of knowledge and skill acquisition leads to an increase in confidence and participation that results in greater social capital (Majee &Hoyt's, 2010). This type of individual growth helps to spur on family growth which then transfers onto the community and then community development improves and

the overall quality of life of the members is improved and members demonstrate more investment and commitment to those communities.

2.7 CONCLUSION

This review emphasises the need for planning and consultation with a community during every step of establishing a cooperative project, the literature suggests that community consultation and engagement are central to the proposed research and failure to engage the community may impede the process and also result in the project being short lived through lack of interest. The disadvantages to engaging in community cooperatives could be related to evidence that suggests that people lose interest in these types of gardens due to the lengthy process of reaping the rewards but if those realities are presented in advance they can be dealt with as suggested in Leahy's (2011) study. The acquisition of new skills may lead to people leaving the community in search of better opportunities without transferring those skills to others in the community.

The Literature also provides evidence of the benefits of permaculture practices and the acquisition and development of new skills with a willingness to learn and teach others, the willingness of the women to learn those skills will help to assess commitment to the project thus ensuring economic and skills development in the local community in the future.

The risks and costs associated with the project are minimal in relation to the long term benefits to relate to skills development, economic empowerment, food security and healthier more cohesive communities. The literature provides the benefits and potential successes on a community cooperative using permaculture practices, but the ultimately it will be the communities desire for the project and need to establish a successful food garden that would help to ensure success. The Siyakhana project does provide evidence and valued insights into a well planned community garden initiative in South Africa even though it is based in an urban setting.

This feasibility study focussed on the opinions of and input from the target population of the proposed project, the women of Sefikile. This was done to gauge their thoughts and ideas and to assess their willingness to become involved in a community food garden cooperative.

The literature helped to clarify the unforeseen impacts that food garden cooperatives have beyond those that initially informed the study and added a dimension of the benefits not previously identified. Thus differentiating this study from those that focussed on the processes including, the benefits of and the problems related to community cooperative projects.

Chapter 3: METHODOLOGY

This study centred on a target audience in the community to ensure that their primary needs were identified and the programme was designed around their realities. The methodology is based on previously reviewed literature pertaining to the subject and defines the research approach and design of the study. Thereafter the data collection techniques used will be followed by the sampling technique used. The methodology section will then explore data analysis technique used and conclude with the validity and reliability of the study.

3.1 RESEARCH APPROACH

According to Newman (2011), the Critical Social Science (CSS) approach allows a study to take on an individual empowerment stance if it addresses an imbalance or injustice within a society. This enables the study to become a transformative process in which awareness and understanding are created to effect social change (Newman 2011), thus providing the backdrop for this feasibility study on the women in Sefikile.

The method best suited to address and analyse the information was a qualitative one since open ended or semi-structured interviews were conducted (Devlin 2006). In additional a qualitative approach can improve social circumstances by providing answers in a real world setting by ensuring

an active learning process with interrelated purposes and processes (Rossman and Rallis, 2003). An added benefit of this approach was that it allowed a degree of flexibility and the ability to connect with respondents in a more personal way, leading to the collection of rich and meaningful data (Babbie, 2010).

3.2 STUDY DESIGN

The selection of a cross sectional design provided the option of collecting quality data by utilising interviews in order to answer questions proposed by this study. Bryman (2004) indicated that this method was most useful for the purpose of conducting interviews with limited time constraints. Newman (2011) suggested that although a cross sectional approach is best suited when working with constrained resources, it has limitations in ensuring social processes and change is captured. The limited time constraints to conduct interviews and costs associated with repeated travel to the area supported the use of a cross sectional approach to meet the study objectives. The area of study and the need to have women in the target community voice their views affirmed the suitability of this design as it facilitated “one on one” interaction with the respondents.

The interviews were conducted over a two day period prior to the December Holidays and the majority of the respondents were not available after the 15th

of December due to travelling back home to the Eastern Cape. Initially the researcher planned to conduct a focus group session with five to six respondents after the interviews to verify the data; however this was not possible due to many of the women in this community travelling and only returning in mid to late January.

Even though there are shortcomings to this approach this design was utilised as it provided the best options for meeting the study objective.

The mechanism for data collection was a semi-structured interview using a structured set of questions that allowed for further probing and clarification from the respondents to obtain detailed information (Henning, et al, 2009). The data collection method utilised contributed to further understanding the real and perceived needs of the women of Sefikile (Creswell, 2003) and helped to generate options and alternatives that could be utilised for future planning in the area.

A subsequent focus group would have been convened to fill in any gaps that arose during the data analysis process and to verify the data collected; however time and cost constraints[1] prevented this. Whilst focus group setting allows the researcher to make sense of phenomenon construct meanings and observe behaviours and views within the group which help to identify the

[1] This focus group could not take place due to the unavailability of the respondents during the December and January period when the study was conducted because people in that community travelled to the Eastern Cape.

opinion leaders in the community (Bryman, 2004). It could also be viewed in a negative light meaning that it could be perceived by members as a forced process and could have prevented the respondents from speaking freely and openly than they would in a one on one setting (Babbie & Mouton, 2001). The decision to exclude the focus group may have also prevented some possible negative outcomes from the community, which was still reeling from the recent strikes and unrest at the mines in the province and in the area surrounding Sefikile. These factors were the contributing reasons that the focus group session was not conducted as planned and the situation in area was beyond the control of the researcher at the time the study was being conducted.

3.3 DATA COLLECTION

3.3.1 PRIMARY DATA

The primary data collection method used was a semi-structured interview with a set of questions specifically related to the study question enabling the interviewer to engage in an iterative process with respondents to ensure that key questions were answered. A semi-structured interview approach was used as it allowed for some flexibility during the interview process and established a sense of trust between respondents and interviewer (Rossman & Rallis, 2003). The semi-structured interview utilised during this study comprised of fifteen questions (see Appendix B for the interview guide). These were formulated to obtain answers related to the main study's questions

and to allow for further explanation and details that respondents may choose not to share during a structured interview process (Devlin, 2006).

The primary sources of data collection from the interviews were transcribed on the questionnaire during the interview. The participants were isiXhosa and Sesotho speaking and included a single respondent being able to communicate in English. This required the use of a translator, a community worker who was fluent in all three languages and was present during all the interviews. Using written transcription as opposed to recorded transcription was favoured as it ensured each respondent's anonymity thus allaying possible issues of fear and mistrust to create a more relaxed environment. This is supported by Rossman & Rallis (2003) who suggest that recordings raise the issue of privacy and should not be used if respondents are uncomfortable with that method. Each interview took approximately 30-45 minutes to complete and was conducted in an open field close to some of the informal dwellings.

All participants of this study consented to be being interviewed. All consent forms (see Appendix C) had a unique identifier only accessible to the interviewer and solely for the purpose of tracking the questionnaires. Consent forms were explained to each individual participant in their language of choice and they were asked to initial the form upon agreeing to undergo the interview. No identifying or sensitive information (apart from age and date of birth) was

collected from the respondents so as to ensure confidentiality and anonymity. In addition each participant was assured that nothing disclosed in the interview would be shared with others in the community (Babbie and Mouton, 2001).

3.3.2 SECONDARY DATA

Secondary sources of data regarding this community, from various governmental departments, were limited or unavailable. Reports by Non Governmental Organisations that work in the area provided some input on engaging the community but will not enhance or support primary data. Secondary sources can sometimes be used as evidence but can have a negative impact if the sources are incorrect (Newman, 2011); therefore caution was taken against using that data. The lack of credible secondary data for this community suggests that it is marginalised supporting this feasibility study.

3.4 SAMPLING

A non probability purposive sample was used to conduct the feasibility study because it is typically linked to qualitative analysis and ensures correct sample selection by targeting respondents relevant to the questions (Bryman 2004 and Newman, 2011). The sample was initially limited to women in Sefikile between the ages of 18-35 years who were not formally employed. Upon encountering the community, however, there was difficulty experienced in gaining access to women of that age range. The sample was changed to

include all women over the age of 18 years who were not formally employed and who were willing to be interviewed. Based on the new sampling criteria the final sample consisted of women from Sefikile between the ages of 31-52 years.

3.5 DATA ANALYSIS

The data analysis encompassed a variety of analysis techniques to bring out the true nature of the qualitative research. The literature reviewed (Newman, 2011; Bryman, 2004; Rossman & Rallis, 2003) all indicate that the researcher is required to immerse themselves in the data then assign meaning to the data and thereafter analyse the data into a coherent formal layout.

3.5.1 APPLICATION

The initial focus of data analysis is coding according to Newman (2011). Analytic memo writing commenced as soon as the data analysis began thus ensuring that all themes and concepts were systematically organised. Organising themes and ideas as the data was transcribed supported the conceptualization of data that helped to stratify it. The coding process commenced using open coding to establish themes and allocate initial codes condensing the large amount of data into categories (Neuman, 2011). Thereafter the axial coding process began which involved the organisation of codes, the creation of links between codes and the discovery of analytic categories where concepts and themes began to emerge.

The final step in this process was selective coding where the themes identified were matched with the data to support the coding categories (Neuman, 2011). As analytic memos continued to be refined further codes and themes emerged leading to the continual modification of coding. This type of data analysis has aspects of grounded theory but resides within the illustrative method where data was organised to fit into theory resulting in a back and forth relationship between data and findings (Neuman, 2011; Bryman, 2004).

The triangulation of data occurred from multiple points the first being the individual interviews, supplemented with field and personal observations. According to Babbie and Mouton (2001), these notes help to solidify the data and provide context for data which adds to the validity of the data. The literature reviewed also helped to interpret the data and provide theoretical underpinnings to the data (Neuman, 2011). There were no unanticipated shifts in data collection nor was there a change during the data analysis process that could have driven the data analysis in a different direction (Rossman & Rallis, 2003). This in-depth process of data analysis employed introspection and individual insight that required focus and immersion into the data, which is unique to qualitative study and is the essence of a qualitative approach (Babbie, 2007).

3.6 VALIDITY AND RELIABILITY OF THE STUDY

3.6.1 VALIDITY

The focus of this study was to assess the willingness of this particular community to embrace a permaculture undertaking. The issue of food security and economic empowerment for women applies to a significant percentage of the South African population. This study provides a back drop for future planning in the Sefikile community with regards to economic empowerment and will help to guide interventions and services in this and other areas, thus adding to its validity.

3.6.2 RELIABILITY

In a qualitative study, reliability means that the methods and techniques used to sample obtain and analyze data have been dependable and consistent (Newman, 2011), in this instance the researcher made every effort to ensure that the most accurate and reliable methods were utilised.

3.7 SIGNIFICANCE OF THE STUDY

This study identified options for the women of Sefikile to ensure food security, to develop skills and to gain economic empowerment. This could enable it to develop into a model for sustainable initiatives in other rural areas. Additionally the results will be shared with community leaders and other stakeholders including the women to address the findings and support them in developing income generating activities.

3.8 *LIMITATIONS OF THE STUDY*

This study was limited due to time constraints relating to the completion of the interviews and the inability to complete the focus group interview. An additional unforeseen safety issue developed as a result of mining strikes that swept the country from August 2012 to late November 2012 which made it unsafe to enter the community of Sefikile and subsequently delayed the completion of interviews. However due to it being close to the December holiday period the interviews were conducted within a short space of time. The language was a limitation as well but was addressed with the use of a skilled community worker, which ensured that quality interviews were conducted.

In concluding this methodology chapter it is clear that the methodology and techniques utilised when conducting this feasibility study were evidence based and helped to define the scope and parameters of the study.

Chapter 4: *DATA PRESENTATION*

This chapter is a presentation of findings uncovered from the systematic review and analysis of data collected from the interviews conducted on a sample of female community members in Sefikile. The data is presented in terms of the basic demographic data of the respondents thereafter each of the questions (Appendix C) are summarised into the themes and answers respondents provided *in "italics".*

4.1 *BACKGROUND AND DEMOGRAPHIC INFORMATION*

This study was conducted in Sefikile, a rural community in the Bojanala Platinum District of the North West Province. The community looked isolated with the majority of dwellings being tin shacks, a few formal structures of the low cost variety and a primary school on its outskirts. The surrounding area consisted mainly of dry earth with limited trees and foliage. Water and sanitation is limited in this community.

The respondents for this study were females from the Sefikile informal settlement, whose ages ranged between 31- 52 years (see Table 1 below for a detailed distribution); table 2 below shows the language distribution of the respondents. All the women interviewed reported that they were unemployed.

Age Range	Distribution (%)
30-34	3 (25%)
35-39	5 (41%)
40-44	
45-49	2 (17%)
50-55	2 (17%)
Total	12 (100%)

Table 1: Age Range and Distribution of Respondents

Language Spoken	Number (%)
iXhosa	9 (75%)
Sesotho	2 (17%)
English	1 (8%)
Total	12 (100%)

Table 2: Language Distribution of Respondents

Twelve respondents 83.3% (10) were originally from the Eastern Cape Province, 8.3% (one) respondent was originally from the area and the other 8.3% (one) was from Lesotho. Several respondents reported a willingness to return to their homes in the Eastern Cape but could not afford to relocate.

This demographic breakdown helps to understand some of the dynamics and realities experienced by the community of Sefikile.

4.2 Assessing The Enthusiasm Of The Women In Sefikile To Participate In A Community Food Garden Cooperative Using Permaculture Methods To Promote Nutritional Security For Families And Increase Income To Households:

All twelve respondents reported that they would be interested in a community food garden project that taught them permaculture practices to ensure food security for their families and possibly increase household income. The reasons that some of the women gave for their interest in such a project are presented below from the most frequently occurring to least frequently occurring:

- Community Food Gardens and Farming Skills -9 *"yes, because there is unemployment and we don't have food" ,"yes, many people in community want to learn to farm*" ,*"Yes, because many people already farm at home"*
- Knowledge, Skills and Opportunities -4 *"Yes, because there are no jobs or opportunities here. I worked in a kitchen but now I have no work", "Yes, because they will gain knowledge and skills on farming"*
- Unemployment- 4 *"Yes, because people here are very poor and no-one works"*
- Food Security- 1
- Health and Nutrition – 1
- Money and Income -1
- Children and Families -1

The themes that arose during the initial question illustrated some of the main issues affecting this community i.e. those related to food security in terms of farming and food gardens, lack of skills and resources to access employment

opportunities, and high levels of unemployment. From the response *"Yes, because many people already farm at home"* it was also evident that many of the respondents already had food gardens at their homes whether it was the Eastern Cape or Sefikile. This would be useful to consider when getting community buy in and support as they already understand the benefits of and commitment to a project of this nature. Additional themes that arose from this question were related to food security, health and nutrition, money and income. Children and families did not frequently occur in this question but were themes that emerged in other questions.

4.3 Investment And Commitment From The Women In Sefikile To Be A Part Of A Project That Will Equip Them With The Skills In Permaculture Practices:

Eleven of the twelve respondents indicated that they would be invested and committed to a project that would equip them with skills in permaculture practices. One respondent indicated that she didn't think people would be interested because they were already farming at home. It is important to note that some of the responses overlap into more than one theme and a decision was made in terms of where to allocate each response during coding in relation to the context of the response. The most frequently occurring themes in response to this question were:

- Community Food Gardens and Farming Skills -6 *"Yes, at home in Transkei we grew up farming and know they can gain money from farming", "Yes, I want to know more about farming"*
- Money and Income -6 *"Yes, there is no money or food I want to learn some skills so I can earn an income" ,Yes to sell vegetables from the food gardens to get money and then find a job"*
- Knowledge, Skills and Opportunities -3 *"Yes, people want skills", "Yes,....I want to learn some skills so I can earn an income" ,*
- Unemployment- 2 *"I want to work hard" , "Yes, ...so I can earn an income"*
- Female Headed Households – 1 *"Yes, because I am suffering I have no husband"*
- Children and Families -1 *"Yes, to support their children and families"*
- Chicken and Pig Farming- 1 *"Yes, other women I know would like to know about farming but I want to learn about pig farming"*
- Food Security- 1

The key themes highlighted in this response focus on food gardens and farming as a means to address the limited skills women in this community have, however, the responses also represent the desire and need to survive and provide some subsistence earnings for their families. Financial constraints and the need to have money emerged as driving forces for these women.

4.3.1 Do You Think That Women In Sefikile Would Be Willing To Get Involved In A Project That Teaches Those Skills Of Farming?

Eleven of the respondents thought the women in Sefikile would be interested in a project that taught them skills related to farming. One respondent said she would not be interested in such a project because she only wanted a garden at home, although she thought other women may want to get involved in a project related to farming.

- **Knowledge, Skills and Opportunities -7** *"Yes, to gain knowledge on farming and food gardens", "Yes, I am willing to learn farming skills and want knowledge on how to farm chickens", "Yes, I want knowledge and skills to grow fresh vegetables, 'people will love it' "*
- **Chicken and Pig Farming- 3** *".....I want to farm chickens", "I want to learn how to farm pigs"*
- **Community Food Gardens and Farming Skills -3** *"Yes, they want to know how to fertilize and plough vegetables"*
- **Unemployment- 3** *"Yes, because we aren't working it will give us something to do"*
- **Food Security-3** *"yes, they need to farm when there are strikes in the mine there is no money, no food"*
- **Health and Nutrition – 2** *"yes ,they can be healthy and increase their farming skills"*

- Money and Income -2 *"yes, they will save money and learn skills of farming, food gardens and nutrition",*
- Female Headed Households – 1 *"yes, because many are not working, they have many children and no husbands, only boyfriends who leave"*
- Children and Families -1

The most frequently occurring theme that arose in this question was related to the acquisition of knowledge, skills and opportunities for growth and development. Chicken and pig farming were also brought to the fore and present a common interest of some of the women. Community food gardens were viewed by most respondents as a means to ensuring food security for their families, providing a source of income as well as meeting the health and nutritional needs of families.

4.3.2 Why Do You Think They Would Be Interested In A Project Related To Farming?

Eleven of the respondents were of the impression that the women of Sefikile would be interested in a project of this nature, one respondent indicated that she did not want to be involved and could not speak on behalf of other women, as she did know not what they wanted.

- Community Food Gardens and Farming Skills -4 *"yes, a food garden and selling chickens", "Yes, because they already plough gardens and some have goats and cattle"*

- **Money and Income -4** *"As a poor woman I can benefit from a farming project, I have no money"*
- **Knowledge, Skills and Opportunities -4** *"Knowledge and skills on farming will help to get work",*
- **Chicken and Pig Farming- 3** *"Yes, chicken farming and food gardening", "Yes, chicken farming- 'People love chicken' "*
- **Female Headed Households – 2** *"Yes, they would want to farm because woman won't have to suffer"*
- **Unemployment- 2** "*Yes, most lack jobs and it will be something for them to do", "No jobs, no money!"*
- **Quality of Life – 1** *"I want a better life and I want to go back home to the Transkei but there is no money to go back home"*
- **Children and Families -1**

The common theme that runs through this question and reinforces the previous one is that women look at a project related to sustainable farming practices, as a means to ensuring a stream of income and food security for their families. They also view it as an opportunity to gain valuable skills and again there is a strong interest in chicken and pig farming in this community.

4.3.3 Will They Be Interested In Learning New Ways To Farm Without Harming The Environment?

All the respondents expressed an interest and willingness to learn ways of farming that would help the environment and not harm it. Although many could not identify any choices (littering, etc) they could make in their daily lives that would help the environment.

- Knowledge, Skills and Opportunities -8 *"Yes, to learn new skills and then sell those crops", "Yes, I want to learn to save water because sometimes we don't have water", " Yes, I am interested in learning new ways of farming"*
- Community Food Gardens and Farming Skills -4 *"I would like to learn others way of farming but in my own home"*
- Permaculture or Environmentally Safe ways of farming- 4 *"Yes, cleaning up the area do that plastics don't hurt the environment. Water tanks needed to collect water", "I want to learn how to farm and save water", "I am interested, I want to make sure the soil is good for farming"*
- Chicken and Pig Farming- 2 *"Yes, I want to learn how-to chicken farm", "Yes, I want to know how to protect my pigs"*
- Money and Income -2 *"Yes, so they can get money"*
- Children and Families -1 *"I want to learn this new way of farming so I can teach my family in Transkei"*

Although the respondents were not able to directly express their understanding of these practices, they were willing to learn new ways of farming that was safe

and environmentally conscious. Some indicated a level of understanding particularly related to water conservation, soil preparation and the effect plastic has on the environment. This was a promising response which could help to raise awareness and improve future community involvement.

4.4 What Benefits Or Costs Will The Women Of Sefikile Experience From A Cooperative Food Garden?

Ten out of the twelve respondents reported that they were not aware of any personal risk that could occur from being involved in such a project. One respondent reported that she did not see a problem because she did not have a man and as a result there would be no problems. One indicated that working in groups causes problems because people are lazy and don't work leading to more problems. The benefits and costs are listed below in terms of highest ranking.

- Money and Income -7 *"They can gain an income",* "*earning money and getting experience"*
- Food Security- 5 *"Having fresh food so that I don't have to find food for my family to eat. No costs", "Money, eating with family"*
- Community Food Gardens and Farming Skills -4 *"I want to learn new skills"*
- Knowledge, Skills and Opportunities -2 *"I can teach others to farm, there is a future in ploughing the fields", "I will teach the people in my church"*

- Health and Nutrition- 2 *"They will get all the vitamins and proteins in their bodies", "they will benefit by planting the vegetables (spinach, cabbage etc) and they will get the vitamins and proteins from the vegetables"*
- Quality of Life -1 *"The benefits are a better life and I can start new businesses"*
- Female Headed Households- 1 *"there will be no costs or harm because I don't have a man"*
- Theft -1 *"Protect people from stealing, having food to eat"*

The overall responses indicated that more benefits than costs were associated with being involved in a project of this nature. Perceived problems related to theft and conflicts that may arise when working in groups, which can be overcome through the development of communication skills and group agreements.

4.4.1 What Do You Think You And The Women Of Sefikile Could Gain From Being Involved In Such A Project?

Five respondents saw the benefits that could come from a project of this nature as a means to empowering the community and sharing and uplifting the resources of the community. Only one saw the long term economic benefits of a project like this.

- Money and Income -9 *“money and food to eat”, ” selling the vegetables and earning money”, “I will save money to start my own spaza shop and the women can help each other start businesses like selling clothing”, “we can also protect people from going to town to buy vegetables because it is very expensive”*
- Food Security- 4 *” it will benefit the people and community by stocking and selling vegetables”*
- Community Responsibility and Upliftment- 4 *“People won’t go far for jobs and it will benefit the people and community by stocking and selling vegetables”,“to give people of Sefikile jobs. To help orphans and donate to them and help with funerals”*
- Quality of Life -3 *“I can buy a stand and open a salon with the money for the food garden. I can buy a house”*
- Unemployment-2 **“***help employed by hiring them as security”*
- Knowledge, Skills and Opportunities -1 **“***New skills on farming and I can help others farm”*
- Family and Children-1 *“they'll have money to buy clothing for their children, they will have money for schooling for their children”*
- Health and Nutrition- 1 *“they can earn money and food to eat. It will help with adherence , eating food before taking ARV medication”*
- Theft -1 *“we can help people who don't work so they won’t steal food”*

The evidence suggests that although money and opportunities to earn an income are important to these women, they all feel that they should be involved and responsible for uplifting the community and helping those who are less fortunate than themselves.

4.4.2 How Do You Think Your Family Will Benefit From A Food Garden Project?

The ability to provide for and meet the basic needs of their families and children appear to be of central importance to these women and given the opportunity it would appear that many would then be able to fulfil that role.

- Family and Children-10 *"I can buy them clothing"," invest money earned for school", "I can also buy clothing and supplies for school", "I will help my children to go to school, buy them clothes and build a house"*
- Food Security- 7 *"…healthier children, regular food* ", *"I can eat with my family, and I won't buy vegetables" , "I can cook for my children and give them lunch for school", "vegetables to eat and to buy things for the home", " I will have food in my house"*
- Money and Income -6 *"money to buy clothing", "saving money from not buying vegetables" , "Money to buy groceries and then saving and investing in the bank", " I sell the stuff in my garden like the spinach. You save after you earn money"*

- **Knowledge, Skills and Opportunities -5** *"my children can attend school", "schooling for my children"*
- **Health and Nutrition- 3** *"they can eat healthy" , "vitamins from food will make them healthy"*
- **Quality of Life -1** *"Build a house, my children can go to school"*

As noted above it becomes clear that all the respondents see a community food garden as a means to achieving food security, income and education for their families and children. This commitment could serve as the driving force for these women in being able to implement and sustain a project of this nature.

4.4.3 What Other Benefits Do You Think You Can Get From A Project Like This?

The respondents all demonstrated a level of concern for and commitment to their community, especially orphans and vulnerable children. All indicated some desire to help uplift their community from poverty and hardships.

- **Community Responsibility and Upliftment- 6** *"you can help others who are orphaned", "helping the street kids", "I can help orphans, by cooking meals for them from vegetables" , "I can also help the poor kids at home"*

- Money and Income -6 *"I can hire people who don't work to earn money", " I can help others and I can have children work there and get pocket money" , "I can help others by giving them jobs to earn money"*
- Family and Children-5 *"I can buy things my children need like uniforms, clothing and shoes", "by selling the vegetables I can buy stands for my children to build houses because they are now renting"*
- Unemployment-4 *"helping unemployed youth get jobs" ,"I can hire them to work in the garden"*
- Food Security- 4 *"crops can be sold and the extras shared with those who don't have food", "I can help others who have no food by giving them food"*
- Quality of Life -4 *"building a house, sending my children to school and saving for my children's future", "to build a house and have money to do so, money to buy a car"*
- Knowledge, Skills and Opportunities -2 "*When I sell I can send my children to school" ,"teaching them talking and communication skills" , "I want talking skills"*

There is a sense of community that exists among these women as is evident from their responses and desire not only to improve the lives of their families but of the community as well.

4.4.4 What Are Some Of The Risks That Could Happen To You If You Become Involved In A Project Like This?

Six of the respondents reported that there were no perceived risks that would affect them, two reported health issues as possible problems that could impact their involvement and one indicated that working with women in the community was a problem. Three reported that being single and not having a man prevented any problems from occurring.

- Female Headed Households -3 *"No man -no problems. I could tell my husband and it can cause problems", "nothing- no husband no problems. Some husbands don't want women to work", "No husbands no problems"*
- Health and Nutrition -1 " *The only problems is when I feel sick I can't work", "nothing, except when I am sick"*

The highest perceived risk by the respondents was related to the possible repercussions from their partners (husbands and boyfriends) if they were to start earning money but since the majority were single and head of their households they did not perceive any risks for themselves.

4.4.5 What Are Some Other Things That Could Go Wrong In A Project Like This?

The most commonly noted problems that could occur in a project of this nature were related to water supply and demand, with theft being the second most concerning issue. One respondent noted storage of vegetables as an issue while another stated lack of communication as another. Fencing off the

food gardens was seen as the solution to address the issues of theft. Water tanks and piping were seen as solutions to the water problems.

- **Permaculture or Environmentally Safe ways of farming (water supply) -10** **"***Water is a problem, so we will need tanks and pipes to make sure we have water"," water supplies and vegetable storage issues" ,"water is a problem", "water and piping/ irrigation will be a problem" , "water shortages in the winter months"*
- **Theft-9** *"no problems but there will be a need for security fencing around to prevent theft", "theft and stealing, so fencing is needed ", "theft is a problem there is a need for fencing"*

Water supply issues and shortages are an everyday reality and so is crime and all the respondents noted these as their biggest concerns that must be factored in when designing a project for this community.

4.5 What Impact Will This Type Of Project Have In This Community Regarding Food Security, Economic Development And Skills Development?

The opinions of the respondents seem to indicate that they perceive there will be community upliftment, skills development and opportunities for

economic development. Only one respondent felt that there was no need for community involvement and she wanted to farm alone.

- Money and Income- 8" *Selling products without going to town which is expensive", "People will know they can save money by buying here and not in town".*
- Community Responsibility and Upliftment-7 *"community will be happy to buy vegetables close by and there will be farming opportunities", "people will be happier in the community"*
- Food Security -3 *"People will be happy they don't have to go far to buy food"*
- Unemployment-3 *"the community will be happy and we can help people who aren't to working to get work", "Marketing the business in the community. Hiring people who don't work'*
- Community Food Gardens and Farming Skills-2 " *"People will get fresh products" "teaching others how to farm"*
- Knowledge, Skills and Opportunities- 1 *"can help the community by teaching them to farm. How to sell crops and save"*
- Family and Children -1 *"mothers will be happy that they can take care of their kids"*
- Quality of Life -1 *"this will help people by not travelling too town to buy food'*

- Theft-1 *"it helps to reduce crimes, people won't steal and other can get jobs"*
- Health and Nutrition -1

The perceived benefits for the community reinforce the notion that there is a strong sense of community. One thing that stood out was that most respondents felt they would save money because they would not have to travel great distances to buy food. This would be an added bonus of the project.

4.5.1 What Will A Regular Supply Of Food Mean For You And Your Family?

Eleven of the twelve respondents indicated that they would greatly benefit from having a regular supply of food, only one reported that it would not make a difference because she already had a stable supply of food in her garden.

- Food Security -7 *"my children will I have food for school and it will help them concentrate better and then do better at school", "I'll be happy because the hunger will go away", "no stress, we will be okay because there is no worry about food at home", "I can buy other groceries like tin foods, fruit etc"*
- Money and Income- 4 *"save money from not buying vegetables", "I can also save money in the bank"*

- Family and Children -4 *"I will feel happy for my family", "I can send my children with lunch money to school"*
- Community Food Gardens and Farming Skills-3 *"I can cut and eat", "food gardening can change my life to be a rich women and have a spaza shop"*
- Health and Nutrition -3 *"healthier children", "there is no stress"*
- Quality of Life -3 *"We will have a better life", "I will be happy I will have everything I need"*
- Community Responsibility and Upliftment-1 *"I can help the poor kids at home"*
- Theft-1 *"my children will have food for school so they don't have to steal from others"*

4.5.2 How Will The Possibility Of Earning Some Money Help You And Your Family?

Of the twelve respondents eleven indicated that the possibility of earning an income would greatly improve their quality of life and that of their family. One respondent refused to answer that question.

- Money and Income- 11 *"find money for my children's schooling and clothes", "Saving money for their future", "I can start another business like a spaza shop so I can buy and sell clothes", "I will be able to start stocking and selling clothes, cutlery and dishes"*

- Quality of Life -7 *"Build a big house, a place for my family", "I will build a house with three bedrooms", "joy, because I can support myself , I can go the doctor and support my children"*
- Family and Children -7 *"investing in the future so my children will go to university"* , **"***I want my child to go to University"*
- Health and Nutrition -2
- Community Responsibility and Upliftment-1 *"It will help in investments for my children's future. It will also help families with no money"*
- Food Security -1 *"buying groceries and clothing"*
- Knowledge, Skills and Opportunities -1 **"***I also want to go to ABET"*

The most common theme here is money and earning an income. All of the respondents who answered this question viewed money as central to improving their overall circumstances and quality of life.

4.5.3 What Skills Do You Think You Will Learn From This Project That Will Help You At A Later Time?

All respondents were keen to share their skills with others in the community. Many wanted to help the youth, including their own children/grandchildren, in developing farming skills.

- Knowledge, Skills and Opportunities-12 *"will teach my grandchildren the skills I learnt", "teaching my grandchildren and orphans to farm", "I can*

share my skills with other and will garden with them" , "I will share my experiences so that others may join in and share skills by working with them" , "I will teach others s that they can work for themselves and not others"

- Community Responsibility and Upliftment-10 *"I will help others in the community by teaching them how to farm", "will only be happy when I know other people know how to farm"*
- Community Food Gardens and Farming Skills-6 *"I want to teach others how to plough and have food gardens.*
- Money and Income- 3 *"I will help others to farm but I want to work with children and teach them how to farm"*
- Family and Children -3 *"to teach my family and other families how to farm, so that people know how to live by themselves and use their hands" , "I can send money home to the Transkei"*
- Food Security -1 " *I will always know how to farm and I will always have food"*
- Health and Nutrition -1 *"how to run a farm and about nutrition"*

Quality of Life -1

All respondents indicated their intent to share the knowledge and skills gained from a co-operative food gardening project with their families, members of their community and youth. The strong desire to equip youth with self sustaining

skills further illustrates their commitment to uplifting and empowering their communities.

4.5.4 What Will You Do After You Have Learnt These Skills?

Many of the respondents indicated that they would share their knowledge and skills with others in some type of skills transfer, others indicated that they would start a business of their own as an off shoot to the community food gardens.

- Knowledge, Skills and Opportunities-7 "*I will teach others how to farm the land", " "I will teach traditional healers and tribal leaders about farming and food gardens in Lesotho" , "I will teach people how to save to start other businesses"*
- Money and Income- 7 *"I will start a spaza shop and help others who are unemployed by creating jobs", " I will start a spaza shop and clothing shop" "Start my own butchery" , "I want to sew and start a business on farming" , "I will start another business selling clothes, cutlery and dishes"*
- Community Food Gardens and Farming Skills-5 *"vegetable gardens and teaching the community how to farm"*
- Community Responsibility and Upliftment-4 *I will be happy teaching others and people in the community will know who I am", "I will be happy because I will teach small children to farm"*

- Pig/Chicken Farming -2 *"pig Farming, chicken farming" , "Hire people to clean the area so I can have a space for farming chickens"*
- Quality of Life -2 *"I will be happy because I am not suffering, I will have money and money makes a person happy", "I will be happy, my name will be proud (known)"*
- Unemployment- 1 "*I want to work"*

It is clear that skills transfer, community upliftment and income security are priorities for these women and many view it as an option toward improving their quality of life and overall circumstances. The focus on developing the skills of their children and other youth in their communities illustrates their commitment toward providing better life outcomes for future generations.

4.6 THE MOST FREQUENTLY OCCURRING THEMES

Responses to each of the questions were analysed and sorted into thirteen themes, with each theme's importance being dependent on the frequency with which it arose. This resulted in the thirteen themes listed in Table four below. These themes where then categorised with other similar themes resulting in the six broad themes discussed in chapter two. That will be presented later.

Theme	Frequency
Money, Income	76
Knowledge, Skills And Opportunities	52
Community Food Gardens and Farming Skills	44
Food Security	37
Family And Children	36
Community Responsibility And Upliftment	33
Quality Of Life	24
Unemployment	20
Health& Nutrition	16
Permaculture/ Environment/ Water Supply	14
Theft (petty crime)	13
Pig /Chicken Farming	11
Female Headed Households	8

Table 3: Frequency of themes

The literature review provided a background to community food garden cooperatives that are undertaken to promote nutritional security for families and increase income to households. There were six key themes related to the topic which was the focus of the review: - *sustainable development, economic development, community empowerment, education, training and skills development, female headed households and improved life outcomes*.

4.6.1 SUSTAINABLE DEVELOPMENT

This broad theme consists of three central themes from table four above. *Community food gardens and farming skills* was included since the premise of the study was to assess the community's willingness to engage in a project related to community food gardens as a source of sustainable development. *Food security* is closely linked to community food gardens and farming skills and as a result was grouped under this heading. *Pig and chicken farming* is ideally linked to farming, food security and sustainable development.

4.6.2 ECONOMIC DEVELOPMENT

Money and income is included here as it encompasses all areas related to income, income generation, saving and investments and other business ideas or ventures.

4.6.3 EDUCATION, TRAINING AND SKILLS DEVELOPMENT

Permaculture/ environment/ water supply were amalgamated with *knowledge, skills and opportunities* due to both involving the acquisition and development of a new skill set and learning process

4.6.4 COMMUNITY EMPOWERMENT

Throughout the interview process and data analysis *community responsibility and upliftment* was an occurring theme and was important to all the women interviewed. However it is important to note that the some of the

factors that put communities at risk are high rates of *unemployment*, crime and *theft*. These themes were incorporated into the broad theme of community empowerment because they are realities that all communities face

4.6.5 FEMALE HEADED HOUSEHOLDS

This broad theme is comprised of children *and families* and *female headed households*. All the respondents indicated that they wanted a better life with more opportunities and access to resources such as education, health and housing for their families.

4.6.6 IMPROVED LIFE OUTCOMES

This theme incorporated quality *of life* and *health and nutrition* as they both encompass the idea of having access to basic amenities such as food, shelter, employment and opportunities for a better life including access to primary health care and nutritional food.

4.7 CONCLUSION

This chapter presented the data findings from the interviews conducted with clear themes emerging, these themes were analysed further and reduced to key themes based on frequency. Six key themes *(sustainable development, economic development, community empowerment, education, training and skills development, female headed households and improved life outcomes)*

emerged which were related to the literature review and will provide the basis for the data analysis and findings in the next chapter.

From this chapter it is evident that there are several themes that ran across all of the interview questions and that appear to be of value to the respondents. Employment or the lack of employment opportunities have come across as concerns for the respondents as this is seen to limit their prospects and opportunities to be able to provide a better quality of life for their families. The second theme that was frequently stated relates to the acquisition of new skills and included skills related to sustainable development, permaculture which is necessary skills in a community cooperative food garden. These two key themes provide a way forward into the next chapter where the remaining themes will be discussed in greater detail. Chapter five provides an analysis of the findings and data using the literature to support the findings.

Chapter 5: DATA ANALYSIS & FINDINGS

It is important to note that these findings are not representative of the broader population and may only represent the views of some of the women in this community. They are discussed in terms of the six themes which were explored in the literature review.

5.1 BACKGROUND AND DEMOGRAPHIC INFORMATION

The findings suggest that the respondents of this study were females from the community of Sefikile who were between the ages of 31 - 52 years. This could be attributed to younger people leaving Sefikile in search of employment or better opportunities.

Eleven of the respondents were eager to become involved in projects related to community food gardens, however, even though these women indicated a keen interest in a community food garden cooperative it was not their preferred choice. The preferred activity will be discussed in greater detail in the following chapter. Such preferences will need to be taken into consideration during future planning and implementation of such a project within this community.

5.2 SUSTAINABLE DEVELOPMENT

The theme of sustainable development occurred frequently and is closely linked to the overall aims of this study and encompasses the areas

related to food security and cooperative food gardens. The data indicated that all the respondents were enthusiastic about being involved in food gardening with some reporting that they already grew foods in gardens of their own. This is an important factor to consider as it may have an impact on the level of community investment and commitment to a project of this nature.

However this could prove to be beneficial to the project in that members of the community will already possess a general knowledge and understanding about food gardens and the level of investment required to develop sustainable gardens. That is then able to provide enough food for consumption and commercial enterprise.

The willingness to become involved in a project related to community food garden will also help this community ensure that they have a regular supply of food which is easily accessible and cost effective. Many of the respondents reported that it was costly for them to take public transport into the bigger areas and towns to purchase food and that having access to food close by would be beneficial to them. This view is closely linked to the views of Milburn and Vail (2010), Leahy (2011) and Moller (2005) who point toward community food gardens as a means to ensure food security in local communities by harvesting of crops or by reducing the costs of purchasing fresh produce. This may lead to increased savings for other basic needs such as schooling for children or building a home.

Due to the high levels of unemployment and poverty, food security is an issue many households face. The responses suggest that the ability to provide food for one's family without concern for how it would be obtained remains a motivating factor for the majority of the women. The women all indicated that if they could provide food for their families it may improve their children's performance at school and also prevent issues related to theft. A few of them spoke about how access to a regular supply of food may also help the unemployed and orphaned youth in the community have access to food as well.

Many of the respondents also reported that they wanted to gain knowledge and skills about new ways to farm that would help them protect the environment by preventing soil erosion and saving water. This willingness to learn new skills could be attributed to the belief that the more skills and experience people gain the better their chances of becoming employable rather than to ensure sustainable development in Sefikile. Stocker and Barnett's (2007) also suggest that using permaculture techniques in communities could help them become hubs of science, technology and expertise whilst developing skills around safer agriculture practices and organic farming. The evidence further suggests that gardens become about food production in a sustainable manner were ecologically safer, energy efficient and utilised water conversation techniques (grey water from homes)

(Stocker and Barnett, 2007). This could prove to be lucrative in a community like Sefikile where access to safe drinking water is a challenge and by using grey water may provide them with an alternative to harvesting their crops.

A significant majority of the participants were interested in pig and/ or chicken farming after starting a vegetable garden. Many indicated that they would venture into pig/ chicken farming. This suggests that there is a need to explore further the possibility of a venture that would include livestock farming using sustainable methods for income generation and food production.

Leahy's (2011) study found that although the Kooringkoppies project failed due to the short foresight and vision in equipping the community with necessary skills to sustain and develop those opportunities into successful businesses. This could happen in Sefikile and it would be prudent to consider other options like pig and chicken farming if the community expresses a desire to pursue this option. Additionally, in the planning and development of this project it would be helpful to plan for such possibilities and develop avenues in the project that allow for entrepreneurial activities. This could be related to other types of farming or other services that could employ members of the community. This was also an objective of the study, to assess the willingness of the women in Sefikile and based on those responses it becomes evident that the study met one of its key objectives.

An unexpected but important finding related to the issue of supply, demand and access to water. All of the respondents reported their concerns related to the limited and unreliable supply of water in Sefikile especially during the winter months. Water recycling, collection and storage must be included in the planning and implementation phase and education and training should be done in this area.

However many have not thought in-depth about the repercussions and negative consequences related to projects of this nature, where often members of the community who were not involved claim stake to the project or power dynamics ensue between the members that can threaten the stability of the cooperative. These types of issues would have to be addressed in the planning stage.

5.3 ECONOMIC EMPOWERMENT

Money was mentioned most frequently by respondents because they viewed it as a tool to economic freedom, security and a better life for themselves and their families. This type of desire and drive could help to fuel the success and growth of the cooperative but could also lead to power struggles over resources if roles and responsibilities are not equally shared. Those who become involved in the cooperative must reap the benefits

according to their level of involvement in the project; this will help to determine those who are actively involved in the project and those who are not.

The Kenyan case, demonstrates that by engaging women in cooperative farming projects, they have demonstrated that they are able to transfer the knowledge and skills to others whilst providing for their families by ensuring food security for themselves and their families (Smith, 2012). Additionally women in such initiatives have also been known to share surplus crops with those who are at risk or unable to provide for themselves and their families, suggesting that buy in and investment by the local community could possibly have long term benefits- creating less dependence on an already overburdened state. The respondents all indicated that with a food garden they would be able to take of their families but also help those who need help in their community.

Many of the respondents believed that with a steady stream of income they would be able to save money, invest and even start their own businesses. These investments would help them to secure other business opportunities and also help their families and children access other opportunities they may not have had before. This desire and drive to start independent businesses (such as spaza shops, butchery, selling clothing etc.) out this community food garden further indicates that even though the women talk about cooperative gardens they may get side-tracked and lose focus on the gardens once they

begin earning a steady source of income and as a result the project maybe not succeed. Whilst these are good opportunities for these women to pursue and uplift themselves it would be imperative to ensure ongoing skills transfer by members of the cooperative, so that there is always some learning to fill another person's shoes.

Even with the challenges of starting business venture or other avenues for financial upliftment, it clear that given the remoteness of Sefikile, any business venture that is close by, cheaper and focussed on meeting the needs of the community will likely succeed. For the majority of these women a project of this nature helps to support the notion and premise of economic development even at a small scale.

5.4 EDUCATION, TRAINING AND SKILLS DEVELOPMENT

Education, training and skills were the third most frequently occurring theme to evolve from the data. This indicated that knowledge and skills were of high importance to the respondents as all of the respondents attached value and worth in obtaining a certain level of skills and training that would assist them in obtaining better employment opportunities and improving their overall quality of life. Whilst they indicated the desire to obtain an education they attached higher importance to ensuring that their children had access to quality basic education and further education and training opportunities. For many

their primary reasons for being willing to engage in a project of this nature was so that they could afford access to better opportunities which improve their chances for success.

This could also serve as point of excellence centre where other groups and organisations come to learn and understand the concepts and principles related to permaculture farming, where they gain practical experience, thus enabling this community to market itself. Ranasignhe (2003) validates this by demonstrating how women in rural areas in Sri Lanka and Vietnam used the opportunities to develop skills around crop management, post-harvest technology and landscaping, to access other opportunities beyond their rural settings.

By increasing the knowledge and expertise of this community there may arise other opportunities for related or similar projects to develop as off shoots from the original project. These could be related to pig and chicken farming, composting, growing mushrooms, and the selling of all the produce. The economic and skills development tied to the community gardens are evident (Leahy, 2011; Milburn &Vail, 2010) in the number of off shoot opportunities that arise from community garden projects, this is usually in the form of recycling and other sustainable development techniques where they learn skills related to those technologies.

The flipside of that would mean that as people develop skills they look for better opportunities and without a skills transfer plan in place the investment of the initial project may fall to the wayside. The ideal situation would be ongoing skills training in the community by community members to ensure the sustainability of the project. Learning sustainable and safe method of agriculture promotion often means that these people are recruited outside of their communities without enough time for skills transfer (Leahy, 2011; Milburn &Vail, 2010).

5.5 COMMUNITY EMPOWERMENT

The responses provided by the respondents from Sefikile it is evident that the overall improvement and upliftment of their quality of life is important. This is evidenced in the fact that all of the respondents were committed to improving the lives of members of the community. The majority of the respondents indicated that they would be willing to help orphaned and homeless youth in their communities by providing them with food and employing some to work in the gardens after school.

The respondents also indicated that if people in the community had a regular supply of food and access to employment opportunities they believed it would prevent crime in the community. Some respondents were of the opinion that crime, particularly theft was high due to people not having access to food and

that if they had a regular supply of food they would not need to resort to crime. The link between “social involvement, neighborhood aesthetics and community garden participation” show that members of the community share knowledge and food with others in the community they form close bonds with each other (Litt Et al, 2011: 1467). These closer ties to others in the community have a knock on effect where members take of each other and this has an impact on the reduction of crime.

Another discovery that demonstrates further the level of concern for the community by the respondents is related to access of perishable items in the community. Most felt that if members of the community could buy fresh, cheaper produce and meat locally they would save money that they could then spend on other essential household items.

The findings also suggest that some of the women already have some variety of food gardens in their homes and others reported that when they lived in the Eastern Cape they farmed as well. This could be beneficial to a project of this nature because the respondents understand the nature of commitment and effort involved in order to successfully grow food.

It could also provide a platform to educate the women on permaculture methods and practices to assess their willingness and commitment before implementation. The project could possibly start in their own gardens and

develop from there into bigger gardens once the individual garden begins to produce some revenue for the members. This could possibly avert resources being poured into something that might not work in the long-term and the participants may demonstrate more commitment and investment when run out of their homes. The Eastern Cape Province study illustrates further that rural communities had knowledge of community food garden projects, but their commitment was to their individual gardens (Moller, 2005). Reasons for this attitude was due to their perception that beginning a community food garden project was challenging to launch and to sustain, people don't have the same level of commitment and investment as they would if they did it for themselves

While all of the respondents spoke about uplifting the community and improving the overall community situation with a cooperative food garden project, there was one respondent who was not as convinced. This respondent was not willing to get involved in the project because she felt that only some people would work and others would not pull their weight but would want rewards. Whilst this was only the view of one respondent it is a distinct possibility and evidence suggests (Moller, 2005) that while communities may grow individual food gardens there is a level of resistance toward becoming involved in a larger scale community venture, the reasons given are justifiable.

Resistance to larger scale community food gardens could be due to the community not having sufficient resources invested toward social capital , as

most members of this community come from different areas, speak different languages and have differing cultural believes. Sustainable community development initiatives sometimes fail due to the assumption that social capital already exists in those communities, however without a focussed effort to harness that capital such initiatives may not succeed (Dale & Newman, 2010). Coleman (1988) also illustrates the point that social capital exists in communities where there are close to religious, cultural and social values where people of the community share common beliefs. However in a community of Sefikile the ties that bring people together do not exist at a natural level and purposeful attempts to foster social capital will have to be made if a cooperative is to succeed. Sometimes projects fail due to conflict, losing interest or not putting in their fair share of work but wanting to reap the rewards (Moller, 2005).

5.6 FEMALE HEADED HOUSEHOLDS

The majority of the respondents interviewed were the sole breadwinners and heads of their households; some were voluntarily single and others indicated that their partners had left. It was clear from the respondents that whilst it was difficult and challenging being the female head of a household as one respondents indicated *"I have no man I am suffering"*, the majority indicated that they preferred it because often their partners were threatened by them earning money Being single would allow them to freely engage in a

community food garden cooperative. This finding was unexpected and needs to be considered when developing a project of this nature. Posel and Rogan (2012) found that the gender trend of poverty in South Africa, male headed households reduced the burden of poverty between 1997 and 2006, however in stark contrast female headed household continue to subsist and their research had shown that the gaps have widened. This creates a power dynamic of the man being the breadwinner or head and creates additional strife and tension for female headed households. Smith (2012) also indicates that women were often seen as the drivers of economic change and familial upliftment and men would often impede the process.

All of the respondents spoke about their commitment and dedication toward their children and families, most believed that a project of this nature of would improve their life chances and afford them an opportunity to send their children to school and perhaps to go to university. Aside from the educational opportunities their children would be able to access many also spoke about how this type of project would help meet their basic needs such as being able to provide food, clothing, medical care and shelter for their families. This innate desire that these women demonstrate can be a good indicator of their level of dedication and commitment toward seeing a project like this succeed.

Bammeke's (2010) provides evidence to suggest that women in female headed households are often the drivers of education even though it may be

challenging and supports may be more constrained in term of resources they work tirelessly to ensure that their children receive an education.

Whilst this is a good goal for these women to have, the reality may prove more challenging. The belief that if they some money they can do amazing things for their families may not be realistic because even with that money it may not take them as far as they would hope for it to go. When this reality comes to fruition they may become disillusioned with the cooperative and lose interest and motivation. Furthermore the amount of work and effort required to make the cooperative succeed could be physically and mentally exhausting and some may decide that it is not worth the effort.

5.7 Improved Life Outcomes

The themes discussed above incorporate, to a great extent, the notion of improved life outcomes. If communities are empowered and are able to succeed then those communities become hubs of development and growth that then improve the lives of its members.

The very notion of sustainable development centres on the empowerment of people and communities with opportunities and skills that are transferrable and long lasting. This type of development ensures that communities are able to flourish and become less dependent on donor or government aid. When implemented on the basic principles this has the power to improve the life

outcomes of communities and helps to ensure food security, access to equitable health and education. These improve the life outcomes of communities, families and individuals. Community food gardens even with all the challenges they may face have benefits in the short and long-term that include stress reduction from gardening, creating and enhancing community wellbeing, and a reduction of crime rates in communities invested and involved in community food gardens (Okvat & Zautra, 2011).

5.8 SUMMARY OF FINDINGS

This chapter concludes with a summary of the key findings that came to the fore during this study. These will impact how the project is implemented and the considerations that need to be factored in during the planning phases. Respondents saw the benefits that could come from a project of this nature as a means to empowering the community and sharing and uplifting the resources of the community. Only one saw the long term economic benefits of a project like this helping to achieve long term goals for starting other business opportunities.

All of the respondents were willing to learn new skills that would improve their opportunities for future employment which they viewed as a means to improving their lives and those of their families. Even though all the

respondents were willing to learn new methods of farming, this would only be used as a vehicle to access other opportunities that were more lucrative.

Pig and chicken farming were of interest to the majority of the respondents and this should be studied further to assess for viability, costs and how it could link to a community garden project as an off shoot for other forms of sustainable farming.

The issues related to water access have to be addressed from the onset of the project and there is a need to collaborate with the relevant government departments with regards to accessing water, storage and collection tanks and possible windmills to pump water from the ground. Added to that the quality of the water will have to be assessed to ensure it is not contaminated by the mines' drainage systems. The most important issue is to ensure that the members of this community have access to cleaning and safe water in order to meet their basic needs.

There is a desire in the community to help and empower the youth, orphans and unemployed who have limited access to opportunities. This could help to get the buy-in and consensus from other community members.

The gender dynamics that exist in this community related to the role of women earning an income will arise as an issue and may result in unforeseen problems from the men in the community. This could possibly be avoided if

women become empowered with knowledge and skills thus becoming less dependent on men. It will also be addressed by engaging the men in the community in a similar project perhaps under the arm of the pig and chicken farming cooperative.

These themes provide good insight into the community of Sefikile particularly related to how the women feel about a community cooperative food garden. The feasibility study obtained valuable information that will be used to guide future planning of the project, whilst providing a road map of the issues and challenges that would have to be factored in and planned around.

Chapter 6: *RECOMMENDATIONS AND CONCLUSION*

This final chapter summarises the feasibility study conducted and provides recommendations based on the findings. The reasons for undertaking the study and the methodology utilised will be briefly reviewed. Thereafter a summary of the literature reviewed and the findings will be discussed. The report will conclude with recommendations based on the findings and data analysis.

This feasibility study began with the goal of assessing the willingness of the women of Sefikile to become involved in a food garden cooperative using permaculture methods for income production. The undertaking of this study was to assess whether the women of this community would be committed and invested in such a project prior to the planning and initiation of a project. The reason for choosing to assess this willingness was due to evidence that suggested most projects of a similar nature only last for approximately two years and then members lose interest, which is why many fail.

6.1 *BACKGROUND TO THE FEASIBILITY STUDY*

Women in Sefikile encounter significant challenges in securing employment due to lack of work opportunities and skills, which leads to food insecurity for themselves and their families. Due to the rural setting and limited

resources in Sefikile they are unable to access effective support that would provide opportunities for making more informed life choices.

There exists a knowledge gap around what would best fit a community such as Sefikile, because unlike like many other rural settings this community is unique because the inhabitants are Xhosa speaking people who migrated to this area many years ago. They receive limited support because they not seen as members of the larger community who are Tswana speaking. They require additional options so that they can make informed choices and ensure that basic necessities, such as food to feed their families, are obtained. Food garden cooperatives may provide the women of this community with an opportunity to ensure that the nutritional needs of their families are met and could also help generate income to further support themselves and their families.

This study was conducted to assess whether the women in Sefikile would be interested in a community food garden cooperative as an option for food security and alternative economic empowerment. It was also used to gauge the willingness of the women of Sefikile to learn new methods of agriculture using permaculture methods and practices thus ensuring sustainability. Lastly it assessed whether there are perceived risks or benefits for the women becoming involved in such a project.

The study sought to answer the following questions in order to determine if the women of this community would be invested in this project.

- Would women in Sefikile be enthusiastic to participate in a community food garden cooperative using permaculture methods to promote nutritional security for families and increase income to households?
- Is there investment and commitment from the women in Sefikile to be a part of a project that will equip them with skills in permaculture practices?
- What benefits or costs will the women of Sefikile experience from a cooperative food garden?
- What is the perceived impact of this type of project in this community regarding food security, economic and skills development?

This feasibility study was conducted using a qualitative approach which assisted in understanding and improving social circumstances that helped to provide answers in a real world setting. This method ensured an active learning process with interrelated purposes and processes (Rossman and Rallis, 2003) and allowed a degree of flexibility and the ability to connect with the respondents in a more personal way.

A non probability purposive sample was used to conduct the feasibility study because it is strategic and ensures that the researcher targets respondents relevant to the questions (Newman, 2011 and Bryman 2004). The sample included women in Sefikile between the ages of 31-52 years who were not

formally employed since the initial target of 18-35 years could not be accessed.

The literature for this study focussed on community food garden cooperatives to promote nutritional security for families and increase income to households. The review also looked at the willingness of the communities to invest in community food gardens, the perceptions and experiences related to food garden projects and the methods and technologies used in permaculture practice.

There were six key themes related to the topic that was the focus of the review. These were: *sustainable development; economic development; community empowerment; education; training and skills development; familial units and improved life outcomes*. The literature provided evidence into possible costs associated with projects of this nature as well as benefits. However the literature did not provide clear evidence regarding the willingness and commitment of the communities in the initial projects, and there was little evidence to suggest that engagement of communities was conducted. This could be a possible reason of why most projects only last for approximately two years (Leahy, 2011) and it is for this reason that this research was undertaken.

This feasibility study was undertaken to assess the willingness of the women to engage in a community food garden cooperative and the findings suggests that while all the women indicated a willingness to learn and become involved in such a project this was not their primary desire. Their desires were to become involved in other opportunities such as pig or chicken farming or starting small businesses in the community. The food gardens would be an avenue for them to begin those other ventures and this brings into question the sustainability of a cooperative. These findings were discussed in depth in chapter five and below are recommendations based on those findings.

6.2 RECOMMENDATIONS

- The first recommendation would be to conduct a wider study in Sefikile to assess more thoroughly whether the community would be open to a cooperative food garden. This is based on the possible gender dynamics and struggles that could arise if only the women were involved. By including the men of Sefikile they may be more invested and supportive of the project and could avert any negative outcomes for the women. Due to the different cultural backgrounds that exist in this community it will be imperative to involve members from all the different groups in this assessment to ensure full representation and engagement.
- The other recommendation would be to investigate the option of starting individual food gardens using permaculture practices that could form

smaller entities that contribute to the larger cooperative. That may help to ensure sustainability of the project, if people are invested in their own gardens it could help to create a sense of pride and ownership in the food garden.

- To look at the possibility of starting a pilot food garden project at the local school and enlist community members and students to be involved in all stages of the process. The crops from the garden could be used to create a feeding scheme at the school to help ensure children have at least one nutritious meal a day.
- Assess the possibility of starting pig and chicken farming cooperative in Sefikile as this comes through as one of the preferred activities for the women interviewed. This could be linked to the food gardens as an additional activity.
- Assist the community in accessing programmes from the department of agriculture that would provide training and learnership opportunities related to livestock farming. A project related to this type of farming could be an off shoot of a food garden cooperative.
- Link the community with the department of water and sanitation to address the issues related to water supply and the department of agriculture to assist with obtaining the piping and water tanks for the collection of rain water. This would help to address the issues related to

water shortage in the area and to ensure that the members of this community have access to clean and safe water in order to meet their basic needs.

- Identify opportunities to engage unemployed youth and vulnerable children in the community in the activities related to food gardening and farming.
- Assist the women of Sefikile to access economic empowerment opportunities so that they are able to sustain themselves and their families. This will also help to create less dependence on their partners and an overburdened system.
- The final recommendation would be to further study the reason why women between the ages of 18-35 years were not easily accessible during this study and if they were in the community why were they not willing to be interviewed.

6.3 CONCLUSION

In concluding this report it is clear that further study and assessment of the community is required to address some of the gaps that exist in the study and to fully assess how a food garden cooperative would impact this community. However it is clear that the women in this community are eager and willing to become involved in any activity that may provide an opportunity for income generation and food security. The concept of food garden

cooperatives using permaculture practices is not a reality for these women and currently has no value because it does not address their basic needs of food and shelter. So whilst food gardens may not be these women's ideal opportunity it is a means to an end and may assist them in accessing other opportunities.

REFERENCES

Agostino, A., & Lizarde, R. (2012). Gender and Climate Justice. Development, 55(1), 90-95

Babbie, E. (2010). The Practice of Social Research (12th ed.). California: Wadsworths Cengage Learning .

Babbie, E. & Mouton, J. (2001). The Practice of Social Research. Cape Town: Oxford University Press

Badenhorst, C. (2007). Research Writing: Breaking the Barriers. Pretoria: Van Schaik.

Bammeke, F.(2010). Gender, household headship and children's educational performance in Nigeria: debunking the myth of poor performance in female-headed households, African Population Studies, 24: 27-41

Biggam, J. (2011). Succeeding with your Master's Dissertation: A step-by-step handbook (2nd ed.). New York: McGraw-Hill Open University Press.

Bryman, A. (2004). Social Research Methods (2nd ed.). Oxford University Press: New York

Coleman, S.J. (1988). Social Capital in the Creation of Human Capital. American Journal of Sociology, 94 (Supplement), S95-S120

Cooper, D. R., & Schindler, P. S. (2011). Business Research Methods (11th ed.). Boston: McGraw-Hill.

Crush, J., & Frayne, B. (2011). Supermarket Expansion and the Informal Food Economy in Southern African Cities: Implications for Urban food Security. Journal of Southern African Studies, 37(4), 781-807

Dale, A., & Newman, L. (January, 2010). Social Capital: A Necessary and Sufficient Condition for Sustainable Community Development? Community Development Journal, 45(1), 5-21

Devlin, A.S. (2006). Research Methods: Planning, Conducting and Presenting Research. Thomas Wadsworth: California

Fortier, A. (2012). Super Vegetable Garden' Transforms Life of Mauritanian Refugees. Ecologist, 40(2), 15-17

The Free Dictionary. (2012). Cooperative, Retrieved: 10 August 2012 from (http://www.thefreedictionary.com/cooperative

Henning, E., van Rensburg, W., & Smit, B. (2009). Finding Your Way in Qualitative Research. Van Schaik Publishers: Pretoria

Howcroft, P. (Unknown Date). South African History Online. Retrieved: 28 June2012 from http://www.sahistory.org.za/special-features/homelands

Kagan, S. & Lippmann, S. (June 2012). Situational Analysis: Report for Moses Kotane Sub-district (unpublished), University of California San Francisco and the University of Washington International Training and Education Center for Health (I-TECH)

Leahy, T. (2011). Teaching Them to Fish: Entrepreneurial Ideology and Rural Projects in South Africa, South African Review of Sociology, 42(1), 37-57

Litt, J.S, Soobader, M.J., Turbin, M.S., Hale, J.W., Buchenau, M., & Marshall, J.A. (2011). The Influence of Social Involvement, Neighbourhood Aesthetics and Community Garden Participation of Fruit and Vegetable Consumption, American Journal of Public Health, 101(8), 1466-147

Majee, W. & Hoyt, A. (2010). Are worker-owned cooperatives the brewing pots for social capital?, Community Development, 41(4), 417–430

Milbourne, P. (November, 2011). Everyday (In)Justices and Ordinary Environmentalisms: Community Gardening in Disadvantaged Urban Neighbourhoods. Local Environment: The International Journal of Justice and Sustainability, DOI:10.1.1080/13549839.2011.607158.

Moller, V. (2005). Attitudes Toward Food Gardening From a Generational Perspective. Journal of Intergenerational Relationships, 3(2), 63-80

Milburn, L.S., & Vail, B. (2010). Sowing the Seeds of Success. Landscape Journal, 29(1), 71-89

National Heritage Council of South Africa. (2013). Map of Bojanala Basic Infrastructure, Retrieved: 28 February 2013 from http://nwhist.co.za/maps/Bojanala_Basic_Infrastructure.jpg

Neuman, W. L. (2011). Social Research Methods: Qualitative and Quantitative Approaches (7th ed.). Boston: Pearson

Ohmer, M.L, Meadowcroft, P., Freed, K., Lewis, E. (2009). Community Gardening and Community Development: Indivudal, Social and Commuity Helath for Community Conservation, Journal of Community Practice, 17, 377-399

Permaculture. (2012). Permaculture, Retrieved: 10 August 2012 from http://www.permaculture.net/about/definitions.html)

Posel, D. & Rogan, P. (2012). Gendered trends in poverty in the post apartheid period, 1997–2006, Development Southern Africa 29(1)

Ranasignhe, T.T. (2003). A Novel of Living Agricultural Concept in Urban Communities: Family Business Garden, International Journal of Sustainable Development and World Ecology, 10(3), 239-245, 97-110

Rossman, G.B. & Rallis, S.F. (2003). Learning in the Field: Introduction to Qualitative Research (2nd ed.). Sage Publications: Thousand Oaks

Smith, K., (2012). Gender and Food Security in a Fair, Green Economy? Development, 55(1), 81-89

Sseguya, H., Mazur, R.E. & Masinde, D. (2009). Harnessing Community Capitals for Livelihood Enhancement: Experiences from a Livelihood Program in Rural Uganda: Community Development, 40: 123–138

Stocker, L., & Barnett, K. (1998). The Significance of Praxis of Community-based Sustainability Projects: Community Gardens in Western Australia, The International Journal of Justice and Sustainability, 3(2), 179-189

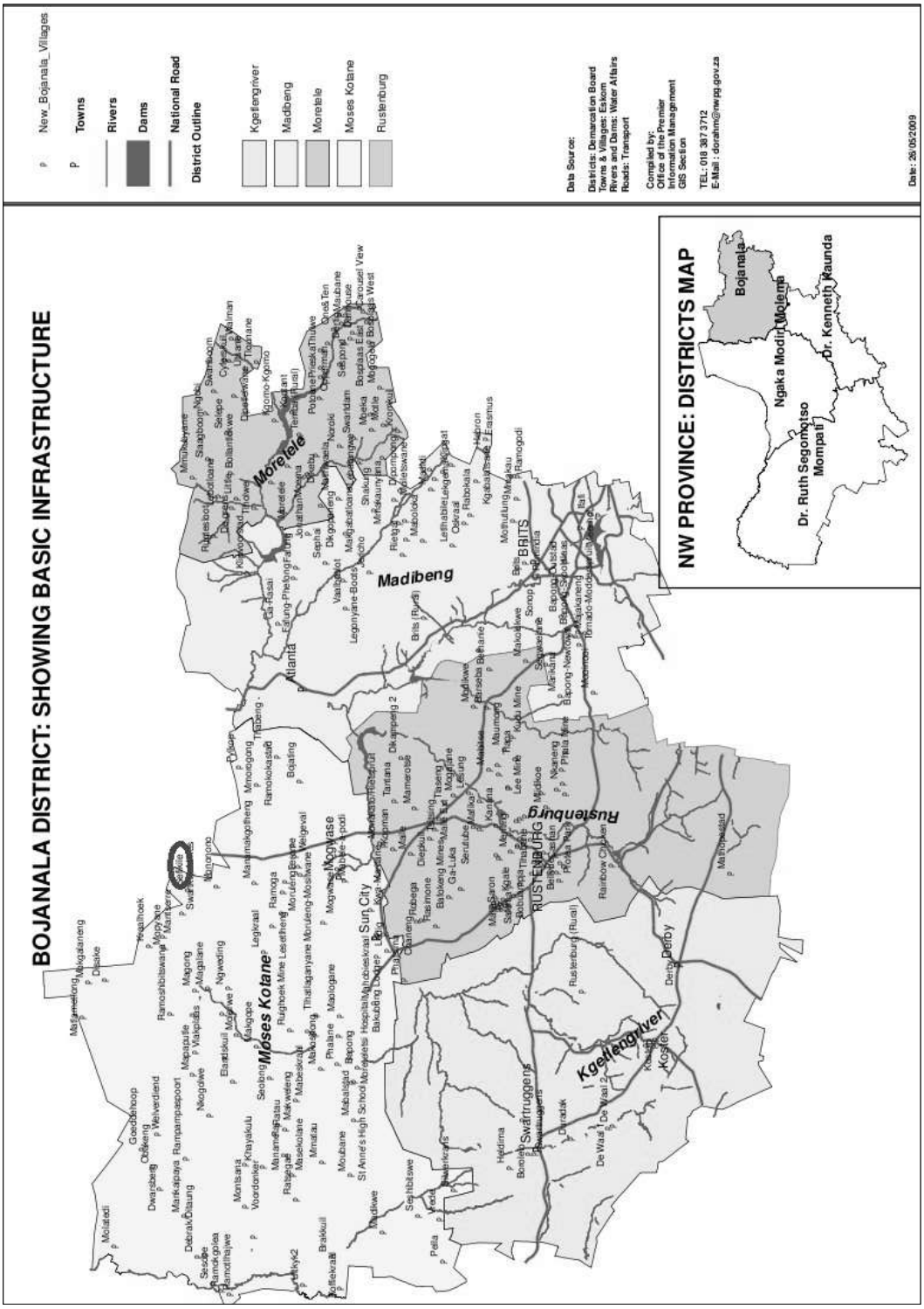
Thornton, A. (2009). Pastures of Plenty?: Land rights and community based agriculture in Peddie, A former homeland town in South Africa, Applied Geography,29 (2009),12-20

US Central Intelligence Agency. (2010). The World Factbook, Retrieved: 10 August 2012 from http://led.co.za/municipality/moses-kotane-local-municipality

Wills, J., Chinemana, F., Rudolph, M. (2009). Growing or Connecting? An Urban Food Garden In Johannesburg, Health Promotion International, 25 (1), 33-41

World Health Organisation. (2012). Food Security, Retrieved: 10 August 2012 from (http://www.who.int/trade/glossary/story028/en/)

APPENDIX A: MAP OF BOJANALA PLATINUM DISTRICT



National Heritage Council of South Africa, 2013

APPENDIX B: CONSENT FORM

UID:

Hello, I am Erushka Pillay a final year Masters Student at the University of the Witwatersrand and as part of my requirements for completing my degree I must undertake a small research study.

What we are doing?

I am conducting a short feasibility study to determine these women's willingness to participate in entrepreneurial activities such as developing a cooperative food garden utilising permaculture methods to increase nutritional security and potentially economic development.

Your participation

We are asking you whether you will allow me to conduct an interview with you regarding cooperative food gardens and your willingness to participate in activities relating to developing a cooperative food garden using permaculture methods (safe, sustainable gardening practices). If you agree, I will ask you to participate in an interview which is 30-60 minutes.

Please understand that **your participation is voluntary** and you are not being forced to take part in this survey. The choice of whether to participate or not, is yours alone. If you agree to participate, you may stop participating in the survey at any time; just tell me that you don't want to continue. If you do this, there will be no penalty to you. Also, the interviewer may stop you from taking part in this study at any time if he or she believes it is in your best interest.

Confidentiality

I will not be recording your name anywhere on the questionnaire and no one will be able to link you to the answers you give. Only I and my professor will have access to the unlinked information (age and date of birth). The information will remain confidential and there will be no "come-backs" from the answers you give. All identifying information will be kept in a locked file cabinet or in a password protected electronic system. Your answers will be stored electronically in a secure environment and used for research or academic purposes now or at a later date in ways that will not reveal who you are.

Risks/discomforts

At the present time, we do not see any risk of harm from your participation. The risks associated with participation in this part of the study are no greater than those encountered during a session with a counsellor. With this in mind, please do not disclose sensitive personal information.

Benefits

The immediate benefit to you from participating in this feasibility study interview will help me to determine how best to develop a programme for your community.

Who to contact if you have been harmed or have any concerns

This study has been approved by the University of the Witwatersrand. If you have any complaints about ethical aspects of the study or feel that you have been harmed in any way by participating in this study, please call my research Supervisor Mr Ivor Sarakinsky at 011-717-3562.

CONSENT

I hereby agree to participate in the interview, in Sefikile in the North West Province I understand that I am participating freely and without being forced in any way to do so. I also understand that I can stop participating at any point should I not want to continue and that this decision will not in any way affect me negatively. I understand that this interview will collect information that will help to plan a programme that will try to help develop the women in Sefikile. I understand that my participation will remain confidential.

Please sign below if you agree to consent:

…….. ……..
Signature of participant **Date**:

All the information that you provide me with today will be kept confidential and I will only share it with the study team.

……. ……..
Signature of Interviewer **Date**

……. ……..
Signature of Translator (when used) **Date**

APPENDIX C: INTERVIEW QUESTIONNAIRE

Date: _____ Unique Identifying No: 12/12/00_____

Age: _____ Consent Forms Signed: Yes / No

Introduction:

Hello, my name is Erushka Pillay, I am a final year student at the University on the Witwatersrand and as part of my degree, and I have to complete a research study. For my research study I have selected you community and I would like to take about an hour of you time to ask you some questions about a project for you community. The project we are talking about would be about teaching the Women in Sefikile how to farm their own vegetables using methods that are environmentally friendly to grow crops, that can be sold so that unemployed women can earn can some money and learn some skills. I want to know if the women would be interested in this type of project.

Everything that we talk about today will be confidential and I will write some notes as we talk and will help me get all the information you gave me and will be very useful. Do you have any questions before we begin?

Questionnaire:

Main Question:

Would women in Sefikile be enthusiastic to participate in a community food garden cooperative using permaculture methods to promote nutritional security for families and increase income to households?

Sub Questions:

1. Is there investment and commitment from the women in Sefikile to be a part of a project that will equip them with skills in permaculture practices?

1.1 Do you think that women in Sefikile would be willing to get involved in a project that teaches them skills of farming?

1.2 Why do you think they would be interested in a project related to farming?

1.3 Will they be interested in learning new ways to farm without harming the environment?

2. What benefits or costs will the women of Sefikile experiences from a cooperative food garden?

2.1 What do you think you and the women of Sefikile could gain from being involved in such a project?

2.2 How do you think your family will benefit from a food garden project?

2.3 What other benefits do you think you can get from a project like this?

2.4 What are some risks that could happen to you if you become involved in a project like this?

2.5 What are some other things that could go wrong in a project like this?

3 What impact will this type of project have in this community regarding food security, economic development and skills development?

3.1 What will a regular supply of food do for you and your family?

3.2 How will the possibility of earning some money help you and your family?

3.3 What skills do you think you will learn from this project that will help you at a later time?

3.4 What will you do after you have learnt these skills?

Thank you