Journal of
Agriculture Policy
(JAP)

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CARI Journals

Journal of Agricultural Policy
ISSN: 2520-7458 (Online)
Vol.1, Issue No.1, pp 80 - 107, 2016

www.carijournals.org

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Abstract

Purpose: To determine the stakeholder aspects influencing implementation of food security projects in Msambweni District, Kenya

Methodology: The study adopted a cross sectional descriptive case study. The population to be comprised the residents of Msambweni district who practice farming activities. Sampling of farmers was done at random from the existing divisions and locations of Msambweni district. The primary data was gathered using questionnaires that were semi-structured. Descriptive analysis was used and this included the use of weighted means, standard deviation, relative frequencies and percentages. The results of the analysis were presented using tables, percentages and bar-charts.

Results: Results indicated that land ownership was a key determinant in influencing food projects implementation. The findings indicated that land ownership made the implementation of food security projects easy and faster. There was a positive and significant relationship between food security project implementation and land ownership. The findings also indicated that there are taboos in their community which discourage some types of farming methods and some food crops and if people in Msambweni were to disregard cultural beliefs farm productivity and food sufficiency would change positively. The findings were also supported by a negative correlation and the relationship between food project and cultural practices was found not to be statistically significant. Results indicated that farming methods and inputs were key determinants of food security project implementation. The findings indicated that farming methods influenced the implementation of food projects at Msambweni district. The correlation between farming methods and food security project implementation was found to be strong and positive. Results indicated that education was a key factor that influences food security project implementation. However the findings also indicated that education level of the respondents did not matter so much as long as they apply the correct farming methods and attend farming seminars and workshops. There results also showed that there was a positive and significant relationship between education level and food security project implementation.

Unique contribution to theory, practice and policy: Based on the results, it is recommended to the farmers to ensure that they retain their own lands and avoid selling and put the land into good use by practicing farming. It is recommended to the farmers that they review the existing taboos and beliefs and disregard them as this can lead to improved food security due to embracement of the government food security project implementation. It is also recommended that the farmers should have an open mind in fighting hunger as this will ensure that all people work to the betterment of

improving food security issues regardless of the religion and culture. It is further recommended to the farmers to evaluate the advantages of mechanized farming methods and traditional farming practices and embrace the better option. The study also recommends that the farmers should attend the farmer's workshops and seminars organized by the government to exchange ideas and learn also new tactics of farming activities. The study recommends that the farmers to organize themselves in groups to invite the agricultural officers so that they can be trained on various farming methods and on how to improve their productivity. It is also recommended that the government should look for ways of communication modern methods of farming using locally understood languages to ensure that the whole country embraces changes at the same pace.

Keywords: *land ownership, cultural practices, plan, targets, inputs, farming, food security, education*

1.0 INTRODUCTION

1.1 Background of Study

Food security projects are essential in enhancing food security and their success is of vital importance for a healthy and productive society. The process of project implementation involves successful development and introduction of projects in the organization. The project implementation process is complex, usually requiring simultaneous attention to a wide variety of human, budgetary, and technical variables. As a result, the organizational project manager is faced with a difficult job characterized by role overload, frantic activity, fragmentation, and superficiality. Often the typical project manager has responsibility for successful project outcomes without sufficient power, budget, or people to handle all of the elements essential for project success. In addition, projects are often initiated in the context of a turbulent, unpredictable, and dynamic environment. The project manager requires the necessary tools to help him or her focus attention on important areas and set differential priorities across different project elements. For this reason, project management skills are essential for successful implementation (Slevin and Pinto, 1986).

Despite considerable efforts of national governments and the international community to reduce hunger and improve nutrition in the context of the Millennium Development Goals (MDGs) and other initiatives, the proportion of undernourished people in developing countries has largely remained constant since the mid-1990s (FAO 2010). Although some progress in hunger reduction and food security had been made until 2007, the 2008 global food price crisis and subsequent food price spikes have pushed millions of people into food insecurity status (Brinkman, de Pee, Sanogo, Subran & Bloem, 2010). Main causes of this rise in global and national food insecurity include trade restrictions imposed by major food exporters, bio fuels policies, and increased food commodity speculation combined with poor national and local governance to cope with such shocks. Besides these immediate causes, most experts agree that underlying longer-term dynamics such as climate change and mounting food demand through changing dietary patterns and growing populations will lead to further rising food prices and increasing price volatility (FAO, 2011).

According to Fan, Torero and Headey (2011), a broad range of policies have been proposed to reduce the vulnerability of the world's poor to global food price spikes, including amendments in

global trade rules that restrict the possibility of food exporters to impose export bans, stricter rules on biofuel production and food commodity speculation, the institutionalization of grain reserves to stabilize prices in times of crises, creation and expansion of national social safety mechanisms and boosting investments to raise agricultural productivity and adapt to changing climate sustainably. Both the causes of recent food crises and the proposed responses show a growing importance of factors that go beyond agriculture and households. Yet interventions often have focused on agriculture based approaches, and the household often has been deemed the sole unit of focus by many international organizations concerned with food security. The slow progress in reducing hunger and malnutrition during the past two decades and the grave impacts of the recent crises may be reasons behind the limited success of the conventional approaches and call for their fundamental reconsideration. Over time, the concept of food security and related approaches to address food insecurity have been developed and modified in accordance with the common understanding of the nature of the food problem and the evolution of the global food system (Maxwell 2006; Maxwell and Slater 2009). Since the term food security entered the broader development policy debate at the 1974 World Food Conference, the concept has been revised and broadened. The most common definition today was first launched at the World Food Summit in 1996 and agreed on by most governments and leading governmental and non-governmental development agencies (FAO, 2006).

As a consequence of the recent food crises, tendencies toward an additional paradigm shift can be observed within the expert community that may be described as moving from a sector-specific approach to a system approach integrated across sectors and levels (Fan & Lorch, 2012). Although many experts agree on the need to revise the common conceptual frameworks of food security in light of the recent food crises, little has been done in that direction so far. The most prominent frameworks such as those currently used by the Food Insecurity and Vulnerability Information and Mapping Systems of the FAO and United Nations partners (FIVIMS, 2012).

According to Devereux (2009), despite great advances in the understanding of food security and its underlying factors, most previous studies have been on qualitative aspects assessing two aspects of food security, namely, production and consumption, and on determining the underlying reasons for the high food insecurity faced by Africa today. Very few studies have considered the historical trends of the balance between food production and demand and its effect on historical trends in self-sufficiency. However, a better understanding of such historical trends is necessary to characterize effectively the development of a region's ability to be selfsufficient and the potential problems it may face. Considering the heterogeneity of African nations in terms of food production systems and their socio-political drivers, it is important and sensible to assess the balance between food production and consumption on a national basis (FAO, 2011).

The sensitivity of food security in Africa is associated with environmental variables, such as climate change, poverty and lack of access to food, demographic and economic factors and political failures in adjustment and market liberalization reforms (Sadler and Magnan 2011). Despite the increased attention to reducing hunger since the adoption of the Millennium Development Goals, the World still faces large problems of widespread hunger and malnutrition. On the world level, the number of hungry has declined, but remains unacceptably high. FAO (2010) estimates that a total number of 925 million people are undernourished in 2010 compared

to 1023 million in 2009, out of this developing countries account for 98 percent of the world's undernourished people. If this situation does not change, the Millennium Development Goal number one (reduce the number of hungry people with 50% by 2015) will not be reached.

The German Technical Assistance (GTZ) through the Integrated Food Security Programme (IFSP) launched a Food Aid Programme called Food for Work in 1994, in Mwingi district in Eastern Kenya. Food for Work in the context of IFSP issued as an instrument in development cooperation to counteract severe food stress within the Programme area. These food assistance programs are targeted to those with the greatest economic or social need in the community (Aguko, 2008). Kenya for a long period pursued the goal of attaining self-sufficiency in food commodities as maize, wheat, rice, beans, milk and meat. Self-sufficiency in maize was achieved during the 1970s when production was high and the surplus was exported. Unfortunately, attainment of self-sufficiency does not automatically imply that household food security is achieved. Empirical evidence shows that solving the food security issue from production (Supply side) point of view, while overlooking the purchasing power (demand side) of the people, does not solve the food security problem, with regard to accessibility of sufficient food by vulnerable groups (KIPPRA, 2007). Kenya was hit by a severe food crisis in 2011, during which 3.75 million people were food insecure and 1.4 million pastoralists were in a state of emergency, although the crisis was predicted, there was a poor and disorganized response to Famine Early Warning Systems (FEWS, 2011).

Msambweni is one of the thirteen districts in the Coast province. It borders Taita District to the North West, Kinango District and Kwale District to the North East, Republic of Tanzania to the South and Indian Ocean to the South East. The district is located to the South Eastern Corner of Kenya, lying between latitudes 4°20' and 4°40' south and longitudes 39°14' and 39°36' east. Msambweni district is divided into three (3) administrative divisions namely Msambweni, Lungalunga and Diani. The district is made of four topographical features. These features are the coastal plain, the foot plateau, coastal uplands and Nyika plateau. The district experiences two rainy seasons in April to June and October to December which are the long and short rains respectively. The coastal plain runs along the ocean line and varies from 3km to 20km inland. It lies below 30m above sea level. The coastal plain soils are poorly drained, acidic and less fertile and are unsuitable for agriculture (Msambweni District Development Plan 2008-2012)

1.2 Statement of the problem

Food security remains an elusive goal in many parts of the world despite the concerted efforts of governments, non-governmental and international agencies over the past years. An estimated 925 million people around the world were undernourished in the year 2010 (FAO, 2011). All nations signatory to the Millennium Declaration of the year 2000, have a goal of reducing hunger and extreme poverty by halve by the year 2015 in fulfillment of the MDG goal number one. Over the years, several interventions for reducing poverty and enhancing food security have been designed and initiated in Kenya being a signatory to the Declaration. Some of the strategies the includes: Poverty Reduction Strategy Paper (PRSP), Strategy for Revitalization of Agriculture (SRA), Economic Recovery Strategy for Wealth and employment creation (ERS), National Accelerated Agricultural Input Access Programme (NAAIAP) among others. Problems of drought, famine and climate are real and widespread in developing countries begetting hunger and malnutrition. Indeed, millions of people are food insecure due to famine, drought, pests and climate change. These

myriad predicaments lead to poor crop harvests placing the country and the region in a situation of food insecurity. Most people, especially in sub-Saharan Africa, depend on food aid to survive. More so, poverty levels are endemic, affecting majority of the population which compounds the food crisis situation in the region (Amalu, 2009). Kenya has not been spared either.

In the recent years, and especially starting from 2008, the country has been facing severe food insecurity problems (Kenya Red Cross, 2012). Several studies have been conducted on food security by Fan et.al (2011), Fan and Lorch (2012) and Wodon and Zaman (2008), the studies focused on food programs as technology investment, system approach and production systems as avenues to attain food security but did not concentrate on the factors influencing such food security projects. According to Kenya Food Security Steering Group (2008) communities in arid and semi-arid lands of the country like Kwale County where Msambweni is located are particularly vulnerable to food insecurity. The land is fairly arable and productive, rains are average and government programs like farm inputs provisions have been done but sustainability still remains a challenge in attaining food security. It's worthy analyzing the reason for continued food insecurity despite the food security programs initiated by the government. So as to bridge this gap of knowledge, this study assessed the stakeholder aspects that influence implementation of food security projects in Msambweni District.

1.3 Objective of the Study

The main objective of the study was to investigate stakeholder aspects influencing implementation of food security projects in Msambweni district.

1.3.1 Specific Objectives

i. To examine the extent to which land ownership influence food security projects in Msambweni district.
ii. To assess the extent to which cultural practices of the farmers influence food security projects in Msambweni district.
iii. To examine the extent to which farming methods and inputs practiced by the farmers in Msambweni district influence the food security projects of the area.
iv. To analyze the extent to which education level among the farmers influence food security projects in Msambweni district

2.0 LITERATURE REVIEW

2.1 Theoretical Literature

2.1.1 Yield Gap Theory

Reaching higher yields is part of the strategy for achieving food security while protecting the natural environment. The potential for closing the yield gap has been claimed as the most important factor in improving agriculture in Africa, it is preferable to expanding agricultural land. By closing yield gaps and not expanding cultivated land you can protect areas of biodiversity such as forests and natural ecosystems from being converted into crop land (Foley, Ramankutty, & Brauman, 2011)

Yield gap is a term which has been used extensively in literature to highlight African farmland as a region which is underused (Delininger & Harriet, 2011). It is a term referring to the difference between the potential and actual crop yield (production per hectare) of a given area of land, assuming the best technology and agricultural practices are available (Foley *et al.*, 2011). This is because biophysical and socioeconomic factors inhibit yields. The gap between the potential yield and actual yield is considered by Widawsky and Toole (1996) for example, as a loss in production that is yet to be realized. Yield gap is used often in reference to the gap being closed and identifying how to "fix" them.

The yield gap theory is placed within the productionist paradigm. There is an understanding that land is not worth anything until it is utilised for production. The potential yield is calculated using all the known agricultural technology and management, and therefore it is assumed that this should be adopted as the method on the ground. According to Deininger et al. (2011) in the World Bank report, yield gaps are perceived in respect to investment opportunities. A large yield gap is defined as an attractive quality for investment due to the possibilities for easy increase in yield. Land acquisitions are thought to bring investment in fertilizers, pest management, irrigation, improved seed varieties, knowledge of farming practices and mechanized practices. However, large yield gaps can be an indicator of problems that land acquisitions cannot easily solve such as political problems. As such, when investment has already been made in the land, sustained large yield gaps are a negative sign as it implies that there are constraints that are difficult for investors to overcome (Borras, 2011)

2.1.2 Productionist Paradigm Theory

Productionism paradigm is the move from local small scale production to mechanized, commercial, mass production of food commodities. It hails from the time after the Second World War and the industrialization of agriculture. The food supply chain is led by the quantity of food and all progress is directed to increasing this output. The productionist model of farming is typically monoculture, this being especially conducive to the high input of energy, pesticides, and fertilizers. The productionist paradigm influences how policy is made and where investment is directed, favoring particular types of farming methods and production. It is through this paradigm that land acquisitions have been seen as a solution (Lang & Heasman, 2004). Lang and Heasman (2004) predicted the decline of the productionist paradigms and the emergence of two paradigms concerned less with production and more with integrated ecology or life science. However, economic stability, food prices and demand for arable land has changed since the time they wrote their book. Like the period after the war, in 2008 the globe was suffering from food shortages; prices rose and many countries experienced riots. These events have reaffirmed the dominance of the productionist paradigm for a little while longer. It is also partly because of the productionist paradigm that African governments are willing to open up their local markets to foreign investment. The surplus stock caused by high production rates and strong regional economies could undermine local markets in developing countries by selling their stock at undercut prices.

2.1.3 Belassi and Tukel's Project Critical Success Factors

Belassi and Tukel (1996) have grouped critical success factors in projects into four areas and further explained the interaction between them. The four groups were factors related to the project,

factors related to the project manager and the team members, factors related to the organization and lastly factors related to the external environment. Belassi and Tukel performed 2 surveys; firstly they identified the 5 most common success factors from the literature and asked the respondent to list any other critical factor specific to their projects. From the first survey, they obtained 91 responses in which 21% of the respondents are project managers from manufacturing sector. The project managers in manufacturing ranked the most critical factor for project success as availability of resources, followed by top management support, the third most important factor was preliminary estimates, followed by project manager performance and client consultation. In this survey, it also shows that in respect to the criteria used to measure success (cost, time, quality and client satisfaction), the organizational structure (pure, functional or matrix) and project size (more and less than 100 activities), the factors related to the organization which were availability of resources and top management support are still the dominant factors on the list. From the second survey done using a questionnaire which targeted the project managers, out of the 57 responses that they obtained, 40.7% respondents are from manufacturing which formed the largest response group. The respondents from manufacturing sector indicated that factor related to the organization is most critical. Further to that, the project managers from manufacturing rank top management support, coordination and competence of project manager as the most important factors for project success, in fact these three factors were ranked equally important followed by commitment, technical background and communication of project members as the next 3 important factors.

2.1.4 Kerzner's Project Critical Success Factors

Kerzner (2006) in his study defines critical success factors as elements which must exist within the organization in order to create an environment where projects may be managed with excellence on a consistent basis. They are the few key areas where "things must go right" for a particular business to flourish. In order to have a successful project management, corporate understanding of the project management at the employee/functional level, project management level and executive level is critical. A good corporate understanding will create a corporate culture where project management is no longer viewed as either a threat to established authority or a cause for unwanted change. It was also found that Project management is unlikely to succeed unless there is any visible support and commitment by executive management. This support and commitment can be described in two subtopics; project sponsorship and life-cycle management. The role of the sponsor is to manage interference that exist for the project manager besides continuously reminding project team that only performance at the highest standards of excellence are acceptable. It is important that company goals, objectives and values be well understood by all members of the project team throughout the life-cycle of the project. Ongoing and positive executive involvement, in a leadership capacity will reflect executive management's commitment to project management.

Organizational adaptability is also vital to project success; this refers to the organization's ability to respond quickly and effectively to changes in the market place. Two critical factors involving organizational adaptability were found in organizations committed to excellence; informal project management and a simple but lean structure. The decision to go for either formal or informal project management and implementation depends on the scope and size of the project, cost of the project, and availability of experienced personnel for the project and also the maturity of the concept of utilizing project in an organization. Staffing for projects was done in a manner to

achieve a blend of experience, technical expertise and training. Proper selection of resources will ensure that technical skills are optimally utilized with a minimum of overhead. A project team where its structure is simple and lean enable better control, communication and in budget. With this lean approach, the project manager must be experienced and have a qualified team. There must be a clear definition of responsibility and authority for individual members of the team and the project manager must fill the roles of facilitator, coordinator, leader, organizer, planner, delegator and administrator in order for the project to be implemented successfully.

The criteria used to select project manager also affects project success, four criteria that are normally used to select project managers are whether they were results-oriented, possessed strong interpersonal skills, their depth of understanding of the organization and lastly their commitment to corporate values. Strong leadership style by the project manager is necessary for the successful implementation of projects. Normally the project manager has a great deal of responsibility but does not have the commensurate authority as a line manager whereas the line manager has a great deal of authority but only limited project responsibility. Considering this fact, it is therefore important for a project manager to maintain a leadership style that adapts to each employee assigned to the project. This is complicated by the fact that the project's life cycle may be so short that the project manager does not have sufficient time to get to know the people.

Commitment to planning and control is a key aspect to project success; well-managed projects are committed to planning. For example if the output of a project is to contain quality, then this quality must be properly planned for in the early stages of a project. When detailed planning is being done, it must be tracked or follow-up and re-planning must be done if the initial plan does not work before it is too late to do so. It is shown that personnel factor especially the project manager competence and leadership style is one of the crucial factors in project success implementation. This is true as project in itself has no essence unless it is managed by a group of people with the necessary skills, experience and qualification.

2.2 Empirical Literature Review

2.2.1 Land Ownership and Food Security

Increased agricultural productivity can enhance household food security and nutrition through two avenues: directly, through increased food production for consumption, and indirectly, through increased incomes permitting the purchase of more and better quality food. In both ways, secure rights to land can help moderate the impact of food price volatility on poor rural households (Defoer & Wayne, 2010). Disparity of wealth and land ownership is not a new phenomenon. However, the degree to which agricultural lands are owned within areas of food insecurity makes it a vital a factor of food security. An analysis of these concepts and their global implications is pressing, as over 963 million people do not have enough to eat. Most of them live in developing countries, and sixty-five percent of them live in only seven countries: China, India, Bangladesh, the Democratic Republic of Congo, Indonesia, Pakistan and Ethiopia (FAO, 2011).

Food security means the availability and access to sufficient safe food, whereas food sovereignty involves both ownership and the rights of local people to define local food systems, without first being subject to international market concerns (FAO, 2012). An important distinction must be made between food sovereignty as a theoretical construct and food sovereignty as a movement.

The food sovereignty movement considers that the practices of multi-national corporations are akin to colonization; as such companies buy up large tracts of land and turn local agricultural resources into export cash-crops. As a movement, food sovereignty lacks direction and involves a great diversity of opinion and idea. As a model to re-consider and re-evaluate food, it highlights important challenges and offers potential remedies to current challenges. Food sovereignty as a theoretical construct, relates to the ownership and rights of food growers and local communities (Scoones, Devereux, & Hadad, 2009).

Land holding was found to be a determinant factor of household food security. Relatively land rich households nearly all reached 80% of their calorie requirement; this indicated that a household with larger land holding was found to be in better position of food security than those of land poor households (USAID, 2011). The most common asset in rural areas is landholding and this was a good indicator of poverty when income was unobserved (Riddell, 2007). Households with small farms were prone to food insecurity. In addition, land quality has been found to provide a good amount of yield in communal farms. In most communal areas, farms are of relatively poor quality and require the use of chemical fertilizer (Scoones et al, 2009).

2.2.2 Cultural Practices and Food Security

Many studies have shown that women play a predominant role in household food security through participating in agricultural and food production (The World Bank, 2009). They account for between 60 and 80 of household food production in Sub-Saharan Africa (FAO, 2007). In South Asia they provide 90 percent of the labor for cultivating rice. They ensure household food security and nutrition through their roles as food producers, processors, and income earners but despite of their key role in food production they have less access to land, resources, credit, training, extension services, agricultural inputs and technology. They are also trapped in poverty by illiteracy and unwanted high fertility and this affects production and food security (Quisumbing, Brown, Feldstein, Haddad, & Pena, 2005). Women provide more labor in food production than men especially in Sub Saharan Africa. This is due to the fact that in many places in Africa food production and security is reported to be a woman responsibility (UNFPA, 2009). In a study done in Kenya and Tanzania showed that all household, whether men contributed or not to the farming, women were the ones who are primarily responsible for farming the food that sustained their families (Hyder.et al, 2005).

In many places in Africa gender division of labor in agriculture is based on types of crops, types of task or both. Studies have shown that men are involved in most physical demanding activities such as ploughing, bush clearing and bush burning while other activities along the food chain are left to women. Women are involved in planting, harvesting, weeding, marketing of crops and in post-harvest processing of food crops such as threshing, winnowing, milling and drying (UNICEF, 2006). This is the pattern which is also called traditional farming system. In regard to type of crops, women are reported to be more involved in food crops while men are involved in cash crops (whether food or nonfood crops). An explanation for this is that women are responsible for feeding the family, thus prefer to grow subsistence crops and men are responsible for providing cash income and thus prefer to grow cash or export crops. But more recent reports have shown that women are increasingly involved in cash crops despite their traditional role of feeding families (World Bank, 2011).

On the other hand feminization in agriculture is reported to be increasing due to extensive male out-migration as they move to urban areas to search for better income opportunities. This has resulted in growth of female headed household which increases female labor in agriculture (Saito et al, 2009). International trade agreements, Structural Adjustment programme (SAP) and loan repayment have also affected rural households. When government cut subsidies to support traditional crops many subsistence farmers fail to maintain their lives and men leave their farms, thus compounding the trend of feminization. In a study done in Tanzania , not only do farmers respond to the effect of SAP by abandoning farming but also cope with the situation by switching from growing some crops and/or reducing crop area under cultivation. Other studies in Africa have shown that men contribution in crop production is higher compared to that of women. A multi country study in Africa showed that men contributed more in crop production than female in most places while women contributed their labor more in food processing. Similar findings were also observed in a study done by Enete (2008), contributions of men in Nigeria. The authors of both studies argue that it could be misleading to generalize women as main producers of food across Africa.

2.2.3 Farming Methods, Farm Inputs and Food Security

A farming system is defined as a population of individual farm systems that have similar resource bases, enterprise patterns, household livelihoods, constraints and for which similar development strategies and interventions would be appropriate. Farm system comprises not only resources such as fields, crops, animals, feeds and manure which are managed and transformed through human activity, but also it includes the farming family, housing facilities and food stores. The same authors recognize sub-systems within the farm system; the crop production system, the animal production system, and the household system (Dixon, Gulliver and Gibbon 2008). The type of farming system prevailing in a region depends on technical, institutional and human determinants which interact at each location and point in time to provide a unique environment for agricultural production. The above determinants will dictate the most suitable farming systems with a maximum productivity and any change in these determinants will have an effect on agricultural productivity (Deininger et al., 2011).

Despite a diversity of extensive farming systems in Sub Saharan Africa, the continent still faces a number of challenges namely declining soil fertility, inadequate use of improved germplasm, limited irrigation that severely limits the production potential, poor extension services to farmers and poor access to markets (Jama & Pizarro, 2008). A study done in Burundi revealed that the prevalent farming system found in Burundi is the highland perennial farming system. This farming system is based not only on perennial crops such as banana, plantain and coffee complemented by cassava, sweet potatoes, beans and cereals but also cattle is kept for milk, manure, and social security (Dixon et al.,2008). According to Wodon and Zaman (2008), food production systems changes in response to the high population density associated with acute scarcity of agricultural land and intensive work on land yet with very low returns. The same author gives a simplified typology of agricultural production systems based on soil fertility management practices, cropping and livestock systems, linked to the level of population density.

Both food crop and livestock subsectors are affected by a number of key constraints contributing to limited growth. In the food crop subsector, there is limited use of improved farm management

practices such as irrigation, limited use of purchased inputs, uncertain water supply, high input prices, and post-harvest constraints. Population density is also noted as a major determining factor. A study done by Degefa (2002) showed a mixed effect of improved technology utilization on availability of food in the household and food security status. The utilization of farm credits, improved seeds and herbicides and irrigation indeed had enhanced the volume of food available at the household level and improved food security status, however, per capita food availability has declined for the farmers who utilized commercial fertilizer and insecticides. He provided the reason for the undermined contribution of these inputs could be due to the contribution of drought and pest experienced in the particular study area. Giovanni (1985) concluded that Intermediate inputs such as seeds, fertilizer and pesticides were found to be the most significant parameter of the production function in addition to land elasticity, labor and capital.

2.2.4 Education Level and Food Security

Food insecurity and under-education are still common in many developing countries. The challenges are enormous, especially in rural areas where food insecurity, poverty and educational deprivation often create a vicious circle. Climbing out of this 'poverty trap' cannot be achieved by addressing one sector alone. It is therefore essential to explore feasible measures in which these interrelated issues can be tackled together, focusing on interventions which have the greatest effect on poverty reduction. Basic education initiatives in rural areas which have used agricultural or environmental experience as a means of making teaching and learning more relevant and the potential impact of this kind of approach on food security and sustainable rural development were studied. This was done through a global literature review, looking at different policies, initiatives and analysis complemented with field work in Kenya, Zimbabwe and Mali. Potential implications for policy and suggested areas for increased investment are proposed in Department for Internal Development (DFID, 2005).

The acknowledgement of the link between women's` empowerment and improved household food security recognizes Kenyan women as the gatekeepers to national development and increased nutrition for its children. Improving women's` education is probably the most important policy instrument Kenya can use to increase agricultural productivity, reduce poverty, and promote better health. According to Quisumbing and Pandolfelli (2008), one year of primary education provided to all Kenyan women farmers would boost farm yields by 24%. The lack of education is believed to be the basic cause of poor agricultural development and food insecurity in developing countries. Education contributes significantly to sustained rural income growth. Education increases the ability of farmers to allocate resources more efficiently and helps to develop the flexible skills needed to participate in knowledge-intensive agricultural activity. Education promotes constructive problem solving, abstract thinking, and the understanding of the causal relationship between technology inputs and agricultural outputs.

3.0 RESEARCH METHODOLOGY

The study adopted a cross sectional descriptive case study. The population to be targeted comprised the residents of Msambweni district who practice farming activities. Sampling of farmers was done at random from the existing divisions and locations of Msambweni district. The Accessible population was those farmers who can be reliably and practically be included in a sample during the day of sampling. The primary data was gathered using questionnaires that were semi-

structured. Descriptive analysis was used and this included the use of weighted means, standard deviation, relative frequencies and percentages. The results of the analysis were presented using tables, percentages and bar-charts.

4.0 RESULTS AND DISCUSSIONS

Out of the 384 self-administered questionnaires, 235 were duly completed and returned. This converts to a response rate of 61%.

4.1 Sample Characteristics

The preliminary information gathered regarding the characteristics of the respondents was about; gender, age and the years engaged in farming. The respondents were asked to indicate their gender. Results show that majority (66.8%) of the respondents was female and 33.2% were male. The findings imply that the agricultural sector is a female dominated field. The respondents were asked to indicate their age brackets. Results in Results revealed that 43% of the respondents were aged between 36 to 45 years and 31% were aged between 26 to 36 years. The findings imply that most of the respondents were at their energetic age hence they had the energies to divert into farming as their career. The respondents were asked to indicate the number of years they have been engaged with farming activities. Results reveal that 53% of the respondents had been in the farming activities for a period between 6 to 7 years, 42% of the respondents had been in farming for a period of more than seven years. The findings imply that all the respondents had been in the field for a long period hence accurate response regarding the study.

4.2 Frequencies and Descriptive Analysis

This section is arranged based on the objectives of the study.

4.2.1 Food Security Projects

This section tested the views of the employees regarding the food security projects in Msambweni district. Table 1 shows that 63% of the respondents disagreed that Msambweni has never had hunger problems, 76% agreed that they have never failed to feed themselves and the family, and 76% agreed that they have more than three types of crops in their farm which ensures food sufficiency for their family the whole year. Seventy five percent of the respondents agreed that they supplement farm produce with animal products like milk and eggs to ensure balanced diet for their families, 86% agreed that Msambweni has never received food aid and 80% agreed that they are aware of some government projects which are meant to improve food sufficiency in Msambweni. In addition, 83% agreed that food projects initiated by the Government are quite helpful, 78% agreed that food projects initiated by the Government are still continuing and 85% agreed that they normally work hard to ensure their families do not suffer food shortage any time of the year. Finally 83% of the respondents agreed that they cannot wait to rely on government food grants. The mean score for the responses was 3.82 which indicate that many respondents agreed to the statements regarding implementation of food security projects.

Table 1: Food Security Projects

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert mean
Msambweni has never had hunger problems	17%	46%	15%	17%	5%	2.46
I have never failed to feed myself and the family	11%	8%	6%	36%	40%	3.86
I have more than three types of crops in my farm which ensures food sufficiency for my family the whole year	8%	8%	8%	59%	17%	3.69
I supplement farm produce with animal like milk and eggs to ensure balanced diet for my family	3%	7%	5%	52%	33%	4.04
Msambweni has never received food aid	3%	6%	5%	55%	31%	4.03
I am aware of some government projects which are meant to improve food sufficiency in Msambweni	7%	6%	8%	45%	35%	3.96
Food projects initiated by the Government is quite helpful	2%	7%	9%	41%	42%	4.14
Food projects initiated by the Government is still continuing	2%	10%	11%	44%	34%	3.97
I normally work hard to ensure my family does not suffer food shortage any time of the year	2%	7%	6%	58%	27%	4.02
I cannot wait to rely on government food grants	5%	6%	7%	48%	35%	4.03
Average Likert mean						**3.82**

4.2.2 Land Ownership and Food Security Projects

The first objective of the study was to examine the extent to which land ownership influence food security projects in Msambweni district.

Table 2: Land Ownership

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert mean
I own more than 2 acres of land	6%	6%	8%	53%	28%	3.92
Everybody in my neighborhood owns at least 2 acres of land.	8%	15%	7%	43%	28%	3.68
If everybody utilized his piece of land well he will be able to feed his family and remain with a surplus for sale	4%	9%	12%	40%	34%	3.91
People with land which has title deeds are able to utilize their land better because they can borrow money from the bank to develop the land	3%	16%	14%	31%	36%	3.8
The size of land does not matter but its productivity per acre is very important in attaining food sufficiency	6%	20%	9%	35%	30%	3.63
The government is committed to solve land ownership issues at Msambweni	9%	15%	13%	34%	30%	3.61
Average likert mean						**3.76**

Table 2 indicates that 81% of the respondents agreed that they own more than 2 acres of land, 71% agreed that everybody in their neighborhood owns at least 2 acres of land and 74% agreed that if everybody utilized his piece of land well he will be able to feed his family and remain with a surplus for sale. Sixty seven percent of the respondents agreed that people with land which has title deeds are able to utilize their land better because they can borrow money from the bank to develop the land, 65% agreed that the size of land does not matter but its productivity per acre is very important in attaining food sufficiency and 64% agreed that the government is committed to solve land ownership issues at Msambweni. The mean score of the responses for this section was 3.79 indicating that more respondents agreed that land ownership was a key driver of food security project implementation.

The findings agree with those in USAID (2011) who asserted that land holding was found to be a determinant factor of household food security. Relatively land rich households nearly all reached 80% of their calorie requirement; this indicated that a household with larger land holding was found to be in better position of food security than those of land poor households. The findings also agree with those in Riddell (2007) who argued that the most common asset in rural areas is landholding and this was a good indicator of poverty when income was unobserved hence households with small farms were prone to food insecurity. In addition, the findings concur with those in Scoones et al. (2009) who asserted that land quality has been found to provide a good amount of yield in communal farms and in most communal areas, farms are of relatively poor quality and require the use of chemical fertilizer.

4.2.3 Cultural Practices and Food Security Projects

The second objective of the study was to assess the extent to which cultural practices of the farmers influence food security projects in Msambweni district.

Table 3: Cultural Practices

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert mean
My culture does not allow men to do some farming activities and similarly for women	10%	19%	5%	29%	38%	3.66
If both men and women were to work mutually, farm productivity of Msambweni would increase	6%	12%	5%	52%	25%	3.78
My religion does not allow the cultivation of some crops which could otherwise improve our food stocks	4%	13%	7%	53%	23%	3.79
There are taboos in my community which discourage some types of farming methods and some food crops	6%	17%	12%	38%	27%	3.64
If people in Msambweni were to disregard cultural beliefs farm productivity and food sufficiency would change positively	2%	12%	12%	46%	28%	3.87
Negative cultures can be a challenge to implementing new farming methods	9%	9%	11%	41%	31%	3.77
Average Likert mean						**3.75**

Results on Table 3 indicates that 67% of the respondents agreed that their culture do not allow men to do some farming activities and similarly for women, 77% agreed that if both men and women were to work mutually, farm productivity of Msambweni would increase and 76% agreed that their religion do not allow the cultivation of some crops which could otherwise improve their food stocks. Sixty five percent of the respondents agreed that there are taboos in their community which discourage some types of farming methods and some food crops, 745 agreed that if people in Msambweni were to disregard cultural beliefs farm productivity and food sufficiency would change positively and 72% agreed that negative cultures can be a challenge to implementing new farming methods. The mean score of the responses for this section was 3.75 indicating that there was agreement with most of the statements on cultural practices as a factor influencing implementation of food security projects. These results reveal that farmers at Msambweni are not very comfortable with the farming activities being initiated.

The findings agree with those in UNFPA (2009) who asserted that women provide more labor in food production than men especially in Sub Saharan Africa. This is due to the fact that in many places in Africa food production and security is reported to be a woman responsibility. The study

findings also concur with those in Hyder.et al (2005) who in a study done in Kenya and Tanzania showed that all household, whether men contributed or not to the farming, women were the ones who are primarily responsible for farming the food that sustained their families. The findings further agree with those in World Bank (2011) which reported that women are reported to be more involved in food crops while men are involved in cash crops (whether food or non-food crops). An explanation for this is that women are responsible for feeding the family, thus prefer to grow subsistence crops and men are responsible for providing cash income and thus prefer to grow cash or export crops. But more recent reports have shown that women are increasingly involved in cash crops despite their traditional role of feeding families.

4.2.4 Farming Methods and Input and Food Security Projects

The third objective of the study was to examine the extent to which farming methods and inputs practiced by the farmers in Msambweni district influence the food security projects of the area. Table 4 shows that 71% of the respondents agreed that they believe mechanized farming and irrigation have the potential of producing more farm output in land, 91% agreed that use of modern pesticides and fertilizers improves farm productivity as compared to traditional methods and 76% agreed that if government was to provide grants for basic farm mechanization farmers would become self-sufficient. Sixty one percent of the respondents agreed that multiple farming methods within the same acreage can boost farm productivity, 62% agreed that zero grazing has better animal yields than use of ranching and 62% agreed that farm inputs are still expensive. Finally, 76% of the respondents agreed that all taxes on farm inputs should be eliminated if the government wants to make farming more meaning full and 82% agreed that the government should invest in more research on the most appropriate farming methods for Msambweni. The mean score for the responses for this section was 3.78 which indicate that many respondents agreed that farming methods and inputs was a key driver of food security projects implementation. The results revealed that farming methods and inputs influenced food security projects implementation.

Table 4: Farming Methods and Input

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert mean
I believe mechanized farming and irrigation has the potential of producing more farm output in land	1%	15%	14%	45%	26%	3.81
Use of modern pesticides and fertilizers improves farm productivity as compared to traditional methods	2%	3%	4%	50%	41%	4.25
If government was to provide grants for basic farm mechanization farmers would become self sufficient	1%	15%	9%	52%	24%	3.83
Multiple farming methods within the same acreage can boost farm productivity	8%	20%	12%	37%	24%	3.5
Zero grazing has better animal yields than use of ranching	4%	22%	12%	28%	34%	3.64
Farm inputs are still expensive	12%	15%	11%	35%	27%	3.49
All taxes on farm inputs should be eliminated if the government wants to make farming more meaning full	6%	9%	9%	47%	29%	3.84
The government should invest in more research on the most appropriate farming methods for Msambweni	3%	11%	4%	62%	20%	3.84
Average likert mean						**3.78**

The findings agree with those in a study done by Degefa (2002) which showed a mixed effect of improved technology utilization on availability of food in the household and food security status. The utilization of farm credits, improved seeds and herbicides and irrigation indeed had enhanced the volume of food available at the household level and improved food security status, however, per capita food availability has declined for the farmers who utilized commercial fertilizer and insecticides. He provided the reason for the undermined contribution of these inputs could be due to the contribution of drought and pest experienced in the particular study area.

The findings also agree with those in Giovanni (1985) who concluded that Intermediate inputs such as seeds, fertilizer and pesticides were found to be the most significant parameter of the

production function in addition to land elasticity, labor and capital. The findings further concur with those in Jama and Pizarro (2008) who asserted that despite a diversity of extensive farming systems in Sub Saharan Africa, the continent still faces a number of challenges namely declining soil fertility, inadequate use of improved germplasm, limited irrigation that severely limits the production potential, poor extension services to farmers and poor access to markets.

The findings concur with those in Dixon et al. (2008) who did a study in Burundi and revealed that the prevalent farming system found in Burundi is the highland perennial farming system. This farming system is based not only on perennial crops such as banana, plantain and coffee complemented by cassava, sweet potatoes, beans and cereals but also cattle is kept for milk, manure, and social security.

4.2.5 Education Level and Food Security Projects

The fourth and last objective of this study was to analyze the extent to which education level among the farmers influence food security projects in Msambweni district. Results on Table 5 reveal that 79% agreed that farms of more educated people yield better output than those of noneducated people, 92% agreed that those farmers who attend farming seminars and workshops are more successful in their farming than those who don't and 89% agreed that education encourages farmers to mechanize their farms. Sixty six percent of the respondents agreed that Agricultural extension officers are key in educating farmers on how to improve their farm productivity, 74% agreed that education is not a determinant of farm output as long as the farmer follows good farming practices and 90% agreed that the government should look for ways of communication modern methods of farming using locally understood languages. Finally, 7% agreed that those who studied agriculture in either primary or secondary school are better farmers. The mean score for the responses was 3.76 indicating that many respondents agreed that education level was good in influencing food security project implementation.

The findings agree with those in Quisumbing and Pandolfelli (2008) who argued that the acknowledgement of the link between women's` empowerment and improved household food security recognizes Kenyan women as the gatekeepers to national development and increased nutrition for its children. Improving women's` education is probably the most important policy instrument Kenya can use to increase agricultural productivity, reduce poverty, and promote better health. According to Quisumbing and Pandolfelli (2008), one year of primary education provided to all Kenyan women farmers would boost farm yields by 24%. The lack of education is believed to be the basic cause of poor agricultural development and food insecurity in developing countries.

The findings also agree with those in Grenmer (2010) who asserted that education increases the ability of farmers to allocate resources more efficiently and helps to develop the flexible skills needed to participate in knowledge-intensive agricultural activity. Education promotes constructive problem solving, abstract thinking, and the understanding of the causal relationship between technology inputs and agricultural outputs. The Ministry of Agriculture recognizes the importance of agricultural training for its youth through various Rural Youth Agricultural Programs.

Table 5: Education Level

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Likert mean
Farms of more educated people yield better output than those of non-educated people	6%	13%	3%	54%	25%	3.79
Those farmers who attend farming seminars and workshops are more successful in their farming than those who don't	1%	3%	4%	71%	21%	4.08
Education encourages farmers to mechanize their farms	2%	4%	6%	72%	17%	3.99
Agricultural extension officers are key in educating farmers on how to improve their farm productivity	8%	15%	11%	49%	17%	3.53
Education is not a determinant of farm output as long as the farmer follows good farming practices	5%	17%	4%	66%	8%	3.55
The government should look for ways of communication modern methods of farming using locally understood languages	3%	4%	3%	79%	11%	3.9
Those who studied agriculture in either primary or secondary school are better farmers	10%	13%	7%	62%	8%	3.46
Average Likert mean						**3.76**

4.3 Inferential Statistical Analysis

4.3.1 Bivariate Correlation

Table 6 displays the results of correlation test analysis between the dependent variable (food security project) and independent variables and also correlation among the independent variables themselves. Results on Table 6 show that food security project was positively correlated with all the independent variables. This reveals that any positive change in land ownership, cultural practices, farming methods and education level led to increased implementation of food security projects.

Table 6: Bivariate Correlation

Variable		Food security	Land ownership	Cultural practices	Farming methods	Education level
Food security	Pearson Correlation	1				
	Sig. (2-tailed)					
Land ownership	Pearson Correlation	0.776	1			
	Sig. (2-tailed)	0.000				
Cultural practices	Pearson Correlation	0.622	0.857	1		
	Sig. (2-tailed)	0.000	0.000			
Farming methods	Pearson Correlation	0.578	0.699	0.675	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
Education level	Pearson Correlation	0.384	0.583	0.619	0.739	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	

4.3.2 Regression Analysis

In order to establish the statistical significance of the independent variables on the dependent variable (food security project) regression analysis was employed. The regression equation took the following form.

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \mu$

Where

Y = Food Security Projects

X_1 = Land ownership

X_2 = Cultural practices

X_3 = Farming methods and inputs

X_4 = Education level

In the model, β_0 = the constant term while the coefficient $\beta_i i = 1....4$ was used to measure the sensitivity of the dependent variables (Y) to unit change in the predictor variables. μ is the error term which captures the unexplained variations in the model.

Table 7 shows that the coefficient of determination also called the R square is 62.9%. This means that the combined effect of the predictor variables (land ownership, cultural practices, farming methods and education level) explains 62.9% of the variations in implementation of food security projects. The correlation coefficient of 79.3% indicates that the combined effect of the predictor variables has a strong and positive correlation with food security project implementation. This also meant that a change in the drivers of food security project has a strong and a positive effect on food security project implementation.

Table 7: Regression Model Fitness

Indicator	Coefficient
R	0.793
R Square	0.629
Std. Error of the Estimate	0.40275

Analysis of variance (ANOVA) on Table 8 shows that the combined effect of land ownership, cultural practices, farming methods and education level was statistically significant in explaining changes in food security projects implementation. This is demonstrated by a p value of 0.000 which is less that the acceptance critical value of 0.05.

Table 8: ANOVA

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	63.256	4	15.814	97.492	0.000
Residual	37.308	230	0.162		
Total	100.564	234			

Table 9 displays the regression coefficients of the independent variables. The results reveal that land ownership, farming methods and education level are statistically significant in explaining implementation of food security projects. However cultural practices were not statistically significant in influencing implementation of food security projects.

Table 9: Regression Coefficients

Variable	Beta	Std. Error	t	Sig.
Constant	1.755	0.186	9.414	0.000
Land ownership	0.691	0.066	10.418	0.000
Cultural practices	-0.143	0.083	-1.718	0.087
Farming methods	0.208	0.067	3.095	0.002
Education level	-0.207	0.069	-3.017	0.003

4.4 Summary of Key Results

The summary of the results are shown on Table 10 which indicate that land ownership, farming methods and education level are key determinants of food security project implementation. However in general the farmers agreed that all the variables of this study were important in influencing food project security implementation.

Table 10: Summary of Key Coefficients

Variable	Mean Score	P value
Land ownership	3.76	0.000
Cultural practices	3.75	0.087
Farming methods	3.78	0.002
Education level	3.76	0.003

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Key Findings

5.1.1 Land Ownership and Food Security Projects

The first objective of the study was to examine the extent to which land ownership influence food security projects in Msambweni district. Results indicated that land ownership was a key determinant in influencing food projects implementation. The findings indicated that land ownership made the implementation of food security projects easy and faster. This was evidenced by the responses from the respondents who indicated that they own more than 2 acres of land, everybody in their neighborhood owns at least 2 acres of land and if everybody utilized his piece of land well he will be able to feed his family and remain with a surplus for sale. The findings were also supported by the regression coefficients and correlation results. There was a positive and significant relationship between food security project implementation and land ownership.

5.1.2 Cultural Practices and Food Security Projects

The second objective of the study was to assess the extent to which cultural practices of the farmers influence food security projects in Msambweni district. Results indicated that were a hindrance in food security projects implementation and this implies that it made implementation take a longer period. This was supported by the majority of the respondents agreeing that their culture do not allow men to do some farming activities and similarly for women and that their religion do not allow the cultivation of some crops which could otherwise improve their food stocks. The findings also indicated that there are taboos in their community which discourage some types of farming methods and some food crops and if people in Msambweni were to disregard cultural beliefs farm productivity and food sufficiency would change positively. The findings were also supported by a negative correlation and the relationship between food project and cultural practices was found not to be statistically significant.

5.1.3 Farming Methods and Input and Food Security Projects

The third objective of the study was to examine the extent to which farming methods and inputs practiced by the farmers in Msambweni district influence the food security projects of the area.

Results indicated that farming methods and inputs were key determinants of food security project implementation. The findings indicated that farming methods influenced the implementation of food projects at Msambweni district. This was demonstrated by the mean score of responses and also the regression coefficient. The results indicated that majority of the respondents agreed that use of modern pesticides and fertilizers improves farm productivity as compared to traditional methods, they believe mechanized farming and irrigation have the potential of producing more farm output in land and if government was to provide grants for basic farm mechanization farmers would become self-sufficient. The correlation between farming methods and food security project implementation was found to be strong and positive. This implies that farming methods and input were statistically significant in explaining food security project implementation.

5.1.4 Education Level and Food Security Projects

The fourth and last objective of this study was to analyze the extent to which education level among the farmers influence food security projects in Msambweni district. Results indicated that education was a key factor that influences food security project implementation. However the findings also indicated that education level of the respondents did not matter so much as long as they apply the correct farming methods and attend farming seminars and workshops. This was supported by majority of the respondents who asserted that those farmers who attend farming seminars and workshops are more successful in their farming than those who don't, Agricultural extension officers are key in educating farmers on how to improve their farm productivity and education is not a determinant of farm output as long as the farmer follows good farming practices. There results also showed that there was a positive and significant relationship between education level and food security project implementation.

5.2 Conclusions

Based on the objectives and the findings of the study the following conclusion can be made.

Land ownership is a key driver to food security implementation at Msambweni. This kind of finding is consistent as it has been supported by other scholars and hence highlighting the intensity of land ownership in securing food problems. Cultural practices were found not statistically significant in explaining food security project implementation. Cultural practices are therefore important despite being so strict about farming because of the taboos and beliefs.

Farming methods and input were statistically significant in explaining food security project implementation, the respondents overwhelmingly agreed with it positive effect on project implementation. It can therefore be concluded that the farmers were happy about the government initiative of distributing seeds, fertilizers and have farmers given grants for basic farm mechanization would make farmers become self-sufficient.

Education was found to be effective in driving food security project implementation. It can be concluded that though education level is not determinant of farm output as long as the farmer follows good farming practices and attends farming seminars and workshops to enlighten their farming techniques and hence improve productivity.

5.3 Recommendations

Based on the results, findings and conclusions the following recommendations have been deciphered.

It was found that land ownership affects implementation of food security implementation. It is recommended to the farmers to ensure that they retain they own lands and avoid selling and put the land into good use by practicing farming. It is recommended that the farmers to embrace the government initiated projects being implemented in the area as this will help improve food production in the area and avoid food drought and fight poverty. This effort can lead to successful implementation of the project and subsequently lead to better productivity and by extension that of the overall farms.

Cultural practices were found to be a determinant factor in implementation of food security projects. It is recommended to the farmers that they review the existing taboos and beliefs and disregard them as this can lead to improved food security due to embracement of the government food security project implementation. It is also recommended that the farmers should have an open mind in fighting hunger as this will ensure that all people work to the betterment of improving food security issues regardless of the religion and culture.

Farming methods and inputs was found to be a key driver in food security project implementation. It is recommended to the farmers to evaluate the advantages of mechanized farming methods and traditional farming practices and embrace the better option. The study also recommends that the farmers should attend the farmer's workshops and seminars organized by the government to exchange ideas and learn also new tactics of farming activities.

The study recommends that the farmers to organize themselves in groups to invite the agricultural officers so that they can be trained on various farming methods and on how to improve their productivity. It is also recommended that the government should look for ways of communication modern methods of farming using locally understood languages to ensure that the whole country embraces changes at the same pace.

5.4 Areas for Further Study

Arising from the findings and the gaps in the study a replica study is recommended in another district in order to test whether the conclusions of this study will hold true. Another study could be carried out to include other factors that influence implementation of food security projects like demographic characteristics and socio- economic factors. Future studies should apply different research instruments like focus group discussions to involve respondents in discussions in order to generate detailed information which would help improve program implementation process.

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