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## **ABSTRACT**

This study is aimed at exploring and analysing the role of women in vegetable production value chain, related constraints encountered and exploring possible solutions thereof. The influence of gender in the value chain is explored given the known production role women play in subsistence and smallholder agriculture in order to understand the role of gender in production and marketing activities in the two chosen study areas: Swayimane and Sweetwaters. The study adopted both qualitative and quantitative methods to data collection. Survey questionnaires and focus group discussions were used for collecting data on the role played by women in subsistence and smallholder vegetable farming, the value chain, the nature and type of constraints faced and applicable solutions.

Results from the survey questionnaire and focus group discussions indicated that women in both study areas play an important role in providing food for their families compared to their male counterparts but are faced with various gender based constraints such as access to assets crucial for production. They lack access to land, water, credit, infrastructure, strong extension service and other institutional support. Access to and provision of seeds, fertilizer and irrigation systems for increased production was another area identified as a constraint. However, in Swayimane, an indication on the involvement of both men and women was evident from the focus group discussion results.

As indicated in the survey questionnaire results, various laws, both common and customary laws shaped the gendered differences associated with men's and women's roles in food production and access to assets, however, customary laws and practices were predominant in both the study areas. From both Swayimane and Sweetwaters, customary laws also influenced access to and 'ownership' of land. Land was either 'owned' and accessed more by men whilst women had access to or 'ownership' following certain parameters.

Evident from focus group discussions and survey questionnaire results, participation in the market was gender driven. In Swayimane, more men participated in the market compared to women. However, in Sweetwaters participation from both parties was reported. With women found in the market, their role was to observe or sell and hand the money over to their husbands. Furthermore, with more men participating in marketing, results from the survey questionnaire indicated that ensuring household food security was difficult considering that men would use most of the money for their personal needs.

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In an attempt to address the constraints faced by women in subsistence and smallholder farming and thus improved access to markets, it is crucial that policy initiatives take into account gender inequality, its influence and the basis of these thereof. This implies that policy measures be directed at ensuring that men and women have equal access to production assets, more particularly land. However, achieving such, further requires scrutiny of the statutory and customary laws influencing gendered access to these assets and thus ensuring that these laws are gender sensitive. Furthermore, improving equal access to and participation in markets by both men and women implies that policy and programme planning focus on eliminating gender inequality and markets based constraints including high transaction costs, unequal access to proper infrastructure and transportation affecting women in particular. Policy initiatives should however be directed at ensuring that women have access to reduced transaction costs, proper infrastructure and transportation systems.

## DECLARATION

I, Sinegugu Khumalo declare that:

1. The research reported in this thesis, except where otherwise indicated, is my original research.
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As Research Supervisor, I agree to submission of this thesis for examination

Signed:.....Date.....

Dr JM Chitja

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## **LIST OF ACRONYMS**

ACAT: Alberta Council on Admission and Transfers

CBOs: Community Based Organizations.

FAO: Food and Agriculture Organization of the United Nations

FGD: Focus Group Discussions

IFAD: International Fund for Agricultural Development

IIRR: International Institute of Rural Reconstruction

KIT: Royal Tropical Institute

NGOs: Non-Governmental Organizations

PWAL: Promoting Women's Access to Land

SLA: Sustainable Livelihood Approach

SPSS: Statistical Package for Social Sciences

UNECA: United Nations Economic Commission for Africa

USAID: United States Agency for International Development

## 1. INTRODUCTION AND RESEARCH PROBLEM

### 1.1. Background of the study

The majority of the world's population is poor especially those living under chronic poverty who make most of their living from agriculture (Prowse & Chimhow, 2007). Working as trade labourers, traders or subsistence and smallholder farmers is their primary livelihood strategy (Cordaid, 2012). In the process, challenges are often encountered including distance to markets, access to inputs, proper infrastructure, market information, institutional support, extension services and other forms of service delivery (Cordaid, 2012). For women, the situation is often worse since women experience structural, socio-cultural, institutional and economic challenges differently from men (Friedrich Ebert Stiftung Conference Summary Report Friedrich Ebert Stiftung Conference Summary Report, 2012).

In spite of their major contribution in agricultural production, women's major role in ensuring household food security and the work they do is undervalued, and they remain in poverty compared to men (Thamaga-Chitja, 2012). Key policies related to access of land have been shown wanting and somewhat gender insensitive (Thamaga-Chitja *et al*, 2012). The communal land rights and access practices render women as secondary recipients of these user rights. Access to profitable economic resources is a challenge for most women. These include land or land rights are either owned or rested by their spouse, father or a male family relative. Furthermore, in some instances widowed women lose land unless if they have male children. They lack access to education and technical training and power for decision-making (IFAD, 2008).

Participating at all levels of the value chain is a major constraint for women. They are found at the lowest levels of the value chain: production and value adding, and are absent in the marketing stage and yet they are burdened with providing food for the family. Bhattarai & Leduc (2009) states that they have less access to market information, capital, power to negotiate and other relevant services. It is the social obstruction from a cultural context that place women in subordinate positions in societies thus prohibiting them from accessing the necessary services (Bhattarai & Leduc, 2009). In a quest to understand the challenges rural farming women face in improving livelihoods, it is crucial to apply a gender lens at all levels of the value chain. Such an understanding may reveal the role of men and women in the

value chain and constraints that impede men and women to have equal share of benefits in order to empower women's impact on the local rural economy.

## **1.2.Importance of the study**

As women are faced with gender-based challenges in the agricultural sector, applying a gender lens in the horticultural value chains can be of great importance to gain insight into constraints and opportunities for improvement. Although many may argue that women are often found in the subsistence level of production, it is critical to engage with such women in order to gain understanding of their current challenges and thus influence policy interventions targeted at women's production and improving their participation in marketing. Women play a major role in the production phase but participate less in the value chain and marketing processes and if included, they occupy the lowest positions and do not benefit from the products marketed (Lavern & Verhart, 2011). Hence, understanding and incorporating gender in the value chains and marketing may improve the status of women in these sectors. This can also promote equal decision making whether agricultural or domestic and thus improve household food security and equal management of household income.

Many studies have shown that when women are involved in and have control over income, the household benefits most (Mutopo, 2012). The analysis of the vegetable value chain in this study area is anticipated to reveal the constraints or blockages of a gender nature. Therefore, addressing the identified blockages is crucial for improved food security and income generation and for informing extension and other support and programmes in smallholder agriculture.

## **1.3.Research problem**

Exploring the role of gender in subsistence and smallholder horticultural value chains of rural farming communities in rural KwaZulu-Natal;

## **1.4. Research questions**

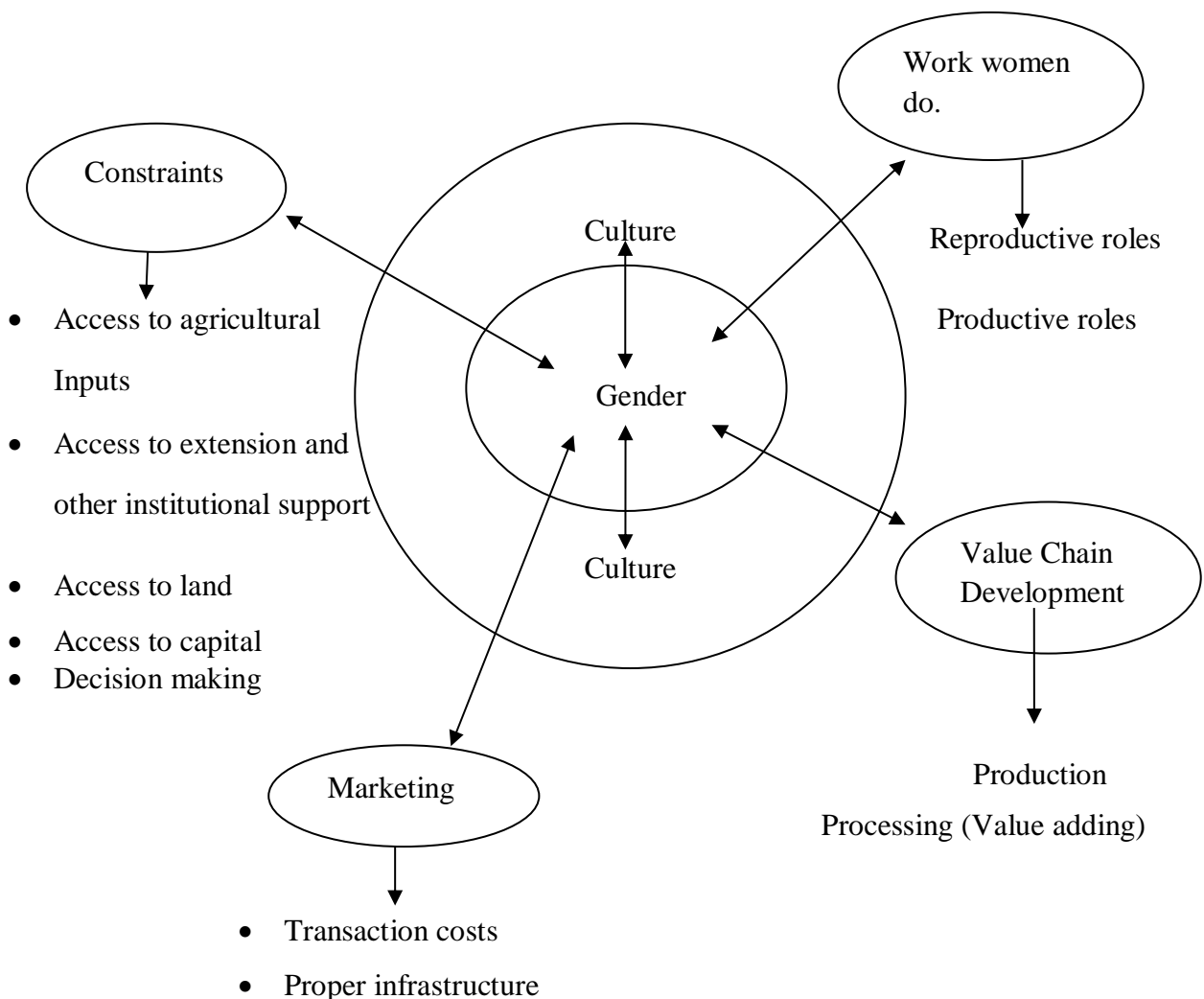
- 1.4.1.** What role do women play in rural horticultural crop production value chains in the study areas of Swayimane and Sweetwaters in KwaZulu-Natal smallholder farming?
- 1.4.2.** How does gender influence marketing and value chain development in the study areas?

**1.4.3.** What policy and programme implications are there to engender agricultural value chain development for improved food security and income generation?

**1.5. Study limits**

The study only covers a certain proportion of the farming population in the study area, only focuses on sampled participants in two cases of Swayimane and Sweetwaters rural areas and therefore, findings of the two cases cannot be generalised.

**1.6. Conceptual framework**



**Figure 1.1.** Women in agriculture and implications of gender on value chain development

The study adopted the Sustainable Livelihood Approach (SLA) as defined by Chambers & Conway (1992:7). In Morse *et al* (2009), “A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living; a livelihood is sustainable when it copes with and recovers from stress and shocks, maintains or enhances its capabilities and assets, and provide sustainable livelihood opportunities for the next generation. This contributes net benefits to other livelihoods at the local and global levels, and in the short and long-term.” The framework concentrates on rural poor people including women farmers and takes into account the resources and livelihood assets (technology, skills, access to education, health, access to credit and networks of social and institutional support) they use to achieve and maintain their living standards and sustain agricultural crop production (IFAD, 2013).

The study explores the role played by women in agriculture and the constraints they encounter including access to assets and other resources important for crop production thus achieving livelihood and the factors contributing to such constraints, the gender differences existing in the value chain and the possible policy and programme planning towards engendering value chain development. The Sustainable Livelihood Approach relates to the study as it takes into account that access to resources and assets may be a constraint and also that such access is governed by various factors (social, cultural, economic, institutional and political) influencing livelihood outcome of the women farmers. In this study, access to land as the primary asset for production is a central issue.

### **1.7. Women farmers and sustainable livelihoods**

From across the world, especially the developing countries including South Africa are characterised by poverty and high levels of unemployment and agriculture is the main survival strategy for ensuring food security. As illustrated in figure 1.1, the largest proportion of the population involved in agriculture especially production and value adding is women. Approximately 80% of women who work in the agricultural sector are responsible for the production of all staple foods and ensuring food security (Schmitz *et al*, 2010). Their involvement in agricultural production merely lies on their attempt to improve household livelihoods through provision of sufficient food supply and household income (Nadasen, 2012). Despite their contribution in the lives of many poor people, their role and work remain undervalued and they face constraints that limit their level of production and productivity (Thamaga-Chitja, 2012).



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Women's constraints include access to assets, land, transaction costs, technology, education and training, credit, institutional and social support influenced by the gender differences that exist. Women also have less bargaining and decision making power at a household level and in the community at large (Quisumbing, 2003). Such gender differences are shaped by the cultural perspectives existing within societies thus dictating men's and women's authority over resources (USAID, 2010). Furthermore, the gender differences also have implications on the varying roles that men and women play in the stages (production, processing and marketing) of the value chain development. In this regard, women are found at the lowest levels of the value chain whilst men are found at the economic level (Coles & Mitchell, 2011).

## 2. LITERATURE REVIEW

### 2.1. Introduction

As the concern for food security from across the world rises, the role played by women in addressing the food crisis cannot be taken for granted (Kisamba-Mugerwa, 2001). Subsistence agriculture continues to dominate the lives of a large number of women. Despite the major role they play in agriculture and in the rural society, women encounter gender based constraints in accessing productive resources, institutional support and extension service essential for agricultural production (FAO, 2011).

They are most likely to be found at the lowest level of the value chain and encounter constraints with access to the market (Pionetti *et al*, 2010). Women do not equally participate in value chains compared to their male counterparts, thus value chain approaches can assist in addressing food security and livelihoods of women in their households and communities. Value chain approaches can also assist in linking women with the market, function to promote the moving of information, knowledge and resources along the value chain and allow equal access to information to help promote production of high value crops, therefore allowing for increased income and improved household food security (Humphrey & Navas-Aleman, 2010).

This chapter provides literature on various literature on the role of women in subsistence and smallholder horticultural production, the gender differences that exist, the factors contributing to the gender disparities between men and women. It further discusses how gender influences the participation of women in the value chain development and in marketing, the situation in the South African context and the status of women after the Millennium Development Goals (MDG's). Lastly, a criticism on the responsiveness of the policies developed in South Africa to address gender inequality in subsistence and smallholder horticultural production, in the households and in the communities to promote equal participation of both men and women in and out of the field, is presented.

## **2.2. Women and food production**

### **2.2.1. The role and status of women in agriculture**

Agriculture is the core survival strategy in areas that are far from acquiring city traits, and the majority of the population is involved in subsistence farming (Yemisi & Aisha, 2009). Overall, household food security and nutrition is highly dependent on the production of food and thus the alleviation of poverty (Yemisi & Aisha, 2009). As the household structures are undergoing rapid alterations, the gender responsibilities are also undergoing change with rural women becoming more responsible for the children's well-being and overall household food security (Yemisi & Aisha, 2009). There is thus growing awareness that gender disparities and blindness significantly contribute to food insecurity given the important role played by women in agricultural production (Majake, 2001). In addition, Majake (2001) states that substantiations that reduce gender differences in agriculture can help enhance agricultural growth, increased income for women and improve food and nutrition for all.

Rural women farmers extensively contribute to agriculture and to the rural economy from across the globe and more particularly in the developing world (SOFA Team & Doss 2011). They are important agents of food security and of poverty eradication and hunger (Fabiya *et al*, 2007) but are excessively affected by poverty despite the contributions they make (Mehra & Rojas, 2008). Women are responsible for half of the food produced worldwide (Schmitz *et al*, 2010). Approximately 70% of women work in the agricultural sector (Fabiya *et al*, 2007). In sub-Saharan Africa and across the world, women produce about 80% of all the staple foods (Schmitz *et al*, 2010).

Not only do women constitute a large number in the agricultural labour force but they work longer hours and are responsible for more tasks compared to their male counterparts (Satyavathi *et al*, 2010). Accordingly, women significantly contribute to household and national food security. Nonetheless, Satyavathi *et al* (2010) thus suggests that for a sustainable economical and sustainable agriculture, the integration of women in modern farming practices is crucial. Furthermore, for sustainable production, the effective integration of technological enhancement and resources is also essential (Satyavathi *et al*, 2010).

According to Majake (2001), various factors have contributed to the increasing role and responsibility for women to provide for their families. Family labour at farm level has decreased as men move to urban areas hence creating shortages of labour especially during

peak agricultural seasons. In this instance, women are gradually taking responsibility of the work previously done by men.

In some African countries, they work in the agricultural sector as farmers in their own farms and that of their families and in selling their agricultural labour in other farms whilst in others they do not have access to markets (FAO, 2011). However, with such a significant contribution, their work is not acknowledged and recognized and this can be linked with subordinate positions allocated to them by societies (Thamaga-Chitja, 2012).

### **2.2.2. Rural female farmers and access to agriculturally based services.**

As key players in the production of food, women encounter constraints more particularly gender based and constraints associated with access to agricultural assets such as land, credit, access to water and proper irrigation systems, access to extension services, formal education and other institutional support, access to advanced agricultural technology and other forms of service delivery essential for enhancing productivity and allowing for continuous supply of food at a household and national level (Weisfeld-Adams, 2008). They face difficulties with access to the market for increased income generation and thus poverty and hunger reduction (FAO, 2012). Gender determines social relations and rights in rural households and communities. Similar to class, ethnicity, caste, gender determines one's opportunities, aspirations, access to resources and status in the community (The World Bank *et al*, 2009). In most developing countries and according to societal customs and traditions, women are often viewed as "legal" and "social" minors and when accessing resources whether for agricultural purposes or otherwise, are tied by marital and natal conditions (Thamaga-Chitja *et al*, 2010).

### **2.2.3. 'Ownership' of and access to land**

Amongst others, one of the major challenges impacting the increase and improvement in agricultural productivity and production is women's lack of access to land and credit. The penalties linked to such are food insecurity and less poverty reduction initiatives (United Nations Economic Commission for Africa, 2007). Women have least access to and 'ownership' of land with the customary laws governing rural communities, favouring males over females. Furthermore, the challenge associated with women's lack of land rights results in their inability to use land as collateral for accessing credit.

In most African countries including amongst others, South Africa, the role played by customary and property laws cannot be put aside. It is evident that these countries are mostly patriarchal thus hindering women from accessing land and other resources essential for agricultural purposes, mostly with crop production. In this sense, women are deprived the right to own or even have complete access to land. Such limitations result from various factors amongst which are social, cultural and religious customs which determine men's and women's positions in societies, thus gender differences (Hilhorst & Wennink, 2010). However, regardless of the positive formulation of good policies, the common community environment of most countries does not allow for women's land rights as a result of the discriminatory customary practices (United Nations Economic Commission for Africa, 2007).

Furthermore, The World Bank *et al* (2009:125) asserts that "Land rights—whether customary or formal—act as a form of economic access to key markets, as well as a form of social access to nonmarket institutions, such as the household relations and community-level governance structures". Since these customary laws are more powerful in some parts of Africa, policies to secure and improve women's access to and rights to land are formulated such that there is conflict caused. In addition and as a result of the customary laws governing women's land rights, in some cases women are only able to access or own land through inheritance including death of a spouse or male family member. Thamaga-Chitja (2012) states that evident in South Africa, marriage has implications on women's security to land rights, therefore resulting in single women having to rely on their biological families to access land for production both in agricultural and household activities.

#### **2.2.4. Access to credit**

In South Africa, agricultural credit is governed by the Agricultural Credit Amendment Act of 1995 which stipulates the provision of agricultural credit to all individuals involved in agriculture. In contrast however, women still lack access to credit due to clear 'ownership' and access rights to land and also as a result of cases where banks require content of a male counterpart particularly where a woman is married (Cotula, 2006).

The United Nations Economic Commission for Africa (2007:16) states that "women's access to credit associates with their feeling of security and the long-term investments on their land. If women are constrained into buying technology to improve their level of production and

productivity, the returns on their land remain poor”. It is therefore essential that subsistence and smallholder women farmers have access to credit as well as financial support to access improved technology with which they can enhance their socio-economic situation and thus the food security of their families (Majake, 2001).

#### **2.2.5. Access to extension service and other institutional services**

Extension service is crucial and allows farmers to make innovations, improve their level of production and practice environmental sustainability. According to FAO (2011), extension service allows for agricultural knowledge building and improvement, adoption and productivity and is a cost effective measure for allowing farmers to improve their economic gains. According to FAO (2011), women comprise of 50% compared to men in Sub-Saharan Africa in the agricultural sector but receive less extension service and other institutional support. Recent findings continue to reveal a significant difference in access to extension service between men and women with remarkably low levels of access to women. Agricultural initiatives have promoted the production of cash crops by offering men training, inputs, information and access to various services. Such biasness can be witnessed in the farmer training centres especially made to provide information and training on technical subjects (Jiggins *et al*, 2000).

Research has discovered that in South Africa, not only does extension service lack the number of extension officers who will offer support to farmers especially female farmers but they also lack the necessary skills for educating farmers. Furthermore, Hart and Aliber (2012:6) state that “following the impact of poor support services are the facts that researchers and extensionists who are the backbone of agricultural development lack sufficient communication, gender awareness and people-oriented skills”. Therefore, training and education on these skills is required to enable them to understand the various complexities and dynamics existing at household and farm levels as well as formulation of effective initiatives for addressing such (Hart & Aliber, 2012).

In this sense, reducing or eliminating gender inequalities in access to resources and services can help increase the yields on women’s farms which could help agricultural output in the developing countries (Manfre *et al*, 2013). In contrast, various initiatives to address the gender issue have been implemented but many challenges that impede women’s ability to access extension service still remain overlooked. However, realising these challenges requires

policy and programme decision makers to take into account other issues involved in addition to gender, such as age, marital status, level of education and other social factors such as tradition and formal laws (Manfre *et al*, 2013).

#### **2.2.6. Access to advanced technology and agricultural inputs**

Women lack adequate information on new and improved agricultural technologies and have limited access to information and development related to agriculture (Saito & Surling, 1993). In Fabiyi *et al*, 2007) they employ low quality yielding and planting materials, backward farming strategies which have a major impact in the development of agricultural production (Fabiyi *et al*, 2007). United Nations Economic Commission for Africa (2007) states that because of lack of access to important agricultural inputs such as sufficient chemical fertilizer, seeds, ploughs and manure, women are less likely to produce high quality crops and improve their level of productivity and are often side-lined in development planning.

In many parts of the developing countries, women still make use of traditional and undeveloped tools such as a hand hoe and a mortar and pestle when processing the crops while the newly developed and advanced technologies continue to benefit men. Women's lack of access to information about the available technologies and lack of education on the use of these technologies can be regarded as one of the factors leading to gender differences in technological adoption (Fabiyi *et al*, 2007). This points out to the weaknesses of extension service and other support structures in providing education, training, skills development and knowledge to farmers and more particularly female farmers.

Women's lack of access to technology can also be characterised by affordability coupled with less income and access to credit as compared to men. In this instance, ensuring access to education, financial support and information and the introduction of modern and advanced technology is essential for improving women's level of production as well as productivity and to release them from extreme hard drudgery.

#### **2.2.7. Participation in markets and value chains**

Poor rural women are often found in the subsistence level of production but absent in marketing as a result of various contributing factors. Access to the market is very important for agricultural development and income generation. However, in order for farmers to participate in the market, they have to meet certain standards. Farmers need to produce

marketable surplus which requires access to improved and well performing technologies, access to productive resources such as adequate land and other agricultural resources, financing and infrastructure including transportation available for transporting produce to the market and for assisting during production phase (Hilhorst & Wennink, 2010).

According to (United Nations Economic Commission for Africa, 2007), women's economic activities are highly informal following their ability to produce for household consumption and income generation for the well-being of the household. In addition, from a business perspective, women are found in peripheral positions, engaged in informal farming with limited resources and less decision making thus attracting less of investors as they are faced with a variety of risk factors (Quisumbing & Pandolfelli 2010a In Hilhorst & Wennink, 2012).

Women lack access to market information including prices, competitors and preferences of the customers, therefore posing a challenge in maintaining and accessing more profitable market niches and generating sufficient income (Rota & Sperandini, 2010).

Research conducted on “intra-household” interactions in Africa reported that the gender dynamics in households and within societies influencing the differing and unequal roles in various stages in the agricultural sector including value chain development pose a major challenge for women especially in marketing. This is because when the product enters the market, men are most likely to take over thus enjoying the benefits leaving women with no financial benefits (Mutopo, 2010). This has a negative impact on household food security because men spend more of the income on their own personal needs and less on the needs of their entire household. For that reason, including women in marketing is crucial because when it is the woman who handles income, the household's needs and food security is sufficiently met (Thamaga-Chitja, 2012).

In a study conducted by Mutopo (2010), in Zimbabwe, women were involved in “cross border” trading with the aim of searching and finding markets for selling their produce and generating income to meet household needs and achieve sustainable livelihoods and food secure households. This helped break the gender based constraints locating women in production and preventing them from financially and profitably benefiting from the produce. Recommendations made by Mutopo (2010) were based on the need for policy and programme attention for addressing the constraints faced by women while crossing the border



and also taking into cognisance the gender dynamics existing within households and in societies in general.

Overall, taking into account women's role in agriculture and promoting access to extension, capital, land ownership rights and access to markets still needs a major organizational shift in the various agricultural services. Failure to achieve this will result in the challenge to broaden the base of women farmers who can have the capacity to adopt technologies and thus will make it impossible for agriculture to contribute to poverty reduction, rural economic growth and environmental sustainability.

### **2.2.8. Access to clean and sufficient water for irrigation**

The majority of the poor, amongst which a larger proportion is women, live in countries with scarce water and do not have access to safe and reliable water supply for performing daily activities and more especially agricultural production (Wahaj *et al*, 2012). Wahaj *et al* (2012) states that increased access to and the availability of water for both productive and household use is important for achieving rural livelihood. Nonetheless, regardless of the role played by women in the reduction of food insecurity through their involvement in the production of food, household well-being and other forms of rural economic development, they are usually excluded from participating in new agricultural water management approaches.

In many countries, water rights are directly linked to land rights. Because women faced various constraints with access to and ownership to land, access to water as well as participating and representation in water programmes is very low and thus having negative implications on their level of productivity, production and income generation (Wahaj *et al*, 2012). It is therefore very crucial that women enjoy access to land and other agriculturally related resources and also need to be incorporated in the planning and implementation of water and land programmes (Cross & Hornby, 2002).

Customary laws and national laws continue to locate women in subordinated positions rather than farmers and household food security agents. Consequently, most of the agricultural and access to water initiatives aiming at increasing the ability for farmers to improve their production level and thus improve their livelihood fall short in recognising women's concerns around access to clean and sufficient water supply (Backeberg & Sanewe, 2013). Their absence in decision making and the important role that they play are one of the reasons for the constraints that women face especially with access to productive resources.

### **2.3. Women's work**

In the developing world, women have a major contribution in the agriculture sector and rural economic growth (FAO, 2011). They work as farmers in their own farmlands, as unpaid labourers in their family farms and as unpaid workers on other people's farms (ActionAid, 2011). In addition to their role in agricultural production, women bear responsibility of reproductive roles such as managing household livelihood for ensuring a sustainable food security status: they are responsible for nurturing children and their husbands and meeting other household needs such as health, provision of food, water and energy, education and nutrition (FAO, 2002 In Thamaga-Chitja, 2012). When all their responsibilities are taken into account, women work longer hours than their male counterparts. In this case, without policies and programmes focusing on labour and drudgery reducing technologies, women will continue to suffer the burden of labour intensive responsibilities, health problems and exclusion in all other developments, agricultural or outside agriculture.

A comparable proportion of men and women in the employment sector can be made and this is because more men than women are found. In the developing world, a larger proportion of the population found in the employment sector are men who work for wage whilst women are less likely to do so. In this case, women are more likely employed in the agricultural sector (FAO, 2011). Even when women are employed, they are more likely to be in temporary, low paying or part-time jobs. Various factors contribute to this level of employment for women: because of time constraint, they are forced to choose part-time or temporary jobs and also because of the social norms that limit their opportunities for career choice and growth (FAO, 2011).

However, due to the reproductive and productive roles allocated to them, women are faced with time constraint as they have to work extended hours without pay (Thamaga-Chitja, 2012). However, despite all the work they do, their role and contribution remains unrecognised and unnoticed and face multiple constraints in ensuring food security (ActionAid, 2011).

### **2.4. Marketing and Value Chains of rural female vegetable farmers**

Having identified the role played by women in agriculture and the specific constraints they face, considering value chain analysis, the markets, dynamics existing in these spheres and the initiative to address household food security is crucial.

#### **2.4.1. Value chain analysis and markets**

Value chain analysis is defined as an analysis of a “full range of activities which are required to bring a product or service from conception through the different phases of production involving a combination of physical transformation and the input of various producer services, delivery to final customers, and final disposal after use” (Kaplinsky & Morris, 2000:4). Value chain analysis identifies the relationship and linkages of various actors between and within the different stages of the value chain and is useful in determining the challenges and opportunities associated with the actors and the possible policy and programme interventions dealing with the inadequacies associated with value chains (Rich *et al*, 2009). Developing value chain analysis provide an understanding on the functions of markets, assists in enhancing market access and ensuring a more efficient flow of a product whilst also ensuring that various actors in the value chain benefit (Rota & Sperandini, 2010).

#### **2.4.2. The role and status of female farmers in value chains and marketing**

In the contemporary, various interventions in the agricultural sector aiming at poverty reduction take value chain as the first concern (KIT *et al*, 2012). In this instate, the main objective of value chain analysis and development initiatives takes into cognisance men’s and women’s participation and roles in every stage of the agricultural supply chain (Coles & Mitchell, 2011). Whilst the inclusion of both men and women in all stages of the value chain is crucial, various factors have made it difficult for such inclusion to be effective and amongst those are the social norms that influence how men and women participate in the value chain development. Overall, social norms shape the gender and the gendered perspectives of the roles played by men and women in markets and value chains (Terrillon & De Smet, 2011). Gender refers to the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women (Coles & Mitchell, 2011).

According to Terrillo & De Smet (2011), gender disparities have had a major impact on not only women “basic human right” but also on their economic and social development (Terrillon & De Smet 2011). These gender disparities are evident in value chains and markets (Crowley *et al* 2010). “Gender disparities shape the varying roles of men and women in the value chains, from production to processing and also determine the distribution of resources and benefits derived from income generation and efficiency and competitiveness of value chains in the global market” (Rubin *et al*, 2009:6).

The gender disparities in value chains exist along two factors: from interaction within households and follows through a cluster of linked households and into the value chains and also between participation and the gains associated thereof (Cole & Mitchell, 2011). In cases where both men and women have equal access to property and resources, women are found in value adding positions as employees whilst men are found in management positions partially because they have access to training for improving their managerial capacity (Coles & Mitchell, 2011). According to Terrillon & De Smet (2011), women are often found at the bottom of the value chain whereas men are found at the economic stages, that is, the market. Women continue to play a major role in agriculture through the supply of “high-value” products to the national and international markets with, when compared to their male counterparts, they are less mobilised, have limited access or no access at all to training, market information and agricultural inputs (Gurung, 2006) therefore finding it difficult to sustain a profitable market niche.

With reference to the varying roles played by women and men in agricultural value chains thus locating women in production and processing processes and men in marketing, value chain mapping according to Bhuttarai & Ludec (2009) assist with establishing the participation of men and women in all the stages of the value chain. Bhuttarai & Ludec (2009) continue to argue that value chain mapping also gives information on the contribution of men and women in the value chain; such information is useful for development initiatives aiming at working with men and women to improve their capacity to add value to their produce.

As the product reaches the market, men are more likely to take over and women no are longer visible (Bardasi *et al*, 2007). They are denied the opportunity to benefit from market-oriented production (Bardasi *et al*, 2007). Such constraints decrease their value as active actors in value chains and lessen the efficiency of the market.

Women’s attempts to participate in value chains remains highly affected by the increased work load, inadequate access to credit, extension service, training and market information influenced by cultural and social perspectives that favours and gives power to men allowing them to have control over areas of agriculture and other activities external to agriculture thus making women less able to maintain and improve their performance in the value chain. In South Africa, the support systems for participation of women farmers in the value chains have been lesser taken into account (Aliber & Hall, 2010 In Thamaga-Chitja, 2012).

The structural, cultural, individual as well as institutional constraints also have a major contribution in blocking female farmers from participating in the formal markets and to significantly engage in the value chain linkages thus making them vulnerable to high risks of crop loss (Thamaga-Chitja, 2012). Arrangements relating to land tenure, property rights and business directs which member of the family has access to and ownership of economic resources. Moreover, in the developing countries, women are often excluded from accessing and owning land, the land which is a powerful tool not only for obtaining physical assets for participating in value chains but also gaining access to chain services (Coles & Mitchell, 2011).

In an attempt to deal with the gender disparities existing in value chains, Coles & Mitchell (2011) discovered that horizontal organizations can help improve women's statuses through increased market access, social power, access to services and resources, and to assist in addressing other gender related issues such as "social status" that suppresses women by allocating them in lower positions within societies. Addressing the gender inequality issues according to Bhattarai & Leduc (2009) does not only benefit women but the contribution of the initiative to the livelihoods of local economy and its people and further argues that an "engendered value chain" also has a major contribution to the ecological sustainability of the agricultural production resources since value chain development approaches take into account men's and women's ability, skills and knowledge to manage resources sustainably.

In trying to address the gender specific constraints, women can formulate their own women empowerment organizations or rather become more actively involved in cooperatives and agricultural organizations; this will help enhance their social and economic power and lead to improved access to the necessary agricultural resources (Elis *et al*, 2006). Elis *et al* (2006:30) argue that "rural organizations can assist small-holder farmers more especially women farmers in accessing and improving their positions in the markets, increasing their bargaining power, benefiting from higher prices and negotiating better conditions for contracts".

### **2.4.3. Specific challenges faced by vegetable female farmers**

With women comprising the highest proportion in agricultural production and value adding processes which in some instances has been beneficial for countries from across Africa and abroad, the largest proportion of women continue to encounter various challenges amongst

which are gender related: declining health and working conditions from within households to the fields, increased working hours, access to essential resources for production (Greenfacts, 2013). Other factors include high exposure to risk related conditions such as natural disasters and environmental changes thus impacting on their level of production (Greenfacts, 2013). Amongst others, Nkwame Nkrumah (2012) states that rural women farmers do not entirely benefit from communication channels that serve as pathways for the distribution and access to technology especially when they clash with their household tasks.

Marketing closely linked to access to information and infrastructure such as proper and affordable transportation, proper roads and other infrastructural development allowing for easy access to the markets is another area of concern. Access to information and transportation and thus markets is a challenge because of the conflict that this has with their household responsibilities (SOFA Team & Doss, 2011). In the absence of sufficient and proper storage facilities, information on supply and demand and linkages to the markets resulting from communication breakdown between them and the important actors such as extension officers for instance, women suffer crop perishability with no profit made (SOFA Team & Doss, 2011).

The customary and contractual laws associated with gender division of labour assets also have major implications for women's participation in the agricultural sector including value chains development. Consequently, women are constrained in producing sufficient and high quality crops to allow them to participate in formal markets thus preventing them from generating income and contributing to local economic growth (Quisumbing & Pandolfelli, 2008). Not only is women's lack of participating in the value chain associated with income generation but can also mean being deprived the opportunity to be exposed to various market related crop standards so as to allow them to diversify the vegetables they produce. However, even with legislation in place to strengthen women's rights, lack of legal knowledge and involvement in implementation limits their ability to exercise their rights (Quisumbing and Pandolfelli, 2008). Quisumbing & Pandolfelli (2008) argues that projects that fail to take into consideration women's rights to land may jeopardise such rights and alienate women thus leading them to withdraw their labour.

Action towards the implementation of gender and social equity programmes and policies in agricultural knowledge, science and technology is crucial if gender related matters are to be addressed in the agricultural sector especially taking into account value chain development

(Greenfacts, 2013). Such initiatives include consolidating public institutions and NGO's capacity to improve women's knowledge around their involvement in agricultural production and other activities associated thereof (Greenfacts, 2013). This also includes prioritising women's access to proper education, technology and information and for extension services to ensure and allow women access to and control over economic and natural resources (Greenfacts, 2013). Ensuring such access requires women to have ownership and control over legal services, sufficient and appropriate credit schemes and to receive support for income generation activities as well as strengthening the formulation of and existing women's organizations and communication networks (Quisumbing & Pandolfelli, 2008). Another factor is strengthening women's participation in "market-based "opportunities through institutional and policy prioritization of women farmer groups and value chains (Greenfacts, 2013).

#### **2.4.4. Transaction costs**

Three quarters of the poor population in the developing countries including sub-Saharan Africa live in rural areas and are highly dependent on agriculture for income and household food security, amongst these are female farmers. Marketing become an important source for income generation. Therefore access to information relating to prices, quality, and quantity demands including also costs involved are essential (Urquieta, 2009).

Transaction costs can be defined as "the costs associated with trading, acquiring information and transporting goods" (Urquieta, 2009). Transaction costs have a major contribution in the hindering of rural farmers especially women farmers from accessing or participating in the markets and this is because lack of adequate transportation and lack of access to "telecommunication" can make transaction costs more disadvantageous for farmers and can also lead to an increase in the cost for gathering information on potential trading systems and strategies (Urquieta, 2009).

A study conducted by Overa (2006) showed that transaction costs are the main determinants of the producers and traders capacity, they affect income as well as the availability of goods for consumers. Moreover, women are not only constrained by the lack of access to agricultural resources and other forms of support but transaction costs including communication channels, transportation and pricing also have implications for women's

participation in the markets. High transaction costs has major implication for rural female farmers and this is because they produce and sell low quantities thus making it difficult to extend and maintain fixed costs of acquiring information (Urquieta, 2009). However, Urquieta (2009) highlighted the importance of proper communication and transportation systems, access to market information especially for pricing purposes. This will enhance excessive participation in markets for women thus lessening perishability of crops.

#### **2.4.5. Gender mainstreaming in value chains and markets**

The issue of gender influences women's entire process of production, distribution and consumption but is mostly overlooked especially in development initiatives (USAID, 2010). The gender dynamics in value chains exist in two spheres: the gendered patterns in value chains on access to resources results from the societal norms established at the household level and issues around participation as opposed to issues that guide the gains from such participation (Coles & Mitchell, 2011). Furthermore, the gender disparities result in unequal access to factors of production and literacy, to time poverty for women, gendered labour markets, cultural perspectives and unequal power relations that dictate men's and women's participation in decision making all the stages of the value chain (Coles & Mitchell, 2011).

Gendered education determines men's and women's gain from participating in value chain in various ways: 1. women's income generation and gains are determined by their less skilled roles; 2. they are uninformed thus receiving training and stretching their knowledge and skills is limited; 3. they cannot access and process information on markets and capital and earn less than men even if they work in similar positions with men (World Bank, 2001 In Coles & Mitchell, 2011).

Women are disproportionately represented in low value chain; this is because they lack the necessary resources to allow them to fully participate. Ownership and access to land, low literacy rate, unavailability of extension service and institutional support and other essential assets disfavor women from participating in value chains and if so, places them at lower levels of the chain (Coles & Mitchell, 2011). Coles & Mitchell (2011:1) therefore suggest that "Where both sexes play a role in decision making, generic interventions, or even those applied to men only, can benefit both sexes" and in instances where women do not participate in household spending decisions, a "gender-specific" approach that takes into account and targets household relations and institutional functions is essential.



The mainstreaming of a gender lens in value chain has long been of concern from across the world. However, there is still much to learn and understand relating to the most valuable approaches to address issues of gender disparities and how these can be incorporated, particularly in value chains development (Laven *et al*, 2009). Furthermore, according to Mayoux and Mackie (2007:15) “mainstreaming gender therefore requires addressing many interlinked and mutual reinforcing dimension (economic, social or political) and level (individual, household, national or international) on which gender inequality operates in the value chain”. Several frameworks for assessing gender equity and empowerment must be put in place. To achieve empowerment, women must collectively join forces, form relationships and mutual support in order to stretch and strengthen their ability while considering equity especially in value chains, livelihoods across relations and structures (Laven *et al*, 2009).

The gendered patterns of behaviour from production to processing, value adding and marketing have a major influence on the roles that men and women play including resource allocation and benefits from income generated from participating in value chains and also in the effectiveness and competitiveness of the value chain in the global market (Rubin & Manfre, 2012). In order to create and sustain more competitive and equitable value chains for small-holder farmers and especially women, it is important to take into account the incorporation of gender based issues and practically include the components of gender in value chain analysis and strategies related to development thus contributing to poverty and hunger alleviation (Rubin & Manfre, 2012).

In addition, formulating gender sensitive programs will help enhance competitiveness and gender equality goals, thus poverty reduction and improved food security for all (USAID, 2010). In this sense, the main objective is to create an environment where women and the very poor are the main drivers of growth by linking them to market and value chain development opportunities (USAID, 2010).

## **2.5. Rural women farmers’ progress in the agricultural sector after the Millennium Development Goals**

The rate of poverty and hunger in Southern Africa has proven high, subjecting residents to high risks of food insecurity (FAO, 2010 In Thamaga-Chitja, 2012). Hunger and poverty can

be associated with factors such as access to land and “agronomic” matters and other factors that have a greater link are the intervention and dynamics of policies and programmes that can initiate change on the livelihoods of the rural people. In addition, in sub-Saharan Africa, poverty is highly gendered. A large proportion of the population most likely to be affected by poverty are women whilst they are responsible for 70% to 80% of agricultural production and food security (Thamaga-Chitja, 2012). Despite their significant role in production, participating in value chains is a major constraint for women. They face additional constraints including adjusting both reproductive and productive roles. Thamaga-Chitja (2012) argues that in the contemporary, women’s contribution to agriculture is recognised but they continue to face challenges with access to land as a result of the existing systems that were previously initiated by colonial government and traditional customary laws that determined women’s and men’s roles in societies and the agricultural sector.

In a study conducted by Thamaga-Chitja (2012) in investigating the progress in the recognition of women’s role in agriculture after the Millennium Development Goals and more particularly Goal 1 which is to reduce poverty and extreme hunger, progress in addressing hunger and poverty and also eliminating the gender disparities of poverty and hunger has been very slow (Thamaga-Chitja, 2012). The study shows that women have continued to play a major role in agricultural production with a contribution of approximately 50% of agricultural labour in sub-Saharan Africa and contribute approximately 80% in some instances (Thamaga-Chitja, 2012). In Africa, women are said to be involved in agricultural value chains (Thamaga-Chitja, 2012). Irrespective of such an important role, their contribution to the production of food remains unseen.

In spite of the significance of agricultural production and small-holder farming in addressing poverty in rural areas in South Africa, out of 25% of households who are involved in production, only 12% received assistance from the government (Thamaga-Chitja, 2012). Initiating the development of a gendered value chain development that puts great emphasis on recognition of women’s role in production as well as the constraints they encounter is significant.

As the main drivers of vegetable production and household food security, women are reported to still encounter challenges with access to the necessary resources for production

including, insecure and unsubstantiated land tenure as a result of continuing customary laws and weak government systems that fail to develop programmes that address the problems of land ownership by women (Thamaga-Chitja, 2012). In the interviews conducted, women raised their concern with access to markets as another issue of attention where they raised the need for engendered value chains with the aim of making their produce more profitable.

## **2.6. Policy responsiveness**

Government institutions, donors and development specialists have seen the important role played by agriculture in local economic growth and food security more particularly in countries highly dependent on the sector but the incorporation of gender issues in such initiatives is less visible (FAO, 2012). Issues around gender are highlighted in most national and regional agricultural policy planning but are mostly separated from issues around women rather than being equally taken into consideration in policy and programmes (FAO, 2012). In their initiatives to enhance agriculture, policy and programme makers should take into consideration enhancing women's agricultural productive potential through the promotion of gender equality. In this sense, agricultural policy makers must ensure that women are fully represented and able to participate and benefit from agricultural production and value chains (FAO, 2012).

Post-1994, the South African national and provincial Department of Agriculture and Rural Development took initiative to formulate policies and programmes intended to make the agricultural sector more effective and stronger. The basis for the formulation of these policies was to increase racial and gender equality amongst farmers especially with access to assets such as land, technology and other inputs (Hart & Aliber, 2012). Many of these policies amongst which are: the 1995 White Paper on Agriculture, the 1998 Agricultural Policy in South Africa discussion document, the 2001 Strategic Plan for South African Agriculture and the 2004 Comprehensive Agricultural Support Programme were developed and implemented but received criticism as a result of failure to provide support to the poor especially female farmers towards achieving better access to resources essential for increased level of production and productivity (Hart & Aliber, 2012).

Currently, in South Africa, gender continues to prove as a challenge for various policies aimed at providing support to subsistence and smallholder farmers and more particularly

women. Amongst these is the Land Reform Programme formulated to address equitable 'ownership' and access to land for landless black people including poor rural women more particularly those involved in farming (Thamaga-Chitja *et al*, 2010). The programme has however been identified as seemingly weak in gender sensitivity due to the dichotomy of cultural practices that prevent women from accessing land despite the Constitutional right to do so (Thamaga-Chitja *et al*, 2010).

Furthermore, it is argued that there is disconnection between land reforms and gender interests as well as the stated visions and targets in the South African legislation. The overall objective of the land reform was to remedy the historical inequalities including the alleviation of poverty, ensuring improved economic growth, eliminating social injustices and "engendering reconciliation" whilst creating an equitable outcome for ensuring that women also benefit from the programme (Commission for Gender Equality, 2006-2009). Since its inception in 1994, the Land Reform Policy has been criticised for failing to achieve its target amongst which were to transform the social relations at a "micro-level" which hinder the right for women to access, own and use land (Commission for Gender Equality, 2006-2009).

The Promoting Women's Access to Land (PWAL) Programme - a cooperative project of the Department of Land Affairs, the National Land Committee and other Non-Governmental Organizations and Community Based Organizations involved in land reform are also aware that the various land reform programmes, projects and processes developed and undertaken since 1994 encompass specific challenges in attaining the gender equity goals (Cross & Hornby, 2002). It is however imperative that such policies take into account gender and the gender dynamics inherent in agricultural production if marginalization of women is to be eliminated.

The Agricultural Marketing Policy for the Republic of South Africa (2010) on the other hand puts great emphasis on the provision of support measures such as agricultural marketing information, agricultural marketing infrastructure, agro-logistics, agricultural marketing skills, agricultural marketing institutions, agricultural export facilitation and protection against unfair external competition, to all farmers including mostly subsistence and smallholder farmers across the value chain. However, with the affective platform that it provides, the policy is however silent on issues of gender especially on women's limitations with access to and participation in the markets thus the litigations to address such (Cross &

Hornby, 2002). According to the Commission for Gender Equality (2006-2009:8) however, “policy and legislation alone cannot guarantee equal access to land for women because of the patriarchal nature of the South Africa society”.

According to FAO (2012:4) “the role and status of women in agriculture and rural areas vary widely by region, age, ethnicity, social class and are changing rapidly in some countries”. Acquiring information and analysis reflecting various contributions made by women and the specific constraints they encounter in order to make sound and effective gender based initiatives relating to the agricultural sector is crucial for policy and programme formulators as well as development experts.

The government’s policy initiatives to address women’s needs including addressing the constraints that they face in the agricultural sector have been proven to exist but are found in marginal projects and are often not fully and effectively implemented or given the same political and technical backing for delivery and thus fail to achieve what has been intended. In order for these policy initiatives to succeed, there is a greater need for the incorporation of an understanding of women’s multiple roles in food provisioning and also assist in addressing gender constraints at the household and community level through the empowerment of women smallholders and policy makers must also ensure that “well-funded” and “well managed” programs specifically target women farmers (ActionAid, 2011).

Successful research indicates that gender equality is a positive factor for economic growth. Such research highlights that gender inequalities have implications for not only household but the whole nation’s productivity and human resource levels and also impacts on competitiveness as it limits production, productivity, output, growth and the performance of trade (USAID, 2010). It is therefore crucial that value chain programmes are formulated such that gender equitable principles incorporate competitiveness and gender equality and thus the elimination of poverty; this will also help identify areas where value chain interventions create gender positive and wider value chain outcomes (USAID, 2010).

### 3. DESCRIPTION OF THE STUDY

#### 3.1. Swayimane

##### 3.1.1. Geographical location of the study areas and demographic information

The Swayimane ward is a rural community located in the East of Pietermaritzburg in Umshwathi Local Municipality under the uMgungundlovu District Municipality. It is located approximately 65km from Pietermaritzburg and is in a rural area with both formal and informal housing. Like most rural areas, Swayimane has elements of traditional authority through Chief Nkosiyezwe Gcumisa. Though the community has to a certain extent adopted modern lifestyle, traditional customs continues to govern the area (Martin & Mbambo 2011). Swayimane covers an area of 36.35 km<sup>2</sup>, has a population size of 11 486 (316.01 per km<sup>2</sup>) and 2.301 (63.31 per km<sup>2</sup>) households (Frith 2013). Three major problems face the Swayimane population: unemployment, HIV/AIDS, and poverty; all three of these have especially grave consequences for women and for children (Zondi 2008).



Figure 3.1: Map showing geographical location of Swayimane rural area.

##### 3.1.2. Co-operatives and farmer groups

Approximately 10 co-operatives were found in Swayimane and consisted of more women than men. The majority of the farmers, both men and women, have no form of formal

employment and are involved in subsistence and horticultural production as the main source of survival. Income is also generated from the crops produced. Some of the women generate income from other activities outside farming; such as sewing and beadwork (Zondi, 2008).

The cooperatives are formed as it is difficult to access assets individually but supposedly obtainable if they are in groups and also because opportunities for expanding their knowledge around production are more likely to be available. In order for farmers to join the co-operatives, a fee is paid and the same money made is for purchasing some of the inputs and used to meet other production needs (Thabo, 2008). Despite farmers forming co-operatives, they still produce in their own fields and generate income individually. This means that there is no pooling of crops. Besides belonging to co-operatives, farmers form farmer groups where they meet, share important information relevant to production and to also empower each other (Thabo, 2008).

### **3.1.3. Agricultural activities**

Swayimane's land is predominantly given over to agricultural production with almost half of the population depending on it for survival. The land is characterised with arable soil and is in the top 2% of South Africa's highest potential arable soils. Agriculture is important both for income generation and for household consumption (Zondi, 2008).

Production is characterised by common crop production: the most commonly produced crops are potatoes, taro, cabbage, beans, maize, spinach and sweet potato. From the mentioned crops, each farmer had a specific crop that made more profit than the others; amongst these were maize, taro and potatoes. This is because these crops are non-seasonal and income generation is not interrupted (Umngeni Resilience Project, 2014).

Various challenges were collectively encountered by the farmers: insufficient inputs such as land, seeds, fertilizer, tractors, chemicals, insufficient extension services and institutional support, fewer linkages with the markets and financial assistance were amongst the challenges. The highest population affected by these challenges is women since they form the largest population in the co-operatives. Such constraints have a major impact in their level of production and productivity as some farmers produce less valuable crops especially not suitable for the market.

With the aim of increasing agricultural production and enhancing farmer's skills and capacity to produce, the Zimele Self-Help Association assisted co-operatives especially those consisting of women, with empowering them through skills development, resource provision, and the provision of support networks to enable them to fully participate in agricultural production, in the markets and in all stages of the value chain. The Association also trained farmers on agricultural best practices with an emphasis on organic methods which included agriculture planning, soil classification, vegetable farming, food processing, weed control, composting and irrigation and opened opportunities for market access (Nkosi, 2011).

Sugar cane is another dominant crop found in the area and is produced the Siphapheme Cooperative. The farmers collectively use 40 hectares of land for sugar cane production. This land yields at least 4 000t at an initial average of 100t/ha to 110t/ha every two years. A lot of job opportunities were created and to be created by the Siphapheme Co-operative with about 1640 individuals in the planting stage, approximately 1 030 persons were needed for harvesting and approximately 640 person needed for "ratoon management" (Phillips, 2013).

In the value chain process, farmers who have links with the market are able to produce vegetables, process them with their own hand made tools and transport them to the markets. Prior to selling, these vegetables are weighted in order to determine kilograms which will determine the price with which they will be sold. The farmers do not have branded potato bags but rather resort to using newspaper and cans (Umngeni Resilience Project, 2014). The farmers encounter various challenges especially with marketing: transaction costs such as transportation costs and information on pricing are amongst the challenges faced by the farmers.

The Swayimane area is characterised by good rainfall which is 500 to 800 mm/annum as well as good deep soils. Soils however have various challenges associated with them: short-term droughts and shortages of key mineral elements have a significant impact on the production and growth of crops thus resulting into major crop loss (Umngeni Resilience Project, 2014).

#### **3.1.4. Food security status**

Many households in the Swayimane area are food insecure amongst which are female headed-households. Food insecurity is characterised by high levels of unemployment and poverty, common in the area. In an attempt to combat these challenges, half of the population depend on agriculture as a core livelihood strategy where people produce vegetables either for household consumption or for selling (Zondi, 2008). As the key household food security



agents, women comprise the majority of the population involved in crop production. Ensuring food security for these women is a challenge especially because the money they generate from selling the vegetables is insufficient to meet other household needs such as education, health and household nutrition, and off-farm income become their secondary means of livelihood.

### 3.2. Sweetwaters.

#### 3.2.1. Geographical location of the study areas and demographic information

Sweetwaters is a rural community outside Pietermaritzburg. It is 18km wide and is under the authority of a Chief and Izinduna who govern the area. Sweetwaters is located in the Msunduzi Local Municipality under the Umgungundlovu District Municipality. It covers an area of approximately 12.94 km<sup>2</sup> with a population size of approximately 14 417 (Integrated Development Plan, 2011/2012). Approximately half of the households are involved in subsistence and smallholder farming in Sweetwaters. The major problems facing Sweetwaters is high rates of unemployment and poverty and people lack the capital to produce food (Integrated Development Plan, 2011/2012).

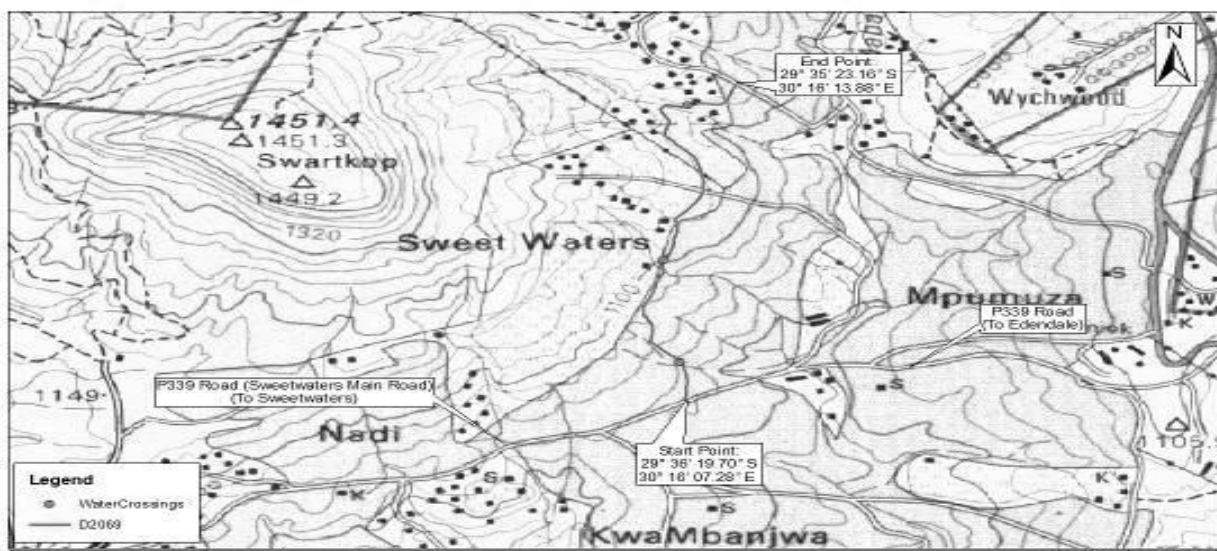


Figure 3.2: Map showing geographical location of the Sweetwaters rural area

#### 3.2.2. Co-operatives and farmer groups

The farmers in Sweetwaters form themselves into co-operatives because access to agricultural services is easier compared to seeking services individually. Being part of co-

operatives meant farmers have the opportunity to share information and knowledge with each other and thus expansion of their individual knowledge. A large proportion of women are part of the co-operatives and only 10% men are involved (Msunduzi Local Municipality (Vulindlela- Ward 4) Community Based Plan Report, 2011).

### **3.2.3. Agricultural activities**

In Sweetwaters, agricultural activity is a significant income generator. The Chief and the Izinduna promote agriculture and excessive use of land for agricultural production aiming at ensuring household food security especially because the area is characterised with high levels of unemployment and poverty (Msunduzi Spatial Development Framework, 2009). Farmers have formed cooperatives and produce crops either for selling to the markets or household consumption and are also involved in livestock production such as cattle, goats and pigs. The majority of women form part of the cooperatives. Farmers produce the crops on their pieces of land and individually benefit from the income generated (Msunduzi Spatial Development Framework, 2009).

The farmers are involved in the production of crops such as potatoes, maize, taro, sweet potatoes and beetroot. The most commonly produced crops in Sweetwaters are potatoes and maize because they are non-seasonal and thus economically beneficial for those who produce for selling (ACAT Annual Report, 2011).

The location of Sweetwaters gives residents easy access to the city (Pietermaritzburg) with consequently much greater emphasis on searching for wage employment and access to education (Integrated Development Plan, 2011/2012).

### **3.2.4. Food security status**

Sweetwaters is characterised by high levels of unemployment and poverty and many households are female-headed. Despite closeness of the area to town where opportunities for job search are available, agriculture still remains the core coping strategy for low income households and overcoming poverty and food security (Maryann, 2005). Women continue to be the main agents of food security and thus food producers; but because they face constraints, ensuring food security is difficult. Ensuring household food security is not only dependent on crop production, a certain proportion of farmers are involved in livestock

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production such as cattle, pigs and goats and the rest of the population is depend on employment, small businesses and social grants (Maryann, 2005).

## **4. RESEARCH METHODOLOGY**

### **4.1. Introduction**

This chapter provides the research methodology including data collection methods, tools and data analysis. The aim of the study was to explore the role of women in subsistence and smallholder farming and establish implications for horticultural crop value chain development in Swayimane and Sweetwaters. Swayimane and Sweetwaters were chosen because they have a prevalence of subsistence and smallholder farming where most of the people in these sectors are poorly resourced women and were also chosen because the farmers were willing to participate.

The study explored three sub-problems as sub-sets of the overall research question. The following sub-problems were explored;

1. What role do women play in rural horticultural crop production value chains in the study areas of Swayimane and Sweetwaters in KwaZulu-Natal smallholder farming?
2. How does gender influence marketing and value chain development in the study areas?
3. What policy and programme implications are there to engender agricultural value chain development for improved food security and income generation?

### **4.2. Methodology**

The research study adopted both qualitative and quantitative approaches of data collection and analysis and survey questionnaire and focus group discussions were administered. The qualitative research approach is an investigation in which data is collected in face-to-face situations by interacting with selected individuals in their settings in order to get different perceptions and experiences about the problem explored (Denzin & Lincoln, 2000). The qualitative approach assisted in answering questions about the nature of the problem with the purpose of describing and understanding it from the participants' point of view (Polit, 2001). The approach adopted a survey questionnaire which contained open-ended questions amongst other questions which were closed-ended and also adopted focus group discussions to understand the participants' feelings, thoughts, beliefs and ideas (Denzin & Lincoln, 2000) on the role of women in subsistence and smallholder farming and establish implications for

horticultural value chain development and also understand the ways in which agricultural production is done and the gender relations associated thereof. The key informants for the study were cooperatives consisting of farmers with extensive knowledge on subsistence and smallholder horticultural production and value chain development.

The quantitative approach involves the use of numerical measurement and statistical analyses of the measurements to examine the phenomena under study (Polit, 2001). The quantitative approach was adopted to quantify the problem under investigation and to also understand how prevalent it is by looking for projectable results to a larger population (Denzin & Lincoln, 2000).

According to KIT *et al* (2012:5), “Value chain refers to an entire system of production, processing and marketing from inception to the finished product”. Furthermore, agricultural value chains offer farmers the opportunity to have access to markets, to add value to their produce and to thus reduce poverty (KIT *et al*, 2012). Exploring value chain development in the study areas therefore provides an important platform for understanding the situations of farmers more especially female farmers in the value chains including access to markets and other resources essential for full participation in the value chain. The value chain development in the study was therefore explored through survey questionnaire and focus groups discussions.

#### **4.3.Target population**

The target population refers to the entire group in the study area that a researcher is interested in and wishes to draw conclusions from (Banerjee & Chaudhury, 2010). The target population therefore for this study were the farmer cooperatives inclusive of both men and women involved in subsistence and smallholder farming in Swayimane and Sweetwaters who provided their thoughts, beliefs and perceptions about the role of women in subsistence and smallholder farming, the existing gender dynamics and establish implications for horticultural value chain development in the study areas. Swayimane had a total number of 47 farmers participating in the study and 36 farmers in Sweetwaters.

#### **4.4. Sampling method**

Sampling is a process in which the researcher chooses the participants to participate in the study (Banerjee & Chaudhury, 2010). Sampling is important to enable the researcher to

select a smaller sample that will represent the whole population and is also important as it contributes to the quality of the research findings (Banerjee & Chaudhury, 2010). In this study, the farmers were randomly selected, to allow for equal opportunity to be selected to participate in the study. In Swayimane, 47 farmers were selected and 36 farmers were selected in Sweetwaters. Overall, the total sample size of farmers was 83.

#### **4.5.Data collection tools**

Primary and secondary data were collected in the study in order to achieve the objectives as well as answering the research sub-questions (Kadam *et al*, 2013). Secondary data was collected through the review of literature, exploring and understanding various arguments from various authors on the role of women in subsistence and smallholder farming and the implications for value chain development in Sweetwaters and Swayimane. Primary data on the other hand was collected directly from farmers in the study areas through survey questionnaires.

##### **4.5.1. Survey questionnaire**

A survey questionnaire was employed in the study for the purpose of gathering information and understanding the farmers' beliefs, thoughts, perceptions, feelings, their interactions and communication in and outside farming and how production is handled between men and women (Denzin & Lincoln, 2000) on the role of women in subsistence and smallholder farming and establish implications for horticultural value chain development in Swayimane and Sweetwaters. The survey questionnaire included both open-ended and closed-ended questions. Open-ended questions gave participants the opportunity to provide in-depth information on their feelings, beliefs, experiences and perceptions on the role of women in subsistence and smallholder farming and implications for horticultural value chain development in the study areas. Close-ended questions allowed participants to choose and rank from the options provided in the questions. The questionnaire was divided into four parts including: Biographical information, production, agents and value chain and marketing.

The first section of the survey questionnaire was structured so as to explore the biographical information of the participants such as: age, gender, educational level and marital status. Section two explored issues related to subsistence and smallholder farming including access to production assets such as land, water, extension services and other institutional services.

The section also included questions on the gendered roles of men and women in subsistence and smallholder farming in the study areas. Section three and four questions explored the availability and accessibility of markets especially for women farmers and the implications for value chain development in both Swayimane and Sweetwaters.

Section four precisely included questions that explored the ways in which market information flows between the various actors such as men and women in the chain, the implications that transactions costs have for women in relation to marketing, identifying the ways in which communication occurs between actors involved in the value chain especially on pricing and how this impacts on women's participation in markets, finding out issues around the importance of extension services in the value of produce and finding out the different markets locations if women have access to.

During the administering of the survey questionnaires, the farmers were divided into groups at a single venue and face to face interviews were conducted. Farmers, especially female farmers had time constraints due to competing productive household roles, therefore a meeting at a convenient time was arranged and the one-on-one interviews had to be conducted simultaneously with the focus group discussions. All 83 farmers were individually interviewed. Four facilitators all from the Food Security Programme, with thorough understanding of the data collection process and the issue under investigation, assisted with the collection of data. The questionnaire was not piloted which could have posed challenges. However, there were no challenges encountered during the administering of the survey as participants were clear with the questions and knew how to respond to them.

Since literacy was an issue for some of the members in the groups, facilitators assisted with translating the questions to allow better understanding. For those few who could read and write in English, they filled the answers on their own. Figure 4.1 and 4.2 present data being collected through survey questionnaires.



*Figure 4.1:* Administering a survey questionnaire with a woman farmer



*Figure 4.2:* Administering a survey questionnaire with a male farmer

#### **4.5.2. Focus group discussions (FGD).**

The study employed focus group discussions (FGD) for the purpose of generating meaningful discussions to gain an understanding of the perspectives of the participants (Walden, 2008) on the role of women in smallholder and subsistence farming and the implications for horticultural value chain development in Swayimane and Sweetwaters. Focus group



discussions (FGD) also encourage participants to talk and interact with each other (Walden, 2008) thus promoting probing for more information especially addressing the objectives of the study.

In this form of data collection tool, a short questionnaire with open-ended questions was designed and was inclusive of issues around production, value chain and marketing. The groups were divided into three parts; a group consisting of 12 women, a group consisting of 12 men and a group consisting of both men and women (12 overall). The focus group discussions were conducted simultaneously with the administering of questionnaire. Individual farmers were picked as focus group discussions were continuing. Each group had a facilitator to assist participants with clarifications relating to questions and guiding that the discussion is on track and does not go out of context. The objective of the separation of the groups was to make comparison on the responses gathered from each group and to also allow free discussion where everyone felt encouraged to raise issues that affect them so as to gather as much information as possible. Figure 4.3 and 4.4 show data collection through focus group discussions (FGD).



*Figure 4.3: Conducting focus group discussions (FGD)*



*Figure 4.4:* Conducting focus group discussions (FGD)

#### **4.5.3. Participant observation**

Participant observation is important for providing the researcher with ways to check for nonverbal expression of feelings, determine how participants interact and communicate with each other, and check for how much time is spent on various activities (Kawulich, 2005). Participant observation in the study was adopted in order to understand the farmers' relations between each other in and off the field, the agricultural activities they are involved in and the ways in which these activities are handled between men and women.

#### **4.6. Data analysis techniques**

Two techniques were used to analyse the data that was collected in the study, these are qualitative and quantitative data analysis techniques. In qualitative research, results are descriptive in nature, meaning that text rather than numbers to elucidate results from the data collected (Taylor-Powell & Renner, 2003) whereas in quantitative research, the interpretation of results is more statistical as it involves numbers (Taylor-Powell & Renner, 2003).

In the study, results from both open-ended and close-ended questions were coded and analysed using the software package called the Statistical Package for Social Sciences (SPSS) Version 21.0 so as to develop interpretation of the thought, beliefs and experiences of the participants on the role of women in subsistence and smallholder farming and the implications of the value chain development and to also make a comparison of such between the Swayimane and Sweetwaters study areas. Content analysis was performed on the policy responsiveness to the role of women in subsistence and smallholder farming and the

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implication of the value chain development in order to identify existing gaps in policy intentions and therefore identify possible mitigations towards achieving effective policy initiatives.

The software package however, made it possible for entering and storing data and to perform statistical analysis and descriptive analysis such as tables, frequencies and percentages. The tables also allowed for identification of trends, proportions and the distribution of values towards understanding the role of women in subsistence and smallholder farming and establish implications for value chain development in the study areas.

Table 4.1 provides a summary of the sub-problems, data collection tools, the type of data collected and the methods for data analysis.

**TABLE 4.1. Summary of the methodology sub-sections**

Sub-problems	Data collection tools	Data to be collected	Data analysis
<p>1. What role do women play in rural agricultural production in the study areas of Swayimane and Sweetwaters in KwaZulu-Natal smallholder farming?</p>	<ul style="list-style-type: none"> <li>• Focus groups.</li> <li>• Questionnaires (Survey interviews).</li> </ul>	<ul style="list-style-type: none"> <li>• Role of women in agricultural production.</li> <li>• Gender division of labour in the production process and in the value chain.</li> <li>• Constraints faced by women farmers with access to agricultural inputs.</li> <li>• Additional work that women farmers do.</li> </ul>	<ul style="list-style-type: none"> <li>• SPSS: Frequency tables</li> <li>• Focus Groups</li> <li>• Value Chain data</li> </ul>
<p>2. How does gender influence marketing and value chain development in the study areas?</p>	<ul style="list-style-type: none"> <li>• Focus groups.</li> <li>• Questionnaires (survey interviews).</li> </ul>	<ul style="list-style-type: none"> <li>• Role played by women in value chains.</li> <li>• Gender differences in value chains.</li> <li>• Women farmer's constraints with transaction costs.</li> <li>• Gender differences in marketing.</li> <li>• Cultural and formal laws implications on role of women in value chains.</li> </ul>	<ul style="list-style-type: none"> <li>• SPSS: Frequency tables</li> <li>• Focus Groups</li> <li>• Value Chain data</li> </ul>
<p>3. What policy and programmes actions are required to engender agricultural value chains for improved food security and income generation?</p>	<ul style="list-style-type: none"> <li>• Questionnaire (surveys).</li> <li>• Focus groups.</li> </ul>	<ul style="list-style-type: none"> <li>• Experiences of men and women farmers with regards to existing policies and programmes supporting women in agriculture, agricultural value chains and marketing.</li> <li>• Policies and programmes needed to engender agricultural value chains.</li> </ul>	<ul style="list-style-type: none"> <li>• Summaries and Content analysis identifying gaps in policy intentions and the reality of farmers</li> </ul>

## **5. RESEARCH FINDINGS AND DISCUSSION**

### **5.1. Introduction**

The main aim of the study was to explore the role of women in subsistence and smallholder farming. The study further explored the gendered roles of men and women in each production stage and the rest of the value chain and marketing stage. The world over, women are involved in the majority of production activities (FAO, 2011). However, fewer women participate in the marketing stage where their male counterparts are often more visible. Most women experience a workload burden due to their involvement in labour intensive agriculture while still responsible for productive and reproductive roles in the household and community and ensuring food security.

Swayimane and Sweetwaters were two target areas selected due to the apparent prevalence of the research problem. The following sub-problems were explored in the study:

1. What role do women play in rural horticultural crop production value chains in the study areas of Swayimane and Sweetwaters in KwaZulu-Natal smallholder farming?
2. How does gender influence marketing and value chain development in the study areas?
3. What policy and programme implications are there to engender agricultural value chain development for improved food security and income generation?

The following section will present data and discuss each sub-problem in an effort to gain insight into the research question.

### **5.2. Biographical information of survey participants**

The biographical information in the study is important to provide description of the sample in Swayimane and Sweetwaters. Biographical information encompassing variables such as age, gender, educational level and marital status was collected and is represented in the graphs and tables below.

### 5.2.1 Age of the respondents

Figure 5.1 shows that most of the farmers were between the ages of 40 and 59 years and 60 and 85 based on each study area, with the youngest farmers (19-39) being the least on both study areas. In Swayimane, 21.1% farmers were between the ages of 19 to 39 as 44.8% were between the ages of 40 to 59 and 34.1% were between the ages of 60 to 85. In Sweetwaters, 21.8% farmers were between the ages of 19 to 39, 30.8% were between the ages of 40 to 59 and 47.4% were between the ages of 60 to 85. This implied that in both Swayimane and Sweetwaters, subsistence and smallholder horticultural production was mostly practiced and managed by elderly farmers, amongst which are women and a few youngsters. However, the involvement of elderly in food production might have an impact on their health but the involvement of more young people in subsistence and smallholder horticultural production in study areas may have helped to reduce the problem.

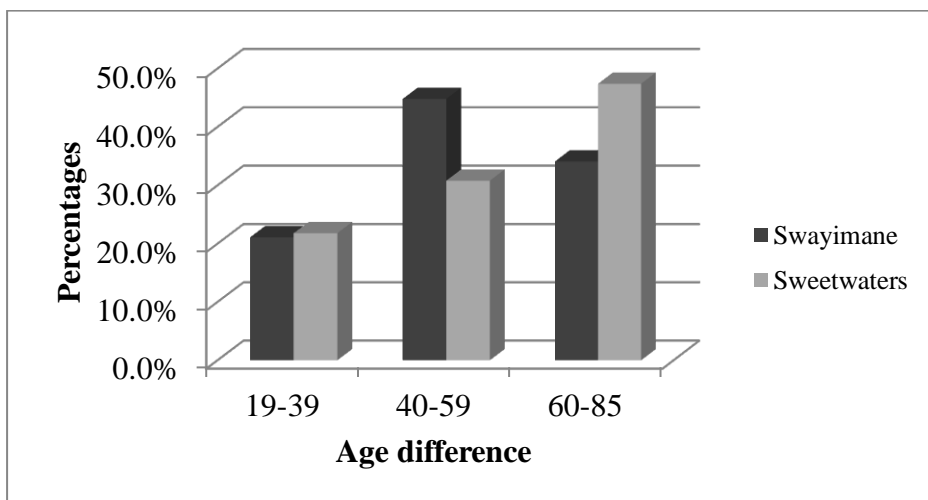


Figure 5.1: Age of the respondents

### 5.2.2. Educational level of the respondents

It is common that subsistence and smallholder farmers are illiterate or semiliterate. Illiteracy is a serious constraint for smallholder farmers as it may lead to poor crop production and access to important agricultural structures for support and other resources (Department of Agriculture, Forestry and Fisheries, 2012). However, Swayimane proved a bit different. The results in table 5.1 show that farmers acquired some form of education and there were those who did not attend school at all. Forty percent (40.4%) farmers attended primary school (grade 1-7) and 38.3% farmers had attended secondary school level (grade 8-12). Moreover, the study also revealed that 6.4% of the respondents had a post-matric (tertiary) qualification

and 14.9% respondents had no form of schooling amongst which are women. In Swayimane, farmers reported the positive impact their education had in production but also raised the importance for more in-depth agriculturally rooted knowledge and education.

Results from Sweetwaters also showed that farmers had some form of education even though there was a greater number of those who had no form of schooling (22.2%) compared to those in Swayimane. Thirty eight percent (38.9%) respondents attended primary school (grade 1-7), 33.3% respondent had attended high school (grade 8-12) and only 5.6% respondents had post-matric qualifications. Furthermore, the results indicated that the level of education in the area is low, implying that most of the farmers are illiterate.

Overall, respondents from both the study areas raised the significance of improved education, knowledge and in-depth understanding pertaining to subsistence and smallholder horticultural production especially for women as the key food security agents. More concern was also on obtaining post-matric qualifications for increased employment opportunities especially for the youth.

**Table 5.1. : Educational level of the respondents**

<b>Area</b>	<b>Percentage %</b>		
<b>Swayimane</b> N= 47			
Grade 1-7	19		40.4
Grade 8-12	18		38.3
Tertiary	3		6.4
No school	7		14.9
<b>Total</b>			100
<b>Sweetwaters</b> N= 36			
Grade 1-7	14		38.9
Grade 8-12	12		33.3
Tertiary	2		5.6
No school	8		22.2
<b>Total</b>			100

### 5.2.3. Gender of the respondents

In the Swayimane rural area, results from the survey questionnaire as presented in table 5.2 shows a higher contribution of women (85.1%) in subsistence and smallholder horticultural

farming compared to men (14.9%). According to Majake (2001), from across the world, 60% women are involved in subsistence and smallholder horticultural labour force and produce over 80% total staple food. In Swayimane, a higher proportion of women were found in subsistence and smallholder horticultural production compared to their male counterparts as most households were female-headed with no source of income, therefore, horticultural production was the main source of livelihood. Furthermore, men migrated to urban areas in search for formal employment whilst women remained home and took over all household responsibilities. Women therefore were burdened from having to perform double roles such as household chores at the same time, work in the field producing food. The study conducted by Mokoena (2008) in the North-West Province also reveals the gender the different roles played by women: women have productive roles, reproductive or domestic roles, and also have community management responsibilities. This is because of the absence of males as a result of “male labour migration” (Mokoena, 2008).

Similarly, in Sweetwaters, results also showed that more women (83.3%) than men (16.7%) were involved in subsistence and horticultural farming. Men also travelled to urban areas in search for formal employment, thus leaving women to manage household and on-farm production responsibilities traditionally undertaken by men. Furthermore, women constituted a higher proportion than men in subsistence and smallholder production as the custodians of food production and thus food security.

**Table 5.2: Gender of the respondents**

Area	Percentage %		
<b>Swayimane</b> N= 47			
	Males	7	14.9
	Females	40	85.1
	<b>Total</b>		100
<b>Sweetwaters</b> N=36			
	Males	6	16.7
	Females	30	83.3
	<b>Total</b>		100



#### 5.2.4. Marital status of the respondents

In the Swayimane rural area as presented in table 5.3, 48.9% respondents were married, 4.3% separated, 14.9% widowed and 31.9% single and in Sweetwaters 30.6% were married, 27.8% were widowed, 38.9% were single 2.8% respondents were separated. According to the respondents, marital status played a significant role in determining access to essential assets for food production.

**Table 5.3: Marital status of the respondents**

Area	Percentage %		
<b>Swayimane</b> N= 47			
Married	23		48.9
Separated	2		4.3
Widowed	7		14.9
Single	15		31.9
<b>Total</b>			100
<b>Sweetwaters</b> N= 36			
Married	11		30.6
Separated	10		27.8
Widowed	1		2.8
Single	14		38.9
<b>Total</b>			100

#### 5.3. Women’s role in subsistence and smallholder horticultural production in Swayimane and Sweetwaters.

Overall, the study conducted in Swayimane and Sweetwaters revealed unequal gender roles in production, with women more involved compared to their male counterparts. The involvement of women in subsistence and smallholder horticultural production was associated with their role as custodians of food security and also as a result of the perspectives influencing gendered roles for women and men in these communities. Similarly, in most rural areas in South Africa, in the Limpopo Province for instance; the majority of women are involved in subsistence farming and in ensuring a sustainable household and community livelihood, compared to men (Kotane, 2009). Moreover, FAO (2012) states that, existing gender differences influence the allocation of duties between men and women in the

various stages of the value chain, placing women at the lowest level where there is no income.

Results from the survey, focus groups discussions and participant observation used to gather data in Swayimane and Sweetwaters showed gender inequality in the various stages of production such as transplanting (planting of seeds), soil preparation, irrigation, transplanting, and crop management. FAO (2012) argues that women are involved in weeding, seeding, applying fertilizer, managing crops, transplanting, planting, irrigating and preparing the land whilst men are mostly involved in the land preparation, transplanting, harvesting and marketing.

### **5.3.1. Involvement in seedbed preparation**

In the seedbed preparation stage, more women were found compared to men due to the various stated reasons. The results indicated in table 5.4 shows 42.6% women compared to 12.8% men were involved in seedbed preparation in the Swayimane area. Women are involved in various stages of production including amongst other, seedbed preparation (Teklewold, 2013). However, equal participation from both men and women (38.3%) was reported. Women were more involved in seedbed preparation because applying fertilizer, compost and manure required spending longer hours in the field which men felt was inconvenient because time for leisure had to be reduced. Women were more involved in preparing the seedbed due to the assumption that production of food was their responsibility. Various constraints were reported: farmers spending longer hours in the field due to lack of sufficient and advanced resources for preparing the seedbed and also the impact these tools had to their health.

Similarly, more contribution from women was revealed in Sweetwaters. Fifty-two percent (52.8%) women were involved in seedbed preparation compared to 14.9% men. Alesina et al (2011) states that gender influences the allocation of work during seedbed preparation. However, an equal role played by both men and women (22.2%) was revealed. Although the percentage of men's involvement was low, men stated that the use of tractors during seedbed preparation was why they got involved as they felt only men could operate these. However, the farmers were concerned about the availability and accessibility of tractors as they reported having access to one tractor that was shared amongst them. Furthermore, results showed that in both Swayimane and Sweetwaters, women faced time constraints from

working long hours in the fields and spending less time for other responsibilities such as household chores.

**Table 5.4: Involvement in seedbed preparation**

Area				Percentage %
<b>Swayimane</b>	N= 47			
	Men	6		12.8
	Women	20		42.6
	Men and women	18		38.3
	Women and children	3		6.4
	<b>Total</b>			100
<b>Sweetwaters</b>	N= 36			
	Men	7		14.9
	Women	19		52.8
	Men and women	8		22.2
	Women and children	2		5.6
	<b>Total</b>			100

### 5.3.2. Involvement in transplanting (seedling)

Transplanting also showed a higher proportion of women compared to men in both Swayimane and Sweetwaters as presented in table 5.5. Responses from the survey revealed that in Swayimane, 61.7% women were involved in transplanting compared to 4.3% men. However, cooperation (29.8%) from both parties was reported. Men tilled the soil whilst women planted the seeds. Nonetheless, women comprised a higher proportion compared to men.

In Sweetwaters, a similar case was revealed. Women contributed higher (63.9%) than men (2.8%). Equal involvement of men and women (27.8%) was reported. Children (2.8%) assisted in the process. Men tilled the soil whilst women planted the seedlings. However, women continued to show a higher proportion.

**Table 5.5: Involvement in transplanting (seedling)**

Area	Percentage %	
<b>Swayimane</b> N= 47		
Men	2	4.3
Women	29	61.7
Children	1	2.1
Women and men	14	29.8
Women and Children	1	2.1
<b>Total</b>		100
<b>Sweetwaters</b> N= 36		
Men	1	2.8
Women	23	63.9
Children	1	2.8
Women and men	10	27.8
Women and Children	1	2.8
<b>Total</b>		100

### 5.3.3. Involvement in irrigation

Table 5.6 shows the gender differences in crop irrigation in the study areas. Gaps in men's and women's roles in the stage were identified and various reasons reported. In Swayimane, 25.5% women were involved in irrigation compared to 10.6% men. Chancellor (2006:2) states that "women in sub-Saharan Africa including Kenya and South Africa constitute more than half the labour force in irrigated agriculture and individual women contribute more hours than men". In other cases, children (12.8%) were also involved. According to the respondents, for crops to be irrigated, sufficient water and irrigation systems were essential. However, they reported travelling long distances to get sufficient water and also lack of proper irrigation systems. Less involvement from men and more from women was revealed due to the identified challenges. According to Wahaj *et al* (2012), in most African counties, an estimated average of 6 kilometres is the distance that women have to travel to fetch water for irrigation or household use.

In Sweetwaters, 50% women were involved in irrigation compared to 11% men. Co-operation from both men and women (22.2%) was revealed. Respondents reported difficulties accessing clean and sufficient water and the distance travelled to fetch water from where the

river and community taps are located to the production fields. Similar to Swayimane, men were less involved than women due to the identified challenges. Women therefore reported the involvement of children (2.8%) to help lessen the workload. Responses from focus group discussions further showed more involvement of women than men in the irrigation.

Overall, the farmers reported that due to the constraints with accessing clean and sufficient water, they were limited from producing the required quantity and quality crops and therefore most of the vegetables they produced were for household consumption. The relationship between access to water and land was revealed. The farmers amongst which were women, reported lower level of production and productivity due to difficulties accessing essential resources such as land and water.

**Table 5.6: Involvement in irrigation**

Area		Percentage %
<b>Swayimane</b> N= 47		
Men	5	10.6
Women	12	25.5
Women and men	6	12.8
Women and Children	13	27.7
Men, women and children	11	23.4
<b>Total</b>		100
<b>Sweetwaters</b> N= 36		
Men	4	11.1
Women	18	50.0
Women and men	8	22.2
Women and Children	5	13.9
Men, women and children	1	2.8
<b>Total</b>		100

#### **5.3.4. Involvement in crop management**

Results from the survey revealed that a higher proportion of women were involved in crop management compared to their male counterparts. Table 5.7 reveals that in Swayimane, involvement of women in the management of crop was higher (48.9%) than that of men (27.7%). However, the results also showed equal participation of men and women (17.0%) in

the stage. Women were involved in weeding and pest control and operation of tractors was carried out by men. However, constraints from crop management were reported especially by women farmers. Crop loss and lack of sufficient knowledge and information on crop management were amongst the constraints which impacted on their level of production and productivity and limiting them from participating in the formal markets.

Results from Sweetwaters also revealed more women (61.1%) managing crops compared to men (19.4%). Equal involvement of both men and women (13.9%) was also reported. Men showed a lower percentage but were involved in pest control and the use of other chemicals whilst women controlled weeds. Cooperatives with trained members on crop management benefited such that the crops produced were of good quality and quantity. Men received more training than women because of their perceived status in societies. Inequalities in the provision of training had implication on the quantity and quality of the vegetables produced by women because the quality of crops they produced were not marketable, preventing them from participating in the market and generating household income.

In both Swayimane and Sweetwaters, women stated that their involvement in the management of crops contributed to the time constraints they were faced with as they has to spend more time in the field, ensuring that crops grow and that there are no losses. Such resulted in household conflicts as women were struggling to manage being in the field and fulfilling household responsibilities.

**Table 5.7: Involvement in crop management**

Area		Percentage %
<b>Swayimane</b> N= 47		
Men	13	27.7
Women	23	48.9
Women and men	8	17.0
Women and Children	3	6.4
<b>Total</b>		100
<b>Sweetwaters</b> N= 36		
Men	7	19.4
Women	22	61.1
Women and men	5	13.9
Women and Children	1	2.8
<b>Total</b>		100

### 5.3.5. Involvement in transplanting

The transplanting of seeds in both study areas was not greatly practiced. However, gender inequality was revealed where seedlings were transplanted. Table 5.8 shows that women were found to be more involved than men. In Swayimane, 31.9% women were involved and 4.3% men involved. Cooperation (25.5%) was also reported. Women were more involved than men due to the time consumed during the process and also as men preferred to buy the seedlings.

In Sweetwaters, 55.6% women were involved in transplanting compared to 4.3% men. Cooperation (22.2%) was reported. Men were involved in building the green house and in the selection of seeds, soil mixing, preparing containers and preparing seedlings.

**Table 5.8: Involvement in transplanting**

Area			Percentage %
<b>Swayimane</b>	N= 47		
	Men	2	4.3
	Women	15	31.9
	Women and men	12	25.5
	Women and Children	2	4.3
	None	16	34.0
	<b>Total</b>		100
<b>Sweetwaters</b>	N= 36		
	Men	2	5.6
	Women	20	55.6
	Women and men	8	22.2
	Women and Children	6	16.7
	None		
	<b>Total</b>		100

### 5.3.6. Involvement in harvesting

Gender inequality found in other production stages was less in the harvesting stage as there was more cooperation and the involvement of the family. According to farmers, harvesting was less time consuming and less labour intensive thus the reason for more the involvement of more members, including men. Results from the survey as presented in table 5.9 show that

in Swayimane, more cooperation (42.6%) as opposed to ranking men and women separately, rated higher in the harvesting stage and this was because crops were ready to be consumed, sold and income was to be generated and also because the stage was less labour intensive. Ogato *et al* (2009) states that cooperation between men and women exists in harvesting as it is not highly labour intensive. Nonetheless, women continued to show a higher percentage (38.3%) compared to men.

Similarly, in Sweetwaters the proportion of women (52.8%) involved in harvesting was higher compared to that of men (5.6 %). However, high levels of cooperation (41.7%) between men and women were reported. Cooperation existed as the stage was less physically demanding and less time consuming. According to the farmers, an increase in cooperation posed complications for women especially because they lost decision making power pertaining to crops to sell and crops to consume.

**Table 5.9: Involvement in harvesting**

Area	Percentage %	
<b>Swayimane</b> N= 47		
Men	1	2.1
Women	18	38.3
Women and men	20	42.6
Women and Children	5	10.6
Men, women and children	3	6.4
<b>Total</b>		100
<b>Sweetwaters</b> N= 36		
Men	2	5.6
Women	19	52.8
Women and men	15	41.7
Women and Children	0	0.00
Men, women and children	0	0.00
<b>Total</b>		100

Tables 5.10 shows a summary of the gender relations found in the production stages in the Sweetwaters and Swayimane study areas. Overall, results from surveys revealed the major role played by women in subsistence and smallholder horticultural production and thus in household food security. However, despite the important role they play, women continued to



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face challenges especially with access to important assets such as land and water in particular and other resources essential for production. Furthermore, the results revealed that the involvement of men was due to specific reasons amongst which were economic benefits. Figure 5.2 depicts a graph of the summary of survey results on the involvement of men and women in the production stages in Swayimane and Sweetwaters as presented in table 5.10.

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<b>Table 5.10. Summary of survey results on the involvement of men and women in the stages of production in Swayimane and Sweetwaters.</b>						
	<b>Men (%)</b>	<b>Women (%)</b>	<b>Children (%)</b>	<b>Men and women (%)</b>	<b>Women and children (%)</b>	<b>Men, Women and children (%)</b>
<b>Sweetwaters</b>						
Soil preparation.	14.9	52.8	0	22.2	5.6	0
Transplanting (seeding)	2.8	63.9	2.8	27.8	2.8	0
Irrigation.	11.1	50.0	0	22.2	13.9	2.8
Crop management.	19.4	61.1	0	13.9	2.8	0
Harvesting.	5.6	52.8	0	41.7	0	0
Transplanting.	5.6	55.6	0	22.2	0	0
<b>Swayimane</b>						
Soil preparation	12.8	42.6	0	38.3	6.4	0
Transplanting (seeding)	4.3	61.7	2.1	29.8	2.1	0
Irrigation.	10.6	25.5	0	12.8	27.7	23.4
Crop management	27.7	48.9	0	17.0	6.4	0
Harvesting.	2.1	38.3	0	42.6	10.6	6.4
Transplanting	4	31.9	0	10.6	0	0

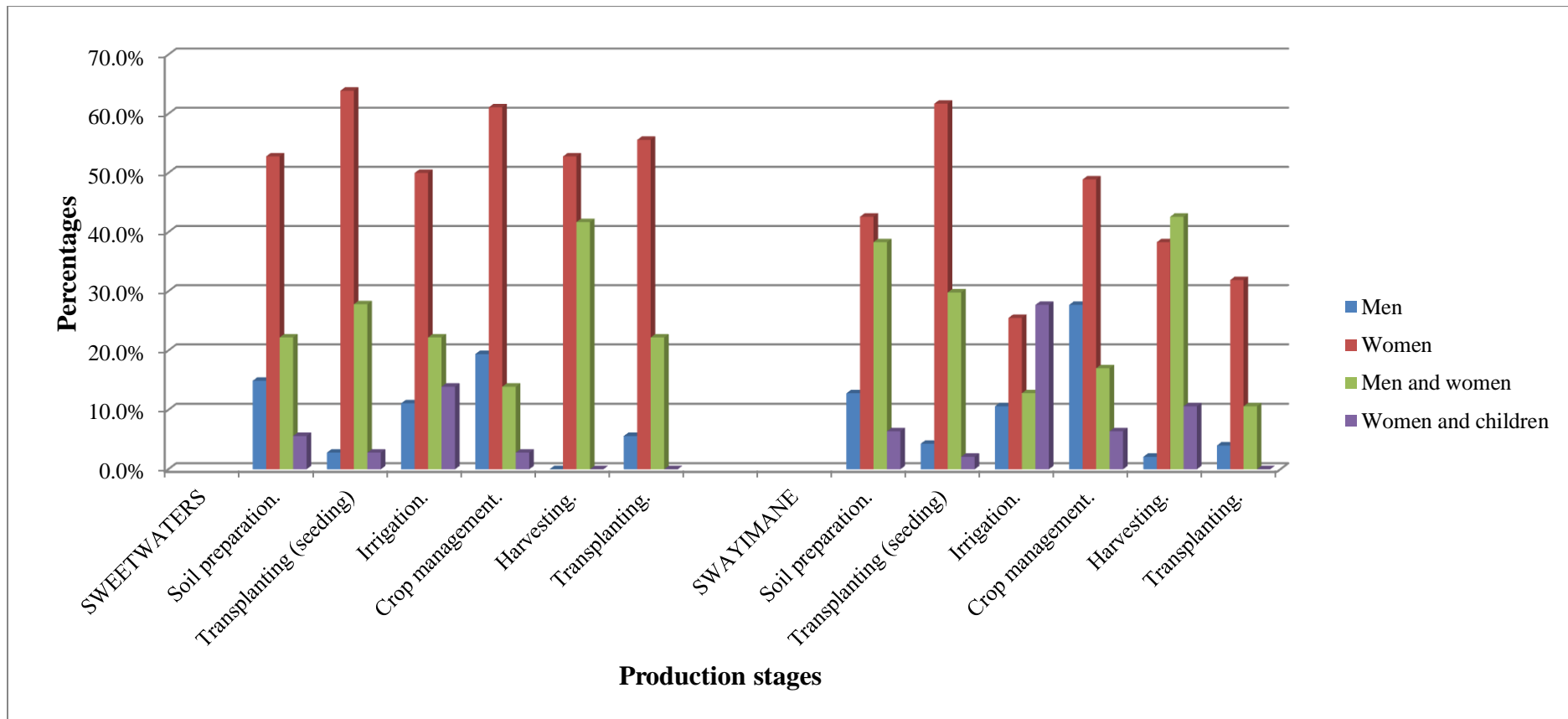


Figure 5.2: Graph showing a summary of survey results on the gendered involvement of men and women in the stages of production in Swayimane and Sweetwaters.

Table 5.11 shows a summary of the gender relations found in the different stages of production as well their implications in household food security and household relations. Overall, women played a major role in production but were faced with various challenges linked to each stage in production. Women in both Swayimane and Sweetwaters faced time constraints as they had to work longer hours in the field whilst also having to allocate time for household responsibilities. However, in the study areas, but mostly in Swayimane, where subsistence and smallholder horticultural production was more prevalent, allocating enough time for maintaining both the reproductive and productive roles for women was challenging. As a result, the inability for women to fulfil other responsibilities influenced household conflicts. According to (FAO, 2012), women spend longer hours in the fields than in the households and therefore could fail to achieve both the production and reproduction roles which could also result in household conflicts.

Results from the survey also show that in both the study areas, women lacked access to assets such as land and water, agricultural inputs, and proper support structures impacting on their level of production and productivity and thus household food security. Furthermore, women reported purchasing inputs such as fertiliser and seeds from their own budget, interfering with the household income and therefore creating more household conflicts. Women also stated constraints with decision making especially in the stages where men were involved. According to Mgwali (2013), gender has influence in “on-farm” decision making, leaving women excluded from decision making on matters of production.

In the quest for addressing such challenges, women reported the need for effective and gender sensitive support structures to eradicate the gendered challenges experienced by women in subsistence and smallholder horticultural production and thus improve food security in the study areas. For instance, availability and accessibility of extension services focused more at improving the production level of women through the initiation of trainings and workshops which will strengthen their understanding and improve knowledge on agricultural production. Furthermore, Furthermore, the farmers also felt that the implementation of more gender sensitive programmes and policies directed at ensuring equal access to agricultural assets, improved cooperation on household responsibilities including households bound by culture and patriarchal relations and the recognition of the significant role played by women in the household and within communities, is critical.

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<b>Table 5.11. Table of summary of the gender relations in the stages of crop production from the results</b>			
<b>Stages</b>	<b>Involvement of women in the production stages (%)</b>	<b>Impact on household food security</b>	<b>Impact on household relations</b>
<b>Soil preparation</b>		Confront drudgery and time constraint, Lack of inputs food insecurity	Reproductive and productive role cause tension because women are unable to fulfil the roles Household finances affected because women lack capital and have to use own money to purchase fertilizer, seeds and other inputs
Swayimane	42.6%		
Sweetwaters	52.8%		
<b>Transplanting (seeding)</b>		Time constraint, Food insecurity	Too much time spent on field cause conflict; women unable to fulfil other roles
Swayimane	61.7%		
Sweetwaters	63.9%		
<b>Irrigation</b>		Gendered division of labour, lack access to irrigation schemes, extended hours in the field, food insecurity	Time constraint causing conflict because women fail to fulfil other roles
Swayimane	25.5%		
Sweetwaters	50%		
<b>Crop management</b>		Gendered division of labour, crop loss, lack of support structure, food insecurity	Crop loss affecting income generation thus entire family
Swayimane	48.9%		
Sweetwaters	61.1%		
<b>Harvesting</b>		Gendered decision making, Lack resources for processing, Food insecurity	Women lack power to make decisions regarding what happens to crops after harvesting
Swayimane	38.3%		
Sweetwaters	52.8%		
<b>Transplanting (replantation of seeds)</b>		Lack resources for transplanting, food insecurity	Household relation not affected much because not much time spent on the field
Swayimane	31.9%		
Sweetwaters	55.6%		

#### **5.4. Value Chain Analysis of Swayimane & Sweetwaters**

There are three key elements of the value chain analysis which are also important factors for the elucidation of the results gathered from the study areas. These key elements are: Barriers to Entry, Governance and Different types of Value Chains.

##### **5.4.1. Barriers to entry and rent**

Various barriers to entry were reported by the farmers in Swayimane and Sweetwaters thus impacting on their level of production. Access to land, water, extension services, access to sufficient agricultural inputs, markets, transaction costs and government and private sector support were amongst the reported barriers to entry. According to the respondents, the factors that determined men's and women's access to assets were the customary and statutory laws governing the study areas. Moreover, due to the customary and statutory laws, men had more leverage and advantage over women in decision making in the household and in the field whilst women continued to be subordinated despite their role as food producers. The reported barriers to entry had major implications for women: women were restricted from producing quality crops, deprived the opportunity to participate in markets, their position and role in the community was undervalued despite their contribution to household and community food security and they were deprived the opportunity to participate effectively in decision making and thus the opportunity to be empowered.

##### **5.4.1.1. Access to land**

Land is the most important source in subsistence and small scale horticultural production. According to the Commission for Gender Equality (2006-2009), land is the primary source of production without which production would not be possible. The survey results as indicated in table 5.12 reveals that 93.6% cooperatives in Swayimane had access to and ownership of land compared to 6.4% who did not. However, results from the survey questionnaire administered also reveal that women encountered difficulties accessing land compared to their male counterparts due to the customary and statutory laws influencing unequal access to the land. The women in Swayimane either accessed the land through inheritance, marriage or from negotiating with the Chief (which is less likely to happen). Rangarajan *et al* (2013:8) states that "Land tenure in South Africa is complex and varied due to the coexistence of statutory and communal land allocation systems, and/or of a hybrid of the two". Furthermore,

in the rural areas in South Africa, women's access to land is determined and restricted by their gendered and social positions in the communities. (Commission for Gender Equality, 2006-2009). Women accessed land through inheritance or marriage or from the death of family member whilst men accessed land without any form of ruling.

Overall, the results gathered from Swayimane and presented in table 5.12, show that the limited and restrictive measures of accessing land impacted on women's efforts to ensure household food security. Thamaga-Chitja *et al*, (2010) states that, women suffer marginalization by the customary and statutory laws, affecting their efforts to derive "land-based livelihoods" and thus food security.

In Sweetwaters, the results from the survey show that 94.4% co-operatives had access to and ownership of land and 5.6% had no access to land amongst which were women. Similar to Swayimane, the customary laws governing Sweetwaters determined access to land for both men and women, with men accessing and owning large hectares of land compared to the land that women have access to. Moreover, results from focus group discussions presented in table 5.18 also revealed gendered access to land in the Sweetwaters area. Women reported accessing land through inheritance and their spouse or male relatives whilst access to land for men was without limitations. Women reported having access to land through purchasing it in a form of monetary exchange with the Chief or exchange with other tangible items. Consequently, according to the responses, the restricted access to and ownership of land had implications for the farmers' level of production and access to other essential assets crucial for horticultural production. Furthermore, concerns were also on the ownership and secured land tenures and title deeds to protect them from losing the land.

A study conducted by Rangarajan *et al*, (2013), found that divorced or separated women reported to having ownership of land through negotiation and purchasing the land from the chief or the neighbours either with money, exchange of material or "verbal agreement". Similar results were drawn from both the study areas. The constraints associated with access to and ownership of land in Swayimane and Sweetwaters impacted on the farmer', especially women's level of production and were deprived the opportunity to acquire physical assets for chain activities as well as to access chain services.

**Table 5.12: Access to land for vegetable production**

Area		Percentage %	
<b>Swayimane</b>	N= 47		
	No	3	6.4
	Yes	44	93.6
	<b>Total</b>		100
<b>Sweetwaters</b>	N= 36		
	No	2	5.6
	Yes	34	94.4
	<b>Total</b>		100

#### 5.4.1.2. Land fertility and sufficiency

The fertility and adequacy of land was amongst the challenges encountered by the farmers in Swayimane and Sweetwaters. Table 5.13 captures the responses of men and women from the study areas. Fifty-nine percent (59.6%) farmers amongst which were women, from co-operatives in Swayimane reported to using sufficient and fertile land for production. Land was sufficient and fertile for these farmers in Swayimane as they produced good quality and large quantities of crops. However, 40.4% farmers including women reported insufficient and infertile pieces of land. This is because they could only produce vegetables enough for household consumption. According to the Commission for Gender Equality (2006-2009), despite women comprising the majority of the population in production, their rights to land are restricted to only a small proportion of the land. Furthermore, both men and women, particularly women, reported access to insufficient and infertile land causing the crops they produced to not meet the standard of the market.

In Sweetwaters however, 69.4% women reported to having sufficient and fertile land. Land was sufficient as half of the farmers only produced for household consumption and are able to meet household food security. On the other hand, a few farmers (30.6%) hoping to produce for the market reported using insufficient pieces of land and were therefore unable to produce enough vegetables to sell to the markets. However, they reported selling their produce to neighbours in the community. According to (Morrison *et al*, 2007; Doss, 2001), despite how



land is accessed, women headed households have smaller land holdings compared to male headed households. Furthermore, such land can be less fertile.

**Table 5.13: Land fertility and sufficiency**

Area				Percentage %
<b>Swayimane</b>	N= 47			
	No	19		40.4
	Yes	28		59.6
	<b>Total</b>			100
<b>Sweetwaters</b>	N= 36			
	No	11		30.6
	Yes	25		69.4
	<b>Total</b>			100

The cultural and traditional perspectives guiding the two areas and influencing gendered access to land had major implications for women in particular because the common perceptions surrounding communities set more boundaries to women than men, as indicated by the farmers in the focus group discussions. Women were deprived the opportunity to economically benefit from their work, thus made it difficult to meet household food security. Furthermore, limited access to sufficient and fertile land implied that women could not fully participate in value chain development, particularly the market. Women were more bound by these challenges because of their subordinated position in their communities, emanating from the communal perspectives and household relations.

#### **5.4.1.3. Access to agricultural inputs**

Another barrier to entry revealed from the survey results was access to agricultural inputs that farmers felt was crucial. Results from the survey as presented in table 5.14 shows that 78.7% women in Swayimane had access to agricultural inputs compared to 21.3% with no access. The farmers had access to seeds, fertilizer, manure, compost (prepared by them from the remaining wasted crops) and a tractor which they were responsible for maintaining. However, despite access to the inputs, they were inadequate. Responses from focus group discussions also revealed that farmers had access to inadequate inputs and resources essential for production.

Lack of knowledge on processing and the resources required for participating in the value chain were also barriers to entry reported by the co-operatives. This is because some of the farmers grew fruits and ground nuts but could not process and sell them to the market and only produced them for household consumption.

On the other hand, in Sweetwaters, 41.7% farmers compared to 58.3% had access to agricultural inputs such as fertilizer, seeds, a tractor and manure that were provided by the government Departments and Non-Governmental Organizations (NGO's). The farmers without access to agricultural inputs, reported limited access to more seedlings, fertilizer and fully functional and adequate tractors. Results from the focus group discussions showed that access to agricultural inputs was a constraint for farmers including women in Sweetwaters as they also reported having to hire tractors at a high price from other farmers which affected their budget and profit.

**Table 5.14: Access to agricultural inputs**

Area		Percentage %	
<b>Swayimane</b> N= 47			
	No	10	21.3
	Yes	37	78.7
	<b>Total</b>		100
<b>Sweetwaters</b> N= 36			
	No	21	58.3
	Yes	15	41.7
	<b>Total</b>		100

#### **5.4.2. Governance**

Governance according to Kaplinsky & Morris (2000) is said to ensure that value chains operate in an organised manner. In this instance, value chains are governed when boundaries pertaining to “product”, “process” and “logistic qualification” are set and which have an effect up and down the value chain surrounding a collection of activities actors involved, their roles and their functions. Kaplinsky & Morris (2000) further described governance by making a distinction between three parties involved, the “legislative governance” which is involved with the setting of standards for suppliers relating to quality and deliveries, “judicial governance” involved in the monitoring of the suppliers performance in meeting the

standards and the “executive governance” which involves “producer associations” responsible for assisting producers with meeting the standards for participating in the value chain. In the study areas, the farmers were governed by the institutions such the government Departments and Non-Governmental Organizations that provided them with relevant information, resources, links to the market and other assets essential for production.

#### **5.4.2.1. Access to government and Non-Governmental Organization (NGO) support**

In Swayimane and Sweetwaters, an attempt to ensure improved production of vegetables and effective participation in value chains through effective provision of services was initiated. Table 5.15 shows that in Swayimane, 44.7% cooperatives amongst which were women, received assistance from government and Non-Governmental Organizations (NGOs). The Zimele Self-help Association (an NGO) ensured provision of technical skills related to production and empowering women particularly to be able to handle income generated from the sold produce. Results further show that the farmers received services from the Department of Agriculture, Forestry and Fisheries that provided them with extension services. The results from the survey also revealed that the government and NGO services were gender sensitive especially because the services provided to women was to improve their level of production to be in the same level as that of men.

Similarly, 11% farmers including women farmers in Sweetwaters reported having received services from the government and an NGO. The Department of Agriculture, Forestry and Fisheries also provided them with extension services. Information on production was received from an NGO that initiated trainings in order to capacitate and inform the farmers on the production processes. Financial assistance was also provided to the farmers by KZN Wildlife for the purpose of ensuring that farmers were able to maintain resources and equipment required for the proper functioning of their crop-based businesses. Furthermore, results from focus group discussions as indicated in table 5.18 reveals that the farmers received more training and skills development pertaining to the classification of soil suitable for producing.

Overall, there were women farmers who continued to encounter challenges accessing the available support structures due to the policies and programmes lacking gender sensitivity and thus not responsive to the needs of women farmers. Therefore there is a need for more gender sensitive policy interventions directed at addressing challenges affecting women

farmers and also improving access to services for increased and improved level of production.

**Table 5.15: Access to government and private sector (NGO) support**

Area				Percentage %
<b>Swayimane</b>	N= 47			
	No	22		46.8
	Yes	25		53.2
	<b>Total</b>			100
<b>Sweetwaters</b>	N= 36			
	No	24		66.7
	Yes	12		33.3
	<b>Total</b>			100

#### 5.4.2.2. Access to extension services

Extension service allows for agricultural knowledge building and improvement, adoption and productivity and is a cost effective measure for allowing farmers to improve their economic gains (FAO, 2011). The results from the survey show that farmers from Swayimane and Sweetwaters received extension services. Table 5.16 reveals that 83.9% farmers from the Swayimane area received extension service from an extension officer employed by the Department of Agriculture, Forestry and Fisheries whilst 19.1% were not receiving extension services. According to the farmers, the extension officer ensured effective and efficient provision of trainings pertaining to vegetable production and other important agriculturally related information the farmers needed to be informed about. Furthermore, the type of training the farmers received included extensive knowledge on the application of pesticides, suitable soil for production and ways to deal with unexpected climatic shocks.

Similarly, farmers in Sweetwaters amongst which are women also received extension services. Seventy-seven percent (77.8%) farmers did not receive extension services compared to 22.2% that did. Farmers did not receive extension service because they were either fairly new and have not been introduced yet or they were located in isolated areas where services are scarce. However, farmers that received extension services, from government and an NGO where training and other essential resources for ensuring production of good quality crops were provided. However, concern was on the extent to which the services reached the farmers due to fewer farmers receiving extension services as there is a

limited number of extension officers against a high proportion of farmers requiring support. According to the farmers, an increase in the number of employed extension officers was crucial. Results from focus group discussions as shown in table 5.18 also revealed concern on the extension services provided due to the level at which farmers are reached. However, a different perspective came from some of the farmers in the Swayimane area who reported producing good quality and quantity vegetables and also participating in the markets and generating income despite the existing shortfalls.

A farmer pointed out: “*sesiyawubona umehluko omkhulu ezingeni lethu lokutshala selokhu kwafika uLamlile kanti futhi wona lomehluko waqala kusakhona uWiseman, siyajabula futhi ngoba basixhumanisa nemakethe*”, meaning that they now see an improvement in their level of production and productivity ever since they received extension service and also because through extension service, access to the market has been possible.

Results from the focus group discussions presented an improvement in the level of production and productivity in at least half of the farmers from both study areas but mostly in Swayimane. Farmers in Sweetwaters reported low levels of production and limited access to the markets. Furthermore, fairly new cooperatives and most of which consisted of women struggled to receive any form of support as they were not recognised and also lacked information connecting them with suitable organizations for registering to be recognised and receive support.

**Table 5.16: Access to extension services**

Area		Percentage %	
<b>Swayimane</b>	N= 47		
	No	9	19.1
	Yes	38	80.9
	<b>Total</b>		100
<b>Sweetwaters</b>	N= 36		
	No	28	77.8
	Yes	8	22.2
	<b>Total</b>		100

Table 5.17 presents a summary of the total percentages of the responses from the survey results on access to assets and support structures for farmers and more particularly women, in Swayimane and Sweetwaters.

<b>Table 5.17. Survey responses on access to assets and support structures in Swayimane and Sweetwaters.</b>		
<b>Access to assets and support structures</b>	<b>Responses on access to agricultural assets and support structures.</b>	
	<b>Yes (%)</b>	<b>No (%)</b>
<b>Swayimane</b>		
Access to land.	93.6	6.4
Land sufficient for producing	59.6	40.4
Women and access to agricultural inputs.	78.7	21.3
Extension service.	80.9	19.1
Availability of government and NGO support.	53.2	46.8
<b>Sweetwaters</b>		
Access to land.	94.4	5.6
Land sufficient for producing	69.4	30.6
Women and access to agricultural inputs.	41.7	58.3
Extension service.	22.2	77.8
Availability of government and NGO support.	33.3	66.7

Table 5.18 presents the summary of the farmers' responses from the focus group discussions conducted in Swayimane and Sweetwaters. Results from focus group discussions showed that access to important agricultural assets such as land especially, impacted on the farmers' level of production and productivity thus implying fewer opportunities for participation in the market. Furthermore, access to markets was also a concern for women as they reported crop loss in the absence of formal or informal markets more particularly in Swayimane. Women were found at the lowest level of the value chain and were thus absent in marketing where men were present. The farmers in Swayimane and Sweetwaters, but more particularly in Swayimane, stated that the customary laws and other formal laws shaping men's and women's role, influenced the exclusion of women in marketing whilst more of them were found in production.

The results from the focus group discussions conducted in both study areas also revealed the absence of appropriate policies and programmes formulated and intended to be implemented to address the challenges encountered by the farmers, particularly, women as they were continuously subordinated and constrained in accessing assets for production, such as land for instance. Furthermore, the absence of these policies and programmes impacted on the women's levels of production and productivity and on household food security. There were farmer groups in the study areas which were critical for improving crop production through farmer to farmer education and other initiatives. However, these groups were not active and not well known especially by supporting institutions which made it more difficult to address the existing challenges.

In addressing the challenges facing the farmers especially women, farmers stated the need for the development and the effective implementation of programmes especially gender sensitive programmes in order to remedy gender inequality and influence improved relationships between women and men both in the household and in the field.

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Table 5.18. Focus Group Discussions responses	
Questions	Responses
1. Are women more involved than men in the production of the vegetables in the area? If yes. Why?	<b>Swayimane:</b> “Both men and women are involved so that in the absence of one party, the remaining party will be able to continue with the work” <b>Swayimane and Sweetwaters:</b> “More women are involved in production than men and this is because of their responsibility in ensuring household food security and also because men believe that it is women who are supposed to be involved anyways”
2. Are there any farmer groups in the area?	<b>Swayimane:</b> Yes but they are not active <b>Sweetwaters:</b> Yes but they are not well-known
3. Do women farmers form part of those groups?	<b>Swayimane:</b> Yes <b>Sweetwaters:</b> Yes
4. Is access to land, extension services and agricultural inputs an issue for women farmers in the area or is it also an issue for men as well? If so. How?	<b>Swayimane and Sweetwaters:</b> “it is a problem for both men and women but more of a problem for women because they are more involved in production than men, as you can see that most of our groups consist of majority of women and one or two men and even the chairperson of each group is a woman ” <b>Swayimane and Sweetwaters:</b> “We do not have access to tractors and if there is one, it is not readily available to us” <b>Sweetwaters:</b> “We have to hire or buy inputs like fertiliser, seeds and other materials required during production at a higher price” <b>Sweetwaters:</b> “We only receive extension service once a month and this is because there is only one extension officer assisting us”. “Sometimes we get service from a group of white people who say they come from a certain NGO who come and teach us about how production works”
5. How is labour divided in the production process between men and women?	<b>Sweetwaters and Swayimane:</b> “There is no division of labour” <b>Sweetwaters and Swayimane:</b> “Men tend to do work such as fencing and assist a bit with some of the work like applying of seeds in the ground, preparing the seedbed and harvesting but most of the work is done by women”
6. What implications does the issue of access have on women farmers’ level of productivity and production?	<b>Sweetwaters:</b> “We are not able to produce enough to sell to the market and only produce for household consumption” <b>Swayimane:</b> “If we are able to sell to the markets, it is still a challenge because we have to try to produce as much as we can using the small plot of land that we have” <b>Sweetwaters:</b> “We can only sell to our neighbours or people with small “tuck shops” in the area because the quality of vegetables that we produce is not good and if no one comes to buy, our vegetables go to waste”
7. How is household food security affected?	<b>Sweetwaters and Swayimane:</b> “Household food security is affected to a certain extent because we are able to produce to feed the entire family but we are unable to cater for other needs such as education because we do not make enough money”
8. Are there any programmes or policies implemented that support women farmers in production?	<b>Swayimane and Sweetwaters:</b> “no there are no specific programmes or policies except the institutional support from the KwaZulu-Natal Department of Agriculture and Rural Development and the Non-Governmental Organizations such as the Zimele Self-help Association, that we are getting”
9. How is labour divided in the different stages of the vegetable value chain? Who does what?	<b>Swayimane:</b> ” women are found more in all the stages of production, a few men in processing (washing of potatoes and putting them in plastic bags “packaging”) and men more visible in marketing” <b>Swayimane:</b> “Both men and women involved in every stage of the value chain” <b>Sweetwaters:</b> “women involved in every part of the value chain except marketing”
10. Do vegetable women farmers benefit from market-oriented production? If no. why? If yes. How?	<b>Swayimane:</b> “Sometimes because both men and women are involved in the selling of the vegetables” <b>Swayimane and Sweetwaters:</b> “Not really because even if the woman is involved, it is the men who initiates everything”
11. What influences the disparities in men’s and women’s participation in value chains and marketing? How?	<b>Swayimane and Sweetwaters:</b> “In the household, the men gets to say how things are done in the house, so sometimes this also happens in the field and marketing”



## **5.5. The influence of gender in marketing and value chain development in the study areas.**

Women play a major role as food producers but their contribution is neglected. However, they are invisible in markets and are found at the lowest levels of the value chain, limiting potential for contributing to household income (KIT et al, 2012).

### **5.5.1. Involvement in marketing**

Participating in markets was a major constraint for women in the study areas as a result of gender inequality dictating and allocating varying roles for men and women in the markets.

In Swayimane, results from the survey as presented in table 5.19 show more involvement of men in the market than women. Twenty-three percent (23.4%) women were involved in marketing compared to 38.3% men. However, the involvement of both men and women (29.8%) was also reported. A higher proportion of men were visible and women less visible in the marketing stage because they controlled household income. Hill & Vigneri (2009:2) state that “in a number of contexts “cash” crops also differ from “food” crops in that social norms dictate that they traditionally imply more male involvement in some of the decision making, production and sale processes”. In the case where both men and women were involved, women reported handing over the money to the men after produce has been sold. Mutopo (2010) states that both men and women are involved in crop farming but it is the men who take lead in making decisions and controlling income that is earned from them and in most cases women do not even get to know the amount of money the man makes from selling the crops. However, in female-headed households where males are absent as a result of male labour migration, women participate in the market and generate household income (Mokoena, 2008).

In Sweetwaters, 11.1% women were involved in the market as opposed to 13.9% of men. Women were involved in marketing to observe and men sold the crops because they handled household income. Women who were absent in marketing reported absent due to transportation costs and other associated costs. Results from the focus group discussion as presented in table 5.18 also revealed the absence of women in the market. However, twenty five percent (25%) cooperation of both men and women was reported. Women reported having participated in the market as observers because it was commonly understood that

women belong in the house, taking care of the kids and other household responsibilities while men generated income, hence they were excluded from participating in the market.

**Table 5.19: Access to and participation in the market**

Area			Percentage %
<b>Swayimane</b>	N= 47		
	Men	18	38.3
	Women	11	23.4
	Men and women	14	29.8
	None	4	8.5
	<b>Total</b>		100
<b>Sweetwaters</b>	N= 36		
	Men	5	13.9
	Women	4	11.1
	Men and women	9	25.0
	None	18	50.0
	<b>Total</b>		100

Results from the focus group discussions revealed that women, particularly in Swayimane were involved in all stages of the value chain but mainly in the production stage which is the lowest level of the value chain. Fewer men were visible in the processing stage but more were found in the marketing stage. However, a concern with men handling income was raised as it was believed that men used the money for their personal needs whilst women ensured that all household needs are met. The farmers therefore, felt it was crucial that women manage household income generated for ensured household food security. Mutopo (2010) states that, when women are in control of household finances and economic decision making, household food security is met including health, children's education and nutrition; this is because women are more aware of the household situation and take more responsibility than men.

## **The three key elements of Value Chain Analysis.**

### **5.5.2. Barriers to entry and rent.**

#### **5.6.1.1. Transaction costs.**

Transaction costs were amongst the barriers to entry that farmers in Swayimane and Sweetwaters encountered. Results from the survey as presented in table 5.20 show that in Swayimane, 31.9% farmers amongst which are women, experienced transaction costs compared to 68.1% of those who did not. Co-operatives who sold their produce to the market encountered transaction costs due to transportation costs and costs associated with information on pricing. Consequently, farmers therefore were limited from accessing the market. Farmers are usually able to physically access “output market” however when the costs associated are high, participation in the market becomes limited (Hill & Vigneri, 2009). However, farmers that sold their produce at their farm gates reported having not encountered transaction costs.

In Sweetwaters however, 8.3% women experienced transaction costs compared to 91.7% who did not. Farmers who sold their produce to the markets reported having encountered transaction costs from transportation costs such as petrol which costs approximately, R10.90 a litre and was considered expensive because the vans needed for transporting the crops are old and fuel consuming. Farmers whose target market was the community did not experience transaction costs. Transaction costs, according to the farmers had implication on profit as most of the money had to be used to cover transports costs and other associated costs. Results from the focus group discussions presented in table 5.18 also revealed that there were farmers only sold their produce to neighbours or community members who owned small shops (tuckshops) thus did not experience transaction costs.

**Table 5.20: Transaction costs**

Area			Percentage %
<b>Swayimane</b>	N= 47		
	No	32	68.1
	Yes	15	31.9
	<b>Total</b>		100
<b>Sweetwaters</b>	N= 36		
	No	33	91.7
	Yes	3	8.3
	<b>Total</b>		100

### 5.5.3. Different types of value chains

#### 5.6.2.1. Large retailers and wholesalers

Table 5.21 shows the proportion of farmers from both Swayimane and Sweetwaters who sell their produce to large retailers and wholesalers. In Swayimane, 29.8% farmers sold their produce to retailers and wholesalers such as Spar, Save, Shoprite and New Port and 70.2% sold their produce to community members or they consumed the crops. According to the farmers, the high percentage of co-operatives not selling their produce to the big markets resulted from the weak market networks. Consequently, their target markets were roadside vendors, local crèches, churches, health facilities and schools with feeding schemes.

In Sweetwaters 5.6% women reported to selling their produce to large retailers and wholesalers compared to 94.4% not selling their produce to any retailers and wholesalers. Similar to Swayimane, the small percentage of the co-operatives selling their produce to retailers and wholesalers was because most the farmers were producing for household consumption and also due to weak market connections. However, the target markets for the farmers not selling their produce to retailers and wholesaler were community members owning small shops (tuckshops).

The farmers who sold their produce to large wholesalers and retailers reported various constraints amongst which were transaction costs, unsatisfactory relationships between the farmers and the retailers especially with the pricing of the produce. For instance, 1 kilogram bag of maize cost approximately R10, because retailers and wholesalers bought the crop in bulks, conflict occurred when they would not want it to be priced and buy it as per kilograms.

**Table 5.21: Farmers selling vegetables to large retailers and wholesalers**

Area		Percentage %	
<b>Swayimane</b> N= 47			
	No	33	70.2
	Yes	14	29.8
	<b>Total</b>		100
<b>Sweetwaters</b> N= 36			
	No	34	94.4
	Yes	2	5.6
	<b>Total</b>		100

### **5.7. Policy and programme actions required to engender agricultural value chain development for improved food security and income generation.**

In sub-Saharan Africa, poverty is highly gendered. A large proportion of the population, amongst which is women, are most likely to be influenced by poverty yet they contribute 70% to 80% of agricultural production and thus food security (Thamanga-Chitja, 2012). Despite the important role women play, they are faced with various challenges in their involvement in value chain development due to the gender differences that exist. Women are more involved in the production and value adding stage but are absent in the marketing stage (Pionetti, 2010).

They lack the necessary resources required for agricultural production, thus posing a challenge in their level of production. Access to resources and land influenced by the complex customary laws governing their communities is a major constraint faced by women in the study areas, Swayimane and Sweetwaters. It is therefore crucial for policy makers to engage with cultural structures and lobby for the rights of women and to negotiate the use of fair cultural aspects (Friedrich Ebert Stiftung Conference Summary Report Friedrich Ebert Stiftung Conference Summary Report, 2012).

The Commission for Gender Equality (2006-2009) argues that policy and programme alone cannot address the gender disparities in access to land due to the patriarchal nature of the societies. Therefore, “proper monitoring and evaluation systems with clear indicators, inclusive of gender disaggregated data should be put in place to ensure that there is a gender equitable land reform process” (Commission for Gender Equality, 2006-2009:8). Furthermore,

Women in the study areas faced the burden of balancing household chores with agricultural activities and were thus time constrained from having to spend most of their time working and had limited time for leisure and other activities outside agriculture and the household. Time constraint causes tension between men and women at some point because of failure to fulfil all the roles allocated to women (Friedrich Ebert Stiftung Conference Summary Report, 2012). Such aspects are important areas of concern and need to be included in the programmes and policy planning. Women were identified to be doing more work than men but not acknowledged and recognised. Policy and programmes formulated must ensure that women in the study areas and South Africa as a whole are not only incorporated in all the stages of the value chain but are provided with support and that communities are made aware of the burdens they are faced so as to change the negative mind-set directed at women (Friedrich Ebert Stiftung Conference Summary Report, 2012).

Irrespective of their extensive involvement in production and other stages of the value chains including value adding, women are absent in the marketing stage where their male counterparts are visible (Hill & Vigneri, 2009). Swayimane and Sweetwaters were the two study areas that experienced similar situations with men more visible and women absent in the market. The inclusion of women in all stages of the value chain especially in marketing will have an impact on the household economy and food security for the households in Swayimane and Sweetwaters as women will be granted the opportunity to generate income that would contribute towards the children's education, health and the general welfare of the households (Mutopo, 2010).

In addition, in an attempt to address the gender dynamics in the value chain especially marketing, government could cooperatively work with external stakeholders to allow various perspectives and thus initiate effective interventions. The farmers in the study areas strongly suggested more involvement of institutions especially because addressing the constraints that women face, might require different perspectives that will contribute effectively in the establishment of initiatives for addressing gender inequality in production.

The application of a gender lens in the value chain analysis, policy and programme planning will help provide greater understanding of access to productive resources by both men and women and the chance for women to add value as an individual or a group (UNDP, 2006). A gender approach will also ensure an understanding of the gender based division of labour and the ways in which interaction between men and women, power relations, regulation and trade influence distribution of value across the value chain (Laven *et al*, 2011).

## **6. CONCLUSION AND RECOMMENDATIONS**

### **6.1. Conclusion**

In Swayimane and Sweetwaters the involvement of men and women in production and the stages of produced was gender drive. More women were found in the production stages (seedbed preparation, transplanting, irrigation, crop management and harvesting) compared to males who were more likely to be found in land preparation, transplanting, harvesting and marketing. In essence, women play a major role in the production of food and in ensuring household food security. However, despite the significant role that women in the areas played; the results reveal that their work is undervalued and continue to encounter challenges with access to assets, essential for production: access to land, sufficient and clean water, agricultural inputs, extension services and institutional support. Such implies that much more still needs to be done as various policies and programmes have been developed and implemented but continue to be gender insensitive and fail to address all that they were designed for including the elimination of gender inequality in agriculture and the recognition of women and their role in food production and household food security.

Swayimane and Sweetwaters are rural areas, under traditional authority, guided by customary law. The results revealed that the gender inequality and the challenges with access, faced by women were highly influenced by these customary laws. The customary laws also had a major influence on the unequal power relations existing within households and in the communities where women reported less bargaining power in decision making on crops and other household matters. Women's roles continued to be shaped by the cultural perspectives dominant in the areas which led women having double roles (productive and reproductive), leaving them overburdened as they had to work in the field producing food, at the same time, attend to other household responsibilities. Results also showed that because women become so overburdened that they struggle to fulfil these roles accordingly, household conflicts occurred. Policy makers, gender activists and agricultural development experts should therefore ensure that plans focused on relieving women from these challenges are effectively developed and implemented and that women are involved and participate in the planning processes.

Women were also excluded from participating in the market where men were more visible and were found at the lowest levels of the value chain. This was influenced by the subordinate position that they occupy in their communities. However, there were women who reported having participated in the market, amongst which others reported being but to observe and not partake in any activities. This implies that market based policies should ensure the incorporation of a gender lens in order to allow women full access and participation in the markets and value chains.

## **6.2.Recommendations**

### **6.2.1. Research, policy and planning**

Despite the available information on the proportion of women involved in agricultural production, there is less research on their roles and responsibilities and needs of women farmers. It is therefore crucial that development initiatives, policy and planning take into cognisance women's roles, responsibilities and their needs in order to ensure that development programmes focusing on improving food security succeed. Improving women's production and productivity, agricultural research must focus on food crops produced by women as well as technologies to help reduce their agricultural labour.

In addition, understanding women's roles, needs and responsibilities and the gender disparities that exist on the ground as well as the decision making processes relating to production of food and livelihood strategies should be a priority for development directed at rural improvements and policy planning and formulation aimed at enhancing food security and nutritional status of women. Involving women into policy decision making and research is an important and positive strategy towards incorporating gender issues into national policies and strategies and thus achieving gender equality in agriculture and promoting women empowerment. In KwaZulu-Natal, this is practiced through public participation such as Izimbizo and public consultations, as enshrined in the national guiding document, the National Development Plan (NDP).

More project and political interventions to deal with women's needs in the agricultural sector and more particularly in value chain developments and their contribution thus in food security are required. However, extended efforts are essential so that attention to gender



becomes a central part of rural and agricultural development initiative and not a developmental strategy that will not last long. This can also be done through public participation engagements and community engagement for instance.

### **6.2.2. Access to assets for production**

The gender norms are a contributing factor towards women's constraint in agricultural production. The unequal distribution of resources between men and women can be linked with production inefficiency, yet interventions targeting smallholder farmers often fail to redress women's lack of access to and control of important agricultural resources. Women lack access and ownership of land, extension service, institutional support, natural resources and other complimentary resources such as seeds, fertilizer and technologically advanced assets. The KZN Provincial Growth and Development Strategy (PGDS) and The KZN Growth and Development Plan (PGDP) also make provisions on the support to be given to the poor especially female farmers towards achieving better access to resources essential for increased level of production and productivity.

It is therefore crucial that when formulating policies, programmes and development initiatives; decision makers take into account such factors: women farmers must have access to and be equipped with sufficient fertilizer and improved seeds so as to maximize the fertility of their land and thus produce quality crops. Since women have less training and access to fertility methods and are thus dependent on indigenous knowledge, seed and fertilizer vouchers should target small holder farmers with the aim of targeting female farmers especially from female-headed households.

Land is a significantly important assets required for crop production. Not only is the availability of land that is important but access to it is even more crucial especially for women who are involved in agricultural production. Promoting women's access to land has long been demonstrated in South Africa and a number land reform policies have been developed. However, these policies have faced major critics due to failure in addressing the gender disparities and the everlasting challenges faced by women in agriculture, relating to access to land. It would be crucial therefore that when policies directed at improving the lives of women farmers are being developed, the inclusion of these women is exercised. This will assist policy makers to better understand the exact factors contributing to unequal access to land between men and women.

Access to clean water is crucial for production and other needs. It is critical that women farmers readily have access to water as they often need it for domestic use and for crop production. Increasing the availability of irrigation systems is also crucial especially because of the sizes of the fields used for production compared to the small containers that women have to use when irrigating which is time consuming. Since irrigation is the process whereby water is gathered from rain, taps or pumped from a river to a designated area and used intentionally for agricultural production, it is important to note that as water grows scarcer where the greatest need is for irrigation, then a need for expanded irrigation systems is crucial especially in policy and development initiatives.

An approach that is gender aware and aims at closing the gender gap must ensure that women have access to and control over technologies and tools that men already have access to. Identifying whether women do not have access to these as a result of cultural or cost factors is also important as this will help determine the area which requires policy and programme attention. On the other hand, it would also be important to consider designing new and efficient equipment which will help reduce strain and thus make their labour more productive. Focusing in post-harvest process should also be a priority especially because development initiatives and agriculture research tend to focus more on the period from production to harvesting and neglect post-harvesting stage.

### **6.2.3. Customary and formal laws**

A mutual perspective around land reform had long been a policy and development priority with the aim of strengthening women's right to land. Hence, legislation alone cannot affect the lives of rural people because customary laws strongly govern. In addition, women's roles and positions in society are determined by these cultural and traditional perspectives. Policy and programme planning should make emphasis and take initiative in ensuring the existence of customary laws not biased of gender. This will allow women and men to have equal access to land rights or allow for collective ownership where both husbands and wives have access to land and for women to participate in decision making whether in agricultural or household related matters. Unmarried women should also have equal access to land in their own right more especially if they have dependency.

#### **6.2.4. Extension service and other institutional support structures**

The predominantly existing rural development extension service delivery systems in parts of KwaZulu-Natal show that planners and researchers are still struggling to fully address the needs of the farmers on the ground. This is because, regardless of the radical changes in the provincial government policies since 1994, the rural extension services systems are still rooted on obsolete and inappropriate approaches for serving the rural population and are ill-informed about the gender dynamics existing in agricultural production. This implies that, for extension services to be beneficial to farmers including women, the establishment of more informed and capacitated extension service providers on gender issues affecting women farmers on the ground, must be practised.

The study revealed that farmers were not adequately receiving extension services due to shortages of extension officers; 1:4, extension officer: farmer ratio found in the study. The KwaZulu-Natal Department of Agriculture and Rural Development must take initiative into creating more employment opportunities through the opening of Extension Officers' posts. This will help increase the number of extension officers assisting farmers and focused on assisting women farmers with capacity building and agricultural skills development. Non-Governmental Organizations (NGO's) can take more initiative in assisting women farmers with access to inputs and not only that but to also strengthen their ability to voice out concerns especially after they have formed themselves into groups.

#### **6.2.4. Women farmer groups**

In the KwaZulu-Natal Province, farmers are more likely to form farmer cooperatives than farmers groups. However, forming women farmer groups would be beneficial especially for the women in Swayimane and Sweetwaters to allow them to gain access to and control over assets, improve their productivity and enhance their status in societies.

It is however also recommended that women from "mixed-sex" groups as this will strengthen leverage on resources and other assets. On the contrary, the formation of such groups would depends on how communication is channelled. In societies where there is strong separation between men and women, encouraging women farmer groups is essential but in area where there is mutual interest and communication, promoting development of "mixed-sex" groups is essential. Moreover, placing women into farmer groups alone cannot remedy women's

situation, rather their collective action needs to correlate with measures that strengthen their capacities to assume leadership roles.

#### **6.2.5. Farmer-to-farmer networks**

When farmers interact, new opportunities open up for increased “economic viability”, value of life and interaction and cooperation in communities. Moreover, farmer to farmer networks is an important way to promote the pooling of ideas, exchange of perspectives and for farmers to learn from each other. Such networks allow farmers to assist each other through sharing of information, offering each other moral and technical support and sharing resource deals and this is because effective farmer-to-farmer groups assume that every farmer has valuable information and exposure to share amongst each other.

Through such networks, new relationships between farmers are created: new business partnerships, friendships and farmers are able to attend “peer-to-peer” meetings which often at times result in successful production and marketing strategies. Forming or joining farmer-to-farmer networks not only strengthen women farmers knowledge in agriculture and other opportunities related thereof but also individually empower them to realise their potential as the core producers of food. Such networks play a crucial role in allowing women to be involved in decision making and other matters that touch them as farmers especially those faced with various challenges associated with various factors and also allowing them to become active members of rural community and farmer development initiatives.

#### **6.2.6. Market access and training**

Women’s involvement in the value chains ends after production and value adding where in the marketing stage, their male counterparts are visible. Policy planning should consider women empowerment by including them in marketing through the creation of market based links and network. It would be crucial for women to participate in marketing as this will also benefit the household as a whole. Access to capital is amongst the important resources that women in the study areas should have access to. This is because some of the cooperatives are in the process of developing and are in need of financial assistance. Access to credit could

also help reduce the transaction costs reported by the farmers and thus open opportunities for them to fully participate in the markets.

It is crucial for policy and programme makers to take into cognisance that linking women farmers to the markets is not the only concern but ensuring that they are empowered to benefit from these markets. Linking farmers to the markets is not as difficult but for farmers to keep consistency, keep the market satisfied and to maintain sustainability is the difficult part. In that sense, policy should concentrate on assisting women farmers with achieving this, which could be done through the provision of market based training where farmers including women, will be trained on the market process and all other information relating to the market and participation in the markets.

#### **6.2.7. Value chain development**

The study conducted in Swayimane and Sweetwaters best explores the gender differences that exist in value chains including burdens faced by women compared to their male counterparts. Such burdens includes the major involvement of women in production and other activities additional to this such as taking care of the household including ensuring that all the people's need in the household are met. Women suffer time constraint because most of their time is allocated to doing work and less time to rest or socialise. Often, they are geographically locked and bound to one area due to household responsibilities and being with children.

Small scale farmers including women farmers must be included in agricultural value chains and marketing, they must be able to comply with the markets requirements such as economies of scale, good quality and quantity, and consistency. In addition, the main objective of the value chain programmes is to promote comprehensive change from across all stages of value chains with the aim of promoting and enhancing competitiveness and value adding. In essence, the active role played by women in agricultural value chains has and is becoming more and more visible in some parts of the KwaZulu-Natal Province; it is therefore of great importance that policy makers and planners take into consideration and understand the gender dynamics that exist in value chains prior to the development of value chain development plans. Moreover, the promotion of change in agricultural value chains implicates shifting the process of production from indigenous and local knowledge to

technological whilst ensuring that markets and consumer needs are met. Such initiatives will help promote and provide advantages for women small holder producers and also impact on the gender relations and roles.

Introducing new functions for increasing the value adding processes and products produced by women farmers, taking into consideration the attempt and prevention of male domination as agricultural activities become more profitable thus ensuring equal control of “factors of production” and also improving coordination and cooperation between horizontal and vertical organizations are all essential for addressing the underlying challenges experienced by women in value chain and marketing.

Addressing the gender based issues existing in value chain, it would be critical that areas where men and more particularly women do not participate in economic activities are identified and thus introduce new value chains suitable to the available resources they have. Another strategy would be to increase the representation of women farmers in service providing institutions to allow them to have better control over chain management. “One example would be the participation of these women in the Zimele farmer groups facilitated by the Zimele Self-Help Association in KwaZulu-Natal and functioning to encourage and educate women on financial management, empowering them to open their small businesses from off-farm activities or crop production. This will help them gain power to control chain management especially in marketing”.

#### **6.2.8. Access to credit.**

The high transaction costs, illiteracy and low mobility levels, cultural and social perspectives and barriers and characteristics of women businesses usually based in low returns activities often limit women from accessing to capital. The same was gathered in Swayimane and Sweetwaters; women were characterised by illiteracy, they were immobile and were involved in low returns sectors such as selling produce to local clinics, school and street vendors and were faced with high transaction costs. They should therefore be encouraged and supported into adopting high quality crops and participate in “high-returns” sectors. The role of government therefore is to ensure the provision of intensive business trainings, open market links, improved literacy and the provision of sufficient resources to farmers, including women.

#### **6.2.10. Technological advancement**

In South Africa, women farmers are faced with high drudgery as a result of use of primitive tools when planting (FAO, 2012). However, there is a need to reconsider and scrutinize the transfer of technology and technological development so that appropriate technologies and support initiatives would be formulated, responsive to the differing abilities of women to use technology, different scales of farming and the gendered access to resources by women and men. The current technology transfer and development initiatives, as evident in the study areas, are universal and fail to take into consideration the varying cultural, environmental, economic and social factors of the farmers and the impact this has on their abilities to use technology.

#### **6.2.11. Education**

Gender differences in access to education have implications for women's access to other resources and services. Various studies from across the world have documented the importance for educating women as beneficial also for children's education and nutrition. Moreover, education is also beneficial for the empowerment of women because with basic education, they are able to develop skills required to partake in "knowledge-intensive" agriculture and economic activities. Women lacking access to basic education are more likely to be deprived the opportunity to participate in development initiatives and will continue to fall behind men thus the initiative to promote access to education for women will help place women in a position where they will acquire equal understanding of agricultural processes as men. The low levels of education that have implications especially for initiatives to introduce new technologies to small holder farmers particularly women, in this case, education is important for female farmers to easily adopt and make use of the newly introduced technologies for improved level of production.

Not only should education be directed at farmers but initiatives around the improvements of knowledge and skills of extension service personnel especially in relation to all the areas of the current agricultural advancements also need to be taken into cognisance and initiated mainly because rural extension education is insufficient for the present and future agricultural requirements. Educating extension personnel on the gender issues existing in the agricultural sector can assist in bringing about more concentration on the empowerment and improvement

of women's status and lessening of the burden they are faced with in agriculture and outside agriculture, that is, in households.

#### **6.2.12. Institutional strengthening for the development of more gender sensitive policies and programmes**

Literature has shown that many agricultural institutions are successful in addressing the constraints faced by farmers, be it be access to agricultural inputs and other services vital for agricultural practice. In contrary, these institutions including policies and programmes formulated are said to be not wary of the gender differences and the impact they have thereof. Restructuring the administration of these institutions such that they become even more informed about the gender related issues especially hindering women from fully and equally participating in agriculture as their male counterparts.

Strengthening can be implemented and achieved through community participation inclusive of women in particular, in all development initiatives, decision making and planning and also focusing on educating personnel responsible for the functioning of these institutions. The involvement of communities in the entire process, from planning, to formulation can help with the effective and successful implementation of policies and programmes directed as improving the lives of all people hence food security in both Swayimane and Sweetwaters but more particularly, South Africa as a country. When the responsible personnel are educated on the gender differences existing whether in households, the fields and more specifically in the value chain development; challenges faced by farmers and more particularly female farmers including access to all resources vital for agricultural production, will be taken into consideration and the important role they play in ensuring food security to be recognised and acknowledged.



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**APPENDIX: Survey Questionnaire.**

**Name:** Sinegugu Khumalo

**Student number:** 207519448

**Research topic:** Exploring the role of women in subsistence and smallholder farming: implications for horticultural crop value chain development in Swayimane and Sweetwaters

African Centre for Food Security

Food Security Programme

School of Agricultural, Earth and

Environmental Sciences

Pietermaritzburg

**Biographical information**

Name \_\_\_\_\_

Age \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Educational Level Grade 1-7  =0 Grade 8-12  =01 Tertiary  = 02 None  =03

Level

Gender Male  =0 Female  =01

Are you currently?

Married  =0 Widowed  =01 Separated  =02

Single  =03 Divorced  =04

**Production**

1. Do women have access to land for production?

Yes  No

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2. Is this land sufficient and fertile enough for production?

Yes  No

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3. Is it comparable to that used by their male counterparts?

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4. What proportion of women is involved in the production of these vegetables?

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5. What proportion of men is involved in the production of these vegetables?

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6. Who is involved in the planting of seedling/seeds between men and women? How much time is spent on this activity?

---

7. Who is involved in soil preparation between men and women? And how is soil prepared?

---

---

8. Who is involved in irrigation?

Men       Women       Children

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9. Is water used for irrigation, enough for the crops produced?

Yes       No  explain?

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10. Who is involved in transplanting?

Men       Women

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11. Who is involved in crop management (applying pesticides)?

Men       Women

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12. Who harvests the vegetables after production?

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Men       Women       Other please specify

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13. Does culture influence how labour production occurs?

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14. To what extent do household relations influence women's and men's roles in production?

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15. Do women have access to agricultural inputs? If no, why?

Yes           No

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16. Are extension services available?

Yes           No

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17. Do you receive any government and NGO support? If yes please specify.

Yes           No

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18. Are these institutions made accessible to women? If yes. How often do they receive it?

Yes           No

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19. What implications do extension services and agricultural inputs have on farmer's level of production?

---

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20. What other work are women famers involved in outside production?

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<b>Agents</b>
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21. Are buyers available after vegetables have been produced?

Yes           No

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22. Who are the primary buyers?

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23. Do women sell their produce to large retailers and wholesalers? If no. why? If yes. How

is the relationship between farmers and buyers? Yes  No

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24. What happens to the produce when there are no buyers?

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<b>Value Chains and Marketing</b>
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25. What proportion of women is involved in the vegetable value chain?

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26. What proportion of men is involved in the vegetable value chain?

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27. At what levels of the value chain are women farmers present and absent?

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28. At what levels of the value chain are male farmers present and absent?

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29. What are the key constraints for women's participation in value chains?

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30. Does culture shape women's participation in value chain and marketing

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31. Do women face transaction costs including that of pricing, transportation and communication systems (marketing)? Yes  No

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32. What implications do these transaction costs have on their involvement in marketing?

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33. How does the produce get to the market?

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34. Who is involved in marketing? Is it men or women? Why?

Men  Women

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35. How does asset inequality affect market participation for women?

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36. Where are the different markets located and how far are they from the producers?

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37. How do women farmers acquire marketing information and how is communication initiated?

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38. What implications do marketing and value chain issues have on women's capacity to generate household income and food security?

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**APPENDIX: Questionnaire (Focus group)**

**Name:** Sinegugu Khumalo

**Student number:** 207519448

**Research topic:** Exploring the role of women in subsistence and smallholder farming: implications for horticultural crop value chain development in Swayimane and Sweetwaters

African Centre for Food Security

Food Security Programme

School of Agricultural, Earth and

Environmental Sciences

Pietermaritzburg



**Biographical information**

Name \_\_\_\_\_

Age \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

**Educational Level**                      **Grade 1-7**                       **Grade 8-12**                       **Tertiary**

**Gender**                                      **Male**                                       **Female**

Are you currently?

Married                                       Widowed                                       Separated

Single                                       Divorced

**Production**

1. Are women more involved than men in the production of the vegetables in the area? If yes. Why?

\_\_\_\_\_  
\_\_\_\_\_

2. Are there any farmer groups in the area?

\_\_\_\_\_  
\_\_\_\_\_

3. Do women farmers form part of those groups?

\_\_\_\_\_  
\_\_\_\_\_

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4. Is access to land, extension services and agricultural inputs an issue for women farmers in the area or is it also an issue for men as well? If so. How?

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5. How is labour divided in the production process between men and women?

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6. What implications does the issue of access have on women farmers' level of productivity and production?

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7. How is household food security affected?

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8. Are there any programmes or policies implemented that support women farmers in production?

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<b>Vegetable Value Chain and Marketing</b>
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9. How is labour divided in the different stages of the vegetable value chain? Who does what?

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10. What does this division of labour say about women's position in the value chains?

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Exploring the role of women in subsistence and smallholder farming: implications for horticultural crop value chain development in Swayimane and Sweetwaters

11. Do vegetable women farmers benefit from market-oriented production? If no, why? If yes, How?

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12. What influences the disparities in men's and women's participation in value chains and marketing? How?

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