

IMPACT OF "ALLEVIATING HUNGER TOGETHER" PROGRAMME ON FOOD SECURITY IN BOJANALA DISTRICT IN SOUTH AFRICA

BY



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SUBMITTED IN FULFILLMENT OF THE REQUIREMENT

FOR

THE DEGREE OF MASTER IN AGRICULTURAL EXTENSION

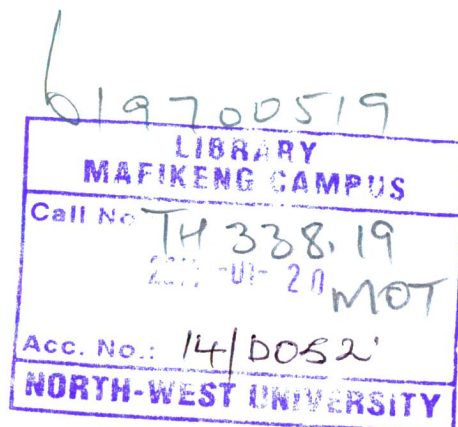
DEPARTMENT OF AGRICULTURAL, ECONOMICS AND EXTENSION

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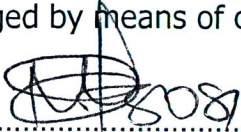
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2013



DECLARATION

I, Eva Motsosi, declare that this dissertation, submitted to the North West University, Mafikeng Campus, is my own work and has not been previously submitted to any university. All the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

A handwritten signature in black ink, appearing to read 'Eva Motsosi', is written over a horizontal dotted line.

Eva Motsosi

Signature

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ABSTRACT

The study presents the impact of food security in Moretele Local Municipality, Bojanala District in North West Province, South Africa. The study was conducted among 100 households in Moretele from different villages. Respondents were selected randomly and information gathered through questionnaires. The results showed that 13 percent of the respondents were less than 30 years, 24 percent were between 31 – 40 years. Twenty -two percent are aged between 41 – 50 and 51 – 60 respectively. Though high percentage of respondents had access to land, resources such as money are not available to carry on the agricultural activities. For this reason, most are not engaged in the agricultural activities and do not have farming experience. The highest percentage of source of income is through child support grant and it is mainly used to make available food for daily consumption.

It is clear that most of the households were food insecure. The level of unemployment is very high and level of education low. Thirty-eight percent of the respondents went to school up to primary level, and this is the highest percentage and the lowest is 2 percent for college attendants. Most of the respondents blame the area for their lack of unemployment; there are no nearby farms or factories for them to get employment. Significant determinants of attitude towards AHT are marital status ($t = -2.22$), race ($t = 2.22$), religion ($t = -4.27$), sources of income ($t = 2.567$) and membership of group ($t = 6.245$). Based on the findings, the study recommends that there should be an improvement in resources for the proper execution of the project.

Keywords: *Food security, availability of resources and better living for all.*

DEDICATION

This dissertation is dedicated to my family "Motsosi's" for their unconditional support throughout this journey of wanting to improve the standard of living of the disadvantaged community.

My sincere gratitude is directed to my late father, Lemme (May his soul rest in peace) and my mother, Bogadi who made me what I am today. You had hope in me and gave me the opportunity to learn and develop myself. The Modise's family, your support is highly appreciated.

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This research project would be impossible without the guidance of the almighty God.

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LIST OF ACRONYMS AND ABBREVIATIONS

AHT	Against hunger together
HFS	Household food security
SADEC	Southern African Development Countries
SASSA	South African Social Security Agency
HIV	Human Immunodeficiency Virus
AIDS	Acquired Immune Deficiency Syndrome
MTST	Medium Term Strategic Framework
IFSS	Integrated Food Security Strategy
RDP	Reconstruction and Development Programme
FAO	Food and Agricultural Organisation
HHFPP	House Hold Food Production Programme
TSF	Telefood Special Funds
FIVIMS	Food Insecurity and Vulnerability Information System
IFSNTT	Integrated Food Security and Nutrition Task Team
ADA	American Dietetic Association
USA	United States Of America
USDA	United States Department of Agriculture
HKI	Hellen Keller International
HFP	Homestead Food Production

NGO	Non- Governmental Organisation
VMF	Village Model Farms
PAR	Participatory Action Research
HENS	Healthy Eating Nova Scotia
NSFSN	Nova Scotia Food Security Network
NS	Nova Scotia
FCM	Food Costing Model
SADC	Southern African Development Countries
DRC	Democratic Republic of Congo
AGP	Agricultural Growth Program

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CHAPTER ONE

CONCEPT OF FOOD SECURITY

1. Introduction

Food security is availability at all times of adequate world supply of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuation in production and price (UN 1975). It is access to food in quality and quantity, to meet all nutritional requirements for all household members throughout the year. Food security is explained by the following concepts, food availability which means effective or continuous supply of food at both national and household level, food accessibility, which is access by households to sufficient food on a sustainable basis, food reliability which is access to safe and nutritious food, food distribution which is timely and equitable provision of food at the point of demand and food utilization which is proper processing, storage and consumption of food.

However, achieving food security in its totality continues to be a challenge even for the developed world, and much more for the developing nations. In South Africa, the story is not different, food security issues have been very critical. Therefore, like it is in other parts of the world and Africa, goals at achieving food security remain paramount in their agricultural policy thrust. In ensuring food security in South Africa, the right to or access to sufficient food was embedded in the constitution after independence in 1994 (Toit, 2011).

This culminated into food security oriented policies and support programmes to ensure that South African citizens are given agricultural opportunities that will enable them to meet their basic food needs. One of these support programmes include the

land reform which made land available to emerging farmers and Alleviating Hunger Together(AHT), just to mention a few.

AHT as a concept was introduced to alleviate poverty among vulnerable poor rural people in very remote areas who have limited access to help from government support like social grants. The Objective of AHT was to improve household food security and income generation using available agricultural resources and to raise the level of awareness among civil society on the plight of the poorest of the poor in trying to secure a livelihood including the structural constraints faced by this group of citizens. The programme was intended to eradicate malnutrition, by training beneficiaries in poultry production in order to earn a living. Local farmers were involved in designing a strategy that will make their business grow, encourage and lobby business and civil society as a whole to contribute to alleviate hunger amongst them, thereby, making them active players in the programme that will improve their economy.

1.2. Statement of the Problem

Food is the basic need of life. Every individual has the right to food. However, several authors, Van Liere (1994), Leonard (1989) and Abdullah and Wheeler (1985) submitted that there is a variation in the quantity of food consumed among groups of individuals in different income strata, particularly energy given food and protein intake between seasons within and outside Africa.

Quality food is the secret to a productive life every day. Food plays a very vital role in maintaining proper health and also helps in the prevention and cure of diseases. Good nutritive food makes good health, while bad or unhealthy food can lead to a diseased condition, therefore, it is important to have food and not any food but healthy food. "We are what we eat" (FAO 2008). The nutritional status of an individual, the health, physical and mental faculties depend on the food they eat. Therefore for good human existence, access to good and quality food is important (FAO 2008).

However, for food to be available, it must be produced. People who produce must have access to productive resources and other support that will not only boost production but ensure improved living conditions for them. In order to boost egg production in the various districts of South Africa, the government set up The Alleviating Hunger Together programme (Letseama la mantsha tlala) aimed at making small holder poultry farmers to increase their scale of egg production in such a way that their nutritional status, their income and that of the entire rural communities will be enhanced. This programme which has been in existence for some time will no doubt, have impact on the lives of the farmers, their families and the entire rural populace, it therefore becomes important to find out the extent of this impact in order to have a feedback as to the performance of the programme in line with the intended objectives of the stakeholders.

1.3. Research Questions

This study sought to find answers to the following questions:

- What are the personal characteristics of the beneficiaries / households?
- What is the attitude towards AHT?
- What is the impact of AHT on household food security?
- Is there significant difference in HFS in the participants in AHT?

1.4. Objectives of the Study

The main aim of the study was to assess food security in the one hundred households in Bojanala. The following objectives were outlined to address the specific problems of the people:

- To identify personal characteristics of participants in AHT,
- To determine attitude towards AHT,
- To ascertain the impact of AHT in HFS,
- To compare the food security status of participants before and after AHT,

1.5. Hypothesis

The following hypothesis served as the guiding research assumptions for the investigation.

- There is no significant relationship between farmer's personal characteristics and their attitude towards AHT.
- There is no significant difference in the HFS status of participants before and after AHT.

1.6 Definition of Terms

Food availability: It means effective or continuous supply of food at both national and household level. It is affected by input and output market conditions, as well as production capabilities of the agricultural sector.

Food access: ability of nation and its household to acquire sufficient food on sustainable basis. It addresses issues of purchasing power and consumption behavior.

Reliability of food: utilization and consumption of safer food and nutritious food.

Food distribution: equitable provision of food to point of demand at the right time and place. This spatial aspect of food security relates to the fact that a country might be food secure at the national level, but still have regional pockets of food insecurity, at various period of the agricultural cycle.

Food utilization/ consumption: Food is properly used, proper food processing and storage techniques are employed, and adequate knowledge of nutrition and child care techniques exists and is applied.

Food insecurity: Exist when members of a household have an adequate diet for part or all of the year or face the possibility of an inadequate diet in the future. Food limited or uncertain access to food of sustains a healthy and active life.

Food recovery: Collecting wholesome food for distribution to low-income people who are hungry.

Food insufficiency: an inadequate amount of food due to lack of resources.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter presents a review of relevant literature t Food security such as meaning and definition of Food security, models of food security, Participatory Food Costing models, Hellen Keller International's Homestead Food Production Model- HKI, Reviewed cases from Thailand, Syria Viet Nam and United Sates of America.

2.2. Meaning and definition of food security

Food security is access by all people at all times to sufficient food and nutrition for a healthy and productive life. It is access to sufficient food that will meet the dietary needs of the people (USAID, 1992). It bothers on issues such as adequate food supply, distribution of food within the household and nutritional adequacy of food to household members. Food security is further explained by these parameters namely, food availability, which is the effective or continuous supply of food at both national and household level, food accessibility, which is the ability of a nation to acquire sufficient food at all the times, food distribution which is equitable provision of food to point of demand at the right time and place and food utilization or consumption is the proper processing and storage of food.

The State of Food insecurity in the World shows that the problem is getting worse, with almost 870 million people reported as being chronically undernourished between 2010 and 2012. Even currently, the numbers of hungry people in the world still remains unacceptably high.

In Africa, Food security is a major concern. Many countries are facing food crises as a result of drought and other natural disasters. The 2012 food security vulnerability assessments conducted in Southern African Development Countries (SADC) showed that more people are subjected to food insecurity compared to 2011. It is reported that in South Africa, there is a 1% decrease in cereal production from 13.28 million tonnes in 2011 to 13.19 million tonnes in 2012, as a result of drop in the production of wheat and sorghum/millet from 1.91 million tonnes to 1.61 million tonnes and 194,800 tonnes to 158,250 tonnes respectively. Also, in Lesotho, there was a report of cereal deficit in 2012/13 of about 312,000 tonnes compared to 293,000 tonnes in 2011/12. Another report shows that in the Democratic Republic of Congo (DRC), 5.4 million people in 2012, compared to 3.93 million people last year, are projected to be food insecure.

Efforts to correct food insecurity in the world have been centred on these approaches, the development of agriculture and rural economy and the use of a varied set of food assistance tools, innovations in food procurement and the provision of safety nets and proper health care and education facilities.

Food insecurity in Africa is directly related to poverty, which is a feature common among the rural poor who engage mostly in subsistence agriculture. In order to address this, there is need to increase food availability by improving agricultural production. This can be done by making land and productive inputs available for agricultural practices, facilitating market access, capacity building and creating off-farm opportunities.

In SA, insecurity of livelihood for most of the population had been institutionalized under apartheid, through lack of access to land, vulnerability to forced removal, restrictions on migration, lack of employment or real wage protection for the employed, limited formal and informal employment opportunities and inadequate or non-existing states safety nets. Most poor households are primarily dependent on purchasing food rather than their own production. All these were addressed by ensuring that there is land available for agricultural purposes to improve the lives of the previously disadvantaged and mostly vulnerable communities. By so doing, safe and nutritious food will be available to meet the dietary and food preference for a healthy living. Added to this, the Integrated Food Security Strategy IFSS set was to also ensure safety net and food availability.

2.3. Models of food security

Participatory Food Costing Model

Food security model seeks to evaluate a set of specific interventions concerning food cost. This model focused on food pricing in Canada and the research was conducted by Professionals in 1988. In 2002, a different approach was taken on the research whereby PAR, Participatory Action Research was used. From 2000 – 2010, all people affected by food insecurity were engaged. The main goal of this model was to make sure that all Scotians are food secure, above the goal, the purpose of helping build the capacity for food security of the community. All households were encouraged to participate in the knowledge and skills development. They were to gather information about the factors that affect the accessibility of nutritious diet and to

share the evidence by creating effective communication mechanisms, to inform and support healthy public policy development. Lessons learned from this model are: support needs to be in place to allow those experiencing food insecurity to participate, interrelationship of projects have necessitated thinking of new ways to evaluate outcomes, need flexibility to accommodate contributions from partners of diverse backgrounds and to be responsive to changing context, building relationships and trust are needed to strengthen project's sustainability – takes a long time!, the investment in participatory processes multiplies and prolongs outcomes.

Hellen Keller International's Homestead Food Production Model - HKI

Hellen Keller International (HKI) has been implementing Homestead Food Production (HFP) programmes in several countries in Asia since the early 1990s. The program initiated as a pilot project in Bangladesh. The HFP programme enables year-round availability of nutritious foods for participating households. The main objectives of the programme were to increase the diversity and year-round production of fruits and vegetables by participating households. Increase the year-round production of meat, poultry and eggs by participating households. Improve consumption of fruits and vegetables and animal source foods by members of households involved in the programme, through increased production and nutrition-related education and improve health and nutrition outcomes of women and children in participating households.

The objectives were achieved by encouraging households to establish household gardens and animal husbandry (mainly rearing poultry); and by conducting nutrition education to inform optimal intra-household nutrition and feeding practices. The project also generates additional income for household members through the sale of surplus food products from the home gardens and animal husbandry. The income was used by participants to purchase other micronutrient-rich food items, and pay for household expenses such as health care and children's education needs (Talukder et al., 2000). The HFP model targets women from poor households as the primary beneficiaries. The model works by providing technical assistance, training, agricultural supplies and management support through local non-governmental organisations (NGOs) partners to support primarily women farmers from poor households.

2.3. Reviewed cases

2.3.1. Case Study - Thailand

Thailand's experience over the last 20 years is the world's best demonstration that fighting hunger reduces poverty alleviation. This strategy focused on reducing malnutrition and boosting rural development. The proportion of people living in poverty fell from 32% of the population in 1988 to 11% in 1996.

Countrywide research revealed that the diets of people in poor areas, especially infants and young children, lacked sufficient protein and energy as well as vitamin A and other micronutrients. This trapped people in a cycle of poor health and sapped

energy. Undernourished mothers gave birth to underweight babies and the cycle continued. The government implemented an ambitious community-based nutrition programme throughout the country. It included nutrition, better primary health care, improved food production and supplementary feeding for young children. Efforts to improve were matched with income-generation. Within ten years, severe malnutrition dropped to less than 10% of children, down from 35%. As people gained strength, they could work more, so incomes rose and poverty fell. Thailand regarded the cost of improving status as an investment, not an expense. Considering the strides the country made in reducing poverty, the payoff was high (Isvilanonda, 2009).

2.3.2. Case study - Syria

Syria was impacted moderately by the increase of food price and the number of the undernourished augmented slightly because of the fair government policies towards food security. The impacted variables are supplies of food stuffs, resource allocation, cropping structure, demand for and consumption of food products, food expenditure, food quality, income level, trade balance and others.

According to Syria Drought Plan of 2009, Syria has been affected by drought since 2006. While the 2007 – 2008 droughts were very severe and had a wider geographical reach, the current drought has again affected a population that was already suffering from the impacts of previous drought spells. According to UN Assessment Mission, up to 80% of those severely affected live on a diet consisting of bread and sugared tea, which only covers on average some 50% of both caloric and protein requirements. These families are not able to sustain or restore their

livelihood without emergency support including food aid, farming inputs and animal feeds, supplemented by other types of assistance (FAO, 2012)

2.3.3. Case study - United States of America

In the United States 3 million people including 13million children are living in poverty and cannot afford to buy food to maintain a healthy life. Those who can buy little food, are stretching the resources they have either by skipping meals or eating very little to save for the next day. In a developed country like the USA, people are not food insecure because they do not have food, but because they do not have money to buy food. The most affected people in USA are single mothers living in households with their children, Hispanics, Native Americans and African Americans, and those living in the inner cities. Children attending school, a lunch box could be their only diet for the day, if their parents manage to organize something for them, failing which they will go to school on empty stomachs and this leads to lack of concentration and eventually performance drops. For intervention, American Dietetic Association (ADA) calls for aggressive action to bring an end to domestic food insecurity and hunger and to achieve food and nutrition security for everybody living in the USA. The Federal Food Assistance Programs, which was one of the interventions, was the responsibility of the USDA, United States Department of Agriculture whose its duty was to issue food stamps or coupons to the needy households. National Food Recovery, its responsibility was to collect food that could be wasted like, after harvesting, they collect left overs and distribute amongst needy households. For the recovery to be effective, Communities should make efforts. The

overall view is that people have to be part of the solution and not part of the problem, then poverty can be defeated. Nord(2008)

2.3.4. Case study Viet Nam

It was noticed that in many rural areas of Viet Nam, 45% of children and 40 % of women are malnourished. For the government to overcome this problem, a pilot project was established for three years, from 1997 to 2000. The objective of the pilot was to establish a home garden to produce both food and generate income from that food by selling. FAO in partnership with MARD, started the pilot project with the intention of integrating nutritional education with the transfer of small scale agricultural technology to food insecure households with malnourished children. Training and grants were given to the participants and closely monitored; gardens were established at very low costs. Participants were involved in the project and had a sense of ownership and this made the project to be sustainable and successful. The project was then implemented in other areas of Viet Nam where hunger was noticed (Albert, 2000).

CHAPTER THREE

STUDY AND METHODOLOGY

3.1. Introduction

This chapter outlines the procedure and specifically the methodological approaches used in gathering data and analysing it. It begins with the choice and the description, sampling procedure, the design of the questionnaire and its administration, including the definition of variables. Finally, the statistical techniques used in the analysis of data are described.

3.2. The study area

The study was conducted in Bojanala District Municipality. The district is located in the north-eastern side of the North West Province and also shares boundaries with municipalities in other provinces like Gauteng and Limpopo. It is made up of Moretele, Madibeng, Moses Kotane, Rustenburg and Kgetleng Local municipalities. Bojanala District Municipality is one of the four districts within the North West Province. Moretele was chosen for the study because AHT is selected as a pilot village for the AHT programme. Moretele is situated in the far east of Bojanala and covers an area of 1369 square km, it is located strategically to join four provinces like Gauteng, Limpopo, Mpumalanga and North West. It has 28 wards and 70 villages. Agricultural activities for the above municipalities differ according to the strength of each respectively. In Moretele specifically, beef production is the main commercial agricultural activity, crop production is also practiced. Most small scale farmers are producing vegetables and some are involved poultry farming.

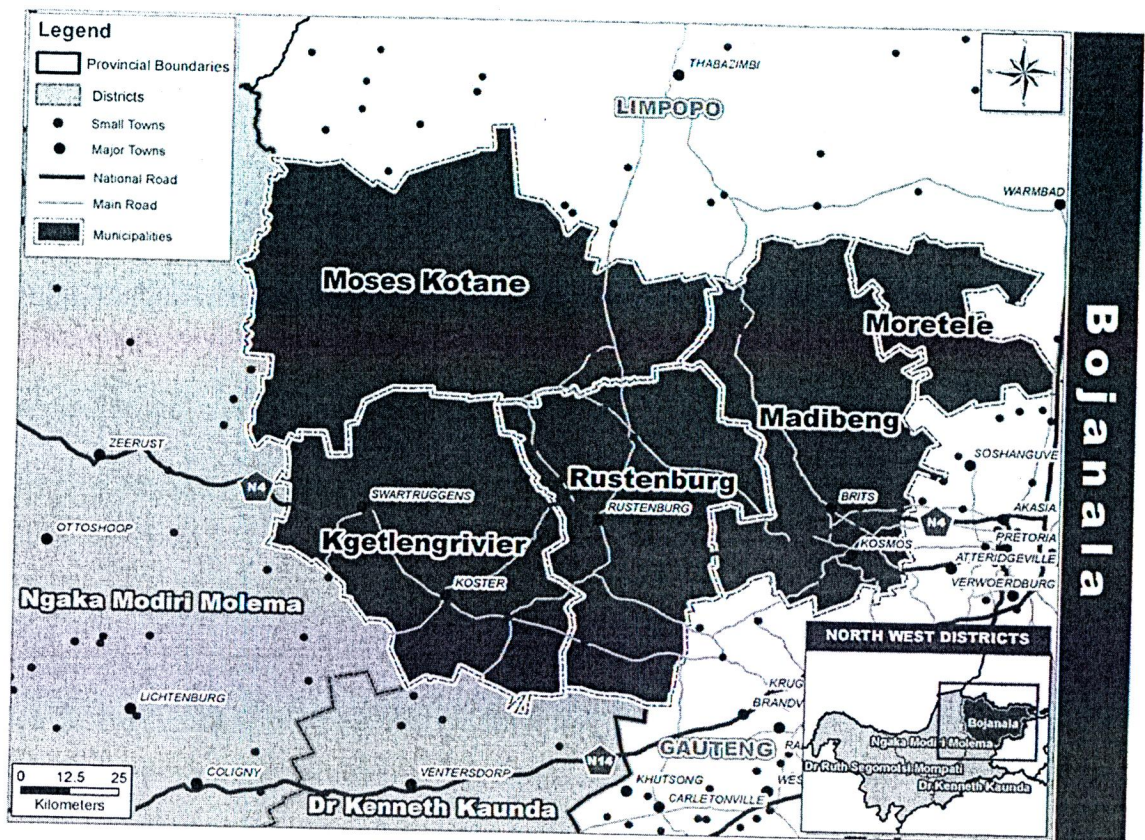


Figure 2: Bojanala District Municipality

3.3. Climate

Bojanala has a temperate humid subtropical climate. It has very warm summer and mild winter. Temperatures range from 17° c to 31°c in summer, and from 3 to 21°c in winter. Annual rainfall totals about 360mm with almost all of it falling during the summer months between October and April.

3.4. Population of the study

The population of the study are the one hundred and seventy five people who participated in this poultry project from 10 villages in Moretele. The project was mainly for eggs production on a very small scale, for household production and surplus was sold locally. However, during the sample survey, only 100 people were selected for the survey to determine the impact of alleviating hunger programme within the community. The participants were selected from Tlounane, Utsane, Swaartboom, Ngobi, Bosplass, Mathibestaad, Moeka, Lebalangwa, D grens, De stan, are villages in Moretele local municipality.

3.5. Sampling procedure and sample size

Sampling is a method of obtaining information about a large group by examining smaller, randomly chosen group members. If the sampling is conducted correctly, the results will be representative of the group as a whole. The sampling was done in one hundred households that benefited in the AHT, 67 females and 33 males.

Table 1: Study population and sample

Villages	No of participants	Sample
Tlounane	20	12
Utsane	10	5
Swaartboom	20	14
Ngobi	10	8
Bosplaas	20	8
Mathibestad	15	14
De grens	20	12
De stan	20	9
Lebalangwa	10	8
Moeka	30	10

The beneficiaries were identified by a working committee comprising of Agricultural Technicians, Portfolio on Social Security, Members of ward committees and the department of social development. The portfolio of Social Development within the Moretele Local Municipality has a list of households according to their income. This list was used to identify villages with most poor households. The project focused on egg production and vegetable production. The committee identified households and screened each household, individually (A village per day) to verify and confirm its income status-quo. The committee and beneficiaries met to discuss and confirm the proposed starter pack before being implemented.

3.6. Questionnaire

A structured questionnaire was designed as a tool for the collection of primary data, and it was designed to collect both quantitative and qualitative data. The questionnaire was then administered to respondents through oral interview. The reason for using face to face interviews is because it has several advantages, there are less omissions of difficult questions by respondents and it also reduced the problem of misinterpreting of words. According to (Jari, 2009), an interview increases the quality of the responses because the interviewer can easily ask for more specific answers required. Interviews were conducted with those selected on the sample to provide all the primary data required for the survey.

3.7. Measurement of variables

The dependent variable for this study was "food security". To check the impact of food security in the identified households, this impact was measured by the availability of food through physical and economic success. The scale of Yes and No was used to measure the impact. The independent variables were among other gender of each respondent that is, male and female household head. Male was numbered code one while female was code 2. Age of household head: it was also used as a variable and it was scaled differently in the interval of 10 years. Marital status: The respondent's marital status at the time of collecting data as expressed in terms of single, married, widowed and divorce. These conditions contribute to the well-being of the household as far as finance is concerned. Race: it was also used as one of the variables to identify the respondents. It is clear that different races

respond differently as far as agricultural activities are concerned, therefore, the food security issue will be looked differently.

Level of education: The level of education was measured by different levels such as primary, secondary, high school, college and university. Religion: Christianity, Bahai, Hindu and Islam were used to check the religious believe of the respondents.

Employment status: this is the most important variable because it determines if respondents have access to cash so that the family can be food secured. It was classified under employed, unemployed, casually employed and self-employed.

Source of income: it also determines access to food, when there is money, there will be no food. Most of the respondents rely on social grants, such as old age, child support and orphan grants. Disability: It was use as variable for the respondents, it

was determined by different types of disabilities that will contribute differently to the participation in agriculture, and they are hearing, sight, and communication, physical

and mental. Source of land: All agricultural activities require access to land , therefore it was used as a variable among the respondents, whether the land is owned or rented by the respondent. If the land is rented, you do not have the right

to practice any activity without consulting with the land lord. Data was collected and captured in the computer for analysis; it was analysed using the Statistical Package for Social Science (SPSS) for windows. This was done in order to obtain descriptive statistical data and representation of results.

3.8. Conclusion

This chapter focused on the way data was collected, captured and analysed as part of the research. Participatory approach was very effective because respondents were given the opportunity to answer all the questions the way they wanted to. All the variables were defined.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1. Introduction

In the previous chapter, the research methodology was described; the way data was collected, captured and analysed was also presented. It also reflect the impact of food security in the identified households in rural areas of Moretele Local Municipality.

4.2. Personal characteristics of respondents

An assessment of the community in Moretele Local Municipality who participated in the fight against hunger shows that more females participated in the programme. The percentage that participated in this research is aged between 51 to 60 which is 24%. In 1998, it was reported that 4.6% of the population was aged 5 or older, while 33.9% of the population was younger than 14 years in the North West Province. The reason for this is that, people at this age do not have hopes of employment and they are to have backyard gardens. Though there is a problem of water in the area, they can still travel some distance to fetch water for irrigation. The lowest percentage is 13 and aged less than 30 years. This is the stage where people are desperate to have proper job and stable income, therefore agricultural projects is not their option. In most cases, they regard it as an activity meant for older people. Forty five percent of the participants are married and 3% are divorced. The reason for the high percentage of married people is because traditionally,

women depend on men for support and sometimes men are employed in big cities or mines and come home only during month end.

Employment statistics show that 80% of people are unemployed and only 3% are temporarily employed. The reason for the high percentage of employment is that most people had qualifications for the job. Some are old to be employed even in temporary jobs. The smallest percentage of 3 is temporarily employed. "Rising unemployment works to worsen and inequality, but it may be offset by other changes in social and economic variables (May 1998).

Using a household poverty line of R800 per month, the percentage of poor in the population is put at 28.4% using imputed expenditure and 52% using census income. Because most people are unemployed, they depend on government grants, 57% get child support grants, this was also confirmed by (Socpen 2011), 25% old support grants, and 12% other grants like disability and 6% on orphan grants. Hence the percentage of disability is less; most people are in good conditions. Out of the total of 19% of disability, 11% is for hearing, 4% is for sight and the lowest is 4% for physical disability.

According to Socpen, 15million benefited from social grants and the highest number of grants are in KZN (3 674 699 people), NW (1 113 840) and the lowest is NC(383 452). It shows that most beneficiaries are in rural regions. Most people who benefit from the government grants are females, the reason for this is that, most of them are not employed and they do not have pension pay-out from their previous employers. Percentage distribution of attitude towards AHT differs, 91% strongly agree that this programme benefited them and only 1% strongly disagree. It is

normal that not all people can be satisfied. Sixty two percent see the need of the government to come with this intervention as it have benefited them and they admitted that their conditions of living before the intervention were very bad. Seventy percent were neutral about the change of their living condition and 1% strongly agree on the fact that their level of poverty improved after the intervention. At the inception of the programme, 52% agreed and welcomed the intervention and 2% did not want the intervention. Seventy one percent of the people own land. In the rural areas, land ownership is not a problem, people go to the tribal authority to request land, if they are members of that community, they will be allocated land, but if they are from other communities, they will be given the opportunity to lease. The size of the allocated land depends on the size the farmer requested. 10% rented the land. This means that less people in the said villages are not the real members of that community. Most people are not members of the farming group, 62% are not members. In all different villages, there are farming groups that work directly with extension officers; the reason for farming group is to help to facilitate the agricultural activities in the village. Thirty-seven percent are members of the farming groups. It is expected in the long run the number of famers participating in the farming groups will increase because most people who are now involved in this programme are women who were not initially participating in agriculture.

Table2. Percentage distribution of respondents according to personal statistics

Variables	Frequency	Percentage
<i>Gender</i>		
Male	33	33.0
Female	67	67.0
<i>Age</i>		
Less than 30 yrs.	13	13.0
30 – 40 yrs.	22	22.0
41 – 50 yrs.	22	22.0
51 – 60 yrs.	24	24.0
Above 60 yrs.	19	19.0
<i>Marital status</i>		
Single	41	41.0
Married	45	45.0
Widowed	10	10.0
Divorced	3	3.0
<i>Race</i>		
African	92	92.0
White	2	2.0
<i>Level of education</i>		
Primary school	38	38.0
Secondary school	27	27.0
High school	33	33.0
College	2	2.0
<i>Religion</i>		
Christianity	81	81.0
Bahai	14	14.0
Hinduism	2	2.0
Islam	3	3.0
<i>Number of dependants</i>		
1 -3	42	42.0
4 - 6	54	54.0
7 - 9	4	4.0
<i>Number of household</i>		
1 - 3	67	67.0
4 - 6	22	22.0
7 - 11	12	12.0
<i>Total number of people in the household</i>		
4 - 6	83	83.0
7 - 8	15	15.0
9	3	3.0
<i>Employment status</i>		
Unemployed	80	80.0
Casual	17	17.0

Self employed	3	3.0
<i>Source of income</i>		
Old age grant	25	25.0
Child support grant	57	57.0
Orphan grant	6	6.0
Other	12	12.0
<i>Source of land</i>		
Personal	71	71.0
Rented	5	5.0
Allocation	22	22.0
Other	2	2.0
<i>Membership of farmers group</i>		
Yes	37	37.0
No	62	62.0
Other	1	1.0
<i>Non-farming activities</i>		
Yes	26	26.0
No	72	72.0
<i>Types of non – farming activities</i>		
Artisan	1	1.0
Baking	3	3.0
Sewing	3	3.0

4.3. Percentage distribution of attitude towards Against Hunger Together

Table 3 shows the percentage distribution of attitude towards AHT differs, 91% strongly agreed that this programme benefited them and only 1% strongly disagreed. Sixty two percent indicated the need of government to come with this intervention as it benefited them and they admitted that their conditions of living before the intervention were very bad. Seventy percent were neutral about the change of their living condition and 1% strongly agreed on the fact that their level of poverty improved after the intervention. At the inception of the programme, 52% agreed and welcomed the intervention and 2% did not want the intervention.

Seventy one percent of the people own land. In the rural areas, land ownership is not a problem, people go to the tribal authority to request land, if they are members

of that community, they will be allocated land, but if they are from other communities, they will be given the opportunity to lease. The size of the allocated land depends on the size the farmer requested, 10% rented the land. This means that less people in the said villages are not the real members of that community. Most people are not members of the farming group, 62% are not members. In all different villages, there are farming groups that work directly with extension officers; the reason for farming groups is to help to facilitate the agricultural activities in the village. Thirty seven percent are members of the farming group. In the long run the number of farmers participating in farming groups will increase because most people who are now involved in this programme are women of who were not initially participating in agriculture.

Table 3: Attitude towards Against Hunger Together on Household Food Security

	S A	A	U	D	S D
Do you benefited from the programme?	91(91)	8(8)	0(0)	0(0)	1(1)
Was there a need for government's intervention?	62(62)	38(38)	0(0)	0(0)	0(0)
The living conditions were bad before the intervention	68(68)	32(32)	0(0)	0(0)	0(0)
Level of poverty changed for the better	1(1)	29(29)	70(70)	0(0)	0(0)
The implementation of the project was properly done	41(41)	41(41)	3(3)	13(13)	2(2)
The community welcomed the project	41(41)	52(52)	5(5)	2(2)	0(0)
Your participation in the implementation was recognized	58(58)	36(36)	4(4)	1(1)	1(1)
All required inputs were provided	57(57)	41(41)	1(1)	0(0)	1(1)
Produce were of good quality	48(48)	45(45)	5(5)	0(0)	2(2)
The surplus were sold	53(53)	36(36)	7(7)	3(3)	1(1)
The profit made from the produce were saved	30(30)	58(58)	8(8)	4(4)	0(0)
There was no problem with the market	38(38)	51(51)	8(8)	3(3)	0(0)
The project improved the community's standard of living	33(33)	48(48)	18(18)	1(1)	0(0)
There were challenges during production cycle	25(25)	56(56)	13(13)	6(6)	0(0)
The mortality was 5% during production cycle	27(27)	49(49)	12(12)	9(9)	3(3)
Training was done before the implementation	30(30)	56(56)	12(12)	1(1)	1(1)
Training offered played a role in my management of project	42(42)	37(37)	16(16)	2(2)	1(1)
Experience of poultry rearing even before training	40(40)	37(37)	9(9)	4(4)	9(9)
Have experience of vegetable production	36(36)	30(30)	17(17)	6(6)	9(9)

even before training					
Shared the experience and knowledge with other beneficiaries	50(50)	39(39)	7(7)	4(4)	0(0)
We share the market	18(18)	47(47)	20(20)	14(14)	1(1)
We sell at the same price as per agreement	43(43)	33(33)	17(17)	5(5)	2(2)
The project is sustainable and beneficial	27(27)	53(53)	13(13)	6(6)	1(1)
Other members of the family participate in the project	26(26)	50(50)	19(19)	5(5)	0(0)
Veterinary services were available when needed	26(26)	46(46)	15(15)	8(8)	5(5)
Other stakeholders were involved	31(31)	46(46)	17(17)	3(3)	3(3)
Community benefited from the project	48(48)	39(46)	10(10)	3(3)	0(0)
Monitoring was done during the production cycle	45(45)	35(35)	16(16)	4(4)	0(0)
Evaluation was done at the end of the production cycle	28(28)	56(56)	9(9)	5(5)	2(2)
The project was handed over to beneficiaries	27(27)	56(56)	12(12)	5(5)	0(0)
Beneficiaries are responsible for the project	34(34)	45(45)	13(13)	8(8)	0(0)
Department played a major role in this project	60(60)	27(27)	13(13)	0(0)	0(0)
The project should never have been implemented	33(33)	34(34)	2(2)	23(23)	7(7)
Other communities must benefit from the Project	49(49)	38(38)	7(7)	6(6)	0(0)
Extension officer is available when needed	53(53)	29(29)	9(9)	4(4)	4(4)
Not only chickens were provided	36(36)	29(29)	5(5)	21(21)	9(9)
Fruit trees were not necessary	21(21)	36(36)	10(10)	14(14)	19(19)
Seedlings were provided	22(22)	42(42)	10(10)	11(11)	15(15)

We never struggled with planting the seedlings	19(19)	34(34)	12(12)	20(20)	14(14)
Fruits are doing well	11(11)	43(43)	4(4)	24(24)	18(18)

Agree – A, Strongly agree – S A, Disagree – D, Strongly disagree – S D, Undecided – U



4.4. The impact of Against Hunger Together on Household Food Security

Table 4 shows that ninety percent of the participants agreed that the produce were available throughout the production cycle and the remaining ten percent disagreed. The reason for the disagreement is that, there were some mortality and vegetables did not grow to their potential because of the scarcity of water. Sixty percent of the produce was mainly for household consumption and the remaining was for sale. 84% agreed that 40% of the surplus were sold. As per the objective of the programme of AHT, the beneficiaries were provided with production inputs and only 77% agreed to this and 23 % said not all the production inputs were provided. Majority of the participants were satisfied with the programme and 40% were not happy with the AHT. Fifty one percent agreed that produce was always available to the consumers and 49% said no. The purpose of AHT is to make sure that everyone has food on the table every day, 85% agreed that AHT reached its objectives, only 18% said it did not reach its objectives. Seventy percent agreed that they did not spent money in production as indicated that the production inputs were provided and they were also satisfied with the money they received from the surplus sold. Generally, a large percentage agreed and supported the AHT and wished that other villages be introduced to this programme.

Table 4 .The impact of Against Hunger Together on Household Food Security and 100

	YES	NO
Produce were produced throughout the production cycle	90	10
60% of produce was for consumption	90	10
40% of the produce was sold	84	16
Production inputs were provided	77	23
Production was satisfactory	60	40
Produce was always available to the consumers	51	49
Never went to bed on an empty stomach	85	18
Did you spend money on production inputs?	70	30
There was no need to look for a job	62	38
Money from the produce is satisfactory	61	39
Always having money to buy basic food	70	30
Vegetables produced were sold	55	45

Field Survey 2013

4.5. The difference in Household Food Security before and after intervention of Against Hunger Together

Before the intervention of Against Hunger Together(AHT), 91% did not have food and after the intervention, 93% had food on daily basis but did not have money to buy basic stable food. After the intervention, they managed to save money for the daily use. Eighty eight percent agreed that the dependents were not properly fed before the intervention and after the interventions; they agree they were properly

fed. People were not aware of the AHT until its introduction by the department and they noticed its impact. People were malnourished before AHT and after the intervention, 79% agreed that, the vitamins and minerals needed by the body were received. Most of them did not use internet in agricultural activities; they only developed one after the intervention. The reason for the interest was that, they noticed that through agriculture, they could get food at a lower cost, they had their own land and water to produce food and could rear indigenous chickens in their yard. AHT helped them to have access to the right food, balanced diet and their standard of living improved. Initially, they thought that AHT was not appropriate for their needs, after the intervention, they noticed that it was supposed to be implemented a long time ago. They were not aware of their right to food and water but through the process, they knew their right. The intervention was an eye-opener to them.

Table 5: Household Food Security before and after the intervention of Against Hunger Together

	BEFORE		AFTER	
	YES	NO	YES	NO
Have enough food	9	91	93	7
Have income	10	90	95	9
Dependent well fed	12	88	94	6
Timing was adequate	34	66	12	88
Food Security was Unsecured	60	40	75	25
Went to bed without anything to eat	57	43	62	38
Have access to cash	41	59	71	29
Have nutrients required by the body	66	34	79	21
Have interest in agricultural production	47	53	85	15

Have the knowhow of rearing chicken	33	67	81	19
Have information about the project	28	72	82	18
Know their right of access to food	37	63	83	17
Have information on vegetable production	31	69	83	17
Know the importance of balanced diet	27	73	83	17
Standard of living for the household is Acceptable	17	83	92	8

Field Survey 2013

4.6. Regression results

The results of multiple regression analysis of AHT in Moretele – Bojanala District are presented in Table 7. Out of 12 independent variables, 3 were significant at 10% and they are gender, religion and number of household. Age (t 1.686, $p=.095$), religion (t 2.518, $p =.014$) and number of household (t 2.053, $p = .043$). Gender (t 1.62, $p = -0.34$) had significant positive effect on the impact of “alleviating hunger together” Programme on food security in Bojanala District in South Africa. This means that a change in the age of the respondent leads to a 18.6% in the effect on the impact of “alleviating hunger together” Programme on food security in Bojanala District in South Africa. This positive relationship could be attributed to the fact that farming is mostly reserved for women. FARPAN (2009) noted that Women are the pillars of African agriculture. According to the United Nations Food and Agriculture Organisation, over two thirds of women in Africa are employed in the agricultural sector and produce nearly 90% of food on the continent. They are responsible for growth, selling, buying and preparing food for their families.

Religion had a significant effect on the impact of "alleviating hunger together" Programme on food security in Moretele. This implies that a unit change in the religion of the respondent leads to 28% change in the impact of AHT. A number of households had a significant impact on the attitude towards AHT of the respondent. This implies that a unit increase in the number of households leads to a unit decrease in the attitude of respondents towards AHT by 22.4%. These will in turn, increase the likelihood of specifically targeted interventions being planned and implemented.

The regression model indicated that F – value was significant at 1.88. The regression model indicates R Square value of 0.21 which implies that the independent variables included in the analysis explain 21% of the variation in the dependent variable.

The significant determinants are marital status ($t = -2.22$), race ($t = 2.22$), religion ($t = -4.27$), sources of income ($t = 2.567$) and membership of group ($t = 6.245$). It therefore means that married people had positive attitude towards AHT because they have a family to feed, same with race because they were previously not engaged in agricultural activities as the owners of the project. Sources of income are one of the variables that responded positively towards AHT because most of the participants do not have stable sources of income and AHT helped them to be financially independent.

Table 6: Multiple regression showing attitude of participants towards Against Hunger Together

Model	Unstandardadized Coefficients		Standaddi zed Coefficient s	t	Sig
	B	Std Error	Beta		
Gender	8.73E- 02	.411	.019	.212	.83
Age	2.39	.015	.159	1.59	.12
Marital status	-642	.289	-.233	-2.22	.03
Race	2.99	1.350	.197	2.22	.03
Level of Education	.441	.235	.184	1.88	.064
Religion	-129	.301	-.390	-4.27	.00
Number of households	2.18E-02	.078	.025	.28	.78
Employment status	.147	.294	.042	.499	.619
Source of income	.534	.208	.223	2.567	.012
Source of land	2.91E-02	.148	.017	.197	.844
Membership of farming group	-2.208	.354	-.519	-6.245	.000
Labour sources	.193	.170	.096	1.130	.262
R	0.68				
R square	0.47				
F	6.29				
P	0.00				

4.7. Differences in Household Food Security before and after Against Hunger Together intervention

Table 5 shows the difference in the Household Food Security before and after Against Hunger Together intervention among the respondents. The mean score on the HFS shows that the respondents had higher score after the AHT when compared to the period before the introduction of AHT. The t- value of 10.34 and p of 0.00 shows that, there is a significant difference in the HFS of the respondents before and after AHT. The implication of these results is that, the introduction of AHT has positive impact on the HFS of the respondents. The programme of AHT has helped in a way to improve the HFS in Moretele. According to Albert (2000) similar

programme like AHT was introduced as a pilot at Viet Name. The objective of the pilot was to establish a home garden to produce both food and generate income by selling the surplus. In Thailand, the government implemented an ambitious community-based nutrition programme throughout the country. It included nutrition, better primary health care, improved food production and supplementary feeding for young children. Efforts to improve were matched with income-generating. Within ten years, severe malnutrition dropped to less than 10% down from 35%.

Table 6: t – test for Household Food Security before and after Against Hunger Together

	Mean	N	Std Deviation	Std Error Mean	MD	SD	t	df	P
HFSA after	28.17	100	4.44	0.44	8.03	7.6	10.34	99	0.00
HFS before	20.14	100	4.87	0.49					

5.1. Introduction

This section summarises the entire research study, the literature review, research methodology and results.

5.2. Summary

The main aim of the study was to check the impact of food security before and after the intervention, "Against hunger together". The study was conducted among 37 males and 63 females respectively. The following characteristics were taken care of, the socio – economic status of respondents, problems encountered in having food every day and the issue of food security after the intervention of AHT. Thirty seven males and sixty three females were selected to participate in the household survey. Information was gathered from respondents through the use of a questionnaire. Different sources were used to substantiate the findings of this research; the Bojanala Platinum District Municipality Integrated Development Plan (2009/2010) was also used.

The study was conducted in ten villages of Moretele, Bojanala district (12 Tlounane, 5 Utsane, 15 Swartboom, 8 Ngobi, 8 Bosplass, 14 Mathibestaa, 20 Moeka, 5 Lebalangwa, 12 D grens, 9 De stan). The sample was drawn from farmers who participated in the AHT programme a random sampling technique was used and as a result of 100 poultry farmers were selected randomly. Interviews were conducted participants using the designed questionnaire to collect data. The data was analysed using linear regression model; this was to identify the impact of AHT on the community. The variables used in the study were defined. Such as age,

gender, educational level, farming experience, household size, farm size, number of dependents, sources of income and source of labour.

The study reveals that AHT was really needed to address the issue of food insecurity in Moretele Municipality. It is clear that before the intervention, respondents were food insecure but after AHT, their standard of living improved for the better. A large number of respondents were older people, between 51 to 60 years. This is an indication that young people are not interested in agricultural activities and are not capable of taking care of their household needs, they are looking for instant cash. It was observed that most respondents had access to land but could not make use of it because they do not have production inputs to carry out the agricultural activities. The source of income is mainly from social grants. This is an indication that the level of unemployment is very high. A larger number of respondents went up to primary level and according to Cronje et al, (2003), lack or low level of education could sometimes be associated with failure to have a better job.

The results of linear regression model revealed that the attitude of participants in AHT is affected by the participants' socio economic characteristics. The independent variables were able to explain 21% of variation in attitude of the participants to AHT. The statistically significant variables, at 5% level are: marital status, race, religion, source of income and membership of group were inversely related to AHT.

5.3. Recommendations

The issue of food insecurity needs to be addressed by making food available to the community. The intervention of AHT by the department of agriculture was done at the right time. Production inputs to be increased so that the participants can make profit out of the production. Seedlings and fruit trees should not be distributed because of water problem and it can be considered once the issue of water is being resolved. Different department have to participate in addressing the issue of food security by allocating enough budgets for the affected or identified communities. By so doing, all socio – economic aspects of the community will be taken care of. Introduction of adult learning by the department of education will help improve the standard of education of the rural people. The department of social development should make sure that everyone who qualifies for a social grant, gets it. The municipality should make provision of houses for those who do not have shelter and department of agriculture should provide production inputs for agricultural purposes, depending on the needs of the particular community. Extension officers have to encourage the community to be engaged in agricultural activities especially those who have access to land. They must be started on a small scale to the level of entrepreneur. Information about the services available from the departments must be disseminated to the community as this will encourage them to be self-supportive farmers, services like, grants, loans and other ways of financial support be availed.

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APPENDIX 1:

QUESTIONNAIRE

Fight against hunger together in households food security in Moretele LDC in Bojanala District

1. PERSONAL CHARECTERISTICS

Gender	
Male	
Female	
Age	

Marital status	
Single	
Married	
Widowed	
Divorced	

Race	
Race	
African	
White	
Coloured	
Indian	
Other	

Level of education	
Primary school	
Secondary School	
High School	
College	
University	

Religion	
Christianity	
Bahai	
Hinduism	
Islam	
Other	

Number of dependants		
Number of household		
Total number of people in the household	Female	Male

Employment status	
Unemployed	
Casual	
Permanently employed	
Self employed	
Other	

What is the source of your income?	
Old age grant	
Child support grant	
Orphan grant	
Other	

Do you have disability?	
Yes	
No	

Type of disability?	
Hearing	
Sight	

Communication	
Physical	
Mentally	
Other	

Source of land	
Personal	
Rented	
Allocated	

Member of a farming group?	
Yes	
No	

Non- farming activities?	
Yes	
No	

Labour source?	
Self	
Family	
Hired	

2. ATTITUDE TOWARDS AHT

Agree – A, Strongly agree – S A, Disagree – D, Strongly disagree – S D, Undecided – U

	S A	A	U	D	S D
The programme benefits you?					
Was there a need for government's intervention?					
The living conditions were bad before the intervention					
Level of poverty changed for better					
The implementation of the project was properly done					
The community welcomed the project					
Your participation in the implementation was recognized					
All required inputs were provided					
Produce were of a good quality					
The surplus were sold					
The profit made from the produce were saved					
There was no problem with the market					
The project improved the community standard of living					
There were challenges during production cycle					
The mortality was 5% during production cycle					
Training was done before the implementation					
Training offered played a role in my management of project					
Experience of poultry rearing even before training					
Have experience of vegetable production even before training					
Shared the experience and knowledge with other beneficiaries					

We share the market					
We sell at the same price as per agreement					
The project is sustainable and beneficial					
Other members of the family participate in the project					
Veterinary services were available when needed					
Other stakeholders were involved					
Community benefited from the project					
Monitoring was done during the production cycle					
Evaluation was done at the end of the production cycle					
The project was handed over to beneficiaries					
Beneficiaries are responsible for the project					
Department played a major role in this project					
The project should never been implemented					
Other communities must benefit from the Project					
Extension officer is available when needed					
Not only chickens were provided					
Fruit trees were not necessary					
Seedlings were provided					
We never struggled with planting the seedlings					
Fruit are doing well					

3. THE IMPACT OF AHT ON HFS

	YES	NO
Produce were produced throughout the production cycle		
60% of produce was for consumption		
40% of the produce was sold		
Production inputs were provided		
Production was satisfactory		
Produce were always available to the consumers		
Never went to bed with empty stomach		
Did you spent money on production inputs		
There was no need to look for a job		
Money from the produce is satisfactory		
Always having money to buy basic food		
Vegetable produced were sold		

4. THE DIFFERENCE IN HFS BEFORE AND AFTER INTERVENTION OF AHT

	BEFORE		AFTER	
	YES	NO	YES	NO
Have enough food				
Have income				
Dependent well fed				
Timing was adequate				
Food Security was Unsecured				
Went to bed without anything to eat				
Have access to cash				
Have nutrients required by the body				
Have interest in agricultural production				
Have the knowhow of rearing chicken				
Have information about the project				
Know their right of access to food				
Have information on vegetable production				
Know the importance of balanced diet				
Standard of living for the household is Acceptable				