

Baseline Report for ZAMACE - GMEP



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EXECUTIVE SUMMARY

ZAMACE is the only commodities exchange in Zambia which was set up to provide a centralised, transparent and efficient market place for agricultural products. In the four years the Exchange has been in existence the benefits though skewed have been evident particularly with large commercial farmers reaping the most benefits from trading on the Exchange. However, in Zambia like most less developed countries; the bulk of the staple food is grown by the smallholder farmers. Paradoxically, this group of farmers has the greatest potential of benefitting from the trading activities of the Exchange but has not fully benefitted from the transparent and efficient market place the Exchange offers.

However, in order to integrate smallholder farmers into the commercial markets issues of quantities and the quality of the staple grain need to be addressed. It is in recognition of this gap in the supply chain that ZAMACE applied for and was granted funding to conduct a baseline study under the Grain Marketing Exchange Programme (GMEP) being supported by USAID/COMPETE and the World Food Programme Purchase for Progress (WFP P4P). The aim of the study is to collect baseline data that will indicate the status on the current situation with regard to the quality and quantities of the staple being produced.

Through GMEP, ZAMACE seeks to develop interventions that will not only facilitate aggregation of the staples at the smallholder farm level but improve the quality of the grain as well. ZAMACE contracted Rubicon Management Consultants to undertake the baseline survey.

The baseline survey was conducted in three provinces; Eastern (Lundazi), Southern (Monze) and Central (Mkushi). The survey was conducted by three enumerators each covering 30 households in each province bringing a total of 90 households covered. These are a summary of the findings from the baseline study.

Under demographics, a key finding was that the majority of the households surveyed were headed by females (53.0%) while male headed households were 47.7%. In addition, almost half of the household members (49.5%) were children of the household head while other relatives (dependants) accounted for 19.3%. Spouses accounted for 15.6%.

Disregarding the majority of respondents (40.9%) who never married probably because they are still youths and dependants on the household head, 27.2% were monogamously married while 2.6% were polygamously married. Widowed and divorced respondents accounted for 3.5% and 1.8% respectively.

In terms education, the majority of respondents (49%) had been to primary school while 35% had been to secondary school.

The quality of life indicators suggest that the majority of respondents (93.3%) owned their houses while 5.6% of the respondents rented the houses they lived in. Lastly, 1.1% had other arrangements for the houses they lived in. This illustrates the importance of home ownership in the Zambian rural society.

The roofing material of the main house was mostly grass thatch (62.2%) followed by iron sheets (37.8%). The respondents' abodes were mainly of mud walls (46.7%) followed by brick walls (34.4%). Plastered walls accounted for 17.8%. Floor material of the main house was earth (60%) and cement (40%). Rural dwellings are usually made of earth. The predominant toilet in the respondents' abodes was the pit latrine 98.9%.

In all the three Provinces the predominant fuel for cooking was firewood (91.1%) followed by charcoal (7.8%). Other unclassified fuels accounted for 1.1%. In the areas surveyed the predominant type of lighting was the home made wick bottle lamp locally known as “koloboyi” with 60% households reporting using the same. This was followed by firewood (21.1%), solar power (11.1%), Charcoal and electricity (3.3% each) and paraffin (1.1%).

Under the Household Economic Indicators, the target households were in the main one enterprise households. The majority of respondents did not get earnings from informal business activities (77.7%) and receiving cash or payment in kind (97.4%). Seventy Seven percent of respondents were self – employed while 14.7% were employed as casual labourers. Salaried and contract workers accounted for 6.9%. In terms of gross earnings per month 46.4% reported low gross earnings while 26.5% reported high gross earnings and 27.1% reported constant earnings. It is worth noting that farm labourers were self employed (48.4%) and casual labourers (51.6%).

With regards to decision making powers, the main decision makers on productive resources were mainly household head and spouse (43%) and household heads 42.6%. Of particular interest is the heads control over land ownership (55.1%). On the other hand household head and spouse had control over rent - in in land (45%), renting out land (46.1%), type of fertiliser and seed to use (49.4%). The main decision makers on production were household head and spouse (58.7%) followed by household head (20.9%). Decisions made by the household head, spouse and children accounted for 14.3% and sole decisions by the spouse accounted for 6.1%. Like in the main decision maker on production the main decision maker on marketing was household head and spouse jointly (61.1%), household head (22.3%). Household head and spouse jointly were the main decision makers on the use of income generated while the household head sole decision making (33.3%). The entire household decision accounted to 16.7%.

Under Marketing Information, the study was interested in the source and mode of information on the type of crops to grow, the price he or she can get for their commodity. With regard to commodity Prices, the predominant source of information on prices was the radio (38.6%), family and friends and extension workers (19.3% respectively) and cooperatives (18.2%). Information on buyers was mainly obtained from the radio (29.9%), extension worker (19.5%), family and friends (14.9%), cooperatives (18.4%) and to a lesser extent television, farmer group, and crop buyers. The mode of market information acquisition was predominantly personal communication and local administration meetings. Demonstration plots and or field days were the least reported modes of acquisition.

Under Grain Storage, the majority of respondents (85.6%) have a grain store for storing their crops on their homesteads Three types of grain store were found in the target area and these are i) improved store, ii) traditional store, and iii) a room in the main house.

An overwhelming number of respondents (93.7%) indicated that they had used grain stores in the 2009 cropping season. Only 6.3% indicated in the negative as to using grain stores in the same time period. This can be attributed to the minority having very low harvests and or that they immediately sold their harvest to take care of more pressing needs such as school fees and medical costs Cereal banks are a new phenomenon that is just being introduced in the country. It appears the awareness of cereal banks is still minimal. From the baseline survey findings only a meagre 11.1% of the respondents were aware of cereal banks with the vast majority (88.9%) unaware of cereal banks.

As in the case of cereal banks, Warehouse Receipts Systems (WRS) has not yet taken root in the nation's smallholder farmers' psyche. Awareness of WRS was minimal (12.2%), in addition to high use of WRS in 2009 (87.8). The source of information on WRS was mainly farmer groups. Grain stored and lost appears to be manageable within the different categories of storage. The improved store reported losses of 0.13% in 39 mt of stored maize. The traditional store reported 0.42% loss in 915 mt of maize and 0.07% loss in 76 mt of groundnuts. Maize stored in a room in the main house reported 0.02% loss in 36 mt of maize. The main cause of grain losses in storage across the board was storage pests in maize. These would weevils, borers etc. The same applied to groundnuts stored in traditional stores.

Marketing and sales of the staple grain, it was observed that 70% of the respondent households sold crops during the 2009 season. This implies that the smallholder farmers had some surplus crops that they put into the commercial value chains. In terms of having adequate staples from their own production, 33.7% of households had adequate stocks throughout the year, 13.5% had adequate stocks for seven months, 12.4% had stocks for eight months, and 10.1% were food secure for nine months. Households having adequate stocks for ten months amounted to 9%. Households with adequate stocks for six months or less accounted for a combined percentage of 21.3%.

Coping mechanisms ranged from purchases (75.5%), donations (5.7%), relief food (3.8%), and other means such as barter (15.1%). In the target respondent group maize was the main staple grain grown and sold. A total of 1,387 mt was grown out of which 403 mt was consumed and 983 mt was sold for consideration of ZMK 1,120,434,100. The transport costs up to the market were ZMK 7,619,000. Groundnuts was also grown in significant quantities with 177 mt grown of which 76 mt was consumed and 98 mt was sold for ZMK 335,400,000 less ZMK 504,000 as transport costs to the market. Generally, the distance from point of sale for the largest transaction was predominantly within seven kilometres or less (accounting for a total of 59.1%). This ties in with the ability of the small trader to reach the remote locations to buy grain. The state of the roads to the market was mostly all weather roads accounting for 84.7% followed by seasonal roads (13.9%). Tarred roads were insignificant at 1.4%.

Membership of Farmer Groups

In the three Provinces surveyed 73 households (81.1%) were members of farmer groups. The farmer groups provided training, marketing services, and input provision. The different types of farmer groups were crop production, livestock production, value addition, and beekeeping. The farmer groups on average offered training across the board (64.3%), input provision (26.2%) and marketing (9.5%).

The gender composition in the agricultural producer group was skewed towards males with 60.3% of the members being male and 30.7% being female. In addition, the gender composition within the groups' management committee was 56% male and 44% women. It is important to note that this is within the SADC gender guidelines which aim to have 40% women representation in economic affairs.

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ACRONYMS AND ABBREVIATIONS

CBO	Community Based Organization
FRA	Food Reserve Agency
GMEP	Grain Marketing Expansion Programme
M & E	Monitoring and Evaluation
MIS	Marketing Information Services
Mt	Metric Ton
SADC	Southern African Development Community
TORs	Terms of Reference
WRS	Warehouse Receipts Systems
ZAMACE	Zambia Agricultural Commodity Exchange
ZMK	Zambian Kwacha

GLOSSARY OF TERMS

Survey areas

Area of high agricultural potential, good rainfall, areas with high number of smallholder farms and availability of warehouses operated by COMACO.

Definition of small holder farmer

- Farm size under 2 ha. (Adopted from FAO).
- Family unit that eat from the same pot and carry out activities jointly
- Mainly Subsistence production for home consumption.
- Grows mainly staple crops (maize, sorghum, cassava, rice, beans, potatoes, etc.).

Household

A household is composed of people who work together, farm together, spend income together and eat from the same pot with one member of the household recognized as the **head** of the household.

A household member includes:

- any individual who in the last 12 months has lived with the household for including house help, and farm workers
- an individual attending school away from home
- newly born babies
- individuals who are newly wedded-in
- The household head regardless of whether he has been living in the household for the last 12 months or not.

A non-household member is:

- an individual who may have left the household with no intention of rejoining the household
- individuals who are married away
- Unmarried sons and daughters who live elsewhere on a regular basis coming home on occasion. Money contributed by these people should be captured as remittances to the household
- all other individuals who do not meet the criteria for household membership

Structured Farm household Survey: The survey uses a structured questionnaire to elicit information from respondents.

Sampling: is that part of statistical practice concerned with the selection of individual observations intended to yield some knowledge about a population of concern, especially for the purposes of statistical inference.

Sampling frame: A *sample frame* is a list that includes every member of the population from which a sample is to be taken. Without some form of *sample frame*, a random sample of a population, other than an extremely small population, is impossible.

Listing of households: Enumeration areas will first be randomly sampled, and then individual housing units in these areas will be listed with the help of local administration. Households will then be sampled from within the enumeration areas. Finally, individuals are sampled from within the housing units.

Focus Group Discussion: A focus group discussion (FGD) is a group discussion of approximately 6 - 12 persons guided by a facilitator, during which group members talk freely and spontaneously about a certain topic. A FGD is a qualitative method. Its purpose is to obtain in-depth information on concepts, perceptions and ideas of a group. A FGD aims to be more than a question-answer interaction. The idea is that group members discuss the topic among themselves, with guidance from the facilitator.

Types of Grain Store

- Traditional Store: Grain store usually built either on stilts or on the ground with sticks in a circle shape.
- Improved Store: Brick and mortar grain store usually built with cement and is rodent free.
- Room in the main House: A room within the house usually reserved to store grain during the harvest season.

PART I INTRODUCTION

1.1 Background

ZAMACE Limited is a Zambian registered corporate entity established in May 2007 and officially launched on 25th March, 2009 by the Minister of Finance and National Planning, Hon. Dr. Situmbeko Musokotwane. ZAMACE is owned by 15 Members and self-regulated through its Rules and Regulations. There is currently no legal framework for the regulation of a commodities exchange although an initiative is underway to draft this legislation.

ZAMACE was established in response to the need for some form of formalized market mechanism. This was to mitigate the scrupulous activities and imbalance of market information that had characterized the commodities' market.

Agricultural commodity exchanges bring more formality to trading methods, enhancing market transparency and increase the quantity and quality of commodities traded, for the benefit of the agricultural sector and the economy as a whole. Although some stakeholders see an exchange and the transparency on price discovery as a threat to their business, the ZAMACE initiative brings maturity to the market, which will benefit all stakeholders.

ZAMACE applied for and was granted funding for Grain Marketing Expansion Programme (GMEP) aimed at linking smallholder farmers to commercial markets. Admittedly, the challenges that smallholder farmers face include but not limited to, quality and quantity issues. As a result, the smallholder farmers are either left out of the mainstream commercial marketing systems or worst still are exploited. Through GMEP, ZAMACE seeks to develop interventions that will not only facilitate aggregation of the staples at the smallholder farm level but improve the quality of the grain as well.

However, before the interventions can be initiated, a baseline was required to have a synoptic view of the situation on the ground as the GMEP activities are initiated. A database would be developed for ZAMACE to use in its Monitoring and Evaluation (M & E) activities during implementation. The monitorable indicators have already been set by ZAMACE.

ZAMACE contracted Rubicon Management Consultants to undertake the baseline survey. This report sets out the findings of the survey.

1.2 Objectives of the Baseline Survey

The objectives of the baseline survey were to capture monitorable data on the intended beneficiaries' demographic and economic status. This data would be used as a basis of measuring the impact of the Grain Expansion Marketing Programme.

1.3 Methodology

Two methods were employed in conducting the baseline survey, the first method used a survey instrument which involved a structured interview and the second method was a focus group Discussion (FGD). The FDG was supplementary meant to validate some of the responses in the structured interviews. The survey was conducted at both household level and community level.

Household Demographic indicators

The Household Survey was used to determine the demography and economic status of the respondents. The Survey instrument was a structured questionnaire designed to capture information on market access and socio-economic status of smallholder households.

In addition to the foregoing, the instruments elicited information on off – farm earnings, ownership of productive resources and access to rural financial services. Household membership of farmer groups was also determined. Welfare indicators (quality of life) were also established for the respondents.

Commodity Marketing and MIS

The survey also established the crop marketing arrangements and sources of Marketing Information Services (MIS) as well as the Number of accessing MIS.

Availability of Storage Facilities for Staples

The availability of storage facilities for staples was also assessed through the survey instruments. This looked at the type of grain store, quantities stored and causes of losses in storage.

1.4 Sample Frame

The sampling frame was derived from the National sample frame used for population census by Central Statistics Office. The way in which the sample frame is derived is by sub dividing the country into Provinces, districts, constituencies, wards, census supervisory areas (CSA) and then into standard enumeration areas (SEA). A SEA is the smallest sub-divided area for enumerators to conduct the survey; this takes into account the distance between households, the number of households and the representativeness of the area to the rest of the CSA.

1.5 Sample Size

The sample size of 90 households was arrived at in order to fit into the budget. The actual listing of households was done with the help of local administrators. A list of names of households was obtained these were categorised according to the census supervisory areas and further broken down into Standard enumeration areas these being the smallest census enumeration areas. Furthermore, the names were placed in a bin and a single name was picked randomly using a raffle draw. That name became the point of origin for the survey and at intervals of four houses the fifth house would be picked.

1.6 Survey Areas

The baseline survey was conducted in three provinces; Eastern (Lundazi), Southern (Monze) and Central (Mkushi) see above map. The project was intended to focus on maize grain and the areas of focus where therefore supposed to be maize production areas and with the potential of availability of storage infrastructure as advised by the Department of Cooperatives in the Ministry of Agriculture. The survey was conducted by three enumerators each covering 30 households in each province bringing a total of 90 households covered. The total number of respondents is given in table 1.

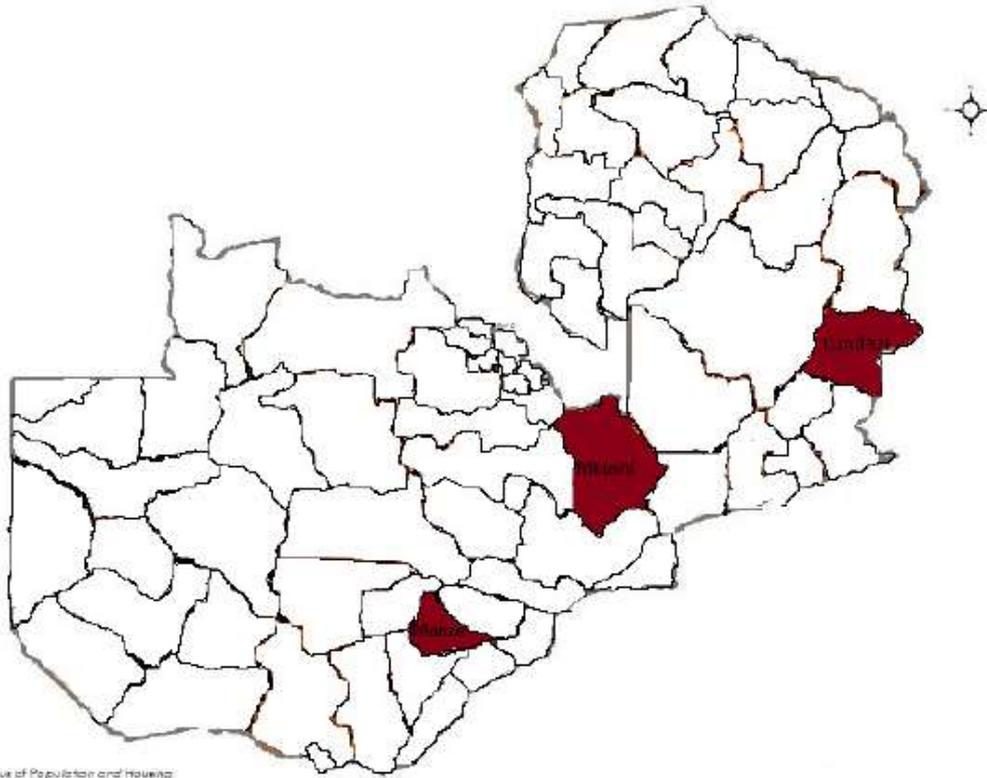


Figure 1: Baseline Survey Areas – District map of Zambia showing survey districts.

Table 1: Total Respondents Interviewed

Province	District	House Holds
Central	Mkushi	30
Eastern	Lundazi	30
Southern	Monze	30
Total		90

1.7 Data Management and Analysis

The data from the questionnaires were converted into electronic format entering into CSPRO and then generating tables using SPSS data management system. Experienced data entry operators were engaged for this task. The data was cleaned and analyzed to generate statistics that was used to write the report.

1.8 Limitations of the study

The major limitation in executing the baseline survey was that it coincided with the preparation for the national population census and most enumerators were contracted to CSO training. The exercise tried to mitigate this by using the GMEP regional coordinators who were hampered by mobility issues. Another limitation had to do with the representativeness of the individual respondent within the household in case of him/her not being the household owner.

Admittedly, the sample size was a source of concern however due diligence was taken in order to maintain reliability and objectivity of data. According to national statistics there is no major variation within a geo- agriculture zone, hence when a simple random sampling of households is done objectively as was the case, all households of a given frame are given equal probability of selection.

PART II SMALLHOLDER HOUSEHOLD BASELINE

2.1 Introduction

(RER, 2009)

Farmers are considered the backbone of the economy. In many developing agricultural countries, almost one-third (1/3) of the world's population depend on smallholder farming. Smallholder farming is important in terms of agriculture and food security. The term "small holder" refers to their limited resource endowments relative to other farmers and therefore the definition of smallholders differs between countries and between agro-ecological zones

Their importance emanates from the prevalence, their role in agricultural and economic development and the concentration of poverty in the rural areas. Three quarters of the world's poor live in rural areas where smallholder farming is their only means of livelihood. Thus, it is important that agricultural growth must continually be carried out to continuously attain agricultural growth which is said to be at least twice as effective in reducing poverty as non-agricultural growth.

The Zambian economy has been historically heavily dependent on copper mining. Following the decline of copper production, agriculture emerged as one of the alternatives for economic growth and poverty reduction. The country has a considerable agricultural potential.

However, the sector's contribution to economic growth and wealth creation is low mainly because of its dual nature: smallholder/ peasant farming subsector coexists with emerging and large-scale commercial farming sub-systems systems. While the latter are already geared towards commercial production, the former, which make up a majority of the rural population and agricultural land use, are still largely involved in low productivity and low value production systems.

The major staple grain in Zambia is maize, which is in the main grown by smallholder farmers. Maize has an early season value of around US\$ 0.25 billion and most of it is sold early on in the season due to lack of storage infrastructure and pressing financial needs. Poor post harvest handling of maize by smallholder farmers results in higher crop losses. They (smallholder farmers) do not see the motivation to increase production due to low market prices.

Since the 1990's, commercialization of smallholder agriculture emerged through various contract farming schemes, which provided smallholders access to the necessary technical advice and inputs to produce an agreed product, as well as a market outlet. Other forms of smallholder commercialization also emerged, such as development of apex farmer associations or producer organizations which are able to access markets directly, and informal and formal farmer groups and co-operatives who have organized their production through contract farming arrangements.

However, commercialization of smallholder farming activities has been limited largely to areas with relatively better developed infrastructure and access to input and output markets.

The key constraints facing smallholder commercialization in Zambia are:

- i. the limited scope of marketing infrastructure outside peri-urban areas, including roads, warehouses and collection centres;
- ii. weak capacity to access to markets and market intelligence;
- iii. inadequate farmer advisory services beyond basic public extension provision;

- iv. limited access to credit needed to capitalize farm operations and to use modern inputs and technologies; and
- v. Limited use of irrigation and seasonal constraints to commercialize production, particularly in the drier southern provinces.
- vi. Significant public and private investments selectively applied are required in order to overcome these constraints.

As stated in the preceding chapter, the baseline survey was conducted in Central, Eastern, and Southern Provinces with a total number ninety households comprising of thirty households in each Province. The following sections set out the survey findings.

2.1 Household Socioeconomic Characteristics

In the demographic survey, gender of house head, civil status, relationship to household head and other parameters were analysed.

2.1.1 Sex of the Household Head

In the target area 53.3% of the households were female headed and 46.7% were male headed households. This reflects the dynamics of rural society.

Table 2: Sex of Household Head

	Number	Percent
Male	266	46.7
Female	304	53.3
Total	570	100

2.1.2 Household Members Relationship Household Head

The majority of household members (49.5%) were children of the household head while other relatives (dependants) accounted for 19.3%. Spouses accounted for 15.6%. Details are set out in the table below.

Table 3: Relationship to House Head

	Number	Percent
Head	78	13.7
Spouse	89	15.6
Son/daughter	282	49.5
Parent	9	1.6
Other relative	110	19.3
Unrelated	1	0.2
Worker	1	0.2
Total	570	100

2.1.3 Respondents Civil Status

Disregarding the majority of respondents (40.9%) who never married probably because they are still youths and dependants on the household head, 27.2% were monogamously married while 2.6% were polygamously married. Widowed and divorced respondents accounted for 3.5% and 1.8% respectively.

Table 4: Respondents Marital Status

Marital Status		
	Number	Percent
never married	233	40.9
monogamously married	155	27.2
polygamously married	15	2.6
divorced	8	1.4
widowed	20	3.5
other	2	0.4
Total	433	76

2.1.4 Educational Demographics

The educational level of the respondents was stratified as given in table 5. The majority of respondents 49% had been to primary school while 35% had been to secondary school. The respondents who attained tertiary education was 8 in college (1%) and 1 in university. In terms of actual school attendance, 83.4% of respondents were currently in school while 16.6% were out of school. Reasons advanced for not attending school ranged from being underage (44%), lack of money for school expenses (14.7%), and refusing to be in school (22.7%).

Table 5: Highest Level of Education

Highest level of education completed		
	Number	Percent
none	65	12%
pre school	15	3%
Grade 1 - 7	267	49%
Grade 8 - 12	193	35%
College	8	1%
University	1	0%
Total	549	100

Table 6: School Attendance

(For persons aged 6-18 yrs) Is Currently attending school		
	Number	Percent
Yes	146	83.4
No	29	16.6
Total	175	100.0

Table 7: Reasons for Not Attending School

	Number	Percent
Too young	33	44
Cannot afford expenses	11	14.7
Working	1	1.3
Sickness/disability	7	9.3
Refused to continue	17	22.7
Completed schooling	4	5.3
other	2	2.7
Total	75	100

The majority of the respondents 83.8% indicated that they lived at home for the whole 12 months in the last year. This indicated a strong family tie, in addition to attending school.

Table 8: Months Respondents Living at Home

Number of Months Living at Home	Number	Percentage
0	1	0.2
1	14	2.6
2	16	2.9
3	16	2.9
4	6	1.1
5	1	0.2
6	11	2
7	5	0.9
8	4	0.7
9	3	0.6
10	10	1.8
11	1	0.2
12	456	83.8
Total	544	100

2.2 Quality of Life Indicators

The baseline survey also collected information on the quality of life indicators. This looked at the ownership and quality of the respondents' abodes, source of water in the dry and wet season, source of lighting, and distance from sources of water, among others. This section sets out the findings on the same.

2.2.1 Ownership of Main House

The majority of respondents (93.3%) owned their houses while 5.6% of the respondents rented the houses they lived in. Lastly, 1.1% had other arrangements for the houses they lived in. This illustrates the importance of home ownership in the Zambian rural society.

Table 9: Ownership of Main House

	Number	Percent
Owned	84	93.3
Rented	5	5.6
Other	1	1.1
Total	90	100

2.2.2 Materials Composition of the Main House

2.2.2.1 Roofing Material

The roofing material of the main house was mostly grass thatch (62.2%) followed by iron sheets (37.8%).

Table 10: Roofing Material of Main House

	Number	Percent
Grass/makuti	56	62.2
Iron sheet	34	37.8
Total	90	100

2.2.2.2 Wall Material

The respondents' abodes were mainly of mud walls (46.7%) followed by brick walls (34.4%). Plastered walls accounted for 17.8%.

Table 11: Wall Material of Main House

	Number	Percent
Mud	42	46.7
bricks/stones	31	34.4
Plastered	16	17.8
Other	1	1.1
Total	90	100

2.2.2.3 Floor Material

Floor material of the main house was earth (60%) and cement (40%). Rural dwellings are usually made of earth.

Table 12: Floor Material of Main House

	Number	Percent
Earth	54	60
Cement	36	40
Total	90	100

2.2.2.4 Type of Toilet

The predominant toilet in the respondents' abodes was the pit latrine 98.9%

Table 13: Type of Toilet

	Number	Percent
pit latrine	89	98.9
Other	1	1.1
Total	90	100

2.2.2.5 Source of Water for Domestic Use

The source of water for domestic use in the dry season was predominantly well (60%) and borehole (30%). In terms of distance from source of water in the dry season, 54% stated that this was 10 kilometres or less, while 31% indicated that the distance was more than 100 kilometres (meaning that there was no access to water source from their household).

In the wet season the source of domestic water is more or less the same as in the dry season with 65.9% using wells and 29.5% using boreholes. In terms of distance from the source of water, this is more or less the same as in the dry season with those moving less than 10 kilometres reported at 56% and between 11 and 35 kilometres at 21%. Details are set out in tables 14 to 17.

Table 14: Main Source of Water for Domestic Use – Dry Season

	Number	Percent
Pond	1	1.1
dam/sand dam	1	1.1
stream/river	2	2.2
protected spring	3	3.3
Well	54	60
Borehole	27	30
Other	2	2.2
Total	90	100

Table 15: Distance from Water Source in Dry Season for Domestic Use

Kilometre	Number	Percent
1 - 10	49	54%
11 - 35	5	6%
36 - 59	4	4%
60 - 100	4	4%
100 +	28	31%
Total	90	100

Table 16: Main Source of Water for Domestic Use – Wet Season

	Number	Percent
stream/river	1	1.1
protected spring	3	3.4
Well	58	65.9
Borehole	26	29.5
Total	88	100

Table 17: Distance from Main Water Source – Wet Season

Kilometre	Number	Percent
1 - 10	50	56%
11 - 35	19	21%
36 - 59	15	17%
60 - 100	6	6%
100 +	0	0
Total	90	100

2.2.2.6 Main Source of Irrigation Water

The main source of irrigation water was the well (60.1%) followed by streams and rivers (8.9%) and ponds (4.4%). One important fact to note here is that irrigation in Zambia is usually practiced by the large commercial farms and smallholders do not have a proper irrigation scheme or access to simple irrigation systems.

Table 18: Main Source of Irrigation Water

	Number	Percent
0	19	21.1
Pond	4	4.4
Lake	1	1.1
stream/river	8	8.9
unprotected spring	2	2.2
Well	54	60.1
Borehole	1	1.1
pipied outside compound	1	1.1
water hawkers-cart/bicycle transport	0	0
Total	90	100

2.2.2.7 Main Cooking Fuel

In all the three Provinces the predominant fuel for cooking was firewood (91.1%) followed by charcoal (7.8%). Other unclassified fuels accounted for 1.1%. This is in line with the national trend with firewood being the main source of cooking fuel in the rural areas.

Table 19: Main Cooking Fuel

	Number	Percent
Firewood	82	91.1
Charcoal	7	7.8
Other	1	1.1
Total	90	100

2.2.2.8 Type of Lighting

In the areas surveyed the predominant type of lighting was the home made wick bottle lamp locally known as “koloboyi” with 60% households reporting using the same. This was followed by firewood (21.1%), solar power (11.1%), Charcoal and electricity (3.3% each) and paraffin (1.1)

Table 20: Type of Lighting

	Number	Percent
Electricity	3	3.3
Paraffin	1	1.1
Firewood	19	21.1
Charcoal	3	3.3
solar power	10	11.1
Other	54	60
Total	90	100

2.2.3 Household Economic Status

2.2.3.1 Unemployment Status

When asked as to whether one was unable to work for six consecutive months in the past year, 96.6% indicated in the negative while 3.4% responded in the affirmative. This therefore means that most the respondents were able to work for six consecutive months in a year. Reasons advanced for the unemployment-included disability (14.3%) and sickness (78.6%). Details are set out in the tables below.

Table 21: Unemployment Status

Has this person been unable to work for six consecutive months in the last 12 months?		
	Number	Percent
Yes	16	3.4
No	459	96.6
Total	475	100

Table 22: Reasons for Unemployment

	Number	Percent
Disability	2	14.3
Sickness	11	78.6
other	1	7.1
Total	14	100

2.2.3.2 Earnings

The target households were in the main one enterprise households. The majority of respondents did not get earnings from informal business activities (77.7%) and receiving cash or payment in kind (97.4%).

Table 23: Earnings from Informal Business Activity

	Number	Percent
Yes	120	22.3
No	419	77.7
Total	539	100

Table 24: Receipt of Cash or Payment in Kind

	Number	Percent
Yes	13	2.6
No	486	97.4
Total	499	100

2.1.2 Off Farm Earnings

2.1.2.1 Type of Employment

Seventy Seven percent of respondents were self – employed while 14.7% were employed as casual labourers. Salaried and contract workers accounted for 6.9%. Details are set out in table 25.

Table 25: Business – Type of Employment

Business	Type of employment				Total
	salaried/ contract	self-employed	casual labour	Other	
Salary earner	4	0	1	0	5
	80.00%	0.00%	20.00%	0.00%	100.00%
Casual wage earner	2	0	0	0	2
	100.00%	0.00%	0.00%	0.00%	100.00%
Farm labourer	0	15	16	0	31
	0.00%	48.40%	51.60%	0.00%	100.00%
Brewing business	0	5	0	0	5
	0.00%	100.00%	0.00%	0.00%	100.00%
Brick making	0	5	0	0	5
	0.00%	100.00%	0.00%	0.00%	100.00%

Business	Type of employment				Total
	salaried/ contract	self-employed	casual labour	Other	
Carpentry	0	1	0	1	2
	0.00%	50.00%	0.00%	50.00%	100.00%
Clothes business	0	8	0	0	8
	0.00%	100.00%	0.00%	0.00%	100.00%
General-kiosk owner	0	6	0	0	6
	0.00%	100.00%	0.00%	0.00%	100.00%
Miller	0	2	0	0	2
	0.00%	100.00%	0.00%	0.00%	100.00%
Trading farm produce	1	31	0	0	32
	3.10%	96.90%	0.00%	0.00%	100.00%
Trading livestock	0	8	0	0	8
	0.00%	100.00%	0.00%	0.00%	100.00%
Tailor	0	4	0	0	4
	0.00%	100.00%	0.00%	0.00%	100.00%
Other	1	5	0	0	6
	16.70%	83.30%	0.00%	0.00%	100.00%
Total	8	90	17	1	116
	6.90%	77.60%	14.70%	0.90%	100.00%

In terms of gross earnings per month 46.4% reported low gross earnings while 26.5% reported high gross earnings and 27.1% reported constant earnings. It is worth noting that farm labourers were self employed (48.4%) and casual labourers (51.6%). This is the norm as the smallholders farm the land themselves and rely on casual labourers as and when needed. Other economic activities which are almost handled by the farmers as self employed entrepreneurs were trading farm produce (96.9%) and trading livestock (100%).

Table 26: Gross Earnings per Month

Business	Gross earnings by month			Total
	Low Gross Earning/Sales Month	High Gross Earning/Sales Month	Constant Earnings/Sales Month	
Salary earner	24	0	36	60
	40.00%	0.00%	60.00%	
Casual wage earner	0	0	24	24
	0.00%	0.00%	100.00%	
Farm labourer	163	12	92	267
	61.00%	4.50%	34.50%	
Brewing business	1	25	20	46
	2.20%	54.30%	43.50%	
Brick making	3	17	0	20
	15.00%	85.00%	0.00%	
Carpentry	8	6	10	24
	33.30%	25.00%	41.70%	
Clothes business	43	22	12	77
	55.80%	28.60%	15.60%	

Business	Gross earnings by month			Total
	Low Gross Earning/Sales Month	High Gross Earning/Sales Month	Constant Earnings/Sales Month	
General-kiosk owner	28	19	0	47
	59.60%	40.40%	0.00%	
Miller	17	7	0	24
	70.80%	29.20%	0.00%	
Trading farm produce	69	109	0	178
	38.80%	61.20%	0.00%	
Trading livestock	13	15	0	28
	46.40%	53.60%	0.00%	
Trading non-food goods	0	0	8	8
	0.00%	0.00%	100.00%	
Tailor	37	5	0	42
	88.10%	11.90%	0.00%	
Other	11	1	41	53
	20.80%	1.90%	77.40%	
Total	417	238	243	898
Percentage	46.4%	26.5%	27.1%	100

The low gross earnings were high in the general kiosk owner with ZMK 22,030,000 per month followed by trading farm produce with ZMK 14,520,000. On the high earning side the general kiosk owner was the highest earner with ZMK 24,350,000 followed by traders in farm produce with ZMK 22,620,000 per month.

Table 27: Gross Earnings per Month – Low and High Earnings

		Low gross earnings/sales month		High gross earnings/sales month	
		Gross earning per month	Cost* per month	Gross earning per month	Cost* per month
1	Salary earner	6,300,000		4,800,000	
2	Casual wage earner	230,000	75,000	230,000	75,000
3	Farm labourer	2,485,000		3,330,000	
6	Brewing business	780,000	1,090,000	2,120,000	808,000
7	Brick making	6,400,000		27,320,000	
9	Carpentry	1,170,000	500,000	2,800,000	700,000
11	Clothes business	2,835,000	1,240,000	10,490,000	4,550,000
13	General kiosk owner	22,030,000	41,080,000	24,350,000	6,550,000
14	Miller	440,000	278,000	650,000	270,000
15	Trading farm produce	14,520,000	3,500,000	22,620,000	4,460,000
17	Trading livestock	2,200,000	465,000	3,850,000	680,000
19	Trading non-food goods	80,000	45,000		
21	Tailor	860,000	195,000	1,650,000	295,000
25	Other	1,280,000	465,000	1,450,000	496,000

2.1.3 Access to Rural Financial Services

Access to rural financial services has been and continues to be a challenge to smallholder and peasant farmers. This has led to their preclusion in commercial value chains. According to the baseline survey findings only three (3.3%) respondents obtained cash credit during the 2009 cropping year.

Table 28: Agricultural Credit Cash Availability – 2009 Cropping Year

	Number	Percent
Yes	3	3.3
No	87	96.7
Total	90	100

2.1.4 Ownership of Productive Resources and Decision Making

The main decision makers on productive resources were mainly household head and spouse (43%) and household heads 42.6%. Of particular interest is the heads control over land ownership (55.1%). On the other hand household head and spouse had control over rent - in in land (45%), renting out land (46.1%), type of fertiliser and seed to use (49.4%).

Table 29: Productive Resources – Main Decision Maker

Productive resource	The main decision maker					Total
	head	spouse	children	head and spouse	head, spouse and children	
Ownership of household land	49	5	1	23	11	89
	55.10%	5.60%	1.10%	25.80%	12.40%	100.00%
Renting-in land	34	3	0	36	7	80
	42.50%	3.80%	0.00%	45.00%	8.80%	100.00%
Renting-out land	34	3	0	35	4	76
	44.70%	3.90%	0.00%	46.10%	5.30%	100.00%
Type of fertilizer to use	33	2	0	42	8	85
	38.80%	2.40%	0.00%	49.40%	9.40%	100.00%
Type of seed to use	33	4	0	44	8	89
	37.10%	4.50%	0.00%	49.40%	9.00%	100.00%
Farm operations and timing	34	2	0	43	11	90
	37.80%	2.20%	0.00%	47.80%	12.20%	100.00%
Total	217	19	1	223	49	509
	42.60%	3.70%	0.20%	43.80%	9.60%	100.00%

2.1.4.1 Main Decision Maker on Production

The main decision makers on production were household head and spouse (58.7%) followed by household head (20.9%). Decisions made by the household head, spouse and children accounted for 14.3% and sole decisions by the spouse accounted for 6.1%. Details are set out in table 30.

Table 30: Main Decision Maker on Production

Name of enterprise	Main decision maker on production				Total
	head	spouse	head and spouse	head, spouse and children	
Soyabeans.	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Bar	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Beans	2	0	3	1	6
	33.30%	0.00%	50.00%	16.70%	100.00%
beer brewing	0	0	3	0	3
	0.00%	0.00%	100.00%	0.00%	100.00%
Baking	0	1	0	0	1
	0.00%	100.00%	0.00%	0.00%	100.00%
brick making	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Cattle	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Chicken	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken marketing	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%
chicken production	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken raring	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken rearing	1	0	4	0	5
	20.00%	0.00%	80.00%	0.00%	100.00%
chickens rearing	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Clothes	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Cotton	1	1	5	4	11
	9.10%	9.10%	45.50%	36.40%	100.00%
Farming	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Gardening	1	0	13	0	14
	7.10%	0.00%	92.90%	0.00%	100.00%
goat keeping	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%

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Name of enterprise	Main decision maker on production				Total
	head	spouse	head and spouse	head, spouse and children	
goat marketing	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Grocery	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
ground nuts	0	1	0	1	2
	0.00%	50.00%	0.00%	50.00%	100.00%
Groundnuts	1	3	13	7	24
	4.20%	12.50%	54.20%	29.20%	100.00%
Maize	9	3	24	8	44
	20.50%	6.80%	54.50%	18.20%	100.00%
maize production	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
maize production	5	1	17	0	23
	21.70%	4.30%	73.90%	0.00%	100.00%
Milling	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
pig marketing	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%
Plates	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Poultry	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Rape	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Rice	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
soya beans	2	2	6	2	12
	16.70%	16.70%	50.00%	16.70%	100.00%
Soyabeans	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Sweet potatoes	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
sun flower	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Sunflower	1	0	3	1	5
	20.00%	0.00%	60.00%	20.00%	100.00%
sweet potatoes	1	0	2	0	3
	33.30%	0.00%	66.70%	0.00%	100.00%
Tobacco	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%

Name of enterprise	Main decision maker on production				Total
	head	spouse	head and spouse	head, spouse and children	
Tomato	6	0	3	0	9
	66.70%	0.00%	33.30%	0.00%	100.00%
Tomatoes	2	0	3	1	6
	33.30%	0.00%	50.00%	16.70%	100.00%
Total	41	12	115	28	196
	20.90%	6.10%	58.70%	14.30%	100.00%

2.1.4.2 Main Decision Maker on Marketing

Like in the main decision maker on production the main decision maker on marketing was household head and spouse jointly (61.1%), household head (22.3%). Details are set out in the table below.

Table 31: Main Decision Maker on Marketing

Name of enterprise	Main decision maker on marketing				Total
	head	spouse	head and spouse	head, spouse and children	
Soyabeans.	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Bar	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Beans	2	0	3	0	5
	40.00%	0.00%	60.00%	0.00%	100.00%
beer brewing	0	0	3	0	3
	0.00%	0.00%	100.00%	0.00%	100.00%
Baking	0	1	0	0	1
	0.00%	100.00%	0.00%	0.00%	100.00%
brick making	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Cattle	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Chicken	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken marketing	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%
chicken production	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken raring	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken rearing	1	0	4	0	5
	20.00%	0.00%	80.00%	0.00%	100.00%

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Name of enterprise	Main decision maker on marketing				Total
	head	spouse	head and spouse	head, spouse and children	
chickens rearing	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Clothes	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Cotton	1	1	6	3	11
	9.10%	9.10%	54.50%	27.30%	100.00%
Farming	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Gardening	1	0	13	0	14
	7.10%	0.00%	92.90%	0.00%	100.00%
goat keeping	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%
goat marketing	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Grocery	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
ground nuts	0	1	0	1	2
	0.00%	50.00%	0.00%	50.00%	100.00%
Groundnuts	1	4	14	4	23
	4.30%	17.40%	60.90%	17.40%	100.00%
Maize	10	3	24	6	43
	23.30%	7.00%	55.80%	14.00%	100.00%
maize production	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
maize production	5	1	17	0	23
	21.70%	4.30%	73.90%	0.00%	100.00%
Milling	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
pig marketing	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%
Plates	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Poultry	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Rape	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Rice	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
soya beans	2	2	7	1	12

Name of enterprise	Main decision maker on marketing				Total
	head	spouse	head and spouse	head, spouse and children	
	16.70%	16.70%	58.30%	8.30%	100.00%
Soyabeans	0	1	0	0	1
	0.00%	100.00%	0.00%	0.00%	100.00%
Sweet potatoes	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
sun flower	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Sunflower	2	0	3	0	5
	40.00%	0.00%	60.00%	0.00%	100.00%
sweet potatoes	1	0	2	0	3
	33.30%	0.00%	66.70%	0.00%	100.00%
Tobacco	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Tomato	6	0	3	0	9
	66.70%	0.00%	33.30%	0.00%	100.00%
Tomatoes	2	0	3	1	6
	33.30%	0.00%	50.00%	16.70%	100.00%
Total	43	14	118	18	193
	22.30%	7.30%	61.10%	9.30%	100.00%

2.1.4.3 Main Decision Maker on Use of Income Generated

Household head and spouse jointly were the main decision makers on the use of income generated while the household head sole decision making (33.3%). The entire household decision accounted to 16.7%.

Table 32: Main Decision Maker on Use of Income Generated

Name of enterprise	Main decision maker on use of income generated				Total
	head	spouse	head and spouse	head, spouse and children	
Soyabeans.	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Bar	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Beans	2	0	3	0	5
	40.00%	0.00%	60.00%	0.00%	100.00%
beer brewing	0	0	3	0	3
	0.00%	0.00%	100.00%	0.00%	100.00%
Baking	0	1	0	0	1
	0.00%	100.00%	0.00%	0.00%	100.00%
brick making	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Cattle	0	0	1	0	1

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Name of enterprise	Main decision maker on use of income generated				Total
	head	spouse	head and spouse	head, spouse and children	
	0.00%	0.00%	100.00%	0.00%	100.00%
Chicken	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken marketing	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%
chicken production	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken raring	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
chicken rearing	1	0	0	4	5
	20.00%	0.00%	0.00%	80.00%	100.00%
chickens rearing	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Clothes	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Cotton	1	2	6	2	11
	9.10%	18.20%	54.50%	18.20%	100.00%
Farming	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Gardening	1	0	9	4	14
	7.10%	0.00%	64.30%	28.60%	100.00%
goat keeping	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%
goat marketing	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Grocery	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
ground nuts	0	1	0	1	2
	0.00%	50.00%	0.00%	50.00%	100.00%
Groundnuts	1	4	14	4	23
	4.30%	17.40%	60.90%	17.40%	100.00%
Maize	10	4	24	5	43
	23.30%	9.30%	55.80%	11.60%	100.00%
maize production	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
maize production	5	0	14	4	23
	21.70%	0.00%	60.90%	17.40%	100.00%
Milling	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
pig marketing	1	0	1	0	2
	50.00%	0.00%	50.00%	0.00%	100.00%

Name of enterprise	Main decision maker on use of income generated				Total
	head	spouse	head and spouse	head, spouse and children	
Plates	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Poultry	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Rape	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Rice	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
soya beans	2	2	7	1	12
	16.70%	16.70%	58.30%	8.30%	100.00%
Soyabeans	0	0	0	1	1
	0.00%	0.00%	0.00%	100.00%	100.00%
Sweet potatoes	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
sun flower	0	0	1	0	1
	0.00%	0.00%	100.00%	0.00%	100.00%
Sunflower	2	0	3	0	5
	40.00%	0.00%	60.00%	0.00%	100.00%
sweet potatoes	1	0	2	0	3
	33.30%	0.00%	66.70%	0.00%	100.00%
Tobacco	1	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	100.00%
Tomato	5	0	4	0	9
	55.60%	0.00%	44.40%	0.00%	100.00%
Tomatoes	2	0	3	1	6
	33.30%	0.00%	50.00%	16.70%	100.00%

2.1.5 Commodity Marketing and Market Information Sources

For any meaningful decision to be made on what crops to grow, the smallholder farmer needs to have an idea on what price he or she can get for their commodity. The source of such information and more importantly, the mode of transmission of the market information are important. The baseline survey strove to assess the available sources and modes of transmission in the three target areas.

Commodity Prices: the predominant source of information on prices was the radio (38.6%), family and friends and extension workers (19.3% respectively) and cooperatives (18.2%).

Commodity Availability: the main source of information was radio (40.2%), extension worker (23%), family and friend (17.2%). Other sources included cooperatives, and crop buyers.

Potential Market buyers: information on buyers was mainly obtained from the radio (29.9%), extension worker (19.5%), family and friends (14.9%), cooperatives (18.4%) and to a lesser extent television, farmer group, and crop buyers.

Table 33: Information Source of Market Information

Type of information	Information source											Total
	Marketing Information Point	Family/friend	Radio	TV	Newspaper	Extension worker	Agro-dealer	Farmer group	Cooperative	Crop buyers	Faith based organization	
Commodity prices	1	17	34	0	0	17	2	0	16	1	0	88
	1.10%	19.30%	38.60%	0.00%	0.00%	19.30%	2.30%	0.00%	18.20%	1.10%	0.00%	100.00%
Commodity availability in the market	2	15	35	2	0	20	2	1	8	2	0	87
	2.30%	17.20%	40.20%	2.30%	0.00%	23.00%	2.30%	1.10%	9.20%	2.30%	0.00%	100.00%
Potential markets/ buyers	2	13	26	2	0	17	2	2	16	7	0	87
	2.30%	14.90%	29.90%	2.30%	0.00%	19.50%	2.30%	2.30%	18.40%	8.00%	0.00%	100.00%
Input prices	0	4	20	0	0	21	26	3	12	0	0	86
	0.00%	4.70%	23.30%	0.00%	0.00%	24.40%	30.20%	3.50%	14.00%	0.00%	0.00%	100.00%
Other	0	2	2	0	1	2	3	0	1	2	1	14
	0.00%	14.30%	14.30%	0.00%	7.10%	14.30%	21.40%	0.00%	7.10%	14.30%	7.10%	100.00%

The mode of market information acquisition was predominantly personal communication and local administration meetings. Demonstration plots and or field days were the least reported modes of acquisition. This can be attributed to the fact that the input suppliers usually concentrate in the segment where they are likely to generate adequate sales, the emergent and commercial farmers as opposed to the smallholders who in most cases cannot afford to buy the inputs without Government subsidy.

Commodity Prices: personal communication was the highest with 75% reported followed by local administration meeting (11.4%).

Commodity Availability: As in prices, the main mode of acquisition was personal communication (73.8%) followed by local administration meeting (15.5%).

Potential Buyers: this was mainly through personal communication (76.7%), local administration meeting (10.5%).

Input Prices etc: The trend continued with personal communication being predominant and local administration meeting being the next one.

Table 34: Mode of Acquisition of Market Information

Type of information	Mode of acquisition									Total
	Demonstration plot	Brochures/pamphlets	Training	Personal communication	Telephone	Field day	Local administration meeting	Promotional campaigns	Other (Specify)	
Commodity prices	1	0	0	66	0	6	10	2	3	88
	1.10%	0.00%	0.00%	75.00%	0.0%	6.80%	11.40%	2.30%	3.40%	100.00%
Commodity availability in the market	1	1	1	62	0	1	13	3	2	84
	1.20%	1.20%	1.20%	73.80%	0.00%	1.20%	15.50%	3.60%	2.40%	100.00%
Potential markets/buyers	0	1	0	66	4	0	9	3	3	86
	0.00%	1.20%	0.00%	76.70%	4.70%	0.00%	10.50%	3.50%	3.50%	100.00%
Input prices	0	1	0	64	1	2	14	2	1	85
	0.00%	1.20%	0.00%	75.30%	1.20%	2.40%	16.50%	2.40%	1.20%	100.00%
Other	0	0	0	8	0	0	2	1	0	11
	0.00%	0.00%	0.00%	72.70%	0.00%	0.00%	18.20%	9.10%	0.00%	100.00%
Total	2	3	1	266	5	9	48	11	9	354
	0.60%	0.80%	0.30%	75.10%	1.40%	2.50%	13.60%	3.10%	2.50%	100.00%

Information on commodity prices, inputs prices, commodity availability is usually obtained at the beginning of the farming season (27% overall) followed by monthly and daily both reporting 24.7% respectively. Commodity prices were also accessed at the beginning of the marketing season at harvest time. Details are set out in table 35.

Table 35: Frequency of Acquisition of Market Information

Type of information	Frequency							Total
	daily	weekly	monthly	annually	beginning of season (land preparation)	end of season (harvesting time)	other	
Commodity prices	29	1	16	0	17	21	2	86
	33.70%	1.20%	18.60%	0.00%	19.80%	24.40%	2.30%	100.00%
Commodity availability in the market	29	7	18	0	20	11	2	87
	33.30%	8.00%	20.70%	0.00%	23.00%	12.60%	2.30%	100.00%
Potential markets/buyers	29	3	23	5	13	12	1	86
	33.70%	3.50%	26.70%	5.80%	15.10%	14.00%	1.20%	100.00%
Input prices	1	2	24	6	45	6	1	85
	1.20%	2.40%	28.20%	7.10%	52.90%	7.10%	1.20%	100.00%
Other	0	2	7	0	1	2	0	12
	0.00%	16.70%	58.30%	0.00%	8.30%	16.70%	0.00%	100.00%
Total	88	15	88	11	96	52	6	356
	24.70%	4.20%	24.70%	3.10%	27.00%	14.60%	1.70%	100.00%

2.1.6 Storage Facilities for Staples

2.1.6.1 Availability of Grain Store

The majority of respondents (85.6%) have a grain store for storing their crops on their homesteads.

Table 36: Availability of Grain Store

	Number	Percent
Yes	77	85.6
No	13	14.4
Total	90	100

2.1.6.2 Type of Grain Store and Capacity

Three types of grain store were found in the target area and these are i) improved store, ii) traditional store, and iii) a room in the main house. The prevalence of use in each category was as follows:

Improved Store: There were few instances of the improved store with capacities of 25, 30, 40, 315, and 2,000 bags

Traditional store: This was the frequently reported grain store with capacities reported across the spectrum from 15 to 2,000 bags.

Room in the Main House: As with the improved unit, this category was not widely used with five instances reported. Table 37 sets out the findings.

Table 37: Type of Store and Capacity

			Capacity																								Total					
			15	20	21	25	28	30	35	40	42	50	70	72	200	250	255	300	315	350	400	450	500	600	750	900		1000	1001	1500	2000	
Improved store	Unit	50 kg bag				1		1	0									0												1	3	
		15				0		0	0										1												0	1
		50				0		0	1										0												0	1
	Total				1		1	1										1												1	5	
Traditional store	Unit	90 kg bag	0	0	0		0	0	0	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0	1	0	0	1	
		50 kg bag	1	1	0		0	3	0	0	0	1	1		3	0	2		1	3	0	2	1	3	2	2	0	2	2	1	29	
		15	0	0	0		0	0	0	0	0	0	0		0	1	0		0	0	1	0	0	0	0	0	0	0	0	0	2	
	50	0	0	1		1	4	3	2	1	0	0		0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	12		
Total	1	1	1		1	7	3	2	1	1	1		3	1	2		1	3	1	2	1	3	2	2	1	2	1	2	44			
Room in the main house	Unit	50 kg bag		0			0			0	1		1																	2		
		50		1				3			1	0		0																5		
	Total		1				3			1	1		1																7			

2.1.6.3 Use of Grain Stores in 2009

An overwhelming number of respondents (93.7%) indicated that they had used grain stores in the 2009 cropping season. Only 6.3% indicated in the negative as to using grain stores in the same time period. This can be attributed to the minority having very low harvests and or that they immediately sold their harvest to take care of more pressing needs such as school fees and medical costs.

Table 38: Use of Grain Store in 2009 Cropping Year

	Number	Percent
Yes	74	93.7
No	5	6.3
Total	79	100

2.1.6.4 Awareness of Cereal Banks

The mode of market information acquisition was predominantly personal communication and local administration meetings. Demonstration plots and or field days were the least reported modes of acquisition. This can be attributed to the fact that the input suppliers usually concentrate in the segment where they are likely to generate adequate sales, the emergent and commercial farmers as opposed to the smallholders who in most cases cannot afford to buy the inputs without Government subsidy.

Commodity Prices: personal communication was the highest with 75% reported followed by local administration meeting (11.4%).

Commodity Availability: As in prices, the main mode of acquisition was personal communication (73.8%) followed by local administration meeting (15.5%).

Potential Buyers: this was mainly through personal communication (76.7%), local administration meeting (10.5%).

Input Prices etc: The trend continued with personal communication being predominant and local administration meeting being the next one.

Cereal banks are a new phenomenon that is just being introduced in the country. It appears the awareness of cereal banks is still minimal. From the baseline survey findings only a meagre 11.1% of the respondents were aware of cereal banks with the vast majority (88.9%) unaware of cereal banks.

For any meaningful decision to be made on what crops to grow, the smallholder farmer needs to have an idea on what price he or she can get for their commodity. The source of such information and more importantly, the mode of transmission of the market information are important. The baseline survey strove to assess the available sources and modes of transmission in the three target areas.

Commodity Prices: the predominant source of information on prices was the radio (38.6%), family and friends and extension workers (19.3% respectively) and cooperatives (18.2%).

Commodity Availability: the main source of information was radio (40.2%), extension worker (23%), family and friend (17.2%). Other sources included cooperatives, and crop buyers.

Potential Market buyers: information on buyers was mainly obtained from the radio (29.9%), extension worker (19.5%), family and friends (14.9%), cooperatives (18.4%) and to a lesser extent television, farmer group, and crop buyers. Three types of grain store were found in the target area and these are i) improved store, ii) traditional store, and iii) a room in the main house. The prevalence of use in each category was as follows:

Improved Store: There were few instances of the improved store with capacities of 25, 30, 40, 315, and 2,000 bags

Traditional store: This was the frequently reported grain store with capacities reported across the spectrum from 15 to 2,000 bags.

Room in the Main House: As with the improved unit, this category was not widely used with five instances reported. Table 37 sets out the findings.

Table 39: Awareness of Cereal Bank

	Number	Percent
Yes	10	11.1
No	80	88.9
Total	90	100

As to the source of knowledge of cereal banks, fifty percent of the respondents who had knowledge of cereal banks got the knowledge from extension workers, while Community Based Organisation (CBO) or farmer group accounted for 30%. Details are set out in table 40.

Table 40: Source of Knowledge of Cereal Bank

	Number	Percent
Extension Worker	5	50.0
CBO/ Farmer group	3	30.0
Other	2	20.0
Total	10	100

In terms of use of cereal banks the majority of respondents indicated that they used it through the farmer groups while two used them as individual. These findings present a curious scenario. Whereas close to ninety percent of the respondents were not aware of cereal banks, they indicated that they used cereal banks. This is probably due to the lack of understanding as to how the cereal bank works. They probably equated cereal banks with grain storage facilities in general.

Table 41: How Cereal Bank was used

	Number	Percent
Individual	2	2.2
Through Farmer Group	88	97.8
Total	90	100

2.1.6.5 Awareness of Warehouse Receipts System

As in the case of cereal banks, Warehouse Receipts Systems (WRS) has not yet taken root in the nation's smallholder farmers' psyche.

Awareness of WRS was minimal (12.2%), in addition to high use of WRS in 2009 (87.8). The source of information on WRS was mainly farmer groups. Details are set out in tables 42 to 44.

Table 42: Awareness of Warehouse Receipts System

	Number	Percent
Yes	11	12.2
No	79	87.8
Total	90	100

Table 43: Source of Awareness of Warehouse Receipts System

	Number	Percent
NGO	11	12.2
Farmer groups	79	87.8
Total	90	100

Table 44: Use of Warehouse Receipts System in 2009

	Number	Percent
No	11	12.2
System	79	87.8
Total	90	100

2.1.7 Grain Storage and Losses

2.1.7.1 Quantity of Grain Stored and Lost

Grain stored and lost appears to be manageable within the different categories of storage. The improved store reported losses of 0.13% in 39 mt of stored maize. The traditional store reported 0.42% loss in 915 mt of maize and 0.07% loss in 76 mt of groundnuts. Maize stored in a room in the main house reported 0.02% loss in 36 mt of maize. Details are set out in table 45.

Table 45: Quantity of Grain Stored and Lost

Type of store	Grain stored (qty, kg)		Quantity lost		Percentage Loss
	Maize	Groundnuts	Maize	Groundnuts	
Improved store	39,583		50		0.13%
Traditional store	915,140	76,625	3,881	53	Maize 0.42%, groundnuts 0.07%
Room in main house	36,125		7		
Room in other houses					
Not stated		7,875			

2.1.7.2 Storage Periods

Maize marketing begins in May and goes up to September each year. According to the category of storage the improved store had 80% of maize going into the store in May and 20% in September and the traditional store had 42% of the maize going into the store in July while the room in the main house had 60% of its stored maize coming into the store in June. On the other hand, groundnuts went into the traditional store from June to August.

Table 46: Month When Grain Moved into Store

Grain stored			Month into store					Total
			May	June	July	August	September	
maize, dry	Type of store	Improved store	0	8	0	0	2	10
			0.00%	80.00%	0.00%	0.00%	20.00%	100.00%
	Traditional store	4	6	14	6	3	33	
		12.10%	18.20%	42.40%	18.20%	9.10%	100.00%	
	Room in the main house	1	18	5	5	1	30	
		3.30%	60.00%	16.70%	16.70%	3.30%	100.00%	
	Room in other houses	0	0	1	0	0	1	
		0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	
Total			5	32	20	11	6	74
			6.80%	43.20%	27.00%	14.90%	8.10%	100.00%
groundnuts	Type of store	Traditional store		2	2	2		6
				33.30%	33.30%	33.30%		100.00%
Total				2	2	2		6
				33.30%	33.30%	33.30%		100.00%

In terms of periods when most of the grain was out of the store, the improved store reported dry maize constantly out of the store throughout the year. The traditional store empties out during the period November to March. The room in the house empties in November to January. In terms of groundnuts the traditional store emptied in February, then September to December. Details are set out in table 47.

Table 47: Month When Most of the Grain Was Out of Store

Grain stored	Type of store	Month when most of the grain was out of store												Total
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
maize, dry	Improved store	0	2	2	2	0	1	1	0	1	0	1	0	10
		0.00%	20.00%	20.00%	20.00%	0.00%	10.00%	10.00%	0.00%	10.00%	0.00%	10.00%	0.00%	100.00%
	Traditional store	4	6	5	0	1	0	1	1	1	1	5	8	33
		12.10%	18.20%	15.20%	0.00%	3.00%	0.00%	3.00%	3.00%	3.00%	3.00%	15.20%	24.20%	100.00%
	Room in the main house	4	1	4	1	0	1	1	2	1	1	4	10	30
		13.30%	3.30%	13.30%	3.30%	0.00%	3.30%	3.30%	6.70%	3.30%	3.30%	13.30%	33.30%	100.00%
Room in other houses	1	0	0	0	0	0	0	0	0	0	0	0	1	
	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	
	Total	9	9	11	3	1	2	3	3	3	2	10	18	74
		12.20%	12.20%	14.90%	4.10%	1.40%	2.70%	4.10%	4.10%	4.10%	2.70%	13.50%	24.30%	100.00%
groundnuts	Traditional store		1							1	1	2	1	6
			16.70%							16.70%	16.70%	33.30%	16.70%	100.00%
	Total		1							1	1	2	1	6
			16.70%							16.70%	16.70%	33.30%	16.70%	100.00%

2.1.7.3 Main Cause of Grain Storage Losses

The main cause of grain losses in storage across the board was storage pests in maize. These would weevils, borers etc. The same applied to groundnuts stored in traditional stores.

Table 48: Type of Store – Main Cause of Storage Losses in Stored Grain

Grain stored			Main cause for storage losses		Total
			Storage pests	theft	
maize, dry	Type of store	Improved store	1	0	1
			100.00%	0.00%	100.00%
	Traditional store	21	1	22	
		95.50%	4.50%	100.00%	
	Room in the main house	3	0	3	
		100.00%	0.00%	100.00%	
Total		25	1	26	
		96.20%	3.80%	100.00%	
groundnuts	Type of store	Traditional store	3		3
			100.00%		100.00%
	Total		3		3
			100.00%		100.00%

2.1.8 Household Staple Food Availability

The survey found that 70% of the respondent households sold crops during the 2009 season. This implies that the smallholder farmers had some surplus crops that they put into the commercial value chains. In terms of having adequate staples from their own production, 33.7% of households had adequate stocks throughout the year, 13.5% had adequate stocks for seven months, 12.4% had stocks for eight months, and 10.1% were food secure for nine months. Households having adequate stocks for ten months amounted to 9%. Households with adequate stocks for six months or less accounted for a combined percentage of 21.3%. Coping mechanisms ranged from purchases (75.5%), donations (5.7%), relief food (3.8%), and other means such as barter (15.1%). Details of the analysis are given in tables 49 to 51.

Table 49: Whether Household Sold Crops – 2009 Season

	Number	Percent
Yes	63	70
No	27	30
	90	100

It is important to note that adequacy or inadequacy of food stocks at the smallholder level can be as a result of low yields, climatic shifts such as drought and or floods, losses in storage, losses in the field. In some instances the smallholder farmers decide to sell 80% of their harvest to raise money for urgent requirements such as school fees, healthcare costs.

Table 50: Months Household had Adequate Staples from Own Production

Month	Number	Percent
12	30	33.7
7	12	13.5
8	11	12.4
9	9	10.1
10	8	9
4	5	5.6
6	5	5.6
5	4	4.5
3	3	3.4
1	2	2.2
Total	89	100

Table 51: Household Food Security in Last 12 Months – Coping Mechanisms

	Number	Percent
Purchases	40	75.5
Donations	3	5.7
Relief	2	3.8
Other	8	15.1
Total	53	100

2.1.9 Crop Sales

In the target respondent group maize was the main staple grain grown and sold. A total of 1,387 mt was grown out of which 403 mt was consumed and 983 mt was sold for consideration of ZMK 1,120,434,100. The transport costs up to the market were ZMK 7,619,000. Groundnuts was also grown in significant quantities with 177 mt grown of which 76 mt was consumed and 98 mt was sold for ZMK 335,400,000 less ZMK 504,000 as transport costs to the market.

Table 52: Crop Sales

Crop	Quantity consumed (kg)	Quantity sold (kg)	Value of sales	Value of paid transport to point of sale
1 Maize, dry	403,363	983,825	1,120,434,100	7,619,000
7 Beans	108	648	5,550,000	
14 Cotton			342,633,750	
30 Sunflower			579,475,000	
33 Groundnuts	76,680	98,495	335,400,000	504,000
43 Sweet potatoes	314	261	4,025,000	
63 Tomatoes			74,000,000	50,000
160 Soya beans	9,824	41,752	48,530,000	30,000
Popcorn			1,120,000	
Other			1,500,000	
TOTAL			2,512,667,850	8,203,000

Smaller quantities of soyabeans, sweet potatoes, and beans were also grown by the smallholder farmers. Details are set out in table 52.

The mode of payment for the crops sold was mainly cash (94.3%) followed by promissory notes (3.8%) and cheques at 1.90%.

Table 53: Mode of Payment

		Mode Of Payment			Total
		Cash	Cheque	Promissory note	
Crop	maize, dry	34	2	4	40
		85.00%	5.00%	10.00%	100.00%
	Beans	3	0	0	3
		100.00%	0.00%	0.00%	100.00%
	Cotton	8	0	0	8
		100.00%	0.00%	0.00%	100.00%
	sunflower	3	0	0	3
		100.00%	0.00%	0.00%	100.00%
	groundnuts	20	0	0	20
		100.00%	0.00%	0.00%	100.00%
	sweet potatoes	6	0	0	6
		100.00%	0.00%	0.00%	100.00%
	tomatoes	18	0	0	18
		100.00%	0.00%	0.00%	100.00%
	soyabeans	5	0	0	5
		100.00%	0.00%	0.00%	100.00%
	Other	1	0	0	1
		100.00%	0.00%	0.00%	100.00%
	Popcorn	1	0	0	1
		100.00%	0.00%	0.00%	100.00%
Total		99	2	4	105
		94.30%	1.90%	3.80%	100.00%

The largest buyer for the crops was the small trader with 53.8% of the business followed by the larger trader with 24%. The millers accounted for 10.6% and the Food Reserve Agency (FRA) 7.7% of the business.

Generally, the distance from point of sale for the largest transaction was predominantly within seven kilometres or less (accounting for a total of 59.1%). This ties in with the ability of the small trader to reach the remote locations to buy grain. Details are set out in table 55.

Table 54: Crop Sales – Buyer of the Largest Sale

Crop	Buyer For The Largest Sale.						Total
	small trader	large trader	FRA	millar	NGO	food processor	
maize, dry	8	19	8	3	1	0	39
	20.50%	48.70%	20.50%	7.70%	2.60%	0.00%	100.00%
Beans	3	0	0	0	0	0	3
	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Cotton	0	1	0	7	0	0	8
	0.00%	12.50%	0.00%	87.50%	0.00%	0.00%	100.00%
Sunflower	1	1	0	0	1	0	3
	33.30%	33.30%	0.00%	0.00%	33.30%	0.00%	100.00%
groundnuts	15	3	0	1	1	0	20
	75.00%	15.00%	0.00%	5.00%	5.00%	0.00%	100.00%
sweet potatoes	6	0	0	0	0	1	7
	85.70%	0.00%	0.00%	0.00%	0.00%	14.30%	100.00%
Tomatoes	17	0	0	0	0	0	17
	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Soyabeans	4	1	0	0	0	0	5
	80.00%	20.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Other	1	0	0	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Popcorn	1	0	0	0	0	0	1
	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Total	56	25	8	11	3	1	104
	53.80%	24.00%	7.70%	10.60%	2.90%	1.00%	100.00%

Table 55: Crop Sales – Distance from Point of Sale of Largest Transaction

Crop	Distance (km) to point of sale for the largest sale transaction																			Total	
	0	1	2	3	4	5	6	7	13	15	20	26	30	36	38	40	46	52	82		500
maize, dry	1	5	3	5	5	3	2	2	1	0	1	1	1	0	0	0	0	0	0	1	31
	3.20 %	16.1 0%	9.70 %	16.10 %	16.10 %	9.70 %	6.50 %	6.50 %	3.20 %	0.00 %	3.20% %	3.20 %	3.20 %	0.00 %	3.20 %						
Cotton	0	1	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	4
	0.00 %	25.0 0%	0.00 %	0.00 %	0.00 %	0.00 %	50.00 %	0.00 %	0.00 %	25.00 %	0.00% %	0.00 %									
sunflower	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2
	0.00 %	0.00 %	50.00 %	0.00 %	0.00% %	0.00 %	50.00 %	0.00 %													
groundnuts	1	2	0	0	0	0	1	0	0	0	0	0	1	2	4	3	1	1	0	0	16
	6.20 %	12.5 0%	0.00 %	0.00 %	0.00 %	0.00 %	6.20 %	0.00 %	0.00 %	0.00 %	0.00% %	0.00 %	6.20 %	12.50 %	25.00 %	18.80 %	6.20 %	6.20 %	0.00 %	0.00 %	0.00 %
sweet potatoes	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	100.00 %	0.00 %									
tomatoes	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	4
	25.0 0%	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %	0.00% %	0.00 %	75.00 %	0.00 %							
Soya beans	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	3
	0.00 %	33.3 0%	0.00 %	0.00% %	0.00 %	0.00 %	0.00 %	0.00 %	33.30 %	33.30 %	0.00 %	0.00 %	0.00 %	0.00 %							
Total	3	9	4	5	5	3	5	2	1	1	2	1	5	2	4	4	2	1	1	1	61
	4.90 %	14.8 0%	6.60 %	8.20 %	8.20 %	4.90 %	8.20 %	3.30 %	1.60 %	1.60 %	3.30% %	1.60 %	8.20 %	3.30 %	6.60 %	6.60 %	3.30 %	1.60 %	1.60 %	1.60 %	1.60 %

The state of the roads to the market was mostly all weather roads accounting for 84.7% followed by seasonal roads (13.9%). Tarred roads were insignificant at 1.4%. Details are set out in table 56.

Table 56: Crop Sales – State of Road to Point of Sale

		State of road to point of sale			Total
		Tarmac/coal tar	All weather	Seasonal	
Crop	maize, dry	0	27	8	35
		0.00%	77.10%	22.90%	100.00%
	Cotton	0	5	1	6
		0.00%	83.30%	16.70%	100.00%
	Sunflower	0	2	0	2
		0.00%	100.00%	0.00%	100.00%
	Groundnuts	0	16	1	17
		0.00%	94.10%	5.90%	100.00%
	sweet potatoes	0	2	0	2
		0.00%	100.00%	0.00%	100.00%
	Tomatoes	1	5	0	6
		16.70%	83.30%	0.00%	100.00%
	Soyabeans	0	4	0	4
		0.00%	100.00%	0.00%	100.00%
Total		1	61	10	72
		1.40%	84.70%	13.90%	100.00%

The predominant mode of transportation to the point of sale was motor vehicle followed by animal draught power and human. Motor vehicle transportation accounted for 56.7% and animal accounted for 28.3% whereas human accounted for 8.3%.

Table 57: Crop Sales – Mode of Transport to Point of Sale

		Mode of transport to point of sale				Total
		vehicle	Human	Animal	bicycle	
Crop	maize, dry	20	1	10	0	31
		64.50%	3.20%	32.30%	0.00%	100.00%
	Cotton	0	1	1	1	3
		0.00%	33.30%	33.30%	33.30%	100.00%
	Sunflower	2	0	0	0	2
		100.00%	0.00%	0.00%	0.00%	100.00%
	Groundnuts	5	3	6	2	16
		31.20%	18.80%	37.50%	12.50%	100.00%
	sweet potatoes	1	0	0	0	1
		100.00%	0.00%	0.00%	0.00%	100.00%
	Tomatoes	4	0	0	0	4
		100.00%	0.00%	0.00%	0.00%	100.00%
	Soyabeans	2	0	0	1	3
		66.70%	0.00%	0.00%	33.30%	100.00%
Total		34	5	17	4	60
		56.70%	8.30%	28.30%	6.70%	100.00%

As is normal in Zambia, the marketing season runs from May to September and these are the months in which large sales are undertaken as can be seen in tables 58 and 59.

Table 58: Crop Sales – Month and Year of Largest Sale Transaction

Crop	Month and Year of sale for the largest sale transaction												Total
	Jan	Feb	Ma	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
maize, dry	0	0	0	0	0	4	10	15	8	1	0	0	38
	0.00%	0.00%	0.00%	0.00%	0.00%	10.50%	26.30%	39.50%	21.10%	2.60%	0.00%	0.00%	100.00%
Beans	0	0	0	0	0	1	1	1	0	0	0	0	3
	0.00%	0.00%	0.00%	0.00%	0.00%	33.30%	33.30%	33.30%	0.00%	0.00%	0.00%	0.00%	100.00%
Cotton	0	0	0	0	0	2	2	2	2	0	0	0	8
	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	25.00%	25.00%	25.00%	0.00%	0.00%	0.00%	100.00%
Sunflower	0	0	0	0	1	0	0	0	1	0	1	0	3
	0.00%	0.00%	0.00%	0.00%	33.30%	0.00%	0.00%	0.00%	33.30%	0.00%	33.30%	0.00%	100.00%
groundnuts	0	0	0	1	1	1	3	5	2	3	2	1	19
	0.00%	0.00%	0.00%	5.30%	5.30%	5.30%	15.80%	26.30%	10.50%	15.80%	10.50%	5.30%	100.00%
sweet potatoes	0	0	0	0	1	3	0	3	0	0	0	0	7
	0.00%	0.00%	0.00%	0.00%	14.30%	42.90%	0.00%	42.90%	0.00%	0.00%	0.00%	0.00%	100.00%
Tomatoes	2	3	7	4	0	2	2	0	0	0	0	0	20
	10.00%	15.00%	35.00%	20.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Soyabeans	0	0	0	0	0	0	2	0	0	0	0	0	2
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Other	0	0	0	0	0	0	0	0	0	1	0	0	1
	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
Popcorn	0	0	0	0	0	1	0	0	0	0	0	0	1
	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Total	2	3	7	5	3	14	20	26	13	5	3	1	102
	2.00%	2.90%	6.90%	4.90%	2.90%	13.70%	19.60%	25.50%	12.70%	4.90%	2.90%	1.00%	100.00%

Table 59: Crop Sales – Month and Year of Largest Sale Transaction (Month by Month)

Month and Year of sale for the largest sale transaction			Year of sales					Total	
			2004	2006	2007	2008	2009		2010
January	Crop	tomatoes					2		2
						100.00%		100.00%	
	Total					2		2	
February	Crop	tomatoes					3		3
						100.00%		100.00%	
	Total					3		3	
March	Crop	tomatoes					7		7
						100.00%		100.00%	
	Total					7		7	
April	Crop	groundnuts			1		0		1
					100.00%		0.00%		100.00%
		tomatoes			0		4		4
					0.00%		100.00%		100.00%
	Total			1		4		5	
May	Crop	sunflower					1		1
						100.00%		100.00%	
		groundnuts					1		1
						100.00%		100.00%	
	sweet potatoes					1		1	

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Month and Year of sale for the largest sale transaction			Year of sales					Total	
			2004	2006	2007	2008	2009		2010
							100.00%		100.00%
	Total						3		3
							100.00%		100.00%
June	Crop	maize, dry	0				4	0	4
			0.00%				100.00%	0.00%	100.00%
		Beans	0				1	0	1
			0.00%				100.00%	0.00%	100.00%
		Cotton	1				1	0	2
			50.00%				50.00%	0.00%	100.00%
		groundnuts	0				0	1	1
			0.00%				0.00%	100.00%	100.00%
		sweet potatoes	0				3	0	3
			0.00%				100.00%	0.00%	100.00%
		tomatoes	0				2	0	2
			0.00%				100.00%	0.00%	100.00%
		Popcorn	0				1	0	1
			0.00%				100.00%	0.00%	100.00%
Total		1				12	1	14	
		7.10%				85.70%	7.10%	100.00%	
July	Crop	maize, dry			0	0	10		10
					0.00%	0.00%	100.00%		100.00%
		Beans			0	0	1		1
					0.00%	0.00%	100.00%		100.00%
		Cotton			1	1	0		2
					50.00%	50.00%	0.00%		100.00%

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Month and Year of sale for the largest sale transaction			Year of sales					Total	
			2004	2006	2007	2008	2009		2010
		groundnuts			0	0	3		3
					0.00%	0.00%	100.00%		100.00%
		tomatoes			0	0	2		2
					0.00%	0.00%	100.00%		100.00%
		soyabeans			0	0	2		2
					0.00%	0.00%	100.00%		100.00%
Total				1	1	18		20	
				5.00%	5.00%	90.00%		100.00%	
August	Crop	maize, dry		0		13	2	15	
				0.00%		86.70%	13.30%	100.00%	
		Beans		0		1	0	1	
				0.00%		100.00%	0.00%	100.00%	
		Cotton		1		0	1	2	
				50.00%		0.00%	50.00%	100.00%	
		groundnuts		1		4	0	5	
				20.00%		80.00%	0.00%	100.00%	
sweet potatoes		0		3	0	3			
		0.00%		100.00%	0.00%	100.00%			
Total			2		21	3	26		
			7.70%		80.80%	11.50%	100.00%		
September	Crop	maize, dry			0	8		8	
					0.00%	100.00%		100.00%	
		Cotton			1	1		2	
					50.00%	50.00%		100.00%	
sunflower			0	1		1			

ZAMACE – GMEP-Baseline Survey Report

Month and Year of sale for the largest sale transaction			Year of sales					Total
			2004	2006	2007	2008	2009	
					0.00%	100.00%		100.00%
		groundnuts			0	2		2
					0.00%	100.00%		100.00%
	Total				1	12		13
					7.70%	92.30%		100.00%
October	Crop	maize, dry					1	1
						100.00%		100.00%
		groundnuts					3	3
						100.00%		100.00%
	Other					1	1	
					100.00%		100.00%	
	Total					5		5
						100.00%		100.00%
November	Crop	sunflower			0	1		1
					0.00%	100.00%		100.00%
		groundnuts			1	1		2
					50.00%	50.00%		100.00%
	Total				1	2		3
					33.30%	66.70%		100.00%
December	Crop	groundnuts				1		1
						100.00%		100.00%
	Total					1		1
						100.00%		100.00%

2.1.8 Household Membership in Farmer Groups

In the three Provinces surveyed 73 households (81.1%) were members of farmer groups. The farmer groups provided training, marketing services, and input provision. The different types of farmer groups were crop production, livestock production, value addition, and beekeeping.

Table 60: Household Members Belonging to Farmer Organisation

	Number	Percent
Yes	73	81.1
No	17	18.9
Total	90	100

The farmer groups on average offered training across the board (64.3%), input provision (26.2%) and marketing (9.5%). This indicates that marketing services are still not entrenched in farmer groups hence their reliance on FRA to buy their produce and the small and large traders who come to them to buy their crops and not the converse where they consolidate their produce (bulking) and market as a group.

Table 61: Type of Agricultural Producer Group and Service Offered Within the Group

Type of agricultural producer group	Service offered within the group			Total
	Training	Marketing	Input	
Crops production	16	3	8	27
	59.30%	11.10%	29.60%	100.00%
Livestock production	7	1	3	11
	63.60%	9.10%	27.30%	100.00%
Value addition	2	0	0	2
	100.00%	0.00%	0.00%	100.00%
Beekeeping	1	0	0	1
	100.00%	0.00%	0.00%	100.00%
Other	1	0	0	1
	100.00%	0.00%	0.00%	100.00%
Total	27	4	11	42
	64.30%	9.50%	26.20%	100.00%

The gender composition in the agricultural producer group was skewed towards males with 60.3% of the members being male and 39.7% being female. In addition, the gender composition within the groups' management committee was 56% male and 44% women. It is important to note that this is within the SADC gender guidelines which aim to have 40% women representation in economic affairs. Details are set out in table 62 below.

Table 62: Gender Composition of Agricultural Producer Group

	Gender composition in the group		Gender composition in the group's management committee	
	No. of males	No. of females	No. of males	No. of females
Training	1701	994	260	196
Marketing	334	314	119	102
Input acquisition	17	33	8	10
A.I. services	18	15	7	3
Other	25	25	7	5
Total	2095	1381	401	316
Percentage	60.3%	30.7%	56%	44%

PART III SUMMARY OF KEY FINDINGS

Demographics

The majority of households were headed by females (53.3%) while male headed households were 47.7%. This reflects the dynamics of rural society where more and more households are headed by females due to the HIV/ AIDS pandemic and the rural urban drift. Almost half of the household members (49.5%) were children of the household head while other relatives (dependants) accounted for 19.3%. Spouses accounted for 15.6%.

Disregarding the majority of respondents (40.9%) who never married probably because they are still youths and dependants on the household head, 27.2% were monogamously married while 2.6% were polygamously married. Widowed and divorced respondents accounted for 3.5% and 1.8% respectively.

In terms education, the majority of respondents (49%) had been to primary school while 35% had been to secondary school. The respondents who attained tertiary education was 8 in college (1%) and 1 in university. In terms of actual school attendance, 83.4% of respondents were currently in school while 16.6% were out of school. Reasons advanced for not attending school ranged from being underage (44%), lack of money for school expenses (14.7%), and refusing to be in school (22.7%).

Quality of Life Indicators

The majority of respondents (93.3%) owned their houses while 5.6% of the respondents rented the houses they lived in. Lastly, 1.1% had other arrangements for the houses they lived in. This illustrates the importance of home ownership in the Zambian rural society.

The roofing material of the main house was mostly grass thatch (62.2%) followed by iron sheets (37.8%). The respondents' abodes were mainly of mud walls (46.7%) followed by brick walls (34.4%). Plastered walls accounted for 17.8%. Floor material of the main house was earth (60%) and cement (40%). Rural dwellings are usually made of earth. The predominant toilet in the respondents' abodes was the pit latrine 98.9%

The source of water for domestic use in the dry season was predominantly well (60%) and borehole (30%). In terms of distance from source of water in the dry season, 54% stated that this was 10 kilometres or less, while 31% indicated that the distance was more than 100 kilometres (meaning that there was no access to water source from their household). In the wet season the source of domestic water is more or less the same as in the dry season with 65.9% using wells and 29.5% using boreholes. In terms of distance from the source of water, this is more or less the same as in the dry season with those moving less than 10 kilometres reported at 56% and between 11 and 35 kilometres at 21%. The main source of irrigation water was the well (60.1%) followed by streams and rivers (8.9%) and ponds (4.4%). One important fact to note here is that irrigation in Zambia is usually practiced by the large commercial farms and smallholders do not have a proper irrigation scheme or access to simple irrigation systems.

In all the three Provinces the predominant fuel for cooking was firewood (91.1%) followed by charcoal (7.8%). Other unclassified fuels accounted for 1.1%. This is in line with the national trend with firewood being the main source of cooking fuel in the rural areas. In the areas surveyed the predominant type of lighting was the home made wick bottle lamp locally known as "koloboyi" with 60% households reporting using the same. This was followed by firewood (21.1%), solar power (11.1%), Charcoal and electricity (3.3% each) and paraffin (1.1)

Household Economic Indicators

The target households were in the main one enterprise households. The majority of respondents did not get earnings from informal business activities (77.7%) and receiving cash or payment in kind (97.4%). Seventy Seven percent of respondents were self – employed while 14.7% were employed as casual labourers. Salaried and contract workers accounted for 6.9%. In terms of gross earnings per month 46.4% reported low gross earnings while 26.5% reported high gross earnings and 27.1% reported constant earnings. It is worth noting that farm labourers were self employed (48.4%) and casual labourers (51.6%). This is the norm as the smallholders farm the land themselves and rely on casual labourers as and when needed. Other economic activities which are almost handled by the farmers as self employed entrepreneurs were trading farm produce (96.9%) and trading livestock (100%).

The low gross earnings were high in the general kiosk owner with ZMK 22,030,000 per month followed by trading farm produce with ZMK 14,520,000. On the high earning side the general kiosk owner was the highest earner with ZMK 24,350,000 followed by traders in farm produce with ZMK 22,620,000 per month. Access to rural financial services has been and continues to be a challenge to smallholder and peasant farmers. This has led to their preclusion in commercial value chains. According to the baseline survey findings only three (3.3%) respondents obtained cash credit during the 2009 cropping year.

Decision Making Powers

The main decision makers on productive resources were mainly household head and spouse (43%) and household heads 42.6%. Of particular interest is the heads control over land ownership (55.1%). On the other hand household head and spouse had control over rent - in in land (45%), renting out land (46.1%), type of fertiliser and seed to use (49.4%). The main decision makers on production were household head and spouse (58.7%) followed by household head (20.9%). Decisions made by the household head, spouse and children accounted for 14.3% and sole decisions by the spouse accounted for 6.1%. Like in the main decision maker on production the main decision maker on marketing was household head and spouse jointly (61.1%), household head (22.3%). Household head and spouse jointly were the main decision makers on the use of income generated while the household head sole decision making (33.3%). The entire household decision accounted to 16.7%.

Marketing Information

For any meaningful decision to be made on what crops to grow, the smallholder farmer needs to have an idea on what price he or she can get for their commodity. The source of such information and more importantly, the mode of transmission of the market information are important.

Commodity Prices: the predominant source of information on prices was the radio (38.6%), family and friends and extension workers (19.3% respectively) and cooperatives (18.2%).

Commodity Availability: the main source of information was radio 94.2%, extension worker (23%), family and friend (17.2%). Other sources included cooperatives, and crop buyers.

Potential Market buyers: information on buyers was mainly obtained from the radio (29.9%), extension worker (19.5%), family and friends (14.9%), cooperatives (18.4%) and to a lesser extent television, farmer group, and crop buyers. The mode of market information acquisition was predominantly personal communication and local administration meetings. Demonstration plots and or field days were the least reported modes of acquisition. This can be attributed to the fact that the input suppliers usually concentrate in the segment where they are likely to generate adequate sales, the emergent and commercial farmers as opposed to the smallholders who in most cases cannot afford to buy the inputs without Government subsidy.

Commodity Prices: personal communication was the highest with 75% reported followed by local administration meeting (11.4%).

Commodity Availability: As in prices, the main mode of acquisition was personal communication (73.8%) followed by local administration meeting (15.5%).

Potential Buyers: this was mainly through personal communication (76.7%), local administration meeting (10.5%).

Input Prices etc: The trend continued with personal communication being predominant and local administration meeting being the next one.

Information on commodity prices, inputs prices, commodity availability is usually obtained at the beginning of the farming season (27% overall) followed by monthly and daily both reporting 24.7% respectively. Commodity prices were also accessed at the beginning of the marketing season at harvest time.

Grain Storage and Marketing (Sales)

The majority of respondents (85.6%) have a grain store for storing their crops on their homesteads Three types of grain store were found in the target area and these are i) improved store, ii) traditional store, and iii) a room in the main house. The prevalence of use in each category was as follows:

Improved Store: There were few instances of the improved store with capacities of 25, 30, 40, 315, and 2,000 bags

Traditional store: This was the frequently reported grain store with capacities reported across the spectrum from 15 to 2,000 bags.

Room in the Main House: As with the improved unit, this category was not widely used with five instances reported. Table 37 sets out the findings.

An overwhelming number of respondents (93.7%) indicated that they had used grain stores in the 2009 cropping season. Only 6.3% indicated in the negative as to using grain stores in the same time period. This can be attributed to the minority having very low harvests and or that they immediately sold their harvest to take care of more pressing needs such as school fees and medical costs. Cereal banks are a new phenomenon that is just being introduced in the country. It appears the awareness of cereal banks is still minimal. From the baseline survey findings only a meagre 11.1% of the respondents were aware of cereal banks with the vast majority (88.9%) unaware of cereal banks.

As in the case of cereal banks, Warehouse Receipts Systems (WRS) has not yet taken root in the nation's smallholder farmers' psyche. Awareness of WRS was minimal (12.2%), in addition to high use of WRS in 2009 (87.8). The source of information on WRS was mainly farmer groups. Grain stored and lost appears to be manageable within the different categories of storage. The improved store reported losses of 0.13% in 39 mt of stored maize. The traditional store reported 0.42% loss in 915 mt of maize and 0.07% loss in 76 mt of groundnuts. Maize stored in a room in the main house reported 0.02% loss in 36 mt of maize. The main cause of grain losses in storage across the board was storage pests in maize. These would be weevils, borers etc. The same applied to groundnuts stored in traditional stores.

The survey found that 70% of the respondent households sold crops during the 2009 season. This implies that the smallholder farmers had some surplus crops that they put into the commercial value chains. In terms of having adequate staples from their own production, 33.7% of households had adequate stocks throughout the year, 13.5% had adequate stocks for seven months, 12.4% had stocks for eight months, and 10.1% were food secure for nine months. Households having adequate stocks for ten months amounted to 9%. Households with adequate stocks for six months or less accounted for a combined percentage of 21.3%. Coping mechanisms ranged from purchases (75.5%), donations (5.7%), relief food (3.8%), and other means such as barter (15.1%). In the target respondent group maize was the main staple grain grown and sold. A total of 1,387 mt was grown out of which 403 mt was consumed and 983 mt was sold for consideration of ZMK 1,120,434,100. The transport costs up to the market were ZMK 7,619,000. Groundnuts were also grown in significant quantities with 177 mt grown of which 76 mt was consumed and 98 mt was sold for ZMK 335,400,000 less ZMK 504,000 as transport costs to the market. Generally, the distance from point of sale for the largest transaction was predominantly within seven kilometres or less (accounting for a total of 59.1%). This ties in with the ability of the small trader to reach the remote locations to buy grain. The state of the roads to the market was mostly all weather roads accounting for 84.7% followed by seasonal roads (13.9%). Tarred roads were insignificant at 1.4%.

Membership of Farmer Groups

In the three Provinces surveyed 73 households (81.1%) were members of farmer groups. The farmer groups provided training, marketing services, and input provision. The different types of farmer groups were crop production, livestock production, value addition, and beekeeping. The farmer groups on average offered training across the board (64.3%), input provision (26.2%) and marketing (9.5%).

This indicates that marketing services are still not entrenched in farmer groups hence their reliance on FRA to buy their produce and the small and large traders who come to them to buy their crops and not the converse where they consolidate their produce (bulking) and market as a group.

The gender composition in the agricultural producer group was skewed towards males with 60.3% of the members being male and 30.7% being female. In addition, the gender composition within the groups' management committee was 56% male and 44% women. It is important to note that this is within the SADC gender guidelines which aim to have 40% women representation in economic affairs.

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ANNEX 1: LIST OF HOUSEHOLDS INTERVIEWED
List of Respondents**Province: Eastern****District: Lundazi****SEA: Magodi**

Household Name	Name of respondent	Age	Sex
Betty Gondwe	Betty Gondwe	61	F
Mr. Godfrey Mtonga	Maclena Mtonga	65	F
Mr. Watson Mkanawire	Watson Mkandawire	73	M
Ziyanga Munyeka	Ziyanga Munyeka	50	F
Bornwell Nyirenda	Margret Manda	40	M
Rudolf Nyirenda	Rudolf Nyirenda	32	M
Joseph Nyirenda	Joseph Nyirenda	43	M
Mr. Phiri	Letesia Phiri	49	F
Pandani Shonga	Pandani Shonga	41	M
Pierceson Chunda	Antasia Ngoma	23	F
Paul Phiri	Paul Phiri	52	M
Matthews Niyrenda	Matthews Niyrenda	43	M
Weedson Luhanga	Tryness Chirwa	60	F
Isaac Manthepa	Dorothy	61	F
Maxwell Phiri	Maxwell Phiri	70	M
Timothy Chirwa	Timothy Chirwa	68	M
Michael Sibande	Michael Sibande	39	M
Julius Sibande	Julius Sibande	42	M
Stanley Njovu	Stanley Njovu	47	M
Isaac Banda	Isaac Banda	32	M
Joyce Sibande	Joyce Sibande	40	F
Siwell Kumwenda	Siwell Kumwenda	40	M
Tapson Kumwenda	Tapson Kumwenda	40	M
Edison Kumwenda	Edison Kumwenda	35	M
Elina Phiri	Elina Phiri	48	F
Eston Kumwenda	Joyce Kumwenda	42	F
Brass Kumwenda	Ovaline Mapaka	53	F
Jeremiah Kumwenda	Jeremiah Kumwenda	45	M

Province: Southern**District: Monze****SEA: Mwanza**

Household Name	Name of respondent	Age	Sex
Mr. Larry Matimba	Mr. Larry Matimba	43	M
Shalon Chilubi	Shalon Chilubi	34	F
Mr. Gaunlet Malomo	Mr. Gaunlet Malomo	37	M
Mrs. Rosemary Lwiindi	Mrs. Rosemary Lwiindi	45	F
Mrs. Catherine Ndeleki	Mrs. Catherine Ndeleki	42	F
Mr. Pharoah Milimo	Mr. Pharoah Milimo	48	M
Mr. Charles Moonga	Mr. Charles Moonga	45	M
Mr. Hamoonga	Delphine Hamoonga	27	F
Jonathan Hatwiinda	Ronah Hatwiinda	55	F
Mr. Auditor Simwami	Mr. Auditor Simwami	59	F
Mr. Chrispin Chimanse	Mr. Chrispin Chimanse	42	M
Mr. Maurice Moonga	Mr. Maurice Moonga	45	M
Mr. Edson Chiwale	Telly Chimeko	51	F
Mr. Nathan Chiluli	Rosemary Mutinta	49	F
Mr. Phillimon Hakalembe	Mr. Phillimon Hakalembe	56	M
Mr. Grocien Mainza	Mr. Grocien Mainza	47	M
Mrs. Gladys Hachizuwa	Mrs. Gladys Hachizuwa	70	F
Mrs. Joyce Cheembela	Mrs. Joyce Cheembela	56	F
Mr. Winniefred Mooya	Mr. Winniefred Mooya	38	F
Mr. Sebastian Hamanjila	Mr. Sebastian Hamanjila	42	M
Mr. Willy Michelo	Mr. Willy Michelo	30	M
Mrs. Matildah Hakooma	Mrs. Matildah Hakooma	48	F
Mrs. Georgina Hachiwa	Mrs. Georgina Hachiwa	51	F
Mr. John Muunga	Mr. John Muunga	61	M
Mr. Teddy Moonga	Mr. Teddy Moonga	28	M
Mr. Crispin Halwiindi	Mr. Crispin Halwiindi	46	M
Mr. Mubotu Michelo	Mr. Mubotu Michelo	30	M
Mr. Hamankuli Mweemba	Naomi Mweemba	40	F
Ms. Alice Matongo	Ms. Alice Matongo	31	F

Province: Central**District: Mkushi****SEA: Chikanda**

Household Name	Name of respondent	Age	Sex
Mr. Collins Mwape	Mr. Collins Mwape	30	M
Mr. Softy Mukosha	Mr. Softy Mukosha	49	M
Mr. Moses Masenga	Mr. Moses Masenga	25	M
Mr. Lazarous Banda	Beatrice Banda	42	F
Mr. Rhodwell Chibuye	Mr. Rhodwell Chibuye	37	M
Mr. Golden Mutonga	Mr. Golden Mutonga	26	M
Mr. Alfred Kunda	Mr. Alfred Kunda	32	M
Mr. Robert Mumba	Mr. Robert Mumba	65	M
Mr. Laston Chisenga	Mr. Laston Chisenga	47	M
Mr. George Chembe	Mr. George Chembe	57	M
Mr. Weston Muzomba	Mike Mbulo	34	M
Mr. Winnerson Kapengwe	Annet Mvula	40	F
Mr. Mold Sikaundi	Mr. Mold Sikaundi	48	F
Mr. Steven Muzomba	Jackline Muzomba	32	F
Gregory Chisalaba	Gift Chisalaba	20	M
Neighbour Chitembo	Evalyn Tembo	31	F
Musonda Simukonda	Uria Musonda	52	F
Goodson Kunda	Goodson Kunda	39	M
Tamio Mambwe	Tamio Mambwe	32	M
Joseph Chewe	Joseph Chewe	46	M
Friday Phiri	Ireen Chibelo	54	F
David Malakata	David Malakata	42	M
Jofrey Muntlemba	Mervis Chisenga	26	F
Local Sichilima	Mildread Sichilima	44	F
Idah Kaponda	Idah Kaponda	52	F
Alexander Matuka	Alexander Matuka	32	M
Care Mukwempa	Care Mukwempa	32	M

ANNEX 2: SURVEY OUTPUTS



Outputs.xlsx

Double click on the icon to open file (Database of relevant information). Images of this data is reproduced in the next pages.

ZAMACE – GMEP-Baseline Survey Report

Crop	Quantity consumed (kg)	Quantity sold (kg)	Value of sales	Value of paid transport to point of sale
1 Maize, dry	403,363	983,825	1,120,434,100	7,619,000
7 Beans	108	648	5,550,000	
14 Cotton			342,633,750	
30 Sunflower			579,475,000	
33 Groundnuts	78,680	98,495	335,400,000	504,000
43 Sweet potatoes	314	251	4,025,000	
63 Tomatoes			74,000,000	50,000
160 Soya beans	9,824	41,752	46,530,000	30,000
Popcorn			1,120,000	
Other			1,500,000	
TOTAL			2,512,667,850	8,203,000

Crop	Mode of payment	Mode of payment			Total
		Cash	Cheque	Promissory note	
maize, dry	Count	34	2	4	40
	% within Crop	85.00%	5.00%	10.00%	100.00%
Beans	Count	3	0	0	3
	% within Crop	100.00%	0.00%	0.00%	100.00%
Cotton	Count	8	0	0	8
	% within Crop	100.00%	0.00%	0.00%	100.00%
sunflower	Count	3	0	0	3
	% within Crop	100.00%	0.00%	0.00%	100.00%
groundnuts	Count	20	0	0	20
	% within Crop	100.00%	0.00%	0.00%	100.00%
sweet potatoes	Count	6	0	0	6
	% within Crop	100.00%	0.00%	0.00%	100.00%
tomatoes	Count	18	0	0	18
	% within Crop	100.00%	0.00%	0.00%	100.00%
soyabeans	Count	9	0	0	9
	% within Crop	100.00%	0.00%	0.00%	100.00%
Other	Count	1	0	0	1
	% within Crop	100.00%	0.00%	0.00%	100.00%
Popcorn	Count	1	0	0	1
	% within Crop	100.00%	0.00%	0.00%	100.00%
Total	Count	99	2	4	105
	% within Crop	94.30%	1.90%	3.80%	100.00%

Crop	Buyer for the largest sale	Buyer for the largest sale						Total
		small trader	large trader	NCPB	millar	NGO	road processor	
maize, dry	Count	8	14	8	3	1	0	34
	% within Crop	20.50%	48.70%	20.50%	7.70%	2.60%	0.00%	100.00%
Beans	Count	3	0	0	0	0	0	3
	% within Crop	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Cotton	Count	0	1	0	7	0	0	8
	% within Crop	0.00%	12.50%	0.00%	87.50%	0.00%	0.00%	100.00%
sunflower	Count	1	1	0	0	0	0	2
	% within Crop	33.30%	33.30%	0.00%	0.00%	33.30%	0.00%	100.00%
groundnuts	Count	10	1	0	1	0	0	22
	% within Crop	75.00%	15.00%	0.00%	5.00%	5.00%	0.00%	100.00%
sweet potatoes	Count	6	0	0	0	0	1	7
	% within Crop	85.70%	0.00%	0.00%	0.00%	0.00%	14.30%	100.00%
tomatoes	Count	17	0	0	0	0	0	17
	% within Crop	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
soyabeans	Count	4	1	0	0	0	0	5
	% within Crop	80.00%	20.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Other	Count	1	0	0	0	0	0	1
	% within Crop	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Popcorn	Count	1	0	0	0	0	0	1
	% within Crop	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Total	Count	59	20	8	11	3	1	102
	% within Crop	53.80%	24.00%	7.70%	10.60%	2.90%	1.00%	100.00%

Crop	Distance (km) to point of sale for the largest sale transaction	Distance (km) to point of sale for the largest sale transaction																			Total		
		0	1	2	3	4	5	6	7	13	15	20	25	30	36	38	40	46	52	82		500	
maize, dry	Count	1	0	3	5	3	0	2	2	1	0	1	0	1	0	0	0	0	0	0	0	31	
	% within Crop	3.20%	16.10%	9.70%	16.10%	16.10%	9.70%	6.50%	6.50%	3.20%	0.00%	3.20%	0.00%	3.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.20%
Cotton	Count	0	1	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
	% within Crop	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
sunflower	Count	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% within Crop	0.00%	0.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%
groundnuts	Count	1	2	0	0	0	0	1	0	0	0	0	0	1	2	4	3	1	1	0	0	0	14
	% within Crop	6.20%	12.50%	0.00%	0.00%	0.00%	0.00%	6.20%	0.00%	0.00%	0.00%	0.00%	6.20%	12.50%	25.00%	18.80%	6.20%	6.20%	0.00%	0.00%	0.00%	0.00%	100.00%
sweet potatoes	Count	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	% within Crop	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
tomatoes	Count	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	4
	% within Crop	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
soyabeans	Count	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	% within Crop	0.00%	33.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33.30%
Other	Count	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	% within Crop	4.90%	14.80%	6.60%	8.20%	8.20%	4.90%	8.20%	3.30%	1.60%	1.60%	3.30%	1.60%	8.20%	3.30%	6.60%	6.60%	3.30%	1.60%	1.60%	1.60%	1.60%	100.00%

Crop	State of road to point of sale	State of road to point of sale			Total
		Macadam/soil tar	All weather	Seasonal	
maize, dry	Count	0	27	8	35
	% within Crop	0.00%	77.10%	22.90%	100.00%
Cotton	Count	0	0	0	0
	% within Crop	0.00%	0.00%	0.00%	0.00%
sunflower	Count	0	2	0	2
	% within Crop	0.00%	100.00%	0.00%	100.00%
groundnuts	Count	0	16	1	17
	% within Crop	0.00%	94.10%	5.90%	100.00%
sweet potatoes	Count	0	2	0	2
	% within Crop	0.00%	100.00%	0.00%	100.00%
tomatoes	Count	0	5	0	5
	% within Crop	0.00%	100.00%	0.00%	100.00%
soyabeans	Count	0	4	0	4
	% within Crop	0.00%	100.00%	0.00%	100.00%
Total	Count	0	61	10	71
	% within Crop	0.00%	84.70%	13.90%	100.00%

Crop	Mode of transport to point of sale	Mode of transport to point of sale				Total
		vehicle	Human	Animal	Bicycle	
maize, dry	Count	20	1	10	0	31
	% within Crop	64.50%	3.20%	32.30%	0.00%	100.00%
Cotton	Count	0	1	1	1	3
	% within Crop	0.00%	33.30%	33.30%	33.30%	100.00%
sunflower	Count	2	0	0	0	2
	% within Crop	100.00%	0.00%	0.00%	0.00%	100.00%
groundnuts	Count	3	2	2	2	9
	% within Crop	31.20%	18.80%	37.50%	22.50%	100.00%
sweet potatoes	Count	1	0	0	0	1
	% within Crop	100.00%	0.00%	0.00%	0.00%	100.00%
tomatoes	Count	4	0	0	0	4
	% within Crop	100.00%	0.00%	0.00%	0.00%	100.00%
soyabeans	Count	2	0	0	0	2
	% within Crop	66.70%	0.00%	0.00%	33.30%	100.00%
Total	Count	25	2	13	4	44
	% within Crop	56.70%	8.30%	28.30%	6.70%	100.00%

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Crop * Month and Year of sale for the largest sale transaction Crosstabulation

		Month and Year of sale for the largest sale transaction												Total	
		January	February	March	April	May	June	July	August	September	October	November	December		
Crop	maize, dry	Count	0	0	0	0	0	4	10	10	1	0	0	0	38
	% within Crop		0.00%	0.00%	0.00%	0.00%	0.00%	10.50%	26.30%	39.50%	21.10%	2.60%	0.00%	0.00%	100.00%
Beans	Count	0	0	0	0	0	1	1	1	0	0	0	0	3	
	% within Crop		0.00%	0.00%	0.00%	0.00%	33.30%	33.30%	33.30%	0.00%	0.00%	0.00%	0.00%	100.00%	
Cotton	Count	0	0	0	0	0	2	2	2	2	0	0	0	8	
	% within Crop		0.00%	0.00%	0.00%	0.00%	25.00%	25.00%	25.00%	25.00%	0.00%	0.00%	0.00%	100.00%	
sunflower	Count	0	0	0	0	1	0	0	0	1	0	1	0	3	
	% within Crop		0.00%	0.00%	0.00%	33.30%	0.00%	0.00%	0.00%	33.30%	0.00%	33.30%	0.00%	100.00%	
groundnuts	Count	0	0	0	1	1	1	3	2	2	2	2	2	13	
	% within Crop		0.00%	0.00%	5.30%	5.30%	5.30%	15.80%	26.30%	10.50%	15.80%	10.50%	5.30%	100.00%	
sweet potatoes	Count	0	0	0	0	1	3	0	3	0	0	0	0	7	
	% within Crop		0.00%	0.00%	0.00%	14.30%	42.90%	0.00%	42.90%	0.00%	0.00%	0.00%	0.00%	100.00%	
tomatoes	Count	2	3	7	4	0	2	2	0	0	0	0	0	20	
	% within Crop		10.00%	15.00%	35.00%	20.00%	0.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%	100.00%	
soybeans	Count	0	0	0	0	0	0	2	0	0	0	0	0	2	
	% within Crop		0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	
Other	Count	0	0	0	0	0	0	0	0	0	1	0	0	1	
	% within Crop		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	
Popcorn	Count	0	0	0	0	0	1	0	0	0	0	0	0	1	
	% within Crop		0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	
Total	Count	2	3	7	5	3	14	20	26	13	5	3	1	102	
	% within Crop		2.00%	2.90%	6.90%	4.90%	2.90%	13.70%	19.60%	25.50%	12.70%	4.90%	2.90%	1.00%	100.00%

Crop * Year of sales * Month and Year of sale for the largest sale transaction Crosstabulation

Month and Year of sale for the largest sale transaction		Year of sales					Total				
		2004	2006	2007	2008	2009		2010			
January	Crop	tomatoes	Count					2	2		
	% within Crop							100.00%	100.00%		
Total	Count							2	2		
	% within Crop							100.00%	100.00%		
February	Crop	tomatoes	Count					3	3		
	% within Crop							100.00%	100.00%		
Total	Count							3	3		
	% within Crop							100.00%	100.00%		
March	Crop	tomatoes	Count					7	7		
	% within Crop							100.00%	100.00%		
Total	Count							7	7		
	% within Crop							100.00%	100.00%		
April	Crop	groundnuts	Count			1		0		1	
		% within Crop				100.00%		0.00%		100.00%	
	Total	Count							1	1	
		% within Crop							100.00%	100.00%	
May	Crop	sunflower	Count					1		1	
		% within Crop							100.00%	100.00%	
	Total	Count							1	1	
		% within Crop							100.00%	100.00%	
June	Crop	maize, dry	Count					4	0	4	
		% within Crop		0.00%				100.00%	0.00%	100.00%	
	Beans	Count						1	0	1	
		% within Crop		0.00%				100.00%	0.00%	100.00%	
	Cotton	Count						1	0	1	
		% within Crop		50.00%				50.00%	0.00%	100.00%	
	groundnuts	Count						0	1	1	
		% within Crop		0.00%				0.00%	100.00%	100.00%	
	sweet potatoes	Count						3	0	3	
		% within Crop		0.00%				100.00%	0.00%	100.00%	
tomatoes	Count						2	0	2		
	% within Crop		0.00%				100.00%	0.00%	100.00%		
Popcorn	Count						1	0	1		
	% within Crop		0.00%				100.00%	0.00%	100.00%		
Total	Count							12	1	14	
	% within Crop		7.10%					85.70%	7.10%	100.00%	
July	Crop	maize, dry	Count					0	10	10	
		% within Crop						0.00%	100.00%	100.00%	
	Beans	Count						0	1	1	
		% within Crop						0.00%	0.00%	100.00%	
	Cotton	Count						1	0	1	
		% within Crop						50.00%	0.00%	100.00%	
	groundnuts	Count						0	3	3	
		% within Crop						0.00%	0.00%	100.00%	
	tomatoes	Count						0	2	2	
		% within Crop						0.00%	0.00%	100.00%	
soybeans	Count						0	2	2		
	% within Crop						0.00%	0.00%	100.00%		
Total	Count							18	25	43	
	% within Crop							5.00%	5.00%	100.00%	
August	Crop	maize, dry	Count					0	13	13	
		% within Crop						0.00%	86.70%	13.30%	100.00%
	Beans	Count						0	1	1	
		% within Crop						0.00%	100.00%	0.00%	100.00%
	Cotton	Count						1	0	1	
		% within Crop						50.00%	0.00%	100.00%	
	groundnuts	Count						0	4	4	
		% within Crop						20.00%	80.00%	0.00%	100.00%
	sweet potatoes	Count						0	2	2	
		% within Crop						0.00%	100.00%	0.00%	100.00%
Total	Count							21	3	28	
	% within Crop							7.70%	80.80%	11.50%	100.00%
September	Crop	maize, dry	Count					0	8	8	
		% within Crop						0.00%	100.00%	100.00%	
	Cotton	Count						1	1	2	
		% within Crop						50.00%	50.00%	100.00%	
	Total	Count							1	12	13
% within Crop								7.70%	92.30%	100.00%	
October	Crop	maize, dry	Count					1	1	2	
		% within Crop						100.00%	100.00%	100.00%	
	Total	Count							1	1	2
		% within Crop							100.00%	100.00%	100.00%
November	Crop	sunflower	Count					0	1	1	
		% within Crop						0.00%	100.00%	100.00%	
	Total	Count							1	1	2
		% within Crop							50.00%	50.00%	100.00%
December	Crop	groundnuts	Count					1	1	2	
		% within Crop							33.30%	66.70%	100.00%
Total	Count							1	1	2	
	% within Crop							100.00%	100.00%	100.00%	

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What is the sex of ?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	266	46.7	46.7	46.7
Female	304	53.3	53.3	100
Total	570	100	100	

Relation-ship to current head

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Head	78	13.7	13.7	13.7
Spouse	89	15.6	15.6	29.3
Son/daughter	282	49.5	49.5	78.8
Parent	9	1.6	1.6	80.4
Other relative	110	19.3	19.3	99.6
Unrelated	1	0.2	0.2	99.8
Worker	1	0.2	0.2	100
Total	570	100	100	

Marital Status

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid never married monogamously	233	40.9	53.8	53.8
married polygamously married	155	27.2	35.8	89.6
divorced	15	2.6	3.5	93.1
widowed	8	1.4	1.8	94.9
other	20	3.5	4.6	99.5
other	2	0.4	0.5	100
Total	433	76	100	
Missing System	137	24		
Total	570	100		

What is the highest level of education completed?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid none	21	3.7	3.7	3.7
pre school	65	11.4	11.4	15.1
Grade 1	15	2.6	2.6	17.7
Grade 10	26	4.6	4.6	22.3
Grade 11	19	3.3	3.3	25.6
Grade 12	10	1.8	1.8	27.4
colleg 1	33	5.8	5.8	33.2
colleg 2	4	0.7	0.7	33.9
Univ 1	4	0.7	0.7	34.6
Grade 2	1	0.2	0.2	34.7
Grade 3	35	6.1	6.1	40.9
Grade 4	24	4.2	4.2	45.1
Grade 5	33	5.8	5.8	50.9
Grade 6	26	4.6	4.6	55.4
Grade 7	34	6	6	61.4
Grade 8	89	15.6	15.6	77
Grade 9	33	5.8	5.8	82.8
Grade 9	98	17.2	17.2	100
Total	570	100	100	

(For persons aged 6-18 yrs) Is Currently attending school?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	146	68.9	83.4	83.4
No	29	13.7	16.6	100
Total	175	82.5	100	
Missing System	37	17.5		
Total	212	100		

If school = no why

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Too young	33	5.8	44	44
Cannot afford expenses	11	1.9	14.7	58.7
Working	1	0.2	1.3	60
Sickness/disability	7	1.2	9.3	69.3
Refused to continue	3	0.5	4	73.3
Refused to continue	14	2.5	18.7	92
Completed schooling	4	0.7	5.3	97.3
other	2	0.4	2.7	100
Total	75	13.2	100	
Missing System	495	86.8		
Total	570	100		

How many months in the last 12 months has this person been living at home?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 0	1	0.2	0.2	0.2
1	14	2.5	2.6	2.8
2	16	2.8	2.9	5.7
3	16	2.8	2.9	8.6
4	6	1.1	1.1	9.7
5	1	0.2	0.2	9.9
6	11	1.9	2	11.9
7	5	0.9	0.9	12.9
8	4	0.7	0.7	13.6
9	3	0.5	0.6	14.2
10	10	1.8	1.8	16
11	1	0.2	0.2	16.2
12	456	80	83.8	100
Total	544	95.4	100	
Missing System	26	4.6		
Total	570	100		

Did this person receive cash from informal /business activity?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	120	21.1	22.3	22.3
No	419	73.5	77.7	100
Total	539	94.6	100	
Missing System	31	5.4		
Total	570	100		

Did this person receive cash or payment in kind fro

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	13	2.3	2.6	2.6
No	486	85.3	97.4	100
Total	499	87.5	100	
Missing System	71	12.5		
Total	570	100		

Has this person been unable to work for six consecutive months in the last 12 months?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	16	2.8	3.4	3.4
No	459	80.5	96.6	100
Total	475	83.3	100	
Missing System	95	16.7		
Total	570	100		

If Yes, what was the reason?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Disability	2	0.4	14.3	14.3
Sickness	11	1.9	78.6	92.9
other	1	0.2	7.1	100
Total	14	2.5	100	
Missing System	556	97.5		
Total	570	100		

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Name of enterprise * Main decision maker on production Crosstabulation						Name of enterprise * Main decision maker on marketing Crosstabulation						Name of enterprise * Main decision maker on use of income generated Crosstabulation								
Name of enterprise	soya beans. Count % within Name of enterprise	Main decision maker on production				Total	Name of enterprise	soya beans. Count % within Name of enterprise	Main decision maker on marketing				Total	Name of enterprise	soya beans. Count % within Name of enterprise	Main decision maker on use of income generated				Total
		head	spouse	head and spouse	head, spouse and children				head	spouse	head and spouse	head, spouse and children				head	spouse	head and spouse	head, spouse and children	
bar	Count % within Name of enterprise	1	0	0	0	1	bar	Count % within Name of enterprise	1	0	0	0	1	bar	Count % within Name of enterprise	1	0	0	0	1
beans	Count % within Name of enterprise	2	0	3	1	6	beans	Count % within Name of enterprise	2	0	3	0	5	beans	Count % within Name of enterprise	2	0	3	0	5
beer brewing	Count % within Name of enterprise	0	0	3	0	3	beer brewing	Count % within Name of enterprise	0	0	3	0	3	beer brewing	Count % within Name of enterprise	0	0	3	0	3
baking	Count % within Name of enterprise	0	1	0	0	1	baking	Count % within Name of enterprise	0	1	0	0	1	baking	Count % within Name of enterprise	0	1	0	0	1
brick making	Count % within Name of enterprise	0	0	1	0	1	brick making	Count % within Name of enterprise	0	0	1	0	1	brick making	Count % within Name of enterprise	0	0	0	1	1
cattle	Count % within Name of enterprise	0	0	1	0	1	cattle	Count % within Name of enterprise	0	0	1	0	1	cattle	Count % within Name of enterprise	0	0	1	0	1
chicken	Count % within Name of enterprise	0	0	1	0	1	chicken	Count % within Name of enterprise	0	0	1	0	1	chicken	Count % within Name of enterprise	0	0	1	0	1
chicken marketing	Count % within Name of enterprise	1	0	1	0	2	chicken marketing	Count % within Name of enterprise	1	0	1	0	2	chicken marketing	Count % within Name of enterprise	1	0	1	0	2
chicken production	Count % within Name of enterprise	0	0	1	0	1	chicken production	Count % within Name of enterprise	0	0	1	0	1	chicken production	Count % within Name of enterprise	0	0	1	0	1
chicken rearing	Count % within Name of enterprise	0	0	1	0	1	chicken rearing	Count % within Name of enterprise	0	0	1	0	1	chicken rearing	Count % within Name of enterprise	0	0	1	0	1
chicken rearing	Count % within Name of enterprise	1	0	4	0	5	chicken rearing	Count % within Name of enterprise	1	0	4	0	5	chicken rearing	Count % within Name of enterprise	1	0	4	0	5
chickens rearing	Count % within Name of enterprise	0	0	1	0	1	chickens rearing	Count % within Name of enterprise	0	0	1	0	1	chickens rearing	Count % within Name of enterprise	0	0	1	0	1
clothes	Count % within Name of enterprise	0	0	1	0	1	clothes	Count % within Name of enterprise	0	0	1	0	1	clothes	Count % within Name of enterprise	0	0	1	0	1
cotton	Count % within Name of enterprise	1	1	5	4	11	cotton	Count % within Name of enterprise	1	1	6	3	11	cotton	Count % within Name of enterprise	1	2	6	2	11
farming	Count % within Name of enterprise	0	0	1	0	1	farming	Count % within Name of enterprise	9.10%	9.10%	54.50%	27.30%	100.00%	farming	Count % within Name of enterprise	9.10%	18.20%	54.50%	18.20%	100.00%
gardening	Count % within Name of enterprise	1	0	13	0	14	gardening	Count % within Name of enterprise	1	0	13	0	14	gardening	Count % within Name of enterprise	1	0	9	4	14
goat keeping	Count % within Name of enterprise	1	0	1	0	2	goat keeping	Count % within Name of enterprise	1	0	1	0	2	goat keeping	Count % within Name of enterprise	1	0	1	0	2
goat marketing	Count % within Name of enterprise	1	0	0	0	1	goat marketing	Count % within Name of enterprise	1	0	0	0	1	goat marketing	Count % within Name of enterprise	1	0	0	0	1
grocery	Count % within Name of enterprise	1	0	0	0	1	grocery	Count % within Name of enterprise	1	0	0	0	1	grocery	Count % within Name of enterprise	1	0	0	0	1
ground nuts	Count % within Name of enterprise	0	1	0	1	2	ground nuts	Count % within Name of enterprise	0	1	0	1	2	groundnuts	Count % within Name of enterprise	0	1	0	1	2
groundnuts	Count % within Name of enterprise	1	3	13	7	24	groundnuts	Count % within Name of enterprise	1	4	14	4	23	groundnuts	Count % within Name of enterprise	1	4	14	4	23
maize	Count % within Name of enterprise	9	3	24	8	44	maize	Count % within Name of enterprise	10	3	24	6	43	maize	Count % within Name of enterprise	10	4	24	6	43
maize production	Count % within Name of enterprise	0	0	1	0	1	maize production	Count % within Name of enterprise	0	0	1	0	1	maize production	Count % within Name of enterprise	0	0	1	0	1
maize production	Count % within Name of enterprise	5	1	17	0	23	maize production	Count % within Name of enterprise	5	1	17	0	23	maize production	Count % within Name of enterprise	5	0	14	4	23
milling	Count % within Name of enterprise	1	0	0	0	1	milling	Count % within Name of enterprise	1	0	0	0	1	milling	Count % within Name of enterprise	1	0	0	0	1
pig marketing	Count % within Name of enterprise	1	0	1	0	2	pig marketing	Count % within Name of enterprise	1	0	1	0	2	pig marketing	Count % within Name of enterprise	1	0	1	0	2
plates	Count % within Name of enterprise	0	0	1	0	1	plates	Count % within Name of enterprise	0	0	1	0	1	plates	Count % within Name of enterprise	0	0	1	0	1
poultry	Count % within Name of enterprise	0	0	1	0	1	poultry	Count % within Name of enterprise	0	0	1	0	1	poultry	Count % within Name of enterprise	0	0	1	0	1
rape	Count % within Name of enterprise	0	0	0	1	1	rape	Count % within Name of enterprise	0	0	0	1	1	rape	Count % within Name of enterprise	0	0	0	1	1
rice	Count % within Name of enterprise	0	0	1	0	1	rice	Count % within Name of enterprise	0	0	1	0	1	rice	Count % within Name of enterprise	0	0	1	0	1
soya beans	Count % within Name of enterprise	2	2	6	2	12	soya beans	Count % within Name of enterprise	2	2	7	1	12	soya beans	Count % within Name of enterprise	2	2	7	1	12
soya beans	Count % within Name of enterprise	0	0	0	1	1	soya beans	Count % within Name of enterprise	0	1	0	0	1	soya beans	Count % within Name of enterprise	0	0	0	1	1
potatoes	Count % within Name of enterprise	1	0	0	0	1	potatoes	Count % within Name of enterprise	1	0	0	0	1	potatoes	Count % within Name of enterprise	1	0	0	0	1
sun flower	Count % within Name of enterprise	0	0	1	0	1	sun flower	Count % within Name of enterprise	0	0	1	0	1	sun flower	Count % within Name of enterprise	0	0	1	0	1

Type of agricultural producer group * Service offered within the group Crosstabulation

			Service offered within the group			Total
			Training	Marketing	Input	
Type of agricultural producer group	Crops production	Count	16	3	8	27
		% within Type of agricultural producer group	59.30%	11.10%	29.60%	100.00%
	Livestock production	Count	7	1	3	11
		% within Type of agricultural producer group	63.60%	9.10%	27.30%	100.00%
Value addition		Count	2	0	0	2
		% within Type of agricultural producer group	100.00%	0.00%	0.00%	100.00%
Beekeeping		Count	1	0	0	1
		% within Type of agricultural producer group	100.00%	0.00%	0.00%	100.00%
Other (specify)		Count	1	0	0	1
		% within Type of agricultural producer group	100.00%	0.00%	0.00%	100.00%
Total		Count	27	4	11	42
		% within Type of agricultural producer group	64.30%	9.50%	26.20%	100.00%

Type of agricultural producer group * Service offered within the group Crosstabulation

			Service offered within the group				Total
			Training	Marketing	Input	water provision	
Type of agricultural producer group	Crops production	Count	3	7	9	2	21
		% within Type of agricultural producer group	14.30%	33.30%	42.90%	9.50%	100.00%
	Livestock production	Count	0	0	4	0	4
		% within Type of agricultural producer group	0.00%	0.00%	100.00%	0.00%	100.00%
Value addition		Count	0	2	0	0	2
		% within Type of agricultural producer group	0.00%	100.00%	0.00%	0.00%	100.00%
Other (specify)		Count	0	0	1	0	1
		% within Type of agricultural producer group	0.00%	0.00%	100.00%	0.00%	100.00%
Total		Count	3	9	14	2	28
		% within Type of agricultural producer group	10.70%	32.10%	50.00%	7.10%	100.00%

Type of agricultural producer group * Service offered within the group Crosstabulation

			Service offered within the group			Total
			Training	Marketing	Input	
Type of agricultural producer group	Crops production	Count	1	3	5	9
		% within Type of agricultural producer group	11.10%	33.30%	55.60%	100.00%
Value addition		Count	0	0	2	2
		% within Type of agricultural producer group	0.00%	0.00%	100.00%	100.00%
Total		Count	1	3	7	11
		% within Type of agricultural producer group	9.10%	27.30%	63.60%	100.00%

	Gender composition in the group		Gender composition in	
	No. of males	No. of females	No. of males	No. of females
1 Training	1701	994	260	196
2 Marketing	334	314	119	102
3 Input acquisi	17	33	8	10
5 A.I. services	18	15	7	3
7 Other (speci	25	25	7	5

ZAMACE – GMEP-Baseline Survey Report

Q 3.1a. Did this household member try to get any agriculture cash credit during the 2009 cropping year?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	3	3.3	3.3	3.3
No	87	96.7	96.7	100
Total	90	100	100	

Q.5.a Did any this household sell any of the crops produced from the seasons 2009?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	63	70	70.8	70.8
2	26	28.9	29.2	100
Total	89	98.9	100	
Missing System	1	1.1		
Total	90	100		

Q 6.1a. Do you have a store for grains?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	77	85.6	89.5	89.5
No	9	10	10.5	100
Total	86	95.6	100	
Missing System	4	4.4		
Total	90	100		

Unit * Capacit * Q 6.1b. What type of store and capacity do you have? Crosstabulation

Q 6.1b. What type of store and capacity do you have?			Capacity	Total																																	
			15		20	21	25	28	30	35	40	42	50	70	72	200	250	255	300	315	350	400	450	500	600	750	900	1000	1001	1500	2000						
Improved store	Unit	50kg bag						1	1	0										0												1	3				
			15					0	0											1												0	1				
	Total		50					1	1	1										0												0	1				
Traditional store	Unit	90 kg bag			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
		50kg bag			1	1	0	0	3	0	0	0	1	1	1	3	0	2	1	3	0	2	1	3	2	2	0	2	1	2	0	2	1	2	2		
	Total		15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
Room in the main house	Unit	50kg bag			0				0				0	1		1																			2	2	
			50		1				3				1	0		0																		5	7		
	Total		1		1			3				1	1	1	1	1																		7			

Unit * Capacit * Q 6.1b. What type of store and capacity do you have? Crosstabulation

Count

Q 6.1b. What type of store and capacity do you have?			Capacit										Total	
			30	35	40	250	300	315	400	500	900	1500	2000	
Improved store	Unit	15						1						1
	Total							1						1
Traditional store	Unit	50kg bag				2	1		1	1	1	1	1	8
	Total					2	1		1	1	1	1	1	8
Room in the main house	Unit	50kg bag	1	0	0									1
	Total	50	3	2	1									6
Total			4	2	1									7

Q 6.c. Did you use any of your stores to store grains during the 2009 cropping year?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	74	82.2	93.7	93.7
No	5	5.6	6.3	100
Total	79	87.8	100	
Missing System	11	12.2		
Total	90	100		

Q 6.2a. Are you aware of any Cereal bank

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	10	11.1	11.1	11.1
No	80	88.9	88.9	100
Total	90	100	100	

Q 6.2b. Where did you learn about the cereal bank?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	5	5.6	55.6	55.6
	3	2	22.2	77.8
	4	2	22.2	100
Total	9	10	100	
Missing System	81	90		
Total	90	100		

Q 6.2c. Did you use a cereal bank in 2009 cropping year?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	2	2.2	22.2	22.2
No	7	7.8	77.8	100
Total	9	10	100	
Missing System	81	90		
Total	90	100		

Q 6.2d. How did you use the cereal bank?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Individual	2	2.2	100	100
Missing System	88	97.8		
Total	90	100		

Q 6.2e. Are you aware of the Warehouse Receipt System

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	11	12.2	12.2	12.2
No	79	87.8	87.8	100
Total	90	100	100	

Q 6.2f. Where did you learn about the warehouse receipt system?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NGO	11	12.2	100	100
Missing System	79	87.8		
Total	90	100		

Q 6.2g. Did you use the warehouse receipt system service in 2009 cropping year?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	11	12.2	100	100
Missing System	79	87.8		
Total	90	100		

Q 6.2h. How did you use the service?

	Frequency	Percent
Missing System	90	100

Q6.2j.i receive higher prices for grains

	Frequency	Percent
Missing System	90	100

ii. It is costly to use

	Frequency	Percent
Missing System	90	100

iii. It is safe

	Frequency	Percent
Missing System	90	100

iv. It is convenient

	Frequency	Percent
Missing System	90	100

v. It is time consuming

	Frequency	Percent
Missing System	90	100

Q9e. What type of toilet do you use?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid pit latrine	89	98.9	100	100
Missing System	1	1.1		
Total	90	100		

Q9f.i. What is the main source of water for domestic use during dry seasons?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid pond	1	1.1	1.1	1.1
dam/sanddam	1	1.1	1.1	2.3
stream/river	2	2.2	2.3	4.5
protected spring	3	3.3	3.4	8
well	54	60	61.4	69.3
boehole	27	30	30.7	100
Total	88	97.8	100	
Missing System	2	2.2		
Total	90	100		

Q9f.ii. What is the distance (in km) to main source of water for domestic use during dry Seasons?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	11	12.2	12.2	12.2
2	5	5.6	5.6	17.8
3	1	1.1	1.1	18.9
4	3	3.3	3.3	22.2
5	16	17.8	17.8	40
6	1	1.1	1.1	41.1
7	1	1.1	1.1	42.2
8	4	4.4	4.4	46.7
9	1	1.1	1.1	47.8
10	6	6.7	6.7	54.4
15	2	2.2	2.2	56.7
25	1	1.1	1.1	57.8
30	1	1.1	1.1	58.9
35	1	1.1	1.1	60
40	1	1.1	1.1	61.1
50	3	3.3	3.3	64.4
60	1	1.1	1.1	65.6
90	1	1.1	1.1	66.7
100	2	2.2	2.2	68.9
150	3	3.3	3.3	72.2
200	5	5.6	5.6	77.8
250	2	2.2	2.2	80
300	3	3.3	3.3	83.3
400	3	3.3	3.3	86.7
500	7	7.8	7.8	94.4
600	2	2.2	2.2	96.7
700	1	1.1	1.1	97.8
800	2	2.2	2.2	100
Total	90	100	100	

Q9g.i. What is the main source of water for domestic use during wet seasons?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid stream/river	1	1.1	1.1	1.1
protected spring	3	3.3	3.4	4.5
well	58	64.4	65.9	70.5
boehole	26	28.9	29.5	100
Total	88	97.8	100	
Missing System	2	2.2		
Total	90	100		

Q9g.ii.What is the distance (in km) to main source of water for domestic use during wet seasons?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	12	13.3	13.3
	2	5	5.6	18.9
	3	2	2.2	21.1
	4	3	3.3	24.4
	5	14	15.6	40
	6	1	1.1	41.1
	8	4	4.4	45.6
	9	1	1.1	46.7
	10	8	8.9	55.6
	15	5	5.6	61.1
	20	6	6.7	67.8
	25	3	3.3	71.1
	30	4	4.4	75.6
	35	1	1.1	76.7
	40	4	4.4	81.1
	50	11	12.2	93.3
	60	3	3.3	96.7
	70	1	1.1	97.8
	80	1	1.1	98.9
	90	1	1.1	100
Total	90	100	100	

Q9h. What is the main source of water for irrigation?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	19	21.1	21.1
pond	4	4.4	4.4	25.6
lake	1	1.1	1.1	26.7
stream/river	8	8.9	8.9	35.6
unprotected spring	2	2.2	2.2	37.8
well	25	27.8	27.8	65.6
boehole	1	1.1	1.1	66.7
piped outside compound	1	1.1	1.1	67.8
water hawkers-cart/bicycle transport	29	32.2	32.2	100
Total	90	100	100	

Q9i. What is your main cooking fuel?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	firewood	82	91.1	91.1
	charcoal	7	7.8	98.9
	other	1	1.1	100
Total	90	100	100	

Q9j. What is your main type of lighting?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	electricity	3	3.3	3.3
	parafin	1	1.1	4.4
	firewood	19	21.1	25.6
	charcoal	3	3.3	28.9
	solar power	10	11.1	40
	other	54	60	100
Total	90	100	100	

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		Information source										Total		
Type of information	Commodity	Marketing information Point	Family/extended	Radio	TV	Newspaper	Extension worker	Agro-dealer	Farmer group	Cooperatives	Crop buyers		Fair based organization	
	Commodity prices	Count	17	34	0	0	17	0	0	10	0	0	88	
	% within Type of information		1.10%	19.30%	38.60%	0.00%	0.00%	19.30%	2.30%	0.00%	18.20%	1.10%	0.00%	100.00%
	Commodity availability in the market	Count	2	15	35	2	0	20	2	1	0	0	67	
	% within Type of information		2.30%	17.20%	40.20%	2.30%	0.00%	23.00%	2.30%	1.10%	0.00%	0.00%	100.00%	
	Potential markets/buyers	Count	2	15	28	2	0	19	2	2	16	0	87	
	% within Type of information		2.30%	14.90%	29.90%	2.30%	0.00%	19.50%	2.30%	2.30%	18.40%	8.00%	0.00%	100.00%
	Input prices	Count	0	4	20	0	0	21	25	9	12	0	86	
	% within Type of information		0.00%	4.70%	23.30%	0.00%	0.00%	24.40%	30.20%	3.50%	14.00%	0.00%	100.00%	
	Other (specify)	Count	0	2	2	0	1	2	3	0	1	2	14	
	% within Type of information		0.00%	14.30%	14.30%	0.00%	7.10%	14.30%	21.40%	0.00%	7.10%	14.30%	7.10%	100.00%
Total	Count		51	117	4	1	77	35	6	53	12	1	362	
	% within Type of information		1.40%	14.19%	32.30%	1.10%	0.30%	21.30%	9.70%	1.70%	14.60%	3.30%	0.30%	100.00%

		Mode of acquisition									Total	
Type of information	Commodity	Demonstration plot	Brochures/pamphlets	Training	Personal communication	Telephone	Field day	Local administration meeting (Baraza)	Promotional campaigns	Other (Specify)		
	Commodity prices	Count	1	0	0	66	0	6	10	2	3	88
	% within Type of information		1.10%	0.00%	0.00%	75.00%	0.00%	6.80%	11.40%	2.30%	3.40%	100.00%
	Commodity availability in the market	Count	1	1	1	62	0	1	13	3	2	84
	% within Type of information		1.20%	1.20%	1.20%	73.80%	0.00%	1.20%	15.50%	3.60%	2.40%	100.00%
	Potential markets/buyers	Count	0	1	0	66	4	0	9	3	3	85
	% within Type of information		0.00%	1.20%	0.00%	76.70%	4.70%	0.00%	10.50%	3.50%	3.50%	100.00%
	Input prices	Count	0	1	0	64	1	2	14	2	1	85
	% within Type of information		0.00%	1.20%	0.00%	75.30%	1.20%	2.40%	16.50%	2.40%	1.20%	100.00%
	Other (specify)	Count	0	0	0	8	0	0	2	1	0	11
	% within Type of information		0.00%	0.00%	0.00%	72.70%	0.00%	0.00%	18.20%	9.10%	0.00%	100.00%
Total	Count		2	2	1	255	5	1	44	11	6	314
	% within Type of information		0.60%	0.80%	0.30%	79.10%	1.40%	2.50%	13.60%	3.10%	2.50%	100.00%

		Information source										Total	
Type of information	Commodity	Marketing information Point	Family/extended	Radio	TV	Newspaper	Extension worker	Agro-dealer	Farmer group	Cooperatives	Crop buyers		
	Commodity prices	Count	3	11	7	8	0	12	3	8	7	0	59
	% within Type of information		5.10%	18.60%	11.90%	13.60%	0.00%	20.30%	5.10%	13.60%	11.90%	0.00%	100.00%
	Commodity availability in the market	Count	0	3	12	5	0	26	2	6	4	1	59
	% within Type of information		0.00%	5.10%	20.30%	8.50%	0.00%	44.10%	3.40%	10.20%	6.80%	1.70%	100.00%
	Potential markets/buyers	Count	1	2	3	5	0	9	3	6	5	22	58
	% within Type of information		1.80%	3.60%	5.40%	8.90%	0.00%	16.10%	5.40%	10.70%	8.90%	39.30%	100.00%
	Input prices	Count	0	0	25	5	0	0	0	3	0	0	28
	% within Type of information		0.00%	0.00%	48.30%	8.80%	0.00%	15.50%	12.10%	5.20%	10.30%	0.00%	100.00%
	Other (specify)	Count	0	0	1	0	1	0	0	1	0	0	3
	% within Type of information		0.00%	0.00%	33.30%	0.00%	33.30%	0.00%	0.00%	33.30%	0.00%	0.00%	100.00%
Total	Count		4	16	31	23	1	58	15	24	22	23	239
	% within Type of information		1.70%	6.80%	21.70%	9.80%	0.40%	23.80%	6.40%	10.20%	9.40%	9.80%	100.00%

		Mode of acquisition									Total	
Type of information	Commodity	Demonstration plot	Brochures/pamphlets	Training	Personal communication	Telephone	Field day	Local administration meeting (Baraza)	Promotional campaigns	Seminars/Meetings		Other (Specify)
	Commodity prices	Count	1	0	3	35	8	0	5	0	0	56
	% within Type of information		1.80%	0.00%	5.40%	62.50%	14.30%	0.00%	10.70%	0.00%	0.00%	100.00%
	Commodity availability in the market	Count	1	0	21	23	2	0	6	0	0	56
	% within Type of information		1.80%	0.00%	41.10%	41.10%	3.60%	1.80%	10.70%	0.00%	0.00%	100.00%
	Potential markets/buyers	Count	1	1	0	40	0	2	6	0	0	50
	% within Type of information		1.80%	1.90%	0.00%	75.50%	0.00%	3.60%	15.10%	0.00%	1.90%	100.00%
	Input prices	Count	1	0	0	41	0	2	5	1	0	50
	% within Type of information		1.80%	0.00%	0.00%	74.50%	0.00%	3.60%	16.40%	1.80%	0.00%	100.00%
	Other (specify)	Count	0	0	0	2	0	0	1	0	0	3
	% within Type of information		0.00%	0.00%	0.00%	66.70%	0.00%	0.00%	33.30%	0.00%	0.00%	100.00%
Total	Count		4	2	24	141	10	0	34	1	0	223
	% within Type of information		1.80%	0.90%	12.60%	63.20%	4.50%	2.20%	13.50%	0.40%	0.40%	100.00%

		Frequency							Total	
Type of information	Commodity	daily	weekly	monthly	annually	beginning of season (and preparation)	end of season (harvesting period)	other		
	Commodity prices	Count	25	1	16	0	17	21	2	86
	% within Type of information		33.70%	1.20%	18.60%	0.00%	19.80%	24.40%	2.30%	100.00%
	Commodity availability in the market	Count	22	7	15	0	20	11	2	87
	% within Type of information		33.30%	8.00%	20.70%	0.00%	23.00%	12.60%	2.30%	100.00%
	Potential markets/buyers	Count	25	9	23	5	13	13	1	86
	% within Type of information		33.70%	3.50%	26.70%	5.80%	15.10%	14.00%	1.20%	100.00%
	Input prices	Count	1	2	24	6	45	6	1	85
	% within Type of information		1.20%	2.40%	28.20%	7.10%	52.90%	7.10%	1.20%	100.00%
	Other (specify)	Count	0	2	7	0	1	2	0	12
	% within Type of information		0.00%	16.70%	58.30%	0.00%	8.30%	16.70%	0.00%	100.00%
Total	Count		88	15	83	11	90	52	6	345
	% within Type of information		24.70%	4.20%	24.70%	3.10%	27.00%	14.60%	1.70%	100.00%

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OFF-FARM

Activity by type of employment

Biz * Type of employment Crosstabulation

			Type of employment				Total
			salaried/ contract	self- employed	casual labor	9	
Biz	Salary earner	Count	4	0	1	0	5
		% within Biz	80.00%	0.00%	20.00%	0.00%	100.00%
	Casual wage earner	Count	2	0	0	0	2
		% within Biz	100.00%	0.00%	0.00%	0.00%	100.00%
	Farm laborer	Count	0	15	16	0	31
		% within Biz	0.00%	48.40%	51.60%	0.00%	100.00%
	Brewing business	Count	0	5	0	0	5
		% within Biz	0.00%	100.00%	0.00%	0.00%	100.00%
	Brick making	Count	0	5	0	0	5
		% within Biz	0.00%	100.00%	0.00%	0.00%	100.00%
	Carpentry	Count	0	1	0	1	2
		% within Biz	0.00%	50.00%	0.00%	50.00%	100.00%
	Clothes business	Count	0	8	0	0	8
		% within Biz	0.00%	100.00%	0.00%	0.00%	100.00%
	General-kiosk owner	Count	0	6	0	0	6
		% within Biz	0.00%	100.00%	0.00%	0.00%	100.00%
	Miller	Count	0	2	0	0	2
		% within Biz	0.00%	100.00%	0.00%	0.00%	100.00%
	Trading farm produce	Count	1	31	0	0	32
		% within Biz	3.10%	96.90%	0.00%	0.00%	100.00%
Trading livestock	Count	0	8	0	0	8	
	% within Biz	0.00%	100.00%	0.00%	0.00%	100.00%	
Tailor	Count	0	4	0	0	4	
	% within Biz	0.00%	100.00%	0.00%	0.00%	100.00%	
Other (don't specify)	Count	1	5	0	0	6	
	% within Biz	16.70%	83.30%	0.00%	0.00%	100.00%	
Total	Count		9	90	17	1	116
	% within Biz		6.80%	77.60%	14.70%	0.90%	100.00%

BIZ'Smonths Crosstabulation

			Gross earnings by month ^a			Total
			Low Gross Earning/Sales Month	High Gross Earning/Sales Month	Constant Earnings/Sales Month	
Biz	Salary earner	Count	24	0	36	60
		% within BIZ	40.00%	0.00%	60.00%	
	Casual wage earner	Count	0	0	24	24
		% within BIZ	0.00%	0.00%	100.00%	
	Farm laborer	Count	163	12	92	267
		% within BIZ	61.00%	4.50%	34.50%	
	Brewing business	Count	1	25	20	46
		% within BIZ	2.20%	54.30%	43.50%	
	Brick making	Count	3	17	0	20
		% within BIZ	15.00%	85.00%	0.00%	
	Carpentry	Count	8	6	10	24
		% within BIZ	33.30%	25.00%	41.70%	
	Clothes business	Count	43	22	12	77
		% within BIZ	55.80%	28.60%	15.60%	
	General-kiosk owner	Count	28	19	0	47
		% within BIZ	59.60%	40.40%	0.00%	
	Miller	Count	17	7	0	24
		% within BIZ	70.80%	29.20%	0.00%	
	Trading farm produce	Count	69	109	0	178
		% within BIZ	38.80%	61.20%	0.00%	
Trading livestock	Count	13	15	0	28	
	% within BIZ	46.40%	53.60%	0.00%		
Trading non-food goods	Count	0	0	8	8	
	% within BIZ	0.00%	0.00%	100.00%		
Tailor	Count	37	5	0	42	
	% within BIZ	88.10%	11.90%	0.00%		
Other (don't specify)	Count	11	1	41	53	
	% within BIZ	20.80%	1.90%	77.40%		
Total	Count		417	238	243	898

Percentages and totals are based on responses.

a. Group

		Low gross earnings/sales month		High gross earnings/sales month	
		Gross earning per month	Cost ^a per month	Gross earning per month	Cost ^a per month
	Missing activity	1,380,000	175,000	600,000	685,000
1	Salary earner	6,300,000		4,800,000	
2	Casual wage	230,000	75,000	230,000	75,000
3	Farm labourer	2,485,000		3,330,000	
6	Brewing busi	780,000	1,090,000	2,120,000	808,000
7	Brick making	6,400,000		27,320,000	
9	Carpentry	1,170,000	500,000	2,800,000	700,000
11	Clothes busin	2,835,000	1,240,000	10,490,000	4,550,000
13	General kiosk	22,030,000	41,080,000	24,350,000	6,550,000
14	Miller	440,000	278,000	650,000	270,000
15	Trading farm	14,520,000	3,900,000	22,620,000	4,460,000
17	Trading livest	2,200,000	465,000	3,850,000	680,000
19	Trading non-	80,000	45,000		
21	Tailor	860,000	195,000	1,650,000	295,000
25	Other specify	1,280,000	465,000	1,450,000	496,000

Productive resource * The main decision maker Crosstabulation

			The main decision maker					Total
			head	spouse	children	head and spouse	head, spouse and children	
Productive resource	Ownership of household land	Count	49	5	1	23	11	89
		% within Productive resource	55.10%	5.60%	1.10%	25.80%	12.40%	100.00%
	Renting-in land	Count	34	3	0	36	7	80
		% within Productive resource	42.50%	3.80%	0.00%	45.00%	8.80%	100.00%
	Renting-out land	Count	34	3	0	35	4	76
		% within Productive resource	44.70%	3.90%	0.00%	46.10%	5.30%	100.00%
	Type of fertilizer to use	Count	33	2	0	42	8	85
		% within Productive resource	38.80%	2.40%	0.00%	49.40%	9.40%	100.00%
	Type of seed to use	Count	33	4	0	44	8	89
		% within Productive resource	37.10%	4.50%	0.00%	49.40%	9.00%	100.00%
	Farm operations and timing	Count	34	2	0	43	11	90
		% within Productive resource	37.80%	2.20%	0.00%	47.80%	12.20%	100.00%
Total	Count		217	19	1	223	49	509
		% within Productive resource	42.60%	3.70%	0.20%	43.80%	9.60%	100.00%

	Type of store	Grain stored (qty, kg)		Quantity lost	
		Maize	Groundnuts	Maize	Groundnuts
1	Improved store	39,583		50	
2	Traditional store	915,140	76,625	3,881	53
3	Room in main house	36,125		7	
4	Room in other houses				
	Not stated		7,875		

Type of store * Month into store * Grain stored Crosstabulation

Grain stored			Month into store					Total	
			May	June	July	August	September		
maize, dry	Type of store	Improved store	Count	0	8	0	0	2	10
		% within Type of store		0.00%	80.00%	0.00%	0.00%	20.00%	100.00%
	Traditional store	Count	4	6	14	6	3	33	
		% within Type of store		12.10%	18.20%	42.40%	18.20%	9.10%	100.00%
	Room in the main house	Count	1	18	5	5	1	30	
		% within Type of store		3.30%	60.00%	16.70%	16.70%	3.30%	100.00%
Room in other houses	Count	0	0	1	0	0	1		
	% within Type of store		0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	
Total		Count	5	32	20	11	6	74	
		% within Type of store	6.80%	43.20%	27.00%	14.90%	8.10%	100.00%	
groundnuts	Type of store	Traditional store	Count		2	2	2		6
		% within Type of store			33.30%	33.30%	33.30%		100.00%
	Total	Count		2	2	2		6	
		% within Type of store		33.30%	33.30%	33.30%		100.00%	

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Type of store * Month when most of the grain was out of store * Grain stored Crosstabulation

Grain stored	Type of store	Count	Month when most of the grain was out of store												Total
			January	February	March	April	May	June	July	August	September	October	November	December	
maize, dry	Improved store	Count	0	2	2	2	0	1	1	0	1	0	1	0	10
		% within Type of store	0.00%	20.00%	20.00%	20.00%	0.00%	10.00%	10.00%	0.00%	10.00%	0.00%	10.00%	0.00%	100.00%
	Traditional store	Count	4	6	5	0	1	0	1	1	1	1	5	8	33
		% within Type of store	12.10%	18.20%	15.20%	0.00%	3.00%	0.00%	3.00%	3.00%	3.00%	3.00%	15.20%	24.20%	100.00%
	Room in the main house	Count	4	1	4	1	0	1	1	2	1	1	4	10	30
		% within Type of store	13.30%	3.30%	13.30%	3.30%	0.00%	3.30%	3.30%	6.70%	3.30%	3.30%	13.30%	33.30%	100.00%
	Room in other houses	Count	1	0	0	0	0	0	0	0	0	0	0	0	1
		% within Type of store	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Total		Count	9	9	11	3	1	2	3	3	3	2	10	74	
		% within Type of store	12.20%	12.20%	14.90%	4.10%	1.40%	2.70%	4.10%	4.10%	4.10%	2.70%	13.50%	24.30%	100.00%
groundnuts	Traditional store	Count		1								1	1	2	6
		% within Type of store		16.70%								16.70%	16.70%	33.30%	16.70%
	Total		Count		1							1	1	2	6
			% within Type of store		16.70%							16.70%	16.70%	33.30%	16.70%

Type of store * Main cause for storage losses * Grain stored Crosstabulation

Grain stored	Type of store	Count	Main cause for storage losses		Total
			Storage pests	theft	
maize, dry	Improved store	Count	1	0	1
		% within Type of store	100.00%	0.00%	100.00%
	Traditional store	Count	21	1	22
		% within Type of store	95.50%	4.50%	100.00%
	Room in the main house	Count	3	0	3
		% within Type of store	100.00%	0.00%	100.00%
Total		Count	25	1	26
		% within Type of store	96.20%	3.80%	100.00%
groundnuts	Traditional store	Count	3		3
		% within Type of store	100.00%		100.00%
	Total		Count	3	
		% within Type of store	100.00%		100.00%

ANNEX 3: SURVEY QUESTIONNAIRE

Baseline Household Survey for the Zambia Agriculture Commodity Exchange 2010

Household No. **HHID** _____

Date :(dd.mm.yy) **SURDATE** _____

Household Name; **HHNAME** _____

Respondent(s) Name; **RESPNAM** _____ **ID** _____

(Instruction: Record the member **ID** of the Respondent from the Demography table after the survey is completed.)

Household phone number (s) **PHONE1** _____ **PHONE2** _____

Identifying Variables:

Supervisor:	_____	SNUM	_____
Enumerator:	_____	ENUM	_____
Province:	_____	PROV	_____
District:	_____	DIST	_____
Constituency:	_____	CONST	_____
Ward :	_____	WARD	_____
CSA :	_____	CSA	_____
SEA :	_____	SEA	_____

Supervisor signature _____

Q1. DEMOGRAPHIC CHARACTERISTICS OF HOUSEHOLD MEMBERS

Demog10.sav (Key variables:hhid, mem)

Reference Period: the last 12 months

Member ID	Name	In which year was this person born?	What is the sex of ? 1=male 2=female	Relation-ship to current head <i>See codes below</i>	Marital Status <i>See codes below</i>	What is the highest level of education completed? <i>See codes below -99=don't know</i>	What is the highest level (For persons aged 6-18 yrs) Is Currently attending school? 1 = Yes 2 = No	If school=No, Why?	How many months in the last 12 months has this person been living at home?	Did this person receive cash from informal /business activity? Include general farm labor, dividends in the last 12 months? 1=Yes 2=No	Did this person receive cash or payment in kind from salaried employment, wage activities, remittances, or pensions in the last 12 months? 1=Yes 2=No	Has this person been unable to work for six consecutive months in the last 12 months? 1=Yes 2=No	If Yes, what was the reason? 1=Disability 2=Sickness 3=Other (specify)_
MEM	NAME	YBORN	SEX	RHEAD	MSTAT	HEDU	SCHOOL	NSCH	MONTH	BUS	SAL	WORK	NOWORK
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													

Relation to head

- 1= head
- 2= spouse
- 3= son/daughter
- 4= parent
- 5= other relative
- 6=unrelated
- 7=worker

Marital Status

- 1 = never married
- 2 = monogamously married
- 3 = polygamously married
- 4 = divorced
- 5 = widowed
- 6 = separated
- 7 = other, specify _____

Education levels

- 9=None
- 0=pre school
- 1=Grade 1
- 2=Grade 2
- 3=Grade 3
- 4=Grade 4
- 5=Grade 5
- 6=Grade 6
- 7=Grade 7
- 8=Grade 8
- 9= Grade 9
- 10 = Grade 10
- 11=Grade 11
- 12=Grade 12
- 14=A-levels
- 15= college 1
- 16= college 2
- 17= college 3
- 18= college 4

- 19=univ 1
- 20=univ 2
- 21=univ 3
- 22=univ 4
- 23=univ 5 & above
- 30= Tertiary college <1 year
- 31=Village polytechnic

Reason for absence in school

- 0=Too young
- 1=Cannot afford expenses
- 2=Working
- 4=Pregnancy
- 5=Sickness/disability
- 6=Refused to continue
- 7=Completed schooling
- 8=Other (specify)_____

HHID _____

Biz Codes (BIZ):

- 1= Salary earner
(e.g., teacher, policeman, etc.)
- 2= Casual wage earner
- 3= Farm laborer
- 4=Transportation business
- 5= Bicycle repair/mechanics
- 6= Brewing business

- 7= Brick making
- 8=Butcher
- 9=Carpentry
- 10=Charcoal burning
- 11=Clothes business
(trading)

- 12=Construction
- 13=General-kiosk owner
- 14=Miller
- 15=Trading farm produce
- 16=Trading fish
- 17=Trading livestock

- 18=Trading firewood
- 19=Trading non-food goods
- 20=Trading timber
- 21=Tailor
- 22= Pension

- 23= Remittance
- 24=Rent
- 25= Other (don't specify)

ACCESS TO RURAL FINANCIAL SERVICES

Q3a. Did any household member **try to get any agricultural cash credit** during the 2009 cropping year?

1=Yes 2=No (If No go to Q4a)

CASHCRD _____

Q3b. Indicate the details in the table below

Credit10.sav (Key variables: province, hhid, mem)

Reference Period: the last 12 months

Person seeking credit (Get mem from demography table)		From who/where was the credit sought? 1= neighbor 2=farmer group 3=commercial bank (specify)_____ 4=relative/friend 5=NGO/MFI 6=village bank 7=informal money lender 8=other (specify)_____	Amount applied for	Intended use of the credit 1= Land preparation 2=Input purchases 3=Marketing 4=Other (specify)	Did he/she receive the credit? 1=Yes 2=No	If he/she received the credit, how much was received?	If he/she did not receive , what was the reason? 1=Had no collateral 2=Had outstanding loan 3= Don't Know 4= Other (specify)____
Name	mem	credsoce	amtapply	creduse	receive	amtrec	norec

OWNERSHIP OF PRODUCTIVE RESOURCES AND DECISION MAKING

Q4a. Indicate in the table below who in the household is the main decision maker on/ owner of the listed productive resources

Resource10.sav (Key variables: province, hhid, resource, ID)

Productive resource		The main decision maker 1=head 2=spouse 3=children 4=head and spouse 5=head, spouse and children 6=household non-members
	resource	decmake
Ownership of household land	1	
Renting-in land	2	
Renting-out land	3	
Type of fertilizer to use	4	
Type of seed to use	5	
Farm operations and timing	6	

Q4b. Indicate in the table below who in the household is the main decision maker on production and sales of **5 main** enterprises (crops and livestock) of the household

Enterprise10.sav (Key variables: country, hhid, enterprise)

Name of enterprise	Main decision maker on production 1=head 2=spouse 3=children 4=head and spouse 5=head, spouse and children 6=household non-members	Main decision maker on marketing 1=head 2=spouse 3=children 4=head and spouse 5=head, spouse and children 6=household non-members	Main decision maker on use of income generated 1=head 2=spouse 3=children 4=head and spouse 5=head, spouse and children 6=household non-members
enterp	prodid	mktid	incomid

COMMODITY MARKETING AND MARKET INFORMATION SOURCES

Q 5.1a. Did this household sell any of the crops produced from the seasons 2009? (1= Yes No=2) **CRPSALE**_____ (If no, go to Q 5.1c)

Q 5.1b. Indicate in the table below the sales details for each of the crops sold.

Q 5.1c. Indicate household's **sources of agricultural marketing information** (*Enumerator:* Prompt the respondents on type of information)

Mktinfo10.sav (*Key variables: province hhid, agrinfo*)

Type of information	Main provider of information and mode of acquisition				Frequency 1=daily 2=weekly 3=monthly 4=annually 5=beginning of season (land Preparation time) 6=end of season (harvesting time) 7=other (specify)	
	Information source	Mode of acquisition	Information source	Mode of acquisition		
	agrinfo	infoce1	infmode1	infoce2	infmode2	infreq
Commodity prices	1					
Commodity availability in the market	2					
Potential markets/buyers	3					
Input prices	4					
Other (specify)_____	5					

Information provider

- 1 = Marketing Information Point
- 2 = Family/friend
- 3=Farmer
- 3 = Radio
- 4=TV
- 5 = Newspaper
- 6 = Extension worker
- 7 = Agro-dealer
- 8=Farmer group
- 9=Cooperative
- 10=Research institute/University
- 11=Crop buyers
- 12=Commodity exchange
- 13=Faith based organization

Mode of acquiring information

- 1=Demonstration plot
- 2=Brochures/pamphlets
- 3=Training
- 4=Personal communication
- 5=Telephone
- 6=SMS
- 7=Field day
- 8=Local administration meeting (Baraza)
- 9=Promotional campaigns
- 10=Internet
- 11=Seminar/meetings
- 12= Other (Specify)_____

11 = Other (Specify) _____

STORAGE FACILITIES FOR STAPLES

Q 6.1a. Do you have a store for **grains**? 1=Yes 2=No (Go to **Q 6.2a**) **GSTORE** _____

Q 6.1b. What type of store and capacity do you have? **STORET1** _____ **CAPACIT1** _____ **SUNIT1** _____

STORET2 _____ **CAPACIT2** _____ **SUNIT2** _____

Store type codes: 1=Improved store 2=Traditional store 3=Room in the main house 4=Room in other houses

Unit codes : 1=90kg bag 11=50kg bag 10=tons

Q 6.1c. Did you use any of your stores to store grains during the 2009 cropping year? 1=Yes 2=No **STORED** _____

Q 6.1d. If **yes to Q 6.1c**, indicate the **grains** you stored, the duration (**no. of months**) of storage and any storage losses that you incurred?

Store10.sav (Key variables: province hhid, store, grain)

Unit codes: 1=90 kg bag 2=kgs 3=25kg bag 4=10kg bag 5=MEDA 6=tones 7=50 kg bag 8=20ltr tin	Type of store 1=Improved 2=Traditional 3=Room in main house 4=Room in other houses	Grain stored	Quantity stored		Month into store	Month when most of the grain was out of store	Quantity lost in storage (in stunit)	Main cause for storage losses 1=storage pests 2=rotting 3=sprouting 4=theft 5=other (specify)____	
			Quantity	Unit					qstore
	store	grain							

HHID _____

Q 6.2a. Are you aware of any **Cereal bank** 1=Yes 2=No
(If no, go to Q 6.2e)

CBAWARE _____

Q 6.2b. Where did you learn about the cereal bank? 1=NGO 2=extension worker 3=CBO/farmer groups 4=other(specify)

CBLAN _____

Q 6.2c. Did you use a cereal bank in 2009 cropping year? 1=Yes 2=No
(If no, go to Q 6.2e)

CBUSE _____

Q 6.2d. How did you use the cereal bank? 1= Individually 2=through a farmer group 3=Both

CBMODE _____

Q 6.2e. Are you aware of the **Warehouse Receipt System** 1=Yes 2=No
(If no to Q 6.2e and no to 6.2a or no to 6.2c, go to Q7.a.)

WRWARE _____

Q 6.2f. Where did you learn about the warehouse receipt system? 1=NGO 2=extension worker 3=CBO/farmer groups 4=other(specify)
WRSLAN _____

Q 6.2g. Did you use the warehouse receipt system service in 2009 cropping year? 1=Yes 2=No
(If no to Q 6.2g and no to 6.2a or no to 6.2c, go to Q7.a.)

WRSUSE _____

Q 6.2h. How did you use the service? 1= Individually 2=through a farmer group 3=Both 4=other (specify) _____

WRSERV _____

Q 6.2i. Indicate the grains and their volumes, which you stored under the cereal banks and warehouse receipt system
Warehouse10.sav (Key variables: province ,hhid, grain, system)

Grain stored	Storage system 1=Cereal bank 2=Warehouse	Volume of grain stored								If you used warehouse receipt, how did you use it?	If did not use the receipt, why?
		Individual storage				Storage as farmer group					
		Quantity stored		Month into store	Month out of store	Quantity stored		Month into store	Month out of store		
Quantity	Unit	Quantity	Unit								
grain	storage	iqty	iunit	imonth	iomonth	fqty	funit	fimonth	fomonth	recuse	nouse

Unit codes:

1=90 kg bag
11=50 kg bag
2=kgs
10=tonnes

How receipt was used

1= did not use
2= used it to get loan from bank
3= used it to pay school fees
4= used it to get inputs on credit
5= other (specify)_____

Why receipt was not used

1= did not know how to use it
2= tried to use it but it was rejected
3= other (specify)_____

Q 6.2 j. Indicate your opinion (in likert scale) on the warehouse receipt system

- | | | | | | |
|------|------------------------------------|----------------------|---------|---------------|------------|
| i. | I receive higher prices for grains | PRICELY _____ | 1=agree | 2=indifferent | 3=disagree |
| ii. | It is costly to use | COSTLY _____ | 1=agree | 2=indifferent | 3=disagree |
| iii. | It is safe | SAFE _____ | 1=agree | 2=indifferent | 3=disagree |
| iv. | It is convenient | CONVT _____ | 1=agree | 2=indifferent | 3=disagree |
| v. | It is time consuming | TIMEY _____ | 1=agree | 2=indifferent | 3=disagree |

HOUSEHOLD STAPLE FOOD AVAILABILITY

Q7a. In the **last 12 months**, for how many months did the household have adequate **food staples from own production?** **OWNPRD**_____

Q7b. If the household did not have adequate staples from own production in the entire last 12 months, how did it meet the shortfall in staples? (**List in order of importance**) 1=Purchases 2=Donations 3=Relief 4=Other (specify) _____

COPING1_____ **COPING2**_____ **COPING3**_____

HOUSEHOLD MEMBERSHIP IN FARMER GROUPS

Q8a. Is anyone in this household a **member of farmer organization?** 1=Yes 2=No (*If No go to Q9a*) **GRPMEM** _____

Q8b. Indicate in the table below **the type of the farmer organization and main services offered?**

Group10.sav ((Key variables: province, hhid, group))

Who in the household is a member of the group? <i>(Use member ID from the demography table)</i>	Type of agricultural producer group 1=Crops production 2=Livestock production 3=Value addition 4=Aquaculture 5=Beekeeping 6=Seed commercialization group 6=Other (specify)	Services offered within the group 1=Training 2=Marketing 3=Input acquisition 4=Financial services 5=A.I. 6=Water provision 7=Other (specify)			Gender composition in the group		Gender composition in the group's management committee	
					No. of males	No. of females	No. of males	No. of females
id	group	serve1	serve2	serve3	gmale	gfemale	cmale	cfemale

HHID _____

WELFARE INDICATORS (Enumerator: Observe/ask about the following)

Q9a. What is the **roofing** material of the **main house**?

(1=grass /makuti 2=iron sheet 3=tiles 4=other, (specify _____))

ROOF _____

Q9b. What is the **wall** material of the **main house**?

(1=mud 2=bricks/stones 3=iron sheet 4=wood 5=plastered 6=other, (specify _____))

WALL _____

Q9c. What is the **floor** material of the **main house**?

(1= earth 2=cement 3=wood 4=tiles 5=other, (specify _____))

FLOOR _____

Q9d. What is the mode of ownership of the **main house**?

(1= owned 2= rented 3= owned by relative 4=other, (specify _____))

HSEOWN _____

Q9e. What type of **toilet** do you use?

(1= pit latrine 2= bush 3= flush toilet 4= other, (specify _____))

TOILET _____

Q9f.i. What is the **main** source of water for domestic use during **dry seasons**?

(1=Pond 2=dam /sanddam 3=lake 4=stream/river 5=unprotected spring 6=protected spring 7=well 8=borehole
9=piped into compound 10=piped outside compound 11=water tankers 12=roof catchments 13=water hawkers-cart / bicycle transporters
14= other, (specify _____))

WATERDRY _____

Q9f.ii. What is the distance (in km) to main source of water for domestic use during **dry Seasons**?

DISTDRY _____

Q9g.i. What is the **main** source of water for domestic use during **wet seasons**?

(1=Pond 2=dam /sanddam 3=lake 4=stream/river 5=unprotected spring 6=protected spring 7=well 8=borehole
9=piped into compound 10=piped outside compound 11=water tankers 12=roof catchments 13=water hawkers-cart / bicycle transporters
14= other, (specify _____))

WATERWET _____

Q9g.ii. What is the distance (in km) to main source of water for domestic use during **wet seasons**?

DISTWET _____

Q9h. What is the **main** source of water for irrigation?

(0=Does not irrigate 1=Pond 2=dam /sanddam 3=lake 4=stream/river 5=unprotected spring 6=protected spring 7=well 8=borehole
9=piped 10=water tankers 11=roof catchments 12=water hawkers-cart / bicycle transporters
13= other, (specify _____))

IRRIGAT _____

Q9i. What is your **main cooking fuel**?

(1=electricity 2=paraffin 3=firewood 4=gas 5=charcoal 6=solar power 7=other, (specify _____))

COKFUEL _____

Q9j. What is your **main type of lighting**?

(1=electricity 2=pressure lamp 3=tin lamp 4=fuel wood 5=lantern 6=solar power 7=other, (specify _____))

LIGHT _____

Thank You!