Government of Malawi

**National Statistical Office**

# National Census of Agriculture and Livestock 2006/07

## Main Report

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**Preface**

The National Census of Agriculture and Livestock (NACAL) was conducted by the Agriculture Statistics Division of the National Statistical Office (NSO) in collaboration with the Ministry of Agriculture and Food Security (MoAFS) between October 2006 and October 2007. It was based on a random sample that covered 25 000 households drawn from all districts of the country.

The NACAL is the fourth census of Agriculture to be conducted in Malawi, the last being that of 1991/92 National Sample Survey of Agriculture (NSSA). It is part of a concerted effort by government to provide relevant information on the structure of agriculture in the country, especially in view of its importance to the economy. The census was designed to collect information on different aspects of small holder agriculture including crops grown, area planted and production, land husbandly practices, food security, marketing and structure of the small holder sector. This is the main report to be produced from the census.

My gratitude goes to the following organisations and individuals who played key roles in making the census operation a success: Norwergian government which provided the bulk of the funds, Statistics Norway for technical assistance; the NSO/ MoAFS census team; the Statistics Norway resident technical advisor and many households and individuals who supplied the information to our questionnaire.

Charles Machinjili

***Commissioner of Statistics***

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I am grateful to respondents who generously gave their time to respond to our questionnaires.

**Deric Zanera**
***Headof Agriculture Statistics Division***

**Accronyms**

| | |
|---|---|
| ADD | Agriculture Development Division |
| ADMARC | Agriculture Development and Marketing Corporation |
| AIDS | Acquired Immune Deficiency Syndrome |
| EA | Enumeration Area |
| GDP | Gross National Product |
| GPS | Global Positioning System |
| Ha | Hecterers |
| HIV | Human Immuno Deficiency Virus |
| MoAFS | Ministry of Agriculture and Food Security |
| MARDEF | Malawi Rural Development Fund |
| MRFC | Malawi Rural Finance Company |
| NACAL | National Census of Agriculture and Livestock |
| NASSA | National Sample Survey of Agriculture |
| NSO | National Statistical Office |
| PHC | Population and Housing Census |
| SPSS | Statistical Package for Social Sciences |
| WMS | Welfare Monitoring Survey |
| YSP | Yield Sub-Plot |

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## Executive summary

The National Census of Agriculture and Livestock (NACAL) 2006/07 is the third in a series conducted by the NSO. It was conducted with technical and financial support from the Norwegian Government. The total sample size was 25,000 small holder farming households nationwide. The sample size at EA level was 15 households. Data collection took place from January to October 2007. Data entry was done through scanning using the Eyes and Hands software. It was cleaned and analyzed using the Statistical Package for Social Sciences (SPSS) software. Areas of parcels and plots were measured using Geographical Positioning System (GPS).

This report presents information about production, area and yield of major crops grown,livestock and poultry, farming practices, food security, impact of HIV/AIDS on agriculture sector and village level information on socio-economic sector.

### Area under crop cultivation

The total area under cultivation or under crop in the small holder agricultural sector in the 2006/07 season was 2.2 million hectares.

### Land situation

More than three quarters of land used by agricultural smallholders was customary land. The majority of land was inherited, and was operated by male operators. Land area had mostly remained unchanged during the past ten years. Less than ten percent of the households had rented out land in the past agricultural season, and sales of land were very rare. Results show that 15 percent of households had a dispute over land and one out of five households feared that their land would either be encroached upon or taken away from them.

### Land Size

There were a total of 2.5 million holdings in the small holder sector and 7.7 million parcels of which 2.8 million were for dwelling units only. In addition, there were 7.7 million plots. The average holding size was 1ha, average parcel size of 0.4ha and plot size of 0.3ha. Furthermore, three out of four holdings had an area of less than 1 ha. Consequently, parcels and plots are also small. About two thirds of the parcels and more than 80 percent of the plots had an area of less than 0.5 ha. Female headed households and female operators had less land than male headed households and male operators. Most parcels and plots were located within the village and also close to the dwelling area. Very little land improvement took place, whether it was building of terraces, construction of canals or digging of wells or dams.

### Land conflicts

Almost half the villages (47 percent) had conflicts over land. Southern region had more land conflicts (49 percent) than villages in the other regions.

### Provision of inputs ,ownership of equipment and farm structures

About half of the smallholder agricultural households had benefited from the fertilizer subsidy program. A very small proportion of the small scale agricultural farming households had received credit, about three percent. Except for insecticides acquired by about 10 percent of the households, the use of chemicals was almost nonexistent. About half of the households had bought seeds for the 2006/07 agricultural season. This was almost exclusively maize seeds, and most often hybrid maize seeds. Almost every farming household in Malawi owns at least one hoe, otherwise, the most commonly owned equipment was an axe, panga knive, sickle, watering can and slasher. A small proportion of households owned ómodernô equipment like tractors and generators. Granary was the most commonly owned structure for agricultural use. More male headed households than female headed households had acquired inputs, owned equipment and farm structures.

**Farming practices**

Agricultural extension service reached out to a little less than one out of five households in Malawi in 2006/07 agricultural season. Almost all parcels had been used for cultivation at one point or another and one out of five parcels had been cultivated for 20 years or more. Crop rotation was only practiced on about one out of five parcels. Irrigation for both parcels and plots was very rare. In instances where irrigation took place, the most common method used was watering cans or flooding. Almost all farm activities, whether it be ridging, planting, weeding or harvesting were carried out manually, with or without the use of a hoe. Mechanized farming methods were almost non existent and pesticides were applied on a very small proportion of plots during the 2006/07 agricultural season. Almost all plots were weeded, and more than half of the plots were weeded twice. Inorganic fertilizer was applied twice to about one third of the maize plots.

The most common storage facilities for maize were granary and bags. Granary was commonly used for local maize while bags were widely used for hybrid maize. Post harvest treatment was common for hybrid than local maize but in more than half the cases, the hybrid maize was not treated. The most common method for treating maize was using actelic super. However, farmers still used traditional treatments such as ash, dust, sun or heat baked.

**Food supply and sources**

In January 2007 around 55 percent of households relied upon own produce for food in the last 7 days prior to the survey, while 66 percent relied on food purchased from the market. In June of the same year, 89 percent relied on own produce and 66 percent on the market. In September 2007, own produce and purchased food from the market were the most important food sources; 77 percent and 76 percent respectively.

**Meals taken daily**

In January 2007, about one out of three households took three or more main meals daily, during the last 7 days prior to the survey. About 62 percent of the households took two main meals while five percent took only one meal. In June, almost half the households took three or more main meals daily (47 percent). Only two per cent took one main meal daily. In September, slightly more than 40 percent took three or more main meals, while the majority of the households (55 percent) took two main meals daily. In general, poor households and female headed households were worse off.

**Agricultural production**

The yield and area for each crop presented in this report is based on pure stand crop, but for production, total production is considered; both pure and mixed stand. Farmersô post harvest estimate was used to measure production, except for cassava where farmersô pre harvest estimate was used. Production of maize in the 2006/07 agricultural season was about 2.1 million tons, the overall yield was 1726 kg/ha, and the total area planted with pure stand maize was about 1.1 million hectares.

Among maize varieties, local maize occupied the largest area (560 000 ha) and provided the biggest production (870 000 tons). Hybrid maize occupied 400 000 ha with a production of about 760 000 tons. Hybrid maize had the highest yield, 1,907 kg/ha as compared to local maize, 1,372 kg/ha.

For all maize varieties, plots operated by male operators gave a higher yield than those operated by female operators. The yield for fertilized maize plots was consistently higher than the yield for unfertilized plots, and also consistently higher was yield for plots where fertilizer was applied twice. For example, the yield for hybrid maize plots fertilized once was 1,740 kg/ha and 2,342 kg/ha for those fertilized twice. Very few maize plots were not weeded. Maize plots weeded twice had a higher yield than those weeded only once. For the other staple crops, production was as follows: Rice, 68 000 tons; sorghum13 000 tons and millet, 7 000 tons. Close to 250 000 tons of beans, pulses and ground nuts were produced. On root crops, cassava production was 407 000 tons (fresh weight), sweet potatoes, 247 000 tons and 12 000 tons for Irish potatoes were produced.

**Fruit trees**

About three out of four small holder farming households had at least one fruit tree on their holding. Mango trees were commonly found, and in total about 10.7 million mango trees were owned by small holder agriculture sector.

**Impact of HIV/AIDS on agriculture.**

In a majority of households, care for chronically ill persons took place both at home and in a clinic. In 80 percent of the households who gave care to sick persons at home only, or combined with care at a clinic, care was given by female household members. About one third of the households with chronically ill persons had to sell produce because of illness. A significant proportion of households got credit, or sold assets to care for the sick. Due to caring for the sick, one in five households had no time for land preparation and about one third had no time for weeding while one in five households did not harvest in time.

**Deaths in households and communities**

About 7 percent of the households had experienced at least one death within the household during the 2006/07 agricultural season, while more than three out of four households had experienced at least one death in their community..Of households which experienced one or more deaths in the community, more than three out of four households reported that farming activities had to be postponed due to deaths while one out of five households were not affected.

**Orphan care**

More than one out of every four farming households had orphans in the household. Female headed households had more orphans (35 percent) than male headed households (24 percentResults further indicate that 36 percent of households reported that orphans provided farm labour and half of the households reported that orphans provided help with household chores. One third of the households mentioned that they had to look for food instead of farming. One in five households said they had to look for school fees instead of farming and 40 percent of the households said they had to spend time to care for orphans who were sick.

**Livestock**

Almost 60 percent of households in Malawi owned or kept livestock or poultry. Furthermore 6 percent of owned at least one head of cattle, 24 percent owned at least one goat, two percent owned at least one sheep, 9 percent owned at least one pig, while almost half the households owned at least one chicken. There were no differences in the ownership of sheep and goats across the regions. However, households in the northern region were more likely to own cattle, pigs and chickens as compared to households in the Central and Southern regions. At the time of the census, there were 884,130 heads of cattlein the small holder sector, 2,623,000 goats, 76,600 sheep, 792,300 pigs and 7,558,000 chickens. There were 14,000 donkeys, 167,500 rabbits , 34,000 Guinea pigs, 429,200 ducks, 281,500 guinea fowls, 610,500 pigeons and doves and 61,000 turkeys.

**Village information**

At village level, most villages had a foot path or track passing through the village, while only about one in three had a gravel road passing through and even much fewer (8 percent) had a tarmac road passing through. Results also show that 72 percent of villages were located at a short distance of less than 5 kilometers to local and mobile markets. In more than half the villages, produce was brought to the selling point on head. In about one out of three villages, a bicycle was used to ferry produce to the market point.

The Census results further show that 82 percent of the villages had access to tap water, with better access in the Northern and Southern regions as compared to the Central region. About one out of three villages had some households moving away from the village during the past 12 months before the census. In villages where households had moved away, land scarcity was the most important reason, followed by looking for paid work. Results also show that 42 percent of the villages had received new households to the village during the past 12 months.

# Chapter 1: Introduction

## 1.1 About Malawi

Malawi is a landlocked country with 118,484 sq km and has an estimated population of 13.1 million (Population and Housing Census, 2008). The population is growing at 2.8 percent per annum and the population density is 139 persons per sq km. About 85 percent of the population live in rural areas and depend on agriculture for their livelihood (ibid).

## 1.2 Agricultural sub-sector

Malawiøs agricultural production is derived from two sub sectors; the estate sector, which operates on freehold and leasehold land, and the smallholder sector, which operates under the customary land tenure system. An estimated 85 percent of the Malawian population practice subsistence farming as agricultural small holder farmers and rely on agricultural output either directly or indirectly for their livelihood. Agricultural output generates over 90 percent of export earnings, and 33 percent of Gross Domestic Product (GDP), most of which is produced by smallholder farmers. The Government has placed high priority on the development of smallholder agricultural sector. In view of the importance of agriculture to the economy, increased agricultural production for both domestic consumption and export is the primary goal of the National Rural Development Programme (NRDP).

Malawiøs economic growth and development depends on the agricultural sector. In order to plan for agricultural development, comprehensive, reliable and up to date data on state of agriculture, ownership, use of agricultural land, volume and value of production are essential. Reliable data of food and agricultural production for marketing and own consumption are also required for poverty reduction, food security management and estimation of agricultural GDP. Data on various aspects of agriculture are also required for monitoring of agricultural development programmes. The last agricultural sample census was carried out in 1991/92. Given the large demographic, economic and social changes since 1991/92, it is therefore important to get up to date information.

## 1.3 Basic objectives

- To provide data for clarifying the social and economic factors affecting the countryøs agricultural structure by interrelating various characteristics of the holding;
- To provide aggregate totals for fundamental agricultural data from both smallholder and commercial sectors for use as the benchmark for inter-censual estimates;
- To provide basic data for the formulation and implementation of a comprehensive integrated system of food and agriculture;
- To analyse food security at the household level:
- To provide basic data regarding current use and changes in agriculture;
- To enable government to formulate plans to improve productivity especially of smallholder sector and
- To provide a frame for other agricultural sample surveys;

### 1.3.1 Modules

Module 1: Household Composition
Module 2: Land parcel
Module 3: Plot deatails
Module 4: Food security and HIV/AIDS
Module 5: Marketing
Module 6: Welfare Monitoring Survey
Module 7: Livestock Survey
Module 8: Village facility
Module 9: Estate Survey

## 1.4 Sample Design and Survey Organisation

A two stage sample design was used; where the first sampling units were the Enumeration Areas (EAs) and the second sampling units were farming households. Stratification was done at district level and at EA level. Each district was stratified by agro-ecological zones and each EA was stratified by land cultivated (small scale farmers and large scale farmers). This stratification was done to improve the precision of the estimates by reducing the variance between EA and within EA. The total sample size was 25 000 households nationwide. The sample size at EA level was 15 households.

The data provides reliable estimates at national, regional, Agricultural Development Divisions (ADD) and district level. The NACAL recruited about 600 enumerators, supervised by 60 district supervisors and 10 National supervisors.

A modular approach was employed for data collection. Data collection on food security took place during the months of January,June and September 2007, using Modules 1, 4 and. The questions asked were almost identical in the three rounds. Data collection for the information on HIV/AIDS took place during the months of June 2007, using information from Module 4: Food security and HIV/AIDS. Information on production and area under cultivation came from module 3, while livestock information came from module 7 and community level information was from module 8.Module 4 did not provide any background information at household level. This information was collected in Module 1, as well as in the Welfare Monitoring Survey and was added on to Module 4 data to analyze various household groups. Holding size was provided from Module 2 on parcels.

## 1.5 Main definitions and standards

### 1.5.1 Household:

This is made up of one person or a group of persons who normally live and eat together. They regularly take all their food from the same pot, or share the same grain store (nkhokwe) or pool their incomes together for purposes of purchasing food. They maybe related or unrelated, living in the same house or several dwelling units including all children at boarding schools.

### 1.5.2 Household Head:

This is the person who is responsible for making decisions for the household and his or her authority is acknowledged by other members of the household.

### 1.5.3 Parcel:

A parcel of land is a piece of land that has been allocated to any member of the household, whether used for farming or not. It includes grazing land, woodlot, orchard, and the land where the household has built its dwelling unit.

If one parcel of land has a path in the middle of three meters or more, this will be counted as 2 parcels. The land where the household has built its dwelling is always a separate parcel. Areas of parcels and plots were measured using GPS equipment.

### 1.5.4 Operator of a parcel of land

The operator is the one who makes all important decisions pertaining to the use of the parcel.

### 1.5.5 Holding:

Consists of all parcels belonging to a household

### 1.5.6 Holding size

Size of all of parcels belonging to a household

### 1.5.7 Plot

Part of a parcel that contains a different crop or crop mixture or is operated by a different person in the same household. It must be a continuous piece of land and should not be split by a path of more than one meter in width. Thus, a parcel can have one plot or several plots. Plot boundaries are defined according to the crops grown and the operator. Any part of a parcel that is under fallow will be considered as a plot.

### 1.5.8 Poverty quintiles

The poverty quintiles (both on household and individual level) are constructed using the model for predicting poverty used in WMS. The poverty quintiles are the same as the quintiles for estimated household consumption per capita. Using quintiles, the sample is divided into five equal parts, each comprising 20 percent of the sample according to estimated consumption. This means that the lowest quintile comprise 20 percent of the population with the least estimated household consumption per capita, in other words the 20 percent most poor. While the highest (5th) quintile, comprises the 20 percent with the highest estimated household consumption per capita, or the 20 percent least poor (or richest) in the sample.

# Chapter 2: Land ownership, Farming practices and Agriculture structure

## 2.1 Area under crop and Type of land, ownership and Land transfer

Table 2.1 shows that a total of 2.2 million hectares was under cultivation in the small holder agricultural sector in 2006/07 agricultural season.

About three quarters of land used by agricultural smallholder farmers is customary land. Customary land means all land which is held, occupied or used under customary law but does not include public land. Table 2.2 shows that around 80 percent of the parcels owned by small holder agricultural households were on customary land, while one in five parcels were freehold and only 2 percent were leasehold. Acrossregions, 83 percent of customary land was in the Northern region, while there were no differences in Central and Southern region (76 percent). Freehold land accounted for 20 percent in both Central and Southern regions, and 12 percent in the Northern region.

Table 2.3 shows that 42 percent of the parcels were inherited from the motherôs side while 23 percent were inherited from the fatherôs side. Female operators accounted for 47 percent of land inherited from the motherôs side, while male operators accounted for 38 percent. Results further show that male operators accounted for 27 percent of land inherited from the fatherôs side while female operators accounted for 17 percent.

At regional level, 52 percent of operators in the Southern region had inherited land from the motherôs side, 40 percent and 5 percent from the Central and Northern regions respectively. Results also show that 53 percent of operators in the northern region had inherited land from the fatherôs side, 26 percent in the Central region and 13 percent in the Southern region.

## 2.2 Number and Size of Holdings

There were a total of around 2.67 million holders in the small holder sector[1] Across regions, Southern region had 1.2 million holders, Central region had 1 million holders and northern region had 307,057 holders. Table 2.4 shows that the average holding size was 1ha. As much as three out of four holdings had an area less than 1 ha. Female headed households in general had smaller holdings than male headed households. About one out of three male headed households had holdings with less than 0.5 ha, as compared to almost half the female headed households. Results also show that average holding size for the northern region was 1.178 ha, while for the Central and Southern regions, 1.145 ha and 0.732 ha, respectively.

## 2.3 Parcel and Plot Size

Table 2.5 shows that average parcel size was 0.4 ha. About one out of three parcels had a size of less than 0.2 ha, 39 percent had a size of between 0.2 to 0.5 ha and 30 percent had a size of more than 0.5 ha. Table 2.6 shows that average plot size was 0.3 ha and 43 percent of plots were less than 0.2 ha, 41 percent were between 0.2 and 0.5ha, and 16 percent were more than 0.5 percent. Across regions, the average plot size were 0.298 ha and 0.276 for Central region and Southern region respectivelyand 0.237 ha for northern region..

## 2.4 Number of Parcels and Plots

Table 2.7 shows that there were 7.7 million parcels in small holder sector in Malawi, out of which 2.8 million were used for dwelling units. Results further indicate that of all parcels, a total of 4.9 million were from male headed households and 2.8 million were from female headed households.

[1] This excludes holders in the four cities who engaged in some form of farming away from the cities.

The table further shows that 1.7 million parcels for dwelling units were from male headed households and 1.1 million were from female headed households.

More holdings in Northern region had three or more parcels than those in Central and Southern region (Table 2.7). Results also shows that 48 percent of holdings consisted of only one parcel, one in three holdings had 2 parcels, while about 18 percent had 3 or more parcels.

Table 2.8 shows that there were 6.7 million plots in Malawi, out of which 4.4 million were operated by males and 2.3 million were operated on by females. There were more plots in Central region (2.95 million) compared to Northern region (2.81 million) and Southern region (1.17 million).

The table also shows that 77 percent of the parcels had one plot, while 23 percent of the parcels had more than two plots. Results further show that 86 percent of parcels in the Southern region had one plot, 70 percent in the Central region and 61 percent in the Northern region had one plot.

## 2.5 Change of land area

The parcel area had remained unchanged during the past 10 years in about 69 percent of the households. Table 2.9 shows that 13 percent of the households had their parcel area increased, while 18 percent had their parcel area decreased. The table also shows that 21 percent of parcels were reported to have decreased for female headed hoseholds against 17 percent of their male counterparts.The table further shows that, 15 percent of male headed households had their parcel area increased compared to 9 percent for female headed households. Poor households were more likely to have their parcel area decreased, while households with larger holding size were more likely to have their parcels area increased. In Northern region, 20 percent of households reported that their land area had increased in the last 10 years prior to the census, 13 percent in the Central region and 11 percent in the Southern region.

Table 2.10 shows that of those households whose parcel area had increased, about one out of five households reported that it was because of inheritance; about one in four said that it was because of allocation from the lineage and less than one out of five households had rented more land and around 6 percent had bought more land.

Table 2.11 shows that of those households whose parcel area had decreased, 32 percent mentioned that the land had been given to relatives, 25 percent transferred to heirs, 17 percent washed away by floods, 12 percent taken away or exploited and 10 percent encroached.

## 2.6 Fear of losing land

Table 2.12 shows that more than one out of five households feared that their land would be encroached upon or taken away from them. The tables shows that 25 percent of male headed households feared that their land would be taken away from them compared to 16 percent of the female headed households. The poorer the household, the larger the proportion that feared that their land would be taken away. The fear of encroachment and of losing land was mentioned more in the Central region (27 percent ) than both in the Northern (21 percent) and Southern region (16 percent). Selling and Renting out of Land.

The table further shows that one percent of the households sold some parcel of land during thepastten years. Results further shows that about seven percent of households had rented out one or more parcels of land during the 2005/06 agricultural season.

The proportion who had rented out land was higher,10 percent in Central region, than in both Northern and Southern regions (5 percent).

Table 2.13 shows that 41 percent of households rented out land because they needed money. This was mentioned more in female headed (50 percent) than male headed households (36 percentThe table further shows that Selling of land for need of money was more common in the Centralregion (51 percent ) than in the Northern and Southern region (26 percent and 21 percent respectively). Abundance of land was the main reason for renting out land in about one out of five households both in Malawi and among male headed households. This also accounted for 13 pecent female headed households.

### 2.7 Land disputes

Table 2.14 shows that 15 percent of the households had a dispute over land during the past ten years prior to the Census. Among those households 38 percent of the disputes were with non-relatives, 19 percent were with relatives from the husbandôs side, 14 percent were with relatives from the wifeôs side and 12 percent were disputes with the village headman .

### 2.8 Location of parcels and plots

The NACAL also collected information on distance from households to their parcels. Table 2.15 shows that 51 percent of the parcels were situated less than 1 km from the dwelling while 21 percent were situated between 1 and 2 km from the dwelling unit.

### 2.9 Topography and land improvement

Table 2.16 shows that 75 percent of the parcels were on plains and 14 percent were situated on mountain slopes. Table 2.17 shows that on 8 percent of the parcels, terraces were built and 1 percent irrigation canals, dams or wells were either constructed or dug.

### 2.10 Use of uncultivated land

Table 2.18 provides information on why all or part of land parcels were not used for cultivation during the 2006/07 agricultural season. The table shows that 20 percent of the households failed to cultivate their land due to lack of capital, 16 percent mentioned insufficient labour, and 8 percent did not cultivate land in order to preserve woodland.

### 2.11 Agricultural subsidy programme

In order to increase agricultural production, and to enable poor households acquire seeds and fertilizer, the Malawi Government embarked on a large scale subsidy programme for seeds and fertilizer. Table 2.19 shows that about 53 percent of agricultural households received coupons for fertilizer or seeds in the 2006/07 agricultural season. The table also shows that 54 percent of male headed households received subsidy coupons compared to 49 percent of female headed households.

The Results also show that more households in the Northern region (66 percent) had received coupons than households in the Central (51 percent) and Southern regions (51 percent). More than 90 percent reported that they had used the coupons to buy fertilizer, 4 percent of the households reported that they did not use the coupons and 1 percent gave the coupons away.

### 2.12 Access to credit

Table 2.20 shows that 3 percent of the small scale agricultural farming households had received credit. Table 2.21 shows that of those households which had received credit, 35 percent were from NGOs, 13 percent from Malawi Rural Finance Company (MRFC) and 12 percent from Malawi Rural Development Fund (MARDEF). Very few households had received credit from formal lending agencies like banks(one percent).

## 2.13 Purchase of fertilizer

The results show half of the small holder agricultural households acquired inorganic fertilizer while one out of five households obtained organic fertilizer (Table 2.22). The table further showsthat more male headed households (56 percent) had obtained inorganic fertilizer than female headed households (45 percent). The poorer the households, the less likely for it to obtain inorganic fertilizer. Households with the largest holdings obtained fertilizer more than those with smaller holdings especially so regarding inorganic fertilizer.

## 2.14 Purchase of Chemicals

Except for insecticides, use of other chemicals in the smallholder sector was almost nonexistent (Table 2.23). The table further shows that 9 percent of households bought insecticides while only one percent bought fungicides, herbicides and fumigants.

## 2.15 Purchase of Maize Seeds

Table 2.24 shows that 88 percent of households bought maize seeds in the 2006/07 agricultural season. Among these 71 percent bought hybrid maize seeds, 21 percentbought local maize seeds and 11 percent bought composite maize seeds.

Table 2.25 shows that 71 percent of maize plots with local maize were planted with seeds retained from the previous season and 14 percent of the plots were planted using seeds obtained locally.

The results in Table 2.26 shows that in 35 percent of the plots where composite maize was planted as first main crop, the seeds were retained from the previous season, 29 percent had planted with seeds obtained from a subsidy program and 14 percent with seeds bought locally.

The results further show that the largest proportion of plots with hybrid maize (30 percent) was planted with seeds from subsidy program 29 percen of the plots had seeds bought locally,15 percent of the plots were planted with seeds from Admarc (Table 2.27).

About 14 percent of hybrid maize plots were planted with seeds retained from the previous season. More male operated plots (31 percent) were planted with seeds from subsidy programs as compared to female operated plots ( 26 percent). The table also shows that more female operated plots (33 percent) were planted with seeds bought locally compared to male operated plots (27 percent).

## 2.16 Ownership of equipment

Almost every farming household in Malawi owns at least one hoe (Table 2.28). The table also shows that 55 percent of the households owned an axe, 54 percent owned a panga knives, 27 percent owned a sickle, 26 percent owned a watering can and 19 percent owned slashers. The general trend was that, except for hoes, , more male headed households owned equipment than female headed households and the poorer the household, the smaller the proportion who owned equipment. Furthermore, results show that the larger the holding size, the more likely the households owned various types of equipment.

## 2.17 Ownership of structures

Table 2.29 shows that about 22 percent of the households owned a granary, 18 percent owned either livestock kraal or chicken house. The table also shows that 9 percent of the households owned poultry kraal while 7 percent either owned a storage house, drying area or barn. Results also show that male headed households were likely to own the above mentioned structures than female headed households. Further, the larger the holding size, the larger the proportion which owned the above mentioned structures.

## 2.18 Hired and permanent labour

The results from the Census indicate that 17 percent of the households hired men to do land preparation and 8 percent hired women ( Table 2.30). The table further shows that 18 percent of the households hired men to do weeding while 12 percent hired females. Table 2.31 shows that 4 percent of the households used permanent male workers to do land preparation and weeding, while 3 percent of the households used permanent female workers for the same tasks.

## 2.19 Extension services

The results show that 18 percent of the households attended various extension services during the 2006/07 agricultural season, 12 percent attended village meetings, while 4 percent either attended extension course or were visited on the farm (Table 2.32).

Table 2.33 shows that about 38 percent of the households who had not attended extension services had not done so because no extension worker was available, while almost half the households said the service was available, but they had not been visited. The table also shows that about one in ten households reported that the service was available but they did not participate in any activities.

## 2.20 Cultivation of parcels and crop rotation

The results indicate that 14 percent of the parcels had been left fallow during the last three years (Table 2.34). The larger the parcel size, the more often the parcel had been left fallow. Northern region had a larger proportion of parcels left fallow than the other regions, 24 percent compared to 15 percent in the Central and 10 percent in the Southern region.

Table 2.35 shows that one out of five households had practiced crop rotation on the whole parcel, and 9 percent had practiced crop rotation on a part of the parcel. Crop rotation was more often practiced on male-operated parcels (22 percent) as compared to female operated parcels (15 percent). The table further show that the larger the parcel size, the more often crop rotation had been practiced. Furthermore,crop rotation was common in the Central region (36 percent) as compared to Northern region (17 percent) and Southern region (7 percent).Results also indicate that on parcels where crop rotation had been practiced half of the parcels had a irregular cropping pattern, while 46 percent had a systematic crop rotation.

## 2.21 Irrigation

The results show that irrigation was practised on 5 percent of the parcels . Among those parcels that were irrigated 62 percent used watering can, 14 percent used flooding, 11 percent gravity fed and 6 percent used treddle pumps (Table 2.36).

## 2.22 Ridging, planting and weeding of plots

Table 2.37 shows that 91 percent of the plots were ridged using a hoe, 2 percent was ridged used a mechanised device while 7 percent of the plots were not ridged .

The results further indicate that one in four plots were planted manually, while three out of four were planted using a hoe and one percent used mechanized planting (Table 2.38). Most plots (95 percent) were weeded using a hoe (Table 2.39).

### 2.23 Use of pesticides and fertilizer

Pesticides were applied on a very small proportion of plots, 2 percent (Table 2.40).Table 2.41 shows that half of the plots were fertilized using inorganic fertilizer, while 47 percent were not fertilized at all, and only one percent were fertilized using organic fertilizers. Results show that 60 percent of the plots where inorganic fertilizer was applied holders obtained it from the subsidy program while 47 percent used cash (Table 2.42).

### 2.24 Use of fertilizer on maize plots

Organic fertilizer was applied on 35 percent of the plots once, and on 5 percent of the plots it was applied twice, while on 60 percent of the maize plots no organic fertilizer was applied (Table 2.43).

Table 2.44 through 2.47 shows that inorganic fertilizer was applied on 94 percent of the maize plots at least once, and twice in 32 percent of the plots. In the case of local maize inorganic fertilizer was applied at least once on 91 percent of the plots, and twice on 28 percent of the plots. For hybrid maize, inorganic fertilizer was applied at least once on 96 percent of the plots and twice on 36 percent of the plots.

### 2.25 Weeding

Table 2.47 through Table 2.48 shows that almost all plots were weeded. 40 percent were weeded once, while about 60 percent were weeded twice.

### 2.26 Storage

Table 2.49 show that the most common storage facilities for local maize were granary (42 percent) and bags (39 percent).Table 2.50 shows that for hybrid maize, the most common storage facilities were bags (59 percent) and granary (27 percent).

### 2.27 Post harvest treatment

Post harvest treatment for all maize, local maize and hybrid maize is shown in Table 2.51 to Table 2.53. For hybrid maize, 55 percent of operators did not treat their maize, and for local maize it was 71 percent. The most common method for treatment was actelic super. However, operators were still using traditional treatments, such as ash, dust,sun or heat baked.

### 2.28 Staple food crops grown and cropping patterns

The results show that staple food crops were grown on about two out of three plots (Table 2.54). The main staple food crop grown was maize, and it was grown on 63 percent of the plots. Among maize varieties, local maize was grown on one out of three plots, while hybrid maize was grown on one out of five plots. The other staple food crops; rice, sorghum, millet and cassava, were grown only on a small proportion of plots, with cassava grown on 8 percent of the plots. Staple food crops were grown more on female operated than male operated plots; 77 percent as compared to 71 percent. The major difference between female operated and male operated plots were the proportion of plots where local maize was grown, 41 percent of female operated plots as compared to 31 percent of male operated plots.

Table 2.55 shows that 75 percent of maize plots were pure stand, while 24 percent were mixed stand, that isplanted together with another crop.. Maize plots with male operators (77 percent) were more often planted as pure stand as compared to female operated plots (72 percent). The majority of cassava plots were planted as pure stand 54 percent and 19 percent was planted as mixed stand, while one out of four plots were planted with scattered plants (Table 2.56).

### 2.29 Cropping pattern for beans and pulses

Beans and pulses were grown in 29 percent of the plots (Table 2.57). These were more often grown in female operated plots as compared to male operated plots, 33 percent as compared to 27 percent. The smaller the plot size, the more often beans and pulses were grown. The majority of ordinary beans plots were planted as mixed stand, 75 percent (Table 2.58).

The majority of soya beans plots were planted as pure stand (53 percent) but a substantial proportion (38 percent) was planted as mixed stand (Table 2.59). The smaller the plot size, the more often soya beans were planted as pure stand. In Northern region, more than 70 percent of soya beans plots were planted as pure stand, as compared to 51 percent in Central region and 36 percent in Southern region. Southern region had the largest proportion of plots where soya beans plots were planted as scattered plants.

Pigeon peas were most often planted either as mixed stand, 52 percent, or as scattered plants, 40 percent (Table 2.60).

### 2.30 Cropping pattern for Ground nuts

The majority of ground nut plots (65 percent) was planted as pure stand while one out of four plots were planted as mixed stand (Table 262). The table also shows that one out of ten ground nut plots had scattered plant.

### 2.31 Cropping pattern for Potatoes

Sweet potatoes were grown on about 5 percent of the plotswhile Irish potatoes were grown on less than one percent of plots. Both sweet potatoes and Irish potatoes were mainly planted as pure stand (Table 2.62 and Table 2.63).

### 2.32 Cropping pattern for Cash crops

Table 2.64 shows that tobacco was grown on 3percent of the plots and cotton on 2 percent of the plots. Tobacco was exclusively planted as pure stand (Table 2.65) while cotton was planted as pure stand on about 76 percent of the plots (Table 2.66). Results further show that 38 percent of sunflower plots were planted as pure stand (Table 2.67), 33 percent of sunflower was planted as scatters while 28 percent was mixed stand.

### 2.33 Threats to produce

The results show that 17 percent of the households had experienced theft of livestock during the past five years, 28 percent had experienced theft of produce from the field, while about five percent had experienced theft of produce from storage (Table 2.68). Households had used various protection methods to protect their produce during the 2006/07 agricultural season. The most common protection methods were to store harvested crop in the house, 32 percent; harvest early, 20 percent; and guarding the field, 18 percent (Table 2.69). Results also show that half the households (47 percent) had used no protection method at all (Table 2.69).

**Table 2.1: Total number of small holder households and total area under crop (in ha) small holder farmers, 2006/2007 Agricultural Season**

| | | Total number of holders | Total area under crop [ha] |
|---|---|---|---|
| | Malawi | 2,665,565 | 2,239,542 |
| Region of residence | Northern | 318,572 | 290,662 |
| | Central | 1,091,757 | 1,118,015 |
| | Southern | 1,255,236 | 830,865 |
| ADD | Karonga | 92,523 | 73,917 |
| | Mzuzu | 226,049 | 216,745 |
| | Kasungu | 383,538 | 427,253 |
| | Salima | 138,631 | 165,646 |
| | Lilongwe | 569,588 | 525,116 |
| | Machinga | 514,643 | 314,265 |
| | Blantyre | 595,332 | 416,700 |
| | Shire Valley | 145,261 | 99,901 |
| District | Chitipa | 38,124 | 38,010 |
| | Karonga | 54,399 | 35,907 |
| | Rumphi | 36,773 | 28,877 |
| | Nkhata Bay | 38,655 | 35,456 |
| | Likoma | 1,775 | 92 |
| | Mzimba | 142,260 | 149,917 |
| | Mzuzu City | 6,586 | 2,403 |
| | Kasungu | 127,131 | 159,676 |
| | Ntchisi | 44,623 | 55,488 |
| | Dowa | 118,936 | 120,559 |
| | Nkhota kota | 63,224 | 85,301 |
| | Salima | 75,407 | 80,345 |
| | Dedza | 144,141 | 118,570 |
| | Ntcheu | 111,685 | 69,326 |
| | Lilongwe Rural | 260,391 | 300,778 |
| | Lilongwe City | 53,371 | 91,530 |
| | Mchinji | 92,848 | 91,530 |
| | Balaka | 70,765 | 57,820 |
| | Mangochi | 182,827 | 111,691 |
| | Machinga | 112,049 | 43,609 |
| | Zomba Rural | 140,799 | 100,685 |
| | Zomba City | 8,204 | 3,919 |
| | Chiradzulu | 71,963 | 36,286 |
| | Blantyre Rural | 79,987 | 44,557 |
| | Blantyre City | 60,366 | 28,837 |
| | Thyolo | 141,159 | 51,015 |
| | Mulanje | 125,963 | 110,531 |
| | Phalombe | 75,764 | 114,159 |
| | Mwanza | 40,131 | 27,855 |
| | Chikwawa | 96,331 | 65,623 |
| | Nsanje | 48,930 | 34,278 |

**Table 2.2 Percentage distribution of parcels by type of land, according to background variables. 2006/2007 Agricultural Season**

| | | Customary land | Leasehold | Freehold | Public | Total |
|---|---|---|---|---|---|---|
| | Malawi | 77 | 2 | 19 | 1 | 100 |
| Sex | Male | 77 | 2 | 19 | 2 | 100 |
| | Female | 78 | 2 | 19 | 1 | 100 |
| Parcel size | <0.100 ha | 78 | 2 | 19 | 2 | 100 |
| | 0.100-0.199 ha | 77 | 2 | 20 | 1 | 100 |
| | 0.200-0.499 ha | 79 | 2 | 18 | 1 | 100 |
| | 0.500-0.999 ha | 76 | 3 | 20 | 1 | 100 |
| | 1.000 ha + | 71 | 4 | 25 | 1 | 100 |
| Region | Southern | 76 | 2 | 20 | 2 | 100 |
| | Central | 76 | 3 | 20 | 1 | 100 |
| | Northern | 83 | 2 | 12 | 2 | 100 |
| ADD | Karonga | 97 | 1 | 1 | 1 | 100 |
| | Mzuzu | 76 | 3 | 19 | 3 | 100 |
| | Kasungu | 76 | 5 | 18 | 1 | 100 |
| | Salima | 81 | 2 | 17 | 1 | 100 |
| | Lilongwe | 75 | 2 | 22 | 1 | 100 |
| | Machinga | 80 | 2 | 16 | 2 | 100 |
| | Blantyre | 70 | 2 | 26 | 2 | 100 |
| | Shire Valley | 88 | 1 | 10 | 2 | 100 |
| District | Chitipa | 97 | 0 | 1 | 2 | 100 |
| | Karonga | 98 | 1 | 0 | 1 | 100 |
| | Rumphi | 89 | 8 | 2 | 1 | 100 |
| | Nkhata Bay | 49 | 1 | 48 | 2 | 100 |
| | Likoma | 83 | 0 | 7 | 10 | 100 |
| | Mzimba | 81 | 2 | 14 | 4 | 100 |
| | Kasungu | 89 | 7 | 2 | 2 | 100 |
| | Ntchisi | 75 | 1 | 22 | 2 | 100 |
| | Dowa | 70 | 4 | 25 | 1 | 100 |
| | Nkhota kota | 66 | 2 | 32 | 0 | 100 |
| | Salima | 94 | 2 | 2 | 1 | 100 |
| | Dedza | 85 | 2 | 13 | 0 | 100 |
| | Ntcheu | 57 | 2 | 40 | 1 | 100 |
| | Lilongwe Rural | 76 | 2 | 22 | 1 | 100 |
| | Mchinji | 63 | 3 | 34 | 0 | 100 |
| | Balaka | 49 | 3 | 42 | 6 | 100 |
| | Mangochi | 99 | 0 | 1 | 0 | 100 |
| | Machinga | 87 | 1 | 11 | 0 | 100 |
| | Zomba Rural | 75 | 3 | 20 | 2 | 100 |
| | Chiradzulu | 38 | 1 | 60 | 1 | 100 |
| | Blantyre Rural | 72 | 1 | 25 | 2 | 100 |
| | Thyolo | 70 | 1 | 28 | 1 | 100 |
| | Mulanje | 71 | 4 | 24 | 1 | 100 |
| | Phalombe | 91 | 1 | 8 | 0 | 100 |
| | Mwanza | 69 | 1 | 28 | 2 | 100 |
| | Chikwawa | 83 | 0 | 14 | 2 | 100 |
| | Nsanje | 98 | 1 | 0 | 0 | 100 |

**Table 2.3: Percentage distribution of parcels by how the parcel was obtained, according to background variables. 2006/2007 Agricultural Season**

| | | From village headman | Inherited when wife or husband passed away | Inherited from mothers side | Inherited from fathers side | Borrowed from parents | Borrowed from other | Bought | Rented | Govt | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Malawi | 18 | 3 | 42 | 23 | 1 | 2 | 4 | 3 | 1 | 2 | 100 |
| Sex of operator | Male | 17 | 2 | 38 | 27 | 1 | 3 | 4 | 4 | 2 | 3 | 100 |
| | Female | 18 | 4 | 47 | 17 | 1 | 2 | 4 | 3 | 1 | 1 | 100 |
| Parcel size | <0.100 ha | 19 | 3 | 42 | 22 | 1 | 2 | 4 | 3 | 2 | 2 | 100 |
| | 0.100-0.199 ha | 17 | 3 | 44 | 21 | 1 | 2 | 4 | 4 | 2 | 3 | 100 |
| | 0.200-0.499 ha | 17 | 3 | 42 | 24 | 1 | 2 | 4 | 4 | 1 | 2 | 100 |
| | 0.500-0.999 ha | 19 | 3 | 38 | 28 | 1 | 3 | 3 | 3 | 1 | 2 | 100 |
| | 1.000 ha + | 18 | 2 | 34 | 32 | 1 | 3 | 4 | 2 | 1 | 2 | 100 |
| Region | Southern | 18 | 2 | 52 | 13 | 1 | 1 | 3 | 4 | 2 | 3 | 100 |
| | Central | 16 | 3 | 40 | 26 | 1 | 3 | 5 | 3 | 1 | 2 | 100 |
| | Northern | 22 | 6 | 5 | 53 | 1 | 2 | 4 | 2 | 2 | 3 | 100 |
| ADD | Karonga | 31 | 6 | 3 | 45 | 1 | 2 | 4 | 3 | 2 | 2 | 100 |
| | Mzuzu | 17 | 5 | 6 | 57 | 1 | 2 | 4 | 2 | 2 | 3 | 100 |
| | Kasungu | 19 | 1 | 24 | 41 | 1 | 3 | 5 | 2 | 1 | 2 | 100 |
| | Salima | 25 | 3 | 33 | 24 | 1 | 3 | 5 | 2 | 1 | 2 | 100 |
| | Lilongwe | 13 | 3 | 49 | 20 | 1 | 3 | 5 | 3 | 1 | 2 | 100 |
| | Machinga | 25 | 3 | 52 | 9 | 1 | 1 | 2 | 3 | 1 | 1 | 100 |
| | Blantyre | 11 | 2 | 59 | 12 | 1 | 1 | 4 | 4 | 3 | 4 | 100 |
| | Shire Valley | 26 | 2 | 20 | 35 | 1 | 3 | 6 | 7 | 0 | 1 | 100 |
| District | Chitipa | 21 | 8 | 5 | 53 | 1 | 2 | 2 | 5 | 2 | 1 | 100 |
| | Karonga | 38 | 5 | 2 | 38 | 2 | 2 | 6 | 2 | 2 | 3 | 100 |
| | Rumphi | 19 | 5 | 4 | 56 | 1 | 1 | 7 | 3 | 2 | 1 | 100 |
| | Nkhata Bay | 26 | 3 | 18 | 37 | 4 | 3 | 1 | 3 | 2 | 3 | 100 |
| | Likoma | 0 | 0 | 24 | 20 | 4 | 38 | 4 | 0 | 10 | 0 | 100 |
| | Mzimba | 14 | 6 | 3 | 66 | 1 | 1 | 2 | 1 | 1 | 4 | 100 |
| | Kasungu | 24 | 1 | 12 | 42 | 1 | 6 | 7 | 3 | 1 | 3 | 100 |
| | Ntchisi | 25 | 1 | 25 | 32 | 2 | 4 | 4 | 2 | 2 | 2 | 100 |
| | Dowa | 15 | 2 | 29 | 44 | 1 | 1 | 3 | 3 | 1 | 2 | 100 |
| | Nkhota kota | 30 | 3 | 25 | 30 | 2 | 2 | 3 | 3 | 0 | 2 | 100 |
| | Salima | 21 | 3 | 41 | 19 | 0 | 4 | 7 | 2 | 1 | 2 | 100 |
| | Dedza | 11 | 3 | 57 | 20 | 1 | 1 | 4 | 2 | 1 | 1 | 100 |
| | Ntcheu | 16 | 4 | 55 | 14 | 1 | 1 | 2 | 2 | 1 | 5 | 100 |
| | Lilongwe Rural | 12 | 4 | 49 | 23 | 1 | 2 | 4 | 3 | 0 | 1 | 100 |
| | Mchinji | 14 | 1 | 34 | 40 | 3 | 2 | 4 | 2 | 0 | 1 | 100 |
| | Balaka | 24 | 10 | 43 | 10 | 0 | 2 | 5 | 3 | 0 | 1 | 100 |
| | Mangochi | 25 | 1 | 52 | 13 | 1 | 1 | 2 | 3 | 1 | 1 | 100 |
| | Machinga | 32 | 3 | 51 | 8 | 0 | 1 | 2 | 1 | 1 | 1 | 100 |
| | Zomba Rural | 23 | 1 | 58 | 8 | 1 | 1 | 1 | 4 | 2 | 1 | 100 |
| | Chiradzulu | 11 | 2 | 56 | 8 | 1 | 1 | 2 | 2 | 1 | 18 | 100 |
| | Blantyre Rural | 18 | 2 | 54 | 16 | 2 | 1 | 2 | 3 | 2 | 1 | 100 |
| | Thyolo | 8 | 3 | 62 | 12 | 0 | 1 | 3 | 4 | 6 | 1 | 100 |
| | Mulanje | 4 | 1 | 80 | 10 | 0 | 0 | 1 | 2 | 1 | 1 | 100 |
| | Phalombe | 5 | 3 | 71 | 12 | 0 | 2 | 4 | 2 | 0 | 0 | 100 |
| | Mwanza | 24 | 1 | 54 | 12 | 1 | 2 | 2 | 3 | 1 | 0 | 100 |
| | Chikwawa | 26 | 2 | 20 | 34 | 1 | 2 | 6 | 7 | 0 | 1 | 100 |
| | Nsanje | 25 | 1 | 18 | 37 | 1 | 4 | 6 | 7 | 0 | 1 | 100 |

**Table 2.4: The mean holding size and percentage distribution of households by holding size, according to background variables. 2006/2007 Agricultural Season**

| | | | holding size | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Mean size of holding[Ha]** | **<0.100 ha** | **0.100-0.199 ha** | **0.200-0.499 ha** | **0.500-0.999 ha** | **1.000 - 1.999 ha** | **2.000 ha+** | **Total** |
| | **Malawi** | 0.964 | **5** | **7** | **26** | **34** | **19** | **8** | **100** |
| Sex of head of Household | Male | 1.031 | 5 | 7 | 24 | 34 | 21 | 9 | 100 |
| | Female | 0.803 | 6 | 9 | 32 | 34 | 15 | 5 | 100 |
| Region | Northern | 1.178 | 4 | 5 | 18 | 30 | 28 | 14 | 100 |
| | Central | 1.145 | 4 | 5 | 23 | 36 | 21 | 12 | 100 |
| | Southern | 0.732 | 6 | 9 | 30 | 36 | 15 | 4 | 100 |
| ADD | Karonga | 1.212 | 5 | 7 | 21 | 27 | 27 | 13 | 100 |
| | Mzuzu | 1.086 | 4 | 5 | 16 | 32 | 28 | 15 | 100 |
| | Kasungu | 1.523 | 2 | 3 | 15 | 30 | 29 | 21 | 100 |
| | Salima | 1.044 | 7 | 7 | 23 | 34 | 17 | 11 | 100 |
| | Lilongwe | 1.079 | 4 | 6 | 27 | 39 | 18 | 8 | 100 |
| | Machinga | 0.762 | 6 | 8 | 28 | 37 | 17 | 4 | 100 |
| | Blantyre | 0.706 | 6 | 11 | 32 | 35 | 13 | 3 | 100 |
| | Shire Valley | 0.787 | 6 | 8 | 27 | 34 | 19 | 6 | 100 |
| District | Chitipa | 1.608 | 2 | 3 | 14 | 25 | 36 | 19 | 100 |
| | Karonga | 0.815 | 7 | 10 | 26 | 29 | 21 | 8 | 100 |
| | Rumphi | 0.932 | 3 | 7 | 22 | 33 | 29 | 6 | 100 |
| | Nkhata Bay | 0.991 | 3 | 7 | 21 | 40 | 20 | 9 | 100 |
| | Likoma | 0.107 | 18 | 16 | 5 | 62 | 0 | 0 | 100 |
| | Mzimba | 1.328 | 4 | 3 | 13 | 27 | 32 | 20 | 100 |
| | Kasungu | 1.376 | 3 | 3 | 15 | 35 | 26 | 19 | 100 |
| | Ntchisi | 1.802 | 1 | 4 | 13 | 33 | 25 | 24 | 100 |
| | Dowa | 1.390 | 4 | 2 | 16 | 26 | 31 | 21 | 100 |
| | Nkhotakota | 0.930 | 8 | 9 | 24 | 32 | 16 | 9 | 100 |
| | Salima | 1.158 | 6 | 6 | 22 | 35 | 18 | 13 | 100 |
| | Dedza | 0.995 | 2 | 3 | 27 | 43 | 18 | 8 | 100 |
| | Ntcheu | 0.811 | 4 | 6 | 27 | 43 | 16 | 5 | 100 |
| | Lilongwe Rural | 1.008 | 2 | 8 | 25 | 37 | 19 | 10 | 100 |
| | Mchinji | 1.503 | 1 | 3 | 14 | 27 | 33 | 23 | 100 |
| | Balaka | 0.862 | 7 | 3 | 22 | 40 | 23 | 4 | 100 |
| | Mangochi | 0.681 | 3 | 8 | 29 | 40 | 18 | 2 | 100 |
| | Machinga | 0.915 | 3 | 6 | 30 | 39 | 14 | 7 | 100 |
| | Zomba Rural | 0.691 | 6 | 11 | 31 | 32 | 15 | 4 | 100 |
| | Chiradzulu | 0.650 | 4 | 9 | 38 | 34 | 12 | 2 | 100 |
| | Blantyre Rural | 0.606 | 6 | 10 | 38 | 33 | 10 | 3 | 100 |
| | Thyolo | 0.588 | 12 | 18 | 37 | 24 | 6 | 4 | 100 |
| | Mulanje | 0.728 | 4 | 6 | 26 | 43 | 19 | 1 | 100 |
| | Phalombe | 0.912 | 3 | 7 | 23 | 54 | 10 | 3 | 100 |
| | Mwanza | 0.754 | 7 | 10 | 30 | 33 | 15 | 6 | 100 |
| | Chikwawa | 0.767 | 6 | 9 | 27 | 34 | 18 | 6 | 100 |
| | Nsanje | 0.808 | 5 | 5 | 28 | 36 | 22 | 5 | 100 |

**Table 2.5: The mean parcel size and percentage distribution of parcels by parcel size, according to background variables. 2006/2007 Agricultural Season**

| | | | Distribution of parcels by parcel size | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Parcel Mean size [ha] | <0.100 ha | 0.100-0.199 ha | 0.200-0.499 ha | 0.500-0.999 ha | 1.000 ha + | Total |
| | **Malawi** | 0.409 | **15** | **18** | **39** | **19** | **10** | **100** |
| **Sex of operator** | Male | 0.427 | 13 | 18 | 39 | 20 | 11 | 100 |
| | Female | 0.375 | 17 | 18 | 39 | 17 | 9 | 100 |
| **Region** | Southern | 0.373 | 18 | 21 | 40 | 16 | 5 | 100 |
| | Central | 0.558 | 9 | 15 | 39 | 22 | 16 | 100 |
| | Northern | 0.315 | 19 | 17 | 33 | 19 | 10 | 100 |
| **ADD** | Karonga | 0.357 | 22 | 24 | 33 | 13 | 8 | 100 |
| | Mzuzu | 0.383 | 17 | 14 | 34 | 23 | 12 | 100 |
| | Kasungu | 0.672 | 8 | 11 | 29 | 27 | 25 | 100 |
| | Salima | 0.445 | 16 | 18 | 39 | 16 | 11 | 100 |
| | Lilongwe | 0.514 | 8 | 16 | 43 | 20 | 12 | 100 |
| | Machinga | 0.298 | 14 | 19 | 43 | 19 | 5 | 100 |
| | Blantyre | 0.334 | 21 | 22 | 37 | 14 | 6 | 100 |
| | Shire Valley | 0.297 | 14 | 18 | 41 | 20 | 7 | 100 |
| **District** | Chitipa | 0.500 | 22 | 19 | 27 | 15 | 16 | 100 |
| | Karonga | 0.223 | 23 | 27 | 37 | 11 | 2 | 100 |
| | Rumphi | 0.313 | 21 | 17 | 34 | 18 | 9 | 100 |
| | Nkhata Bay | 0.292 | 23 | 22 | 35 | 14 | 6 | 100 |
| | Likoma | 0.044 | 94 | 2 | 5 | 0 | 0 | 100 |
| | Mzimba | 0.458 | 14 | 10 | 33 | 28 | 15 | 100 |
| | Kasungu | 0.757 | 7 | 13 | 26 | 27 | 26 | 100 |
| | Ntchisi | 0.840 | 5 | 10 | 29 | 22 | 34 | 100 |
| | Dowa | 0.527 | 10 | 10 | 33 | 28 | 19 | 100 |
| | Nkhota kota | 0.425 | 24 | 22 | 35 | 10 | 9 | 100 |
| | Salima | 0.466 | 9 | 15 | 43 | 21 | 12 | 100 |
| | Dedza | 0.507 | 6 | 16 | 45 | 21 | 11 | 100 |
| | Ntcheu | 0.305 | 10 | 19 | 41 | 24 | 6 | 100 |
| | Lilongwe Rural | 0.658 | 8 | 16 | 42 | 18 | 16 | 100 |
| | Mchinji | 0.593 | 4 | 9 | 29 | 27 | 31 | 100 |
| | Balaka | 0.304 | 14 | 14 | 41 | 26 | 5 | 100 |
| | Mangochi | 0.324 | 8 | 16 | 46 | 24 | 6 | 100 |
| | Machinga | 0.361 | 8 | 20 | 47 | 17 | 8 | 100 |
| | Zomba Rural | 0.271 | 20 | 22 | 41 | 14 | 3 | 100 |
| | Chiradzulu | 0.210 | 23 | 26 | 39 | 11 | 1 | 100 |
| | Blantyre Rural | 0.230 | 19 | 18 | 43 | 16 | 3 | 100 |
| | Thyolo | 0.238 | 28 | 25 | 30 | 11 | 5 | 100 |
| | Mulanje | 0.249 | 17 | 22 | 40 | 20 | 2 | 100 |
| | Phalombe | 0.879 | 19 | 23 | 35 | 9 | 13 | 100 |
| | Mwanza | 0.302 | 14 | 19 | 40 | 17 | 10 | 100 |
| | Chikwawa | 0.310 | 14 | 17 | 40 | 20 | 8 | 100 |
| | Nsanje | 0.283 | 15 | 19 | 41 | 21 | 4 | 100 |

Table 2.6: The mean plot size and percentage distribution of plots by plot size, according to background variables. 2006/2007 Agricultural Season.

| | | | Distribution of plots by plot size | | | | |
|---|---|---|---|---|---|---|---|
| | | Plot Mean Size [ha] | **Less than 0.1 ha** | **0.100-0.199 ha** | **0.200-0.499 ha** | **0.500-0.999 ha** | **1.000 ha+** |
| | **Malawi** | 0.277 | 21 | 22 | 41 | 13 | 3 |
| **Sex of operator** | Male | 0.284 | 20 | 21 | 41 | 14 | 3 |
| | Female | 0.265 | 24 | 22 | 39 | 12 | 3 |
| **Region** | Northern | 0.237 | 32 | 25 | 31 | 10 | 2 |
| | Central | 0.298 | 16 | 20 | 44 | 15 | 4 |
| | Southern | 0.276 | 21 | 21 | 41 | 13 | 3 |
| **ADD** | Karonga | 0.196 | 38 | 28 | 29 | 5 | 1 |
| | Mzuzu | 0.257 | 30 | 23 | 32 | 12 | 2 |
| | Kasungu | 0.314 | 15 | 18 | 42 | 19 | 5 |
| | Salima | 0.267 | 24 | 18 | 41 | 12 | 5 |
| | Lilongwe | 0.291 | 16 | 22 | 46 | 14 | 3 |
| | Machinga | 0.309 | 16 | 20 | 46 | 16 | 3 |
| | Blantyre | 0.244 | 26 | 23 | 37 | 11 | 3 |
| | Shire Valley | 0.295 | 16 | 21 | 44 | 15 | 4 |
| **District** | Chitipa | 0.197 | 42 | 25 | 26 | 6 | 1 |
| | Karonga | 0.195 | 32 | 31 | 32 | 4 | 1 |
| | Rumphi | 0.224 | 38 | 21 | 31 | 8 | 3 |
| | Nkhata Bay | 0.199 | 39 | 27 | 25 | 8 | 1 |
| | Likoma | 0.058 | 98 | 0 | 2 | 0 | 0 |
| | Mzimba | 0.281 | 24 | 23 | 35 | 15 | 3 |
| | Kasungu | 0.311 | 15 | 20 | 42 | 19 | 5 |
| | Ntchisi | 0.281 | 19 | 21 | 40 | 14 | 6 |
| | Dowa | 0.315 | 16 | 16 | 43 | 19 | 6 |
| | Nkhotakota | 0.227 | 38 | 18 | 32 | 8 | 4 |
| | Salima | 0.306 | 8 | 18 | 51 | 17 | 6 |
| | Dedza | 0.289 | 15 | 24 | 44 | 15 | 3 |
| | Ntcheu | 0.282 | 20 | 23 | 40 | 14 | 3 |
| | Lilongwe rural | 0.290 | 16 | 22 | 46 | 13 | 4 |
| | Mchinji | 0.340 | 13 | 16 | 44 | 23 | 5 |
| | Balaka | .. | 17 | 17 | 43 | 21 | 2 |
| | Mangochi | .. | 10 | 17 | 47 | 21 | 4 |
| | Machinga | 0.339 | 8 | 20 | 48 | 21 | 3 |
| | Zomba rural | 0.264 | 21 | 23 | 44 | 11 | 2 |
| | Chiradzulu | .. | 31 | 26 | 35 | 7 | 1 |
| | Blantyre rural | 0.268 | 26 | 19 | 40 | 13 | 3 |
| | Thyolo | 0.214 | 34 | 25 | 32 | 8 | 1 |
| | Mulanje | .. | 19 | 23 | 40 | 16 | 2 |
| | Phalombe | 0.239 | 24 | 24 | 41 | 9 | 2 |
| | Mwanza | 0.267 | 25 | 21 | 39 | 12 | 3 |
| | Chikwawa | 0.285 | 17 | 19 | 45 | 14 | 5 |
| | Nsanje | .. | 14 | 24 | 42 | 17 | 3 |

**Table 2.7: Total number of parcels and percentage distribution of households by number of parcel per holding, according to background variables. 2006/2007 Agricultural Season**

| | | | | Number of parcels per holding | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Number of parcels** | **Parcels for dwelling units only** | **1** | **2** | **3** | **4+** | **Total** |
| | **Malawi** | 7,686,111 | 2,759,443 | **48** | **33** | **12** | **6** | **100** |
| Sex of household head | Male | 4,921,533 | 1,740,787 | 45 | 34 | 14 | 7 | 100 |
| | Female | 2,764,578 | 1,018,655 | 55 | 32 | 10 | 4 | 100 |
| Holding size | <0.100 ha | 265,570 | 152,542 | 74 | 20 | 5 | 1 | 100 |
| | 0.100-0.199 ha | 477,982 | 214,124 | 71 | 24 | 4 | 1 | 100 |
| | 0.200-0.499 ha | 1,936,243 | 789,512 | 61 | 30 | 7 | 2 | 100 |
| | 0.500-0.999 ha | 2,601,626 | 930,333 | 42 | 41 | 13 | 5 | 100 |
| | 1.000 -1.999 ha | 1,900,266 | 813,661 | 28 | 39 | 22 | 11 | 100 |
| | 2.000 ha+ | 851,634 | .. | 35 | 32 | 17 | 16 | 100 |
| Region | Northern | 3,769,057 | 1,399,469 | 33 | 32 | 19 | 16 | 100 |
| | Central | 3,215,605 | 1,191,981 | 53 | 32 | 11 | 5 | 100 |
| | Southern | 1,051,685 | 309,963 | 49 | 34 | 12 | 5 | 100 |
| ADD | Karonga | 373,836 | 104,262 | 27 | 30 | 18 | 25 | 100 |
| | Mzuzu | 677,849 | 205,701 | 36 | 34 | 20 | 11 | 100 |
| | Kasungu | 866,653 | 322,692 | 57 | 28 | 11 | 4 | 100 |
| | Salima | 367,592 | 129,373 | 41 | 38 | 15 | 7 | 100 |
| | Lilongwe | 1,981,360 | 739,917 | 54 | 32 | 10 | 5 | 100 |
| | Machinga | 1,395,140 | 530,666 | 51 | 32 | 12 | 5 | 100 |
| | Blantyre | 1,958,226 | 721,420 | 47 | 37 | 12 | 5 | 100 |
| | Shire Valley | 415,691 | 147,383 | 50 | 28 | 15 | 7 | 100 |
| District | Chitipa | 156,752 | 43,458 | 23 | 37 | 19 | 21 | 100 |
| | Karonga | 217,084 | 60,804 | 30 | 25 | 18 | 28 | 100 |
| | Rumphi | 142,511 | 45,385 | 29 | 39 | 23 | 9 | 100 |
| | Nkhata Bay | 123,604 | 36,974 | 27 | 37 | 22 | 14 | 100 |
| | Likoma | 1,757 | 722 | 73 | 27 | 0 | 0 | 100 |
| | Mzimba | 396,333 | 116,164 | 39 | 31 | 19 | 11 | 100 |
| | Kasungu | 314,277 | 121,309 | 58 | 28 | 11 | 4 | 100 |
| | Ntchisi | 84,325 | 33,809 | 58 | 31 | 7 | 3 | 100 |
| | Dowa | 293,394 | 105,504 | 53 | 25 | 15 | 7 | 100 |
| | Nkhota kota | 178,037 | 60,682 | 30 | 43 | 21 | 6 | 100 |
| | Salima | 189,555 | 68,691 | 50 | 33 | 10 | 7 | 100 |
| | Dedza | 493,006 | 180,354 | 53 | 33 | 10 | 5 | 100 |
| | Ntcheu | 276,437 | 107,095 | 54 | 37 | 8 | 2 | 100 |
| | Lilongwe Rural | 1,029,049 | 370,509 | 49 | 34 | 11 | 6 | 100 |
| | Mchinji | 174,658 | 62,069 | 60 | 33 | 6 | 1 | 100 |
| | Balaka | 201,998 | 72,484 | 45 | 37 | 13 | 5 | 100 |
| | Mangochi | 377,963 | 159,101 | 68 | 26 | 5 | 1 | 100 |
| | Machinga | 256,938 | 101,192 | 58 | 27 | 12 | 3 | 100 |
| | Zomba Rural | 542,322 | 186,602 | 33 | 40 | 17 | 10 | 100 |
| | Chiradzulu | 215,555 | 69,909 | 33 | 39 | 19 | 10 | 100 |
| | Blantyre Rural | 550,400 | 209,186 | 46 | 41 | 10 | 3 | 100 |
| | Thyolo | 322,982 | 129,929 | 58 | 31 | 8 | 2 | 100 |
| | Mulanje | 377,139 | 140,916 | 47 | 33 | 15 | 4 | 100 |
| | Phalombe | 182,971 | 56,344 | 29 | 39 | 18 | 14 | 100 |
| | Mwanza | 95,166 | 36,953 | 49 | 38 | 10 | 3 | 100 |
| | Chikwawa | 282,137 | 102,800 | 56 | 25 | 12 | 7 | 100 |
| | Nsanje | 133,554 | 44,583 | 38 | 35 | 20 | 7 | 100 |

**Table 2.8: Total number of plots and percentage distribution of parcels by number of plots in the parcel, according to background variables. 2006/2007 Agricultural Season**

| | | | Number of plots in the parcel | | | |
|---|---|---|---|---|---|---|
| | | **Total number of plots** | **1** | **2** | **3+** | **Total** |
| | **Malawi** | 6,693,025 | **77** | **15** | **8** | **100** |
| **Sex of operator** | Male | 4,419,540 | 76 | 15 | 10 | 100 |
| | Female | 2,273,485 | 79 | 15 | 6 | 100 |
| **Parcel size** | <0.100 ha | 262,163 | 91 | 7 | 1 | 100 |
| | 0.100-0.199 ha | 284,636 | 87 | 10 | 3 | 100 |
| | 0.200-0.499 ha | 1,148,892 | 80 | 15 | 5 | 100 |
| | 0.500-0.999 ha | 1,549,227 | 64 | 23 | 14 | 100 |
| | 1.000 ha + | 2,079,229 | 45 | 21 | 34 | 100 |
| **Region** | Southern | 1,174,036 | 86 | 11 | 3 | 100 |
| | Central | 2,954,287 | 70 | 18 | 12 | 100 |
| | Northern | 2,819,627 | 61 | 21 | 18 | 100 |
| **ADD** | Karonga | 401,179 | 64 | 20 | 17 | 100 |
| | Mzuzu | 772,856 | 59 | 22 | 18 | 100 |
| | Kasungu | 947,967 | 53 | 25 | 22 | 100 |
| | Salima | 319,635 | 80 | 11 | 8 | 100 |
| | Lilongwe | 1,686,685 | 76 | 16 | 8 | 100 |
| | Machinga | 1,004,958 | 84 | 13 | 3 | 100 |
| | Blantyre | 1,502,430 | 89 | 9 | 2 | 100 |
| | Shire Valley | 312,239 | 82 | 14 | 4 | 100 |
| **District** | Chitipa | 226,116 | 51 | 19 | 30 | 100 |
| | Karonga | 175,064 | 73 | 20 | 8 | 100 |
| | Rumphi | 151,292 | 58 | 26 | 16 | 100 |
| | Nkhata Bay | 141,948 | 76 | 10 | 14 | 100 |
| | Likoma | 3,563 | 65 | 33 | 2 | 100 |
| | Mzimba | 465,965 | 54 | 25 | 21 | 100 |
| | Kasungu | 370,209 | 54 | 25 | 21 | 100 |
| | Ntchisi | 121,920 | 41 | 27 | 32 | 100 |
| | Dowa | 269,828 | 59 | 23 | 18 | 100 |
| | Nkhota kota | 168,662 | 78 | 10 | 11 | 100 |
| | Salima | 150,973 | 82 | 12 | 6 | 100 |
| | Dedza | 433,763 | 72 | 18 | 10 | 100 |
| | Ntcheu | 224,193 | 75 | 15 | 9 | 100 |
| | Lilongwe Rural | 904,686 | 74 | 18 | 8 | 100 |
| | Mchinji | 186,010 | 48 | 26 | 26 | 100 |
| | Balaka | 170,835 | 87 | 11 | 2 | 100 |
| | Mangochi | 256,128 | 87 | 10 | 3 | 100 |
| | Machinga | 104,465 | 87 | 10 | 3 | 100 |
| | Zomba Rural | 452,952 | 80 | 16 | 5 | 100 |
| | Chiradzulu | 165,994 | 85 | 11 | 3 | 100 |
| | Blantyre Rural | 431,923 | 89 | 9 | 2 | 100 |
| | Thyolo | 231,190 | 86 | 10 | 4 | 100 |
| | Mulanje | 274,593 | 94 | 5 | 1 | 100 |
| | Phalombe | 189,677 | 87 | 11 | 1 | 100 |
| | Mwanza | 88,701 | 71 | 20 | 9 | 100 |
| | Chikwawa | 205,802 | 78 | 17 | 5 | 100 |
| | Nsanje | 106,437 | 90 | 8 | 2 | 100 |

**Table 2.9: Percentage distribution of households by how the total area of parcels had changed compared to 10 years ago, according to background variables. 2006/2007 Agricultural Season**

| | | Increased | Decreased | Remained the same | Total |
|---|---|---|---|---|---|
| | **Malawi** | **13** | **18** | **69** | **100** |
| Sex of head of Household | Male | 15 | 17 | 69 | 100 |
| | Female | 9 | 21 | 70 | 100 |
| Poverty quintile | Poorest quintile | 12 | 20 | 69 | 100 |
| | Second quintile | 14 | 20 | 66 | 100 |
| | 3rd quintile | 14 | 19 | 67 | 100 |
| | Fourth quintile | 13 | 17 | 70 | 100 |
| | Highest quintile | 15 | 17 | 68 | 100 |
| Holding size | <0.100 ha | 11 | 14 | 75 | 100 |
| | 0.100-0.199 ha | 8 | 16 | 77 | 100 |
| | 0.200-0.499 ha | 10 | 19 | 71 | 100 |
| | 0.500-0.999 ha | 14 | 19 | 67 | 100 |
| | 1.000 -1.999 ha | 16 | 17 | 68 | 100 |
| | 2.000 ha+ | 19 | 19 | 62 | 100 |
| Region | Northern | 20 | 15 | 66 | 100 |
| | Central | 13 | 20 | 67 | 100 |
| | Southern | 11 | 17 | 71 | 100 |
| ADD | Karonga | 21 | 17 | 62 | 100 |
| | Mzuzu | 19 | 14 | 67 | 100 |
| | Kasungu | 13 | 21 | 66 | 100 |
| | Salima | 11 | 16 | 73 | 100 |
| | Lilongwe | 14 | 20 | 66 | 100 |
| | Machinga | 14 | 14 | 72 | 100 |
| | Blantyre | 10 | 16 | 74 | 100 |
| | Shire Valley | 9 | 32 | 59 | 100 |
| District | Chitipa | 22 | 19 | 60 | 100 |
| | Karonga | 20 | 16 | 63 | 100 |
| | Rumphi | 15 | 22 | 62 | 100 |
| | Nkhata Bay | 15 | 15 | 70 | 100 |
| | Mzimba | 23 | 10 | 67 | 100 |
| | Kasungu | 8 | 20 | 72 | 100 |
| | Ntchisi | 18 | 17 | 64 | 100 |
| | Dowa | 13 | 23 | 64 | 100 |
| | Nkhota kota | 8 | 20 | 73 | 100 |
| | Salima | 14 | 12 | 74 | 100 |
| | Dedza | 15 | 17 | 68 | 100 |
| | Ntcheu | 13 | 16 | 71 | 100 |
| | Lilongwe Rural | 12 | 21 | 67 | 100 |
| | Mchinji | 19 | 19 | 62 | 100 |
| | Balaka | 12 | 22 | 66 | 100 |
| | Mangochi | 17 | 12 | 71 | 100 |
| | Machinga | 11 | 13 | 76 | 100 |
| | Zomba Rural | 13 | 14 | 73 | 100 |
| | Chiradzulu | 13 | 17 | 70 | 100 |
| | Blantyre Rural | 10 | 17 | 73 | 100 |
| | Thyolo | 10 | 20 | 70 | 100 |
| | Mulanje | 5 | 10 | 86 | 100 |
| | Phalombe | 12 | 16 | 72 | 100 |
| | Mwanza | 27 | 16 | 57 | 100 |
| | Chikwawa | 9 | 32 | 59 | 100 |
| | Nsanje | 9 | 32 | 59 | 100 |

**Table 2.10: Proportion of households whose parcel area had increased compared to 10 years ago by reason for the increase, according to background variables. 2006/2007 Agricultural Season**

| | | Inherited | Allocation from lineage | Allocation by Village head | Bought more land | Rented more land | Gift from relatives | Other |
|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **21** | **24** | **8** | **6** | **20** | **18** | **12** |
| Sex of head of | Male | 22 | 24 | 8 | 6 | 21 | 18 | 11 |
| | Female | 19 | 25 | 8 | 6 | 13 | 17 | 18 |
| | Poorest quintile | 24 | 31 | 10 | 3 | 9 | 20 | 14 |
| Poverty quintile | Second quintile | 27 | 23 | 14 | 3 | 14 | 18 | 12 |
| | 3rd quintile | 20 | 26 | 8 | 7 | 18 | 18 | 12 |
| | Fourth quintile | 20 | 23 | 5 | 8 | 26 | 17 | 11 |
| | Highest quintile | 20 | 17 | 5 | 10 | 27 | 17 | 10 |
| | <0.100 ha | 20 | 23 | 12 | 8 | 18 | 13 | 17 |
| Holding size | 0.100-0.199 ha | 22 | 21 | 7 | 5 | 14 | 18 | 15 |
| | 0.200-0.499 ha | 19 | 27 | 7 | 6 | 20 | 18 | 12 |
| | 0.500-0.999 ha | 19 | 25 | 7 | 6 | 20 | 20 | 13 |
| | 1.000 -1.999 ha | 22 | 24 | 9 | 6 | 19 | 18 | 12 |
| | 2.000 ha+ | 32 | 19 | 10 | 9 | 21 | 13 | 8 |
| Region | Northern | 35 | 19 | 16 | 6 | 13 | 16 | 9 |
| | Central | 21 | 28 | 4 | 7 | 23 | 15 | 11 |
| | Southern | 16 | 22 | 9 | 5 | 18 | 21 | 15 |
| ADD | Karonga | 16 | 25 | 11 | 12 | 23 | 20 | 6 |
| | Mzuzu | 44 | 17 | 18 | 2 | 9 | 14 | 10 |
| | Kasungu | 22 | 35 | 5 | 11 | 15 | 15 | 12 |
| | Salima | 16 | 23 | 3 | 4 | 38 | 14 | 3 |
| | Lilongwe | 22 | 25 | 3 | 6 | 25 | 15 | 12 |
| | Machinga | 19 | 20 | 14 | 2 | 14 | 25 | 13 |
| | Blantyre | 16 | 24 | 5 | 9 | 23 | 16 | 14 |
| | Shire Valley | 7 | 24 | 10 | 5 | 20 | 27 | 23 |
| District | Chitipa | 24 | 19 | 8 | 6 | 13 | 30 | 11 |
| | Karonga | 11 | 30 | 13 | 16 | 30 | 12 | 2 |
| | Rumphi | 26 | 25 | 39 | 0 | 14 | 17 | 9 |
| | Nkhata Bay | 34 | 28 | 20 | 6 | 2 | 21 | 9 |
| | Mzimba | 51 | 12 | 13 | 1 | 9 | 12 | 10 |
| | Kasungu | 25 | 18 | 11 | 5 | 21 | 26 | 9 |
| | Ntchisi | 23 | 21 | 2 | 8 | 15 | 9 | 31 |
| | Dowa | 19 | 57 | 6 | 17 | 12 | 11 | 4 |
| | Nkhota kota | 11 | 9 | 3 | 2 | 32 | 37 | 8 |
| | Salima | 18 | 29 | 4 | 5 | 41 | 4 | 2 |
| | Dedza | 32 | 26 | 3 | 6 | 18 | 14 | 13 |
| | Ntcheu | 44 | 28 | 1 | 5 | 20 | 12 | 5 |
| | Lilongwe Rural | 17 | 12 | 3 | 10 | 39 | 11 | 16 |
| | Mchinji | 24 | 36 | 3 | 9 | 14 | 17 | 9 |
| | Balaka | 4 | 30 | 13 | 3 | 20 | 21 | 18 |
| | Mangochi | 10 | 24 | 17 | 2 | 6 | 37 | 13 |
| | Machinga | 31 | 9 | 20 | 1 | 13 | 13 | 17 |
| | Zomba Rural | 28 | 17 | 8 | 1 | 20 | 20 | 11 |
| | Chiradzulu | 9 | 27 | 2 | 4 | 30 | 18 | 19 |
| | Blantyre Rural | 16 | 26 | 9 | 14 | 20 | 10 | 8 |
| | Thyolo | 8 | 41 | 2 | 7 | 13 | 11 | 28 |
| | Mulanje | 16 | 6 | 1 | 8 | 33 | 31 | 9 |
| | Phalombe | 8 | 16 | 2 | 8 | 36 | 24 | 17 |
| | Mwanza | 46 | 23 | 8 | 2 | 6 | 22 | 1 |
| | Chikwawa | 5 | 20 | 6 | 5 | 22 | 34 | 21 |
| | Nsanje | 11 | 32 | 20 | 3 | 15 | 11 | 26 |

**Table 2.11: Proportion of households whose parcel area had decreased compared to 10 years ago, by reason for the decrease, according to background variables. 2006/2007 Agricultural Season**

| | | Transferred to heirs | Sold | Stopped renting | Encroachment | Gift to relatives | Taken away exploited | Taken away Govt | Washed away by flood | Other |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **25** | **2** | **4** | **10** | **32** | **12** | **1** | **17** | **9** |
| Sex of head of Household | Male | 22 | 3 | 5 | 11 | 30 | 14 | 2 | 19 | 10 |
| | Female | 32 | 2 | 2 | 8 | 37 | 9 | 1 | 15 | 7 |
| Poverty quintile | Poorest quintile | 27 | 1 | 3 | 10 | 31 | 11 | 1 | 20 | 9 |
| | Second quintile | 23 | 4 | 2 | 10 | 32 | 14 | 3 | 17 | 8 |
| | 3rd quintile | 25 | 0 | 3 | 7 | 39 | 12 | 1 | 13 | 9 |
| | Fourth quintile | 27 | 4 | 5 | 9 | 32 | 13 | 0 | 17 | 7 |
| | Highest quintile | 22 | 4 | 9 | 14 | 24 | 14 | 1 | 15 | 12 |
| Holding size | <0.100 ha | 24 | 3 | 4 | 18 | 21 | 12 | 1 | 23 | 12 |
| | 0.100-0.199 ha | 24 | 2 | 4 | 8 | 29 | 7 | 0 | 23 | 10 |
| | 0.200-0.499 ha | 24 | 3 | 5 | 9 | 29 | 13 | 1 | 18 | 12 |
| | 0.500-0.999 ha | 25 | 1 | 4 | 9 | 33 | 14 | 1 | 17 | 8 |
| | 1.000 -1.999 ha | 24 | 4 | 3 | 11 | 36 | 9 | 4 | 17 | 7 |
| | 2.000 ha+ | 32 | 2 | 1 | 12 | 36 | 10 | 0 | 11 | 8 |
| Region | Northern | 23 | 1 | 4 | 16 | 27 | 8 | 2 | 20 | 13 |
| | Central | 26 | 4 | 5 | 9 | 37 | 14 | 1 | 8 | 8 |
| | Southern | 25 | 2 | 3 | 9 | 28 | 11 | 2 | 25 | 9 |
| ADD | Karonga | 22 | 2 | 6 | 14 | 30 | 10 | 1 | 15 | 10 |
| | Mzuzu | 23 | 1 | 3 | 17 | 25 | 7 | 2 | 23 | 15 |
| | Kasungu | 26 | 2 | 5 | 11 | 30 | 18 | 0 | 13 | 12 |
| | Salima | 19 | 1 | 2 | 16 | 32 | 8 | 0 | 28 | 5 |
| | Lilongwe | 26 | 5 | 6 | 8 | 42 | 13 | 1 | 4 | 6 |
| | Machinga | 20 | 2 | 4 | 11 | 31 | 6 | 1 | 20 | 13 |
| | Blantyre | 32 | 2 | 2 | 9 | 31 | 16 | 3 | 14 | 7 |
| | Shire Valley | 13 | 0 | 3 | 8 | 17 | 6 | 1 | 62 | 11 |
| District | Chitipa | 13 | 3 | 7 | 13 | 48 | 13 | 1 | 7 | 7 |
| | Karonga | 30 | 1 | 5 | 15 | 15 | 7 | 1 | 21 | 12 |
| | Rumphi | 23 | 0 | 8 | 16 | 23 | 8 | 0 | 34 | 6 |
| | Nkhata Bay | 27 | 2 | 2 | 16 | 18 | 11 | 0 | 25 | 18 |
| | Likoma | 11 | 0 | 0 | 30 | 0 | 4 | 7 | 45 | 4 |
| | Mzimba | 22 | 0 | 1 | 17 | 29 | 5 | 5 | 13 | 20 |
| | Kasungu | 26 | 6 | 7 | 13 | 29 | 8 | 1 | 18 | 7 |
| | Ntchisi | 40 | 0 | 4 | 7 | 27 | 19 | 0 | 7 | 13 |
| | Dowa | 29 | 0 | 1 | 13 | 26 | 23 | 0 | 14 | 4 |
| | Nkhota kota | 13 | 0 | 4 | 20 | 43 | 9 | 0 | 16 | 3 |
| | Salima | 27 | 2 | 0 | 11 | 18 | 8 | 0 | 44 | 9 |
| | Dedza | 34 | 0 | 4 | 8 | 41 | 5 | 3 | 4 | 5 |
| | Ntcheu | 33 | 2 | 3 | 4 | 47 | 7 | 0 | 6 | 4 |
| | Lilongwe Rural | 25 | 8 | 5 | 9 | 48 | 5 | 0 | 2 | 6 |
| | Mchinji | 15 | 0 | 7 | 6 | 38 | 24 | 0 | 4 | 29 |
| | Balaka | 13 | 2 | 0 | 8 | 43 | 6 | 2 | 30 | 8 |
| | Mangochi | 13 | 4 | 11 | 4 | 25 | 3 | 1 | 30 | 14 |
| | Machinga | 23 | 1 | 1 | 11 | 21 | 11 | 0 | 20 | 18 |
| | Zomba Rural | 30 | 0 | 3 | 17 | 33 | 5 | 0 | 6 | 15 |
| | Chiradzulu | 33 | 1 | 5 | 9 | 42 | 6 | 1 | 8 | 4 |
| | Blantyre Rural | 39 | 2 | 3 | 2 | 35 | 30 | 3 | 7 | 1 |
| | Thyolo | 34 | 1 | 1 | 2 | 23 | 16 | 0 | 19 | 11 |
| | Mulanje | 30 | 1 | 0 | 5 | 35 | 7 | 2 | 26 | 12 |
| | Phalombe | 39 | 0 | 2 | 8 | 27 | 5 | 0 | 26 | 4 |
| | Mwanza | 31 | 3 | 2 | 6 | 33 | 21 | 0 | 12 | 5 |
| | Chikwawa | 12 | 0 | 3 | 7 | 21 | 7 | 0 | 61 | 11 |
| | Nsanje | 15 | 0 | 3 | 10 | 7 | 3 | 1 | 65 | 10 |

**Table 2.12: Proportion of households who sold out or who had rented out one or more parcel of land in the 2006/07agricultural season and who feared that their own land will be encroached upon or taken away, according to background variables. 2006/2007 Agricultural Season**

| | | Sold out land | Rented out land | Fear land will be Encroached upon | Fear land will be Taken away |
|---|---|---|---|---|---|
| | Malawi | **1** | 7 | **21** | **23** |
| Sex of head | Male | 1 | 7 | 22 | 25 |
| | Female | 1 | 8 | 18 | 16 |
| Poverty quintile | Poorest quintile | 2 | 6 | 17 | 18 |
| | Second quintile | 1 | 7 | 22 | 24 |
| | 3rd quintile | 0 | 6 | 21 | 23 |
| | Fourth quintile | 1 | 11 | 25 | 26 |
| | Highest quintile | 1 | 6 | 21 | 22 |
| Holding size | <0.100 ha | 4 | 6 | 19 | 20 |
| | 0.100-0.199 ha | 2 | 8 | 23 | 25 |
| | 0.200-0.499 ha | 1 | 8 | 21 | 24 |
| | 0.500-0.999 ha | 1 | 6 | 19 | 22 |
| | 1.000 -1.999 ha | 1 | 8 | 23 | 22 |
| | 2.000 ha+ | 1 | 8 | 24 | 22 |
| Region | Northern | 1 | 5 | 21 | 17 |
| | Central | 2 | 10 | 27 | 28 |
| | Southern | 1 | 5 | 16 | 19 |
| ADD | Karonga | 1 | 5 | 14 | 13 |
| | Mzuzu | 1 | 5 | 24 | 19 |
| | Kasungu | 1 | 9 | 27 | 27 |
| | Salima | 0 | 5 | 20 | 21 |
| | Lilongwe | 2 | 12 | 28 | 30 |
| | Machinga | 0 | 5 | 15 | 20 |
| | Blantyre | 1 | 4 | 15 | 18 |
| | Shire Valley | 1 | 8 | 23 | 21 |
| District | Chitipa | 1 | 3 | 13 | 12 |
| | Karonga | 1 | 6 | 16 | 13 |
| | Rumphi | 0 | 8 | 25 | 25 |
| | Nkhata Bay | 1 | 3 | 17 | 17 |
| | Likoma | 12 | 2 | 17 | 31 |
| | Mzimba | 0 | 5 | 26 | 17 |
| | Kasungu | 1 | 9 | 25 | 31 |
| | Ntchisi | 0 | 7 | 28 | 28 |
| | Dowa | 1 | 9 | 27 | 21 |
| | Nkhota kota | 0 | 5 | 28 | 27 |
| | Salima | 1 | 6 | 13 | 15 |
| | Dedza | 1 | 7 | 25 | 26 |
| | Ntcheu | 0 | 8 | 15 | 21 |
| | Lilongwe Rural | 3 | 17 | 31 | 32 |
| | Mchinji | 0 | 9 | 32 | 30 |
| | Balaka | 1 | 7 | 22 | 26 |
| | Mangochi | 0 | 3 | 15 | 19 |
| | Machinga | 0 | 2 | 13 | 15 |
| | Zomba Rural | 0 | 8 | 13 | 22 |
| | Chiradzulu | 0 | 5 | 15 | 23 |
| | Blantyre Rural | 0 | 4 | 15 | 18 |
| | Thyolo | 1 | 3 | 17 | 22 |
| | Mulanje | 0 | 2 | 7 | 10 |
| | Phalombe | 0 | 7 | 12 | 24 |
| | Mwanza | 0 | 5 | 21 | 21 |
| | Chikwawa | 1 | 7 | 21 | 19 |
| | Nsanje | 1 | 10 | 27 | 25 |

**Table 2.13: Percentage distribution of households who had rented out one or more parcel of land in the 2006/07agricultural season, by main reason for renting out, according to background variables. 2006/2007 Agricultural Season**

| | | Went away from village | Married away | Have enough land | Needed Money | Was sick | Looking after sick | Not enough labour | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Malawi | 2 | 0 | 18 | 41 | 13 | 3 | 15 | 7 | 100 |
| Sex of head of | Male | 3 | 0 | 20 | 36 | 13 | 3 | 16 | 8 | 100 |
| Household | Female | 1 | 0 | 13 | 50 | 11 | 4 | 14 | 6 | 100 |
| | Poorest quintile | 2 | 0 | 15 | 42 | 17 | 4 | 12 | 7 | 100 |
| Poverty quintile | Second quintile | 4 | 1 | 12 | 45 | 13 | 8 | 7 | 9 | 100 |
| | 3rd quintile | 0 | 0 | 19 | 38 | 15 | 3 | 16 | 8 | 100 |
| | Fourth quintile | 2 | 0 | 15 | 46 | 8 | 1 | 24 | 4 | 100 |
| | Highest quintile | 2 | 0 | 18 | 37 | 19 | 3 | 15 | 6 | 100 |
| Holding size | <0.100 ha | 5 | 3 | 22 | 37 | 13 | 2 | 16 | 2 | 100 |
| | 0.100-0.199 ha | 1 | 0 | 9 | 22 | 14 | 2 | 46 | 6 | 100 |
| | 0.200-0.499 ha | 1 | 0 | 20 | 51 | 8 | 3 | 11 | 6 | 100 |
| | 0.500-0.999 ha | 4 | 0 | 16 | 38 | 15 | 5 | 12 | 8 | 100 |
| | 1.000 -1.999 ha | 2 | 0 | 21 | 39 | 16 | 2 | 14 | 7 | 100 |
| | 2.000 ha+ | 3 | 0 | 17 | 38 | 11 | 5 | 16 | 11 | 100 |
| Region | Northern | 1 | 0 | 40 | 21 | 3 | 2 | 23 | 10 | 100 |
| | Central | 3 | 0 | 13 | 51 | 12 | 3 | 13 | 6 | 100 |
| | Southern | 2 | 1 | 23 | 26 | 16 | 4 | 18 | 9 | 100 |
| ADD | Karonga | 2 | 1 | 28 | 18 | 5 | 6 | 35 | 5 | 100 |
| | Mzuzu | 1 | 0 | 45 | 22 | 2 | 0 | 17 | 12 | 100 |
| | Kasungu | 2 | 0 | 17 | 48 | 18 | 2 | 7 | 7 | 100 |
| | Salima | 0 | 0 | 12 | 25 | 6 | 0 | 40 | 18 | 100 |
| | Lilongwe | 3 | 0 | 11 | 54 | 10 | 4 | 13 | 5 | 100 |
| | Machinga | 2 | 3 | 33 | 25 | 7 | 2 | 18 | 10 | 100 |
| | Blantyre | 3 | 0 | 16 | 25 | 24 | 6 | 17 | 9 | 100 |
| | Shire Valley | 2 | 0 | 26 | 31 | 9 | 1 | 25 | 7 | 100 |
| District | Chitipa | 5 | 3 | 55 | 8 | 11 | 0 | 14 | 5 | 100 |
| | Karonga | 0 | 0 | 14 | 23 | 3 | 9 | 46 | 5 | 100 |
| | Rumphi | 3 | 0 | 26 | 36 | 2 | 0 | 30 | 4 | 100 |
| | Nkhata Bay | 0 | 0 | 61 | 5 | 10 | 0 | 0 | 23 | 100 |
| | Likoma | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 100 |
| | Mzimba | 0 | 0 | 54 | 16 | 0 | 0 | 15 | 14 | 100 |
| | Kasungu | 5 | 0 | 22 | 57 | 2 | 0 | 7 | 7 | 100 |
| | Ntchisi | 0 | 0 | 13 | 36 | 16 | 4 | 12 | 19 | 100 |
| | Dowa | 1 | 0 | 12 | 40 | 36 | 3 | 3 | 6 | 100 |
| | Nkhota kota | 0 | 0 | 22 | 12 | 1 | 0 | 34 | 31 | 100 |
| | Salima | 0 | 0 | 3 | 34 | 10 | 0 | 44 | 8 | 100 |
| | Dedza | 0 | 0 | 10 | 61 | 7 | 2 | 18 | 3 | 100 |
| | Ntcheu | 2 | 1 | 25 | 47 | 3 | 1 | 12 | 9 | 100 |
| | Lilongwe Rural | 4 | 0 | 9 | 53 | 12 | 5 | 13 | 4 | 100 |
| | Mchinji | 1 | 0 | 20 | 56 | 6 | 2 | 13 | 2 | 100 |
| | Balaka | 1 | 4 | 20 | 23 | 9 | 2 | 24 | 16 | 100 |
| | Mangochi | 1 | 0 | 59 | 14 | 3 | 0 | 20 | 3 | 100 |
| | Machinga | 6 | 0 | 44 | 36 | 0 | 0 | 0 | 14 | 100 |
| | Zomba Rural | 2 | 3 | 27 | 29 | 9 | 2 | 17 | 10 | 100 |
| | Chiradzulu | 4 | 0 | 7 | 46 | 8 | 11 | 15 | 9 | 100 |
| | Blantyre Rural | 3 | 0 | 21 | 15 | 32 | 2 | 18 | 9 | 100 |
| | Thyolo | 2 | 0 | 19 | 9 | 32 | 0 | 21 | 16 | 100 |
| | Mulanje | 0 | 0 | 13 | 39 | 4 | 32 | 8 | 4 | 100 |
| | Phalombe | 0 | 0 | 7 | 49 | 10 | 8 | 18 | 9 | 100 |
| | Mwanza | 1 | 0 | 24 | 22 | 47 | 1 | 1 | 2 | 100 |
| | Chikwawa | 2 | 0 | 22 | 32 | 11 | 1 | 26 | 5 | 100 |
| | Nsanje | 1 | 0 | 31 | 29 | 4 | 1 | 25 | 9 | 100 |

**Table 2.14: Proportion of households who had any dispute with anyone over land in the past 10 years, and by whom they had the dispute, according to background variables. 2006/2007 Agricultural Season**

| | | | Persons with whom they had dispute | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Proportion with dispute | Relative from husband side | Relative from wife side | Other relative | Non relative | Village headman | Politicians | Other |
| | **Malawi** | **15** | **19** | **14** | **18** | **38** | **12** | **1** | **2** |
| Sex of head of Household | Male | 15 | 20 | 15 | 18 | 38 | 10 | 1 | 2 |
| | Female | 13 | 17 | 12 | 20 | 37 | 15 | 1 | 1 |
| Poverty quintile | Poorest quintile | 15 | 18 | 15 | 18 | 40 | 11 | 0 | 2 |
| | Second quintile | 15 | 19 | 17 | 21 | 35 | 8 | 2 | 2 |
| | 3rd quintile | 16 | 17 | 16 | 17 | 36 | 18 | 0 | 1 |
| | Fourth quintile | 14 | 24 | 13 | 14 | 38 | 12 | 0 | 2 |
| | Highest quintile | 13 | 16 | 10 | 23 | 37 | 11 | 0 | 6 |
| Holding size | <0.100 ha | 12 | 21 | 14 | 16 | 40 | 8 | 0 | 6 |
| | 0.100-0.199 ha | 12 | 17 | 12 | 20 | 49 | 2 | 1 | 2 |
| | 0.200-0.499 ha | 11 | 15 | 17 | 17 | 42 | 10 | 1 | 2 |
| | 0.500-0.999 ha | 15 | 18 | 16 | 16 | 36 | 14 | 1 | 3 |
| | 1.000 -1.999 ha | 17 | 22 | 12 | 23 | 34 | 10 | 0 | 2 |
| | 2.000 ha+ | 21 | 23 | 12 | 21 | 33 | 14 | 0 | 1 |
| Region | Northern | 19 | 28 | 5 | 22 | 35 | 11 | 0 | 2 |
| | Central | 16 | 20 | 15 | 21 | 31 | 14 | 0 | 2 |
| | Southern | 13 | 14 | 17 | 15 | 45 | 9 | 1 | 3 |
| ADD | Karonga | 15 | 23 | 4 | 10 | 48 | 16 | 1 | 2 |
| | Mzuzu | 20 | 30 | 6 | 26 | 31 | 10 | 0 | 2 |
| | Kasungu | 19 | 26 | 12 | 22 | 30 | 12 | 0 | 3 |
| | Salima | 15 | 9 | 13 | 17 | 39 | 24 | 0 | 1 |
| | Lilongwe | 14 | 19 | 17 | 21 | 29 | 13 | 1 | 1 |
| | Machinga | 12 | 11 | 13 | 14 | 48 | 13 | 1 | 3 |
| | Blantyre | 12 | 14 | 21 | 15 | 43 | 8 | 1 | 2 |
| | Shire Valley | 17 | 23 | 11 | 16 | 47 | 6 | 0 | 2 |
| District | Chitipa | 12 | 30 | 5 | 8 | 35 | 21 | 1 | 6 |
| | Karonga | 18 | 19 | 3 | 11 | 54 | 13 | 1 | 1 |
| | Rumphi | 27 | 37 | 15 | 16 | 29 | 6 | 0 | 0 |
| | Nkhata Bay | 15 | 14 | 9 | 31 | 42 | 11 | 1 | 1 |
| | Likoma | 12 | 36 | 0 | 26 | 37 | 13 | 0 | 0 |
| | Mzimba | 21 | 31 | 1 | 30 | 28 | 11 | 0 | 2 |
| | Kasungu | 16 | 34 | 3 | 15 | 38 | 12 | 0 | 3 |
| | Ntchisi | 27 | 24 | 19 | 24 | 25 | 13 | 0 | 1 |
| | Dowa | 19 | 24 | 12 | 21 | 27 | 16 | 1 | 3 |
| | Nkhota kota | 17 | 10 | 9 | 21 | 52 | 13 | 0 | 0 |
| | Salima | 13 | 8 | 17 | 13 | 26 | 35 | 0 | 2 |
| | Dedza | 15 | 11 | 19 | 31 | 33 | 6 | 1 | 0 |
| | Ntcheu | 15 | 14 | 20 | 19 | 45 | 4 | 1 | 0 |
| | Lilongwe Rural | 16 | 21 | 17 | 19 | 25 | 18 | 0 | 2 |
| | Mchinji | 19 | 20 | 19 | 30 | 27 | 6 | 0 | 6 |
| | Balaka | 23 | 7 | 14 | 14 | 58 | 9 | 1 | 1 |
| | Mangochi | 8 | 9 | 18 | 14 | 48 | 2 | 0 | 9 |
| | Machinga | 15 | 16 | 8 | 14 | 41 | 22 | 0 | 1 |
| | Zomba Rural | 10 | 12 | 11 | 14 | 42 | 18 | 1 | 2 |
| | Chiradzulu | 13 | 7 | 35 | 24 | 30 | 2 | 0 | 2 |
| | Blantyre Rural | 13 | 15 | 21 | 10 | 45 | 13 | 2 | 1 |
| | Thyolo | 17 | 18 | 24 | 19 | 37 | 2 | 0 | 5 |
| | Mulanje | 8 | 22 | 26 | 12 | 27 | 14 | 3 | 0 |
| | Phalombe | 9 | 23 | 21 | 18 | 26 | 14 | 0 | 0 |
| | Mwanza | 14 | 8 | 26 | 23 | 40 | 9 | 1 | 2 |
| | Chikwawa | 16 | 24 | 11 | 15 | 48 | 4 | 0 | 3 |
| | Nsanje | 19 | 21 | 9 | 19 | 45 | 9 | 0 | 0 |

**Table 2.15: Percentage distribution of parcels by distance to dwelling unit according to background variables. 2006/2007 Agricultural Season**

| | | Less than 1 km | 1 km – less than 2km | 2 km – less than 3km | 3 km – less than 4km | 4km+ | Total |
|---|---|---|---|---|---|---|---|
| | **Malawi** | **51** | **21** | **9** | **5** | **13** | **100** |
| Sex of operator | Male | 51 | 21 | 9 | 6 | 13 | 100 |
| | Female | 52 | 22 | 9 | 5 | 12 | 100 |
| Parcel size | <0.100 ha | 66 | 16 | 7 | 3 | 8 | 100 |
| | 0.100-0.199 ha | 57 | 20 | 9 | 5 | 9 | 100 |
| | 0.200-0.499 ha | 48 | 24 | 10 | 6 | 13 | 100 |
| | 0.500-0.999 ha | 48 | 24 | 11 | 6 | 11 | 100 |
| | 1.000 ha + | 47 | 23 | 11 | 5 | 14 | 100 |
| Region | Southern | 54 | 19 | 8 | 6 | 14 | 100 |
| | Central | 44 | 25 | 11 | 6 | 14 | 100 |
| | Northern | 62 | 20 | 7 | 4 | 7 | 100 |
| ADD | Karonga | 61 | 22 | 9 | 4 | 4 | 100 |
| | Mzuzu | 62 | 19 | 5 | 4 | 9 | 100 |
| | Kasungu | 59 | 23 | 10 | 4 | 5 | 100 |
| | Salima | 42 | 18 | 8 | 6 | 26 | 100 |
| | Lilongwe | 37 | 28 | 12 | 6 | 16 | 100 |
| | Machinga | 52 | 19 | 8 | 6 | 14 | 100 |
| | Blantyre | 62 | 17 | 7 | 4 | 12 | 100 |
| | Shire Valley | 25 | 25 | 18 | 11 | 22 | 100 |
| District | Chitipa | 67 | 17 | 7 | 3 | 5 | 100 |
| | Karonga | 57 | 26 | 11 | 4 | 3 | 100 |
| | Rumphi | 77 | 10 | 3 | 1 | 9 | 100 |
| | Nkhata Bay | 47 | 26 | 6 | 5 | 16 | 100 |
| | Likoma | 95 | 0 | 0 | 0 | 5 | 100 |
| | Mzimba | 62 | 21 | 6 | 5 | 6 | 100 |
| | Kasungu | 84 | 9 | 2 | 1 | 2 | 100 |
| | Ntchisi | 54 | 23 | 15 | 4 | 4 | 100 |
| | Dowa | 42 | 36 | 13 | 5 | 5 | 100 |
| | Nkhota kota | 50 | 18 | 9 | 5 | 18 | 100 |
| | Salima | 35 | 18 | 7 | 6 | 34 | 100 |
| | Dedza | 27 | 31 | 13 | 9 | 20 | 100 |
| | Ntcheu | 29 | 28 | 20 | 8 | 15 | 100 |
| | Lilongwe Rural | 50 | 31 | 10 | 4 | 6 | 100 |
| | Mchinji | 45 | 23 | 14 | 8 | 10 | 100 |
| | Balaka | 57 | 19 | 7 | 5 | 12 | 100 |
| | Mangochi | 33 | 27 | 13 | 13 | 15 | 100 |
| | Machinga | 50 | 19 | 11 | 5 | 15 | 100 |
| | Zomba Rural | 64 | 16 | 6 | 4 | 11 | 100 |
| | Chiradzulu | 63 | 19 | 6 | 3 | 10 | 100 |
| | Blantyre Rural | 66 | 17 | 7 | 4 | 5 | 100 |
| | Thyolo | 64 | 16 | 6 | 3 | 11 | 100 |
| | Mulanje | 72 | 12 | 6 | 2 | 8 | 100 |
| | Phalombe | 50 | 23 | 10 | 6 | 11 | 100 |
| | Mwanza | 40 | 15 | 11 | 7 | 27 | 100 |
| | Chikwawa | 25 | 26 | 17 | 11 | 21 | 100 |
| | Nsanje | 24 | 23 | 19 | 11 | 23 | 100 |

**Table 2.16: Percentage distribution of parcels by topography of the parcel, according to background characteristics. 2006/2007 Agricultural Season**

| | | Mountain slope | Dregs [rough] | Plain | Plateau | Other | Total |
|---|---|---|---|---|---|---|---|
| Sex of operator | Malawi | 14 | 9 | 75 | 1 | 2 | 100 |
| | Male | 14 | 9 | 75 | 1 | 2 | 100 |
| | Female | 14 | 9 | 74 | 1 | 2 | 100 |
| Parcel size | <0.100 ha | 15 | 9 | 73 | 1 | 2 | 100 |
| | 0.100-0.199 ha | 14 | 9 | 73 | 1 | 2 | 100 |
| | 0.200-0.499 ha | 13 | 8 | 76 | 1 | 2 | 100 |
| | 0.500-0.999 ha | 13 | 9 | 74 | 1 | 2 | 100 |
| | 1.000 ha + | 13 | 7 | 76 | 1 | 2 | 100 |
| Region | Southern | 14 | 11 | 72 | 1 | 2 | 100 |
| | Central | 11 | 6 | 81 | 1 | 1 | 100 |
| | Northern | 24 | 8 | 62 | 3 | 3 | 100 |
| ADD | Karonga | 21 | 7 | 66 | 3 | 3 | 100 |
| | Mzuzu | 26 | 8 | 60 | 2 | 4 | 100 |
| | Kasungu | 14 | 8 | 76 | 1 | 1 | 100 |
| | Salima | 6 | 6 | 87 | 1 | 1 | 100 |
| | Lilongwe | 11 | 5 | 82 | 0 | 1 | 100 |
| | Machinga | 6 | 7 | 85 | 1 | 1 | 100 |
| | Blantyre | 19 | 15 | 62 | 1 | 3 | 100 |
| | Shire Valley | 14 | 8 | 76 | 1 | 1 | 100 |
| District | Chitipa | 42 | 2 | 52 | 4 | 0 | 100 |
| | Karonga | 6 | 10 | 76 | 3 | 5 | 100 |
| | Rumphi | 39 | 9 | 51 | 1 | 0 | 100 |
| | Nkhata Bay | 33 | 10 | 48 | 2 | 8 | 100 |
| | Likoma | 11 | 30 | 59 | 0 | 0 | 100 |
| | Mzimba | 20 | 7 | 67 | 3 | 3 | 100 |
| | Kasungu | 6 | 5 | 88 | 0 | 1 | 100 |
| | Ntchisi | 27 | 12 | 60 | 0 | 1 | 100 |
| | Dowa | 25 | 11 | 58 | 4 | 2 | 100 |
| | Nkhota kota | 8 | 9 | 81 | 1 | 2 | 100 |
| | Salima | 5 | 3 | 92 | 0 | 0 | 100 |
| | Dedza | 13 | 4 | 81 | 0 | 1 | 100 |
| | Ntcheu | 25 | 10 | 63 | 2 | 0 | 100 |
| | Lilongwe Rural | 7 | 5 | 87 | 0 | 1 | 100 |
| | Mchinji | 4 | 5 | 90 | 0 | 0 | 100 |
| | Balaka | 3 | 5 | 91 | 1 | 1 | 100 |
| | Mangochi | 7 | 6 | 86 | 1 | 0 | 100 |
| | Machinga | 5 | 11 | 82 | 0 | 1 | 100 |
| | Zomba Rural | 7 | 6 | 85 | 0 | 2 | 100 |
| | Zomba Municipality | 10 | 11 | 77 | 1 | 0 | 100 |
| | Chiradzulu | 11 | 10 | 77 | 0 | 2 | 100 |
| | Blantyre Rural | 20 | 13 | 63 | 1 | 4 | 100 |
| | Thyolo | 22 | 29 | 41 | 4 | 4 | 100 |
| | Mulanje | 10 | 10 | 77 | 0 | 2 | 100 |
| | Phalombe | 7 | 2 | 90 | 0 | 1 | 100 |
| | Mwanza | 24 | 26 | 46 | 4 | 1 | 100 |
| | Chikwawa | 14 | 7 | 78 | 0 | 1 | 100 |
| | Nsanje | 13 | 9 | 74 | 3 | 1 | 100 |

**Table 2.17: Proportion of parcels where terraces have been built, irrigation canals or well or dam been dug, according to background variables. 2006/2007 Agricultural Season**

| | | Built terraces | Dug irrigation canals | Dug well/dam |
|---|---|---|---|---|
| | Malawi | 8 | 1 | 1 |
| | Male | 9 | 2 | 2 |
| Sex of operator | Female | 7 | 1 | 1 |
| Parcel size | <0.100 ha | 5 | 1 | 1 |
| | 0.100-0.199 ha | 6 | 1 | 2 |
| | 0.200-0.499 ha | 6 | 1 | 1 |
| | 0.500-0.999 ha | 10 | 1 | 2 |
| | 1.000 ha + | 13 | 1 | 2 |
| Region | Southern | 7 | 1 | 1 |
| | Central | 10 | 2 | 2 |
| | Northern | 4 | 1 | 1 |
| ADD | Karonga | 3 | 2 | 0 |
| | Mzuzu | 5 | 1 | 1 |
| | Kasungu | 21 | 3 | 3 |
| | Salima | 6 | 1 | 1 |
| | Lilongwe | 5 | 2 | 2 |
| | Machinga | 6 | 1 | 1 |
| | Blantyre | 8 | 1 | 1 |
| | Shire Valley | 6 | 1 | 0 |
| District | Chitipa | 6 | 1 | 1 |
| | Karonga | 1 | 2 | 0 |
| | Rumphi | 2 | 0 | 1 |
| | Nkhata Bay | 1 | 2 | 1 |
| | Likoma | 18 | 0 | 0 |
| | Mzimba | 7 | 0 | 1 |
| | Kasungu | 20 | 1 | 4 |
| | Ntchisi | 19 | 0 | 2 |
| | Dowa | 21 | 8 | 3 |
| | Nkhota kota | 11 | 1 | 2 |
| | Salima | 1 | 0 | 1 |
| | Dedza | 13 | 4 | 2 |
| | Ntcheu | 10 | 2 | 1 |
| | Lilongwe Rural | 2 | 1 | 3 |
| | Mchinji | 24 | 2 | 2 |
| | Balaka | 20 | 0 | 2 |
| | Mangochi | 1 | 0 | 2 |
| | Machinga | 7 | 3 | 0 |
| | Zomba Rural | 3 | 1 | 1 |
| | Chiradzulu | 6 | 3 | 0 |
| | Blantyre Rural | 6 | 0 | 1 |
| | Thyolo | 22 | 0 | 1 |
| | Mulanje | 5 | 0 | 1 |
| | Phalombe | 8 | 2 | 2 |
| | Mwanza | 3 | 1 | 1 |
| | Chikwawa | 5 | 1 | 0 |
| | Nsanje | 7 | 2 | 0 |

**Table 2.18: Percentage distribution of parcels not used for dwelling unit and not used completely for cultivation in the 2006/07 agricultural season, by main reason why all or a part of the parcel was not used for cultivation, according to background variables. 2006/2007 Agricultural Season**

| | | Still in the process of opening up the land | Woodland preservation | Lack of capital | Put under Fallow | Insufficient labour | Land under dispute | Land for future use | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **18** | **8** | **20** | **9** | **16** | **3** | **10** | **16** | **100** |
| **Sex of operator** | Male | 18 | 7 | 20 | 11 | 16 | 2 | 10 | 15 | 100 |
| | Female | 17 | 9 | 22 | 7 | 17 | 3 | 10 | 16 | 100 |
| **Parcel size** | <0.100 ha | 21 | 11 | 14 | 6 | 11 | 5 | 15 | 18 | 100 |
| | 0.100-0.199 ha | 15 | 7 | 16 | 12 | 19 | 2 | 11 | 19 | 100 |
| | 0.200-0.499 ha | 16 | 7 | 22 | 10 | 18 | 2 | 9 | 16 | 100 |
| | 0.500-0.999 ha | 19 | 5 | 21 | 9 | 18 | 2 | 9 | 17 | 100 |
| | 1.000 ha + | 19 | 10 | 27 | 10 | 14 | 1 | 9 | 11 | 100 |
| **Region** | Southern | 20 | 10 | 20 | 7 | 14 | 3 | 11 | 15 | 100 |
| | Central | 18 | 7 | 18 | 9 | 18 | 2 | 9 | 19 | 100 |
| | Northern | 14 | 6 | 25 | 14 | 17 | 2 | 11 | 12 | 100 |
| **ADD** | Karonga | 9 | 10 | 21 | 17 | 10 | 1 | 16 | 16 | 100 |
| | Mzuzu | 16 | 4 | 27 | 12 | 20 | 3 | 8 | 10 | 100 |
| | Kasungu | 19 | 9 | 24 | 10 | 10 | 2 | 9 | 18 | 100 |
| | Salima | 17 | 6 | 10 | 12 | 29 | 2 | 13 | 11 | 100 |
| | Lilongwe | 16 | 4 | 14 | 8 | 24 | 3 | 9 | 21 | 100 |
| | Machinga | 17 | 3 | 27 | 8 | 14 | 2 | 9 | 20 | 100 |
| | Blantyre | 20 | 16 | 18 | 7 | 13 | 4 | 11 | 11 | 100 |
| | Shire Valley | 31 | 2 | 12 | 2 | 15 | 2 | 16 | 20 | 100 |
| **District** | Chitipa | 10 | 10 | 27 | 22 | 7 | 0 | 20 | 4 | 100 |
| | Karonga | 8 | 12 | 7 | 7 | 15 | 3 | 7 | 40 | 100 |
| | Rumphi | 23 | 5 | 20 | 10 | 17 | 6 | 3 | 16 | 100 |
| | Nkhata Bay | 16 | 3 | 19 | 30 | 9 | 1 | 14 | 8 | 100 |
| | Likoma | 6 | 9 | 0 | 63 | 0 | 3 | 12 | 6 | 100 |
| | Mzimba | 14 | 5 | 30 | 7 | 24 | 3 | 8 | 10 | 100 |
| | Kasungu | 16 | 9 | 21 | 12 | 7 | 2 | 12 | 19 | 100 |
| | Ntchisi | 12 | 7 | 35 | 12 | 11 | 0 | 5 | 17 | 100 |
| | Dowa | 20 | 10 | 23 | 7 | 11 | 2 | 9 | 19 | 100 |
| | Nkhota kota | 14 | 9 | 13 | 7 | 36 | 1 | 4 | 16 | 100 |
| | Salima | 22 | 1 | 6 | 20 | 17 | 2 | 28 | 3 | 100 |
| | Dedza | 27 | 3 | 15 | 4 | 13 | 3 | 11 | 22 | 100 |
| | Ntcheu | 20 | 8 | 32 | 2 | 14 | 1 | 12 | 12 | 100 |
| | Lilongwe Rural | 10 | 5 | 11 | 8 | 33 | 4 | 7 | 23 | 100 |
| | Mchinji | 31 | 5 | 25 | 10 | 16 | 0 | 3 | 10 | 100 |
| | Balaka | 16 | 5 | 23 | 8 | 12 | 0 | 8 | 29 | 100 |
| | Mangochi | 18 | 1 | 32 | 7 | 15 | 3 | 6 | 17 | 100 |
| | Machinga | 7 | 1 | 36 | 7 | 3 | 0 | 15 | 30 | 100 |
| | Zomba Rural | 19 | 5 | 24 | 8 | 19 | 2 | 9 | 12 | 100 |
| | Chiradzulu | 14 | 12 | 7 | 8 | 12 | 4 | 15 | 29 | 100 |
| | Blantyre Rural | 21 | 19 | 23 | 10 | 10 | 2 | 5 | 11 | 100 |
| | Thyolo | 15 | 14 | 24 | 7 | 10 | 0 | 15 | 15 | 100 |
| | Mulanje | 6 | 0 | 30 | 11 | 18 | 5 | 13 | 16 | 100 |
| | Phalombe | 10 | 3 | 51 | 3 | 16 | 0 | 10 | 7 | 100 |
| | Mwanza | 9 | 5 | 23 | 9 | 18 | 1 | 28 | 7 | 100 |
| | Chikwawa | 37 | 1 | 8 | 1 | 19 | 1 | 18 | 15 | 100 |
| | Nsanje | 11 | 3 | 25 | 6 | 6 | 3 | 12 | 34 | 100 |

**Table 2.19: Proportion of households who used coupons for fertilizer in various ways during the 2006/07 agricultural season , according to background variables. 2006/2007 Agricultural Season**

| | | | Use of the coupons | | | |
|---|---|---|---|---|---|---|
| | | received coupons | Bought fertilizer | Gave it to friends/relatives | Did not use the voucher | Sold the voucher |
| | Malawi | **53** | 96 | 1 | 4 | 0 |
| Sex of head of | Male | 54 | 96 | 1 | 3 | 0 |
| Household | Female | 49 | 95 | 2 | 5 | 0 |
| Holding size | < 0.100ha | 37 | 93 | 1 | 6 | 0 |
| | 0.100-0.199 ha | 47 | 94 | 2 | 4 | 0 |
| | 0.200-0.499 ha | 49 | 95 | 1 | 5 | 0 |
| | 0.500-0.999 ha | 53 | 96 | 1 | 4 | 0 |
| | 1.000 -1.999 ha | 60 | 98 | 1 | 2 | 0 |
| | 2.000 ha+ | 65 | 96 | 1 | 3 | 1 |
| Region | Northern | 66 | 96 | 1 | 4 | 0 |
| | Central | 51 | 98 | 1 | 1 | 0 |
| | Southern | 51 | 94 | 1 | 6 | 0 |
| ADD | Karonga | 48 | 92 | 1 | 7 | 0 |
| | Mzuzu | 74 | 97 | 1 | 3 | 0 |
| | Kasungu | 68 | 98 | 1 | 1 | 1 |
| | Salima | 28 | 98 | 1 | 1 | 0 |
| | Lilongwe | 47 | 98 | 1 | 1 | 0 |
| | Machinga | 52 | 97 | 1 | 2 | 0 |
| | Blantyre | 59 | 91 | 1 | 8 | 0 |
| | Shire Valley | 10 | 81 | 3 | 17 | 1 |
| District | Chitipa | 76 | 99 | 0 | 0 | 0 |
| | Karonga | 28 | 77 | 1 | 21 | 0 |
| | Rumphi | 80 | 99 | 0 | 0 | 0 |
| | Nkhata Bay | 25 | 93 | 0 | 7 | 0 |
| | Likoma | 30 | 75 | 0 | 19 | 7 |
| | Mzimba | 92 | 98 | 1 | 3 | 0 |
| | Kasungu | 68 | 99 | 0 | 1 | 0 |
| | Ntchisi | 81 | 96 | 3 | 1 | 2 |
| | Dowa | 59 | 98 | 1 | 1 | 1 |
| | Nkhota kota | 23 | 97 | 0 | 3 | 0 |
| | Salima | 33 | 99 | 1 | 0 | 0 |
| | Dedza | 34 | 98 | 1 | 1 | 0 |
| | Ntcheu | 62 | 98 | 1 | 1 | 0 |
| | Lilongwe Rural | 56 | 98 | 1 | 1 | 0 |
| | Mchinji | 77 | 98 | 0 | 0 | 1 |
| | Balaka | 30 | 97 | 1 | 2 | 0 |
| | Mangochi | 42 | 99 | 1 | 0 | 0 |
| | Machinga | 69 | 97 | 1 | 2 | 0 |
| | Zomba Rural | 64 | 97 | 1 | 3 | 0 |
| | Chiradzulu | 78 | 90 | 2 | 10 | 0 |
| | Blantyre Rural | 72 | 92 | 0 | 8 | 0 |
| | Thyolo | 58 | 92 | 1 | 7 | 0 |
| | Mulanje | 43 | 90 | 1 | 9 | 0 |
| | Phalombe | 63 | 92 | 1 | 7 | 0 |
| | Mwanza | 65 | 94 | 0 | 6 | 0 |
| | Chikwawa | 8 | 89 | 4 | 9 | 1 |
| | Nsanje | 13 | 55 | 0 | 45 | 0 |

**Table 2.20: Percentage distribution of households by whether they received any credit during the 2006/07 agricultural season, according to background variables. 2006/2007 Agricultural Season**

| | | Received | Did not receive | Total |
|---|---|---|---|---|
| | **Malawi** | **3** | **97** | **100** |
| **Sex of head of Household** | Male | 4 | 96 | 100 |
| | Female | 2 | 98 | 100 |
| **Holding size** | <0.100 ha | 3 | 97 | 100 |
| | 0.100-0.199 ha | 3 | 97 | 100 |
| | 0.200-0.499 ha | 2 | 98 | 100 |
| | 0.500-0.999 ha | 4 | 96 | 100 |
| | 1.000 -1.999 ha | 4 | 96 | 100 |
| | 2.000 ha+ | 6 | 94 | 100 |
| **Region** | Northern | 4 | 96 | 100 |
| | Central | 4 | 96 | 100 |
| | Southern | 3 | 97 | 100 |
| **ADD** | Karonga | 4 | 96 | 100 |
| | Mzuzu | 3 | 97 | 100 |
| | Kasungu | 6 | 94 | 100 |
| | Salima | 4 | 96 | 100 |
| | Lilongwe | 3 | 97 | 100 |
| | Machinga | 3 | 97 | 100 |
| | Blantyre | 3 | 97 | 100 |
| | Shire Valley | 6 | 94 | 100 |
| **District** | Chitipa | 5 | 95 | 100 |
| | Karonga | 4 | 96 | 100 |
| | Rumphi | 6 | 94 | 100 |
| | Nkhata Bay | 1 | 99 | 100 |
| | Likoma | 7 | 93 | 100 |
| | Mzimba | 3 | 97 | 100 |
| | Kasungu | 5 | 95 | 100 |
| | Ntchisi | 9 | 91 | 100 |
| | Dowa | 6 | 94 | 100 |
| | Nkhota kota | 3 | 97 | 100 |
| | Salima | 5 | 95 | 100 |
| | Dedza | 2 | 98 | 100 |
| | Ntcheu | 3 | 97 | 100 |
| | Lilongwe Rural | 3 | 97 | 100 |
| | Mchinji | 4 | 96 | 100 |
| | Balaka | 4 | 96 | 100 |
| | Mangochi | 2 | 98 | 100 |
| | Machinga | 2 | 98 | 100 |
| | Zomba Rural | 5 | 95 | 100 |
| | Chiradzulu | 3 | 97 | 100 |
| | Blantyre Rural | 2 | 98 | 100 |
| | Thyolo | 5 | 95 | 100 |
| | Mulanje | 2 | 98 | 100 |
| | Phalombe | 4 | 96 | 100 |
| | Mwanza | 3 | 97 | 100 |
| | Chikwawa | 8 | 92 | 100 |
| | Nsanje | 1 | 99 | 100 |

**Table 2.21: Proportion of households who received credit during the 2006/07 agricultural season by various sources, according to background variables. 2006/2007 Agricultural Season**

| | | Govt | ADMARC | Malawi Rural Finance | Mardef | Another parastals | Bank | Money/ lender | NGO | Other sources |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **1** | **1** | **12** | **13** | **7** | **1** | **9** | **35** | **22** |
| **Sex of head of Household** | Male | 1 | 1 | 11 | 14 | 6 | 1 | 9 | 34 | 23 |
| | Female | 1 | 2 | 17 | 9 | 9 | 0 | 7 | 38 | 17 |
| **Poverty quintile** | Poorest quintile | 0 | 2 | 6 | 8 | 5 | 1 | 4 | 55 | 21 |
| | Second quintile | 0 | 1 | 17 | 9 | 7 | 0 | 7 | 38 | 22 |
| | 3rd quintile | 3 | 2 | 14 | 1 | 7 | 2 | 7 | 30 | 34 |
| | Fourth quintile | 1 | 1 | 15 | 8 | 9 | 2 | 15 | 32 | 19 |
| | Highest quintile | 0 | 2 | 7 | 41 | 5 | 1 | 5 | 29 | 10 |
| **Region** | Northern | 1 | 0 | 22 | 7 | 2 | 4 | 11 | 26 | 28 |
| | Central | 1 | 1 | 15 | 23 | 10 | 1 | 8 | 28 | 15 |
| | Southern | 1 | 2 | 6 | 5 | 4 | 0 | 9 | 44 | 28 |
| **ADD** | Karonga | 1 | 0 | 5 | 10 | 2 | 0 | 8 | 37 | 39 |
| | Mzuzu | 1 | 0 | 33 | 5 | 2 | 7 | 12 | 19 | 21 |
| | Kasungu | 0 | 1 | 16 | 11 | 8 | 3 | 8 | 33 | 23 |
| | Salima | 0 | 0 | 20 | 9 | 47 | 1 | 2 | 18 | 2 |
| | Lilongwe | 1 | 1 | 14 | 37 | 3 | 0 | 9 | 26 | 11 |
| | Machinga | 2 | 3 | 4 | 2 | 8 | 1 | 17 | 52 | 11 |
| | Blantyre | 2 | 0 | 10 | 9 | 3 | 0 | 7 | 53 | 19 |
| | Shire Valley | 0 | 5 | 2 | 4 | 0 | 0 | 1 | 14 | 74 |

**Table 2.22: Proportion of households who bought/obtained fertilizer during the 2006/07 agricultural season, according to background variables. 2006/2007 Agricultural Season**

| | | Inorganic fertilizer | Organic fertilizer |
|---|---|---|---|
| | **Malawi** | **53** | **22** |
| **Sex of head of Household** | Male | 56 | 23 |
| | Female | 45 | 18 |
| **Poverty quintile** | Poorest quintile | 46 | 17 |
| | Second quintile | 50 | 23 |
| | 3rd quintile | 53 | 22 |
| | Fourth quintile | 59 | 25 |
| | Highest quintile | 64 | 22 |
| **Holding size** | <0.100 ha | 47 | 19 |
| | 0.100-0.199 ha | 51 | 23 |
| | 0.200-0.499 ha | 51 | 18 |
| | 0.500-0.999 ha | 51 | 21 |
| | 1.000 -1.999 ha | 59 | 24 |
| | 2.000 ha+ | 61 | 32 |
| **Region** | Northern | 57 | 19 |
| | Central | 57 | 31 |
| | Southern | 49 | 15 |
| **ADD** | Karonga | 47 | 25 |
| | Mzuzu | 61 | 16 |
| | Kasungu | 70 | 35 |
| | Salima | 29 | 31 |
| | Lilongwe | 56 | 29 |
| | Machinga | 46 | 14 |
| | Blantyre | 60 | 17 |
| | Shire Valley | 9 | 6 |

**Table 2.23: Proportion of households who bought various chemicals during the 20006/2007 agricultural season, according to background characteristics. 2006/2007 Agricultural Season**

| | | Insecticides | Fungicides | Herbicides | Fumigants |
|---|---|---|---|---|---|
| | **Malawi** | **9** | **1** | **1** | **1** |
| **Sex of head of Household** | Male | 11 | 1 | 1 | 2 |
| | Female | 5 | 1 | 1 | 1 |
| **Poverty quintile** | Poorest quintile | 6 | 1 | 1 | 1 |
| | Second quintile | 7 | 1 | 1 | 1 |
| | 3rd quintile | 10 | 1 | 1 | 1 |
| | Fourth quintile | 12 | 1 | 2 | 2 |
| | Highest quintile | 11 | 1 | 1 | 2 |
| **Holding size** | <0.100 ha | 6 | 1 | 1 | 2 |
| | 0.100-0.199 ha | 7 | 1 | 1 | 1 |
| | 0.200-0.499 ha | 6 | 1 | 2 | 1 |
| | 0.500-0.999 ha | 9 | 1 | 1 | 1 |
| | 1.000 -1.999 ha | 12 | 2 | 1 | 2 |
| | 2.000 ha+ | 16 | 2 | 1 | 2 |
| **Region** | Northern | 21 | 1 | 2 | 2 |
| | Central | 9 | 1 | 1 | 1 |
| | Southern | 8 | 1 | 1 | 1 |
| **ADD** | Karonga | 96 | 0 | 3 | 1 |
| | Mzuzu | 17 | 1 | 1 | 2 |
| | Kasungu | 11 | 2 | 2 | 2 |
| | Salima | 22 | 0 | 1 | 1 |
| | Lilongwe | 7 | 1 | 1 | 1 |
| | Machinga | 9 | 1 | 0 | 1 |
| | Blantyre | 4 | 1 | 1 | 2 |
| | Shire Valley | 23 | 3 | 3 | 2 |

**Table 2.24: Proportion of households who bought maize seeds by variety, according to background characteristics. 2006/2007 Agricultural Season**

| | | Bought maize seeds | Local Maize | Composite Maize | Recycled maize | Hybrid maize |
|---|---|---|---|---|---|---|
| | **Malawi** | 88 | 21 | 11 | 7 | 71 |
| **Sex of head** | Male | 88 | 18 | 12 | 8 | 73 |
| | Female | 89 | 29 | 10 | 5 | 66 |
| **Poverty quintile** | Poorest quintile | 84 | 30 | 12 | 8 | 63 |
| | Second quintile | 85 | 21 | 13 | 7 | 69 |
| | 3rd quintile | 87 | 23 | 10 | 6 | 70 |
| | Fourth quintile | 92 | 19 | 13 | 7 | 71 |
| | Highest quintile | 91 | 9 | 11 | 8 | 82 |
| **Holding size** | < 0.099 ha | 88 | 22 | 11 | 5 | 69 |
| | 0.100-0.199 ha | 93 | 32 | 6 | 4 | 70 |
| | 0.200-0.499 ha | 92 | 27 | 10 | 6 | 65 |
| | 0.500-0.999 ha | 87 | 20 | 11 | 9 | 71 |
| | 1.000 -1.999 ha | 85 | 13 | 13 | 10 | 77 |
| | 2.000 ha+ | 83 | 11 | 16 | 4 | 79 |
| **Region** | Northern | 78 | 7 | 16 | 4 | 82 |
| | Central | 90 | 16 | 12 | 8 | 72 |
| | Southern | 89 | 27 | 10 | 7 | 68 |
| **ADD** | Karonga | 82 | 6 | 19 | 2 | 81 |
| | Mzuzu | 76 | 8 | 14 | 5 | 83 |
| | Kasungu | 87 | 8 | 13 | 7 | 78 |
| | Salima | 78 | 7 | 21 | 4 | 71 |
| | Lilongwe | 93 | 20 | 11 | 9 | 69 |
| | Machinga | 85 | 22 | 10 | 5 | 70 |
| | Blantyre | 94 | 28 | 10 | 8 | 68 |
| | Shire Valley | 65 | 33 | 7 | 6 | 55 |
| **District** | Chitipa | 89 | 5 | 26 | 3 | 74 |
| | Karonga | 73 | 7 | 9 | 1 | 91 |
| | Rumphi | 46 | 7 | 10 | 5 | 85 |
| | Nkhata Bay | 91 | 6 | 10 | 4 | 83 |
| | Likoma | 100 | 0 | 0 | 12 | 88 |
| | Mzimba | 86 | 7 | 17 | 5 | 82 |
| | Kasungu | 88 | 5 | 18 | 7 | 77 |
| | Ntchisi | 86 | 10 | 8 | 15 | 74 |
| | Dowa | 89 | 13 | 12 | 6 | 71 |
| | Nkhota kota | 81 | 4 | 25 | 2 | 71 |
| | Salima | 75 | 10 | 16 | 5 | 72 |
| | Dedza | 75 | 24 | 8 | 3 | 69 |
| | Ntcheu | 82 | 16 | 4 | 5 | 79 |
| | Lilongwe Rural | 101 | 25 | 12 | 13 | 64 |
| | Mchinji | 85 | 12 | 2 | 4 | 91 |
| | Balaka | 73 | 23 | 14 | 6 | 61 |
| | Mangochi | 92 | 16 | 8 | 6 | 73 |
| | Machinga | 87 | 18 | 11 | 2 | 74 |
| | Zomba Rural | 86 | 30 | 9 | 5 | 70 |
| | Chirazulu | 89 | 25 | 27 | 2 | 65 |
| | Blantyre Rural | 87 | 19 | 9 | 5 | 76 |
| | Thyolo | 94 | 26 | 15 | 7 | 69 |
| | Mulanje | 100 | 42 | 6 | 14 | 59 |
| | Phalombe | 88 | 25 | 9 | 12 | 63 |
| | Mwanza | 89 | 15 | 9 | 4 | 78 |
| | Chikwawa | 62 | 35 | 9 | 6 | 51 |
| | Nsanje | 72 | 28 | 4 | 6 | 65 |

**Table 2.25: Percent distribution of plots by source of seeds for local maize where local maize was first main crop, according to background variables. 2006/2007 Agricultural Season.**

| | | Retained from previous season | Project, Scheme, Credit | From ADMARC | From food | Contract farming | Bought locally | Subsidy program | Free seed | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **71** | **0** | **2** | **2** | **2** | **14** | **2** | **5** | **2** | **100** |
| **Sex** | Male | 71 | 0 | 2 | 2 | 2 | 14 | 3 | 4 | 2 | 100 |
| | Female | 71 | 0 | 1 | 2 | 2 | 14 | 2 | 5 | 2 | 100 |
| | <0.100 ha | 69 | 1 | 2 | 3 | 2 | 14 | 2 | 6 | 1 | 100 |
| | 0.100-0.199 ha | 71 | 0 | 1 | 2 | 2 | 15 | 2 | 5 | 2 | 100 |
| **Plot size** | 0.200-0.499 ha | 72 | 0 | 2 | 2 | 2 | 14 | 3 | 4 | 1 | 100 |
| | 0.500-0.999 ha | 72 | 1 | 2 | 1 | 2 | 15 | 3 | 3 | 2 | 100 |
| | 1.000 ha+ | 75 | 1 | 3 | 1 | 1 | 11 | 4 | 2 | 2 | 100 |
| **Region** | Northern | 88 | 0 | 1 | 1 | 0 | 4 | 1 | 3 | 1 | 100 |
| | Central | 69 | 0 | 2 | 2 | 4 | 12 | 3 | 5 | 2 | 100 |
| | Southern | 68 | 1 | 2 | 2 | 0 | 19 | 3 | 4 | 1 | 100 |
| **ADD** | Karonga | 91 | 0 | 1 | 3 | 0 | 2 | 1 | 2 | 0 | 100 |
| | Mzuzu | 87 | 0 | 1 | 0 | 0 | 4 | 2 | 4 | 2 | 100 |
| | Kasungu | 68 | 0 | 3 | 1 | 2 | 10 | 4 | 7 | 5 | 100 |
| | Salima | 66 | 0 | 3 | 1 | 4 | 12 | 1 | 9 | 4 | 100 |
| | Lilongwe | 70 | 0 | 2 | 2 | 5 | 12 | 3 | 5 | 1 | 100 |
| | Machinga | 68 | 1 | 2 | 2 | 0 | 17 | 4 | 4 | 2 | 100 |
| | Blantyre | 68 | 0 | 2 | 2 | 0 | 20 | 2 | 4 | 1 | 100 |
| | Shire Valley | 66 | 2 | 3 | 2 | 0 | 24 | 0 | 2 | 1 | 100 |
| **District** | Chitipa | 95 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 100 |
| | Karonga | 83 | 0 | 2 | 7 | 0 | 2 | 0 | 4 | 1 | 100 |
| | Rumphi | 72 | 0 | 2 | 0 | 0 | 9 | 5 | 8 | 3 | 100 |
| | Nkhata Bay | 56 | 0 | 1 | 0 | 0 | 11 | 0 | 3 | 28 | 100 |
| | Likoma | 16 | 0 | 21 | 41 | 0 | 4 | 0 | 17 | 0 | 100 |
| | Mzimba | 92 | 0 | 1 | 0 | 0 | 3 | 1 | 3 | 0 | 100 |
| | Kasungu | 71 | 0 | 1 | 1 | 1 | 12 | 2 | 9 | 3 | 100 |
| | Ntchisi | 62 | 1 | 5 | 0 | 3 | 10 | 8 | 5 | 6 | 100 |
| | Dowa | 74 | 0 | 2 | 1 | 3 | 8 | 5 | 4 | 2 | 100 |
| | Nkhotakota | 56 | 0 | 5 | 2 | 0 | 6 | 2 | 27 | 1 | 100 |
| | Salima | 69 | 0 | 2 | 0 | 5 | 14 | 1 | 3 | 5 | 100 |
| | Dedza | 73 | 0 | 1 | 1 | 8 | 12 | 0 | 4 | 0 | 100 |
| | Ntcheu | 75 | 0 | 0 | 1 | 4 | 11 | 1 | 6 | 1 | 100 |
| | Lilongwe rural | 67 | 0 | 4 | 2 | 4 | 12 | 5 | 4 | 1 | 100 |
| | Mchinji | 57 | 0 | 6 | 0 | 3 | 11 | 3 | 9 | 12 | 100 |
| | Balaka | 65 | 3 | 1 | 2 | 0 | 20 | 2 | 5 | 1 | 100 |
| | Mangochi | 62 | 0 | 3 | 2 | 0 | 20 | 5 | 5 | 2 | 100 |
| | Machinga | 77 | 0 | 1 | 0 | 1 | 11 | 5 | 4 | 0 | 100 |
| | Zomba rural | 69 | 1 | 1 | 2 | 1 | 16 | 5 | 4 | 2 | 100 |
| | Chiradzulu | 69 | 0 | 0 | 4 | 0 | 17 | 1 | 6 | 2 | 100 |
| | Blantyre rural | 65 | 0 | 4 | 2 | 1 | 19 | 2 | 6 | 0 | 100 |
| | Thyolo | 69 | 1 | 1 | 1 | 0 | 20 | 3 | 4 | 1 | 100 |
| | Mulanje | 62 | 0 | 1 | 3 | 0 | 31 | 0 | 1 | 2 | 100 |
| | Phalombe | 68 | 0 | 2 | 1 | 0 | 20 | 2 | 4 | 2 | 100 |
| | Mwanza | 80 | 0 | 1 | 2 | 0 | 10 | 2 | 3 | 1 | 100 |
| | Chikwawa | 69 | 3 | 2 | 3 | 0 | 21 | 0 | 2 | 1 | 100 |
| | Nsanje | 55 | 0 | 5 | 1 | 0 | 35 | 0 | 2 | 1 | 100 |

**Table 2.26: Proportion of plots by source of seeds for composite maize where composite maize was first main crop, according to background variables. 2006/2007 Agricultural Season.**

| | | Retained from previous season | Project, Scheme, Credit | From ADMARC | From food | Contract farming | Bought locally | Subsidy program | Free seed | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **35** | **3** | **8** | **1** | **1** | **14** | **29** | **5** | **3** | **100** |
| **Sex** | Male | 34 | 3 | 9 | 1 | 2 | 15 | 28 | 5 | 3 | 100 |
| | Female | 37 | 2 | 7 | 1 | 1 | 12 | 32 | 7 | 2 | 100 |
| **Plot size** | <0.100 ha | 28 | 3 | 12 | 0 | 0 | 13 | 34 | 8 | 1 | 100 |
| | 0.100-0.199 ha | 43 | 1 | 6 | 1 | 1 | 10 | 32 | 4 | 2 | 100 |
| | 0.200-0.499 ha | 32 | 4 | 8 | 1 | 2 | 15 | 28 | 6 | 4 | 100 |
| | 0.500-0.999 ha | 42 | 2 | 8 | 3 | 1 | 15 | 20 | 6 | 2 | 100 |
| | 1.000 ha+ | 33 | 3 | 18 | 0 | 1 | 5 | 35 | 1 | 3 | 100 |
| **Region** | Northern | 26 | 1 | 7 | 1 | 0 | 4 | 56 | 3 | 2 | 100 |
| | Central | 37 | 2 | 10 | 1 | 2 | 14 | 24 | 7 | 3 | 100 |
| | Southern | 37 | 5 | 8 | 1 | 1 | 17 | 23 | 6 | 2 | 100 |
| **ADD** | Karonga | 41 | 2 | 11 | 0 | 0 | 8 | 33 | 3 | 2 | 100 |
| | Mzuzu | 19 | 0 | 6 | 1 | 0 | 3 | 67 | 3 | 2 | 100 |
| | Kasungu | 30 | 1 | 6 | 0 | 2 | 9 | 40 | 9 | 3 | 100 |
| | Salima | 34 | 0 | 25 | 0 | 1 | 7 | 14 | 8 | 10 | 100 |
| | Lilongwe | 42 | 2 | 8 | 2 | 3 | 18 | 18 | 5 | 2 | 100 |
| | Machinga | 31 | 5 | 8 | 1 | 0 | 15 | 31 | 5 | 3 | 100 |
| | Blantyre | 38 | 3 | 7 | 1 | 1 | 18 | 23 | 7 | 2 | 100 |
| | Shire Valley | 50 | 10 | 10 | 3 | 0 | 21 | 3 | 3 | 1 | 100 |
| **District** | Chitipa | 41 | 2 | 10 | 0 | 0 | 7 | 39 | 2 | 1 | 100 |
| | Karonga | 40 | 2 | 19 | 0 | 0 | 12 | 5 | 11 | 11 | 100 |
| | Rumphi | 9 | 2 | 25 | 2 | 0 | 8 | 45 | 6 | 3 | 100 |
| | Nkhata Bay | 13 | 1 | 1 | 0 | 0 | 4 | 75 | 6 | 1 | 100 |
| | Likoma | 35 | 0 | 21 | 11 | 0 | 0 | 0 | 34 | 0 | 100 |
| | Mzimba | 21 | 0 | 3 | 0 | 0 | 2 | 69 | 1 | 3 | 100 |
| | Kasungu | 22 | 3 | 7 | 0 | 1 | 9 | 50 | 6 | 3 | 100 |
| | Ntchisi | 40 | 0 | 5 | 0 | 10 | 2 | 41 | 0 | 1 | 100 |
| | Dowa | 36 | 0 | 4 | 0 | 1 | 13 | 30 | 15 | 1 | 100 |
| | Nkhotakota | 31 | 0 | 30 | 0 | 0 | 5 | 18 | 9 | 6 | 100 |
| | Salima | 42 | 1 | 9 | 1 | 2 | 13 | 3 | 6 | 23 | 100 |
| | Dedza | 24 | 4 | 10 | 0 | 6 | 36 | 5 | 11 | 4 | 100 |
| | Ntcheu | 64 | 1 | 9 | 0 | 0 | 5 | 12 | 6 | 3 | 100 |
| | Lilongwe rural | 45 | 2 | 6 | 4 | 2 | 12 | 26 | 3 | 0 | 100 |
| | Mchinji | 32 | 0 | 13 | 0 | 0 | 8 | 12 | 22 | 13 | 100 |
| | Balaka | 34 | 3 | 5 | 0 | 0 | 16 | 26 | 8 | 8 | 100 |
| | Mangochi | 37 | 1 | 18 | 0 | 0 | 16 | 20 | 6 | 2 | 100 |
| | Machinga | 24 | 8 | 8 | 0 | 1 | 27 | 25 | 7 | 0 | 100 |
| | Zomba rural | 29 | 8 | 3 | 1 | 0 | 10 | 44 | 2 | 3 | 100 |
| | Chiradzulu | 18 | 0 | 12 | 2 | 0 | 9 | 50 | 8 | 1 | 100 |
| | Blantyre rural | 25 | 2 | 12 | 2 | 2 | 22 | 23 | 11 | 0 | 100 |
| | Thyolo | 36 | 4 | 2 | 0 | 1 | 26 | 17 | 6 | 9 | 100 |
| | Mulanje | 34 | 7 | 4 | 6 | 0 | 27 | 16 | 6 | 0 | 100 |
| | Phalombe | 28 | 13 | 7 | 0 | 0 | 5 | 37 | 6 | 3 | 100 |
| | Mwanza | 50 | 1 | 4 | 0 | 0 | 9 | 26 | 9 | 1 | 100 |
| | Chikwawa | 49 | 11 | 10 | 3 | 0 | 19 | 4 | 3 | 1 | 100 |
| | Nsanje | 54 | 0 | 5 | 0 | 0 | 33 | 0 | 8 | 0 | 100 |

**Table 2.27: Proportion of plots by source of seeds for hybrid maize where hybrid maize was first main crop, according to background variables. 2006/2007 Agricultural Season.**

| | | Retained from previous season | Project, Scheme, Credit | From ADMARC | From food | Contract farming | Bought locally | Subsidy program | Free seed | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **14** | **2** | **15** | **1** | **2** | **29** | **30** | **5** | **3** | **100** |
| **Sex** | Male | 14 | 2 | 14 | 1 | 2 | 27 | 31 | 5 | 4 | 100 |
| | Female | 15 | 1 | 15 | 1 | 1 | 33 | 26 | 5 | 2 | 100 |
| | <0.100 ha | 12 | 2 | 12 | 1 | 1 | 30 | 31 | 7 | 3 | 100 |
| | 0.100-0.199 ha | 13 | 1 | 15 | 1 | 1 | 29 | 29 | 5 | 5 | 100 |
| **Plot size** | 0.200-0.499 ha | 15 | 2 | 15 | 1 | 1 | 28 | 30 | 5 | 3 | 100 |
| | 0.500-0.999 ha | 16 | 1 | 13 | 1 | 4 | 30 | 29 | 3 | 4 | 100 |
| | 1.000 ha+ | 19 | 1 | 15 | 1 | 1 | 40 | 18 | 4 | 2 | 100 |
| **Region** | Northern | 17 | 1 | 15 | 0 | 0 | 15 | 41 | 6 | 5 | 100 |
| | Central | 15 | 1 | 20 | 1 | 3 | 26 | 28 | 4 | 3 | 100 |
| | Southern | 13 | 2 | 10 | 1 | 1 | 36 | 28 | 6 | 3 | 100 |
| **ADD** | Karonga | 19 | 2 | 22 | 0 | 0 | 12 | 36 | 7 | 2 | 100 |
| | Mzuzu | 16 | 1 | 12 | 0 | 0 | 16 | 43 | 5 | 7 | 100 |
| | Kasungu | 17 | 1 | 10 | 1 | 1 | 20 | 44 | 4 | 4 | 100 |
| | Salima | 15 | 0 | 29 | 1 | 0 | 21 | 17 | 7 | 10 | 100 |
| | Lilongwe | 14 | 2 | 26 | 1 | 4 | 30 | 19 | 3 | 1 | 100 |
| | Machinga | 18 | 3 | 18 | 1 | 0 | 16 | 31 | 8 | 4 | 100 |
| | Blantyre | 10 | 1 | 6 | 1 | 1 | 45 | 28 | 4 | 3 | 100 |
| | Shire Valley | 37 | 0 | 19 | 1 | 0 | 27 | 4 | 10 | 2 | 100 |
| **District** | Chitipa | 21 | 1 | 17 | 0 | 1 | 14 | 42 | 5 | 1 | 100 |
| | Karonga | 16 | 3 | 34 | 1 | 0 | 8 | 21 | 12 | 4 | 100 |
| | Rumphi | 13 | 1 | 14 | 0 | 0 | 10 | 53 | 4 | 5 | 100 |
| | Nkhata Bay | 6 | 1 | 12 | 0 | 0 | 50 | 16 | 3 | 12 | 100 |
| | Likoma | 2 | 0 | 77 | 6 | 0 | 0 | 2 | 13 | 0 | 100 |
| | Mzimba | 22 | 1 | 7 | 0 | 0 | 8 | 49 | 7 | 6 | 100 |
| | Kasungu | 11 | 1 | 16 | 1 | 1 | 20 | 44 | 4 | 3 | 100 |
| | Ntchisi | 18 | 1 | 11 | 0 | 0 | 13 | 50 | 1 | 6 | 100 |
| | Dowa | 31 | 1 | 8 | 0 | 2 | 28 | 22 | 6 | 3 | 100 |
| | Nkhotakota | 13 | 0 | 36 | 2 | 0 | 19 | 10 | 10 | 9 | 100 |
| | Salima | 17 | 0 | 23 | 0 | 0 | 23 | 23 | 3 | 10 | 100 |
| | Dedza | 32 | 3 | 17 | 0 | 1 | 23 | 14 | 8 | 1 | 100 |
| | Ntcheu | 24 | 2 | 18 | 1 | 0 | 13 | 37 | 2 | 2 | 100 |
| | Lilongwe rural | 7 | 2 | 37 | 1 | 1 | 24 | 24 | 2 | 1 | 100 |
| | Mchinji | 16 | 0 | 1 | 1 | 2 | 16 | 55 | 3 | 5 | 100 |
| | Balaka | 32 | 3 | 21 | 2 | 0 | 12 | 22 | 5 | 3 | 100 |
| | Mangochi | 29 | 5 | 25 | 0 | 0 | 16 | 17 | 5 | 3 | 100 |
| | Machinga | 16 | 1 | 17 | 0 | 1 | 9 | 48 | 2 | 7 | 100 |
| | Zomba rural | 12 | 3 | 14 | 1 | 0 | 15 | 40 | 12 | 3 | 100 |
| | Chiradzulu | 20 | 1 | 11 | 2 | 0 | 15 | 40 | 8 | 3 | 100 |
| | Blantyre rural | 10 | 0 | 8 | 3 | 4 | 25 | 40 | 8 | 2 | 100 |
| | Thyolo | 11 | 4 | 8 | 2 | 0 | 35 | 33 | 3 | 4 | 100 |
| | Mulanje | 11 | 0 | 3 | 0 | 0 | 59 | 20 | 1 | 5 | 100 |
| | Phalombe | 12 | 4 | 9 | 0 | 0 | 16 | 45 | 5 | 8 | 100 |
| | Mwanza | 6 | 3 | 12 | 1 | 0 | 20 | 46 | 9 | 2 | 100 |
| | Chikwawa | 51 | 0 | 17 | 1 | 0 | 20 | 0 | 9 | 1 | 100 |
| | Nsanje | 23 | 0 | 21 | 0 | 0 | 34 | 9 | 11 | 2 | 100 |

**Table 2.28: Proportion of households who own various farm equipment by type of equipment and background characteristics, 2006/2007 Agricultural Season**

| | | Hoe | Slasher | Axe | Sprayer | Grain Mill | Panga knive | Watering can | Plough | Ridger | Ox cart | Treadle pump |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **99** | **19** | **55** | **3** | **1** | **54** | **26** | **2** | **1** | **3** | **3** |
| **Sex of head of Household** | Male | 99 | 22 | 59 | 4 | 1 | 61 | 31 | 2 | 1 | 4 | 4 |
| | Female | 99 | 10 | 44 | 2 | 1 | 38 | 13 | 1 | 1 | 2 | 2 |
| **Poverty quintile** | Malawi | 99 | 19 | 55 | 3 | 1 | 55 | 26 | 2 | 1 | 3 | 4 |
| | Poorest quintile | 100 | 12 | 51 | 3 | 0 | 48 | 19 | 1 | 0 | 1 | 2 |
| | Second quintile | 99 | 16 | 57 | 3 | 1 | 53 | 25 | 2 | 1 | 2 | 4 |
| | 3rd quintile | 100 | 21 | 56 | 3 | 1 | 56 | 30 | 2 | 1 | 4 | 4 |
| | Fourth quintile | 98 | 23 | 54 | 3 | 1 | 57 | 29 | 2 | 2 | 4 | 4 |
| | Highest quintile | 99 | 26 | 57 | 5 | 1 | 61 | 28 | 1 | 1 | 4 | 4 |
| **Holding size** | Malawi | 99 | 19 | 55 | 3 | 1 | 54 | 26 | 2 | 1 | 3 | 3 |
| | <0.100 ha | 99 | 18 | 49 | 3 | 1 | 49 | 16 | 1 | 0 | 1 | 1 |
| | 0.100-0.199 ha | 100 | 14 | 42 | 1 | 0 | 50 | 16 | 1 | 1 | 1 | 2 |
| | 0.200-0.499 ha | 99 | 16 | 47 | 2 | 1 | 49 | 17 | 1 | 0 | 1 | 2 |
| | 0.500-0.999 ha | 100 | 18 | 54 | 3 | 0 | 55 | 25 | 1 | 1 | 2 | 3 |
| | 1.000 -1.999 ha | 99 | 24 | 65 | 5 | 1 | 60 | 35 | 3 | 2 | 5 | 5 |
| | 2.000 ha+ | 99 | 24 | 73 | 7 | 0 | 66 | 49 | 2 | 3 | 12 | 9 |
| **Region** | Malawi | 99 | 19 | 55 | 3 | 1 | 54 | 26 | 2 | 1 | 3 | 3 |
| | Northern | 100 | 35 | 85 | 5 | 2 | 41 | 36 | 12 | 7 | 10 | 7 |
| | Central | 99 | 20 | 52 | 3 | 0 | 58 | 36 | 0 | 1 | 4 | 4 |
| | Southern | 100 | 14 | 50 | 3 | 1 | 55 | 14 | 0 | 0 | 1 | 2 |
| **ADD** | Karonga | 100 | 40 | 83 | 5 | 1 | 30 | 20 | 18 | 1 | 5 | 8 |
| | Mzuzu | 100 | 33 | 86 | 4 | 2 | 46 | 43 | 9 | 10 | 12 | 7 |
| | Kasungu | 100 | 18 | 66 | 3 | 0 | 60 | 52 | 1 | 2 | 8 | 6 |
| | Salima | 99 | 37 | 55 | 7 | 0 | 58 | 11 | 0 | 0 | 0 | 4 |
| | Lilongwe | 98 | 17 | 44 | 1 | 0 | 57 | 33 | 0 | 0 | 3 | 3 |
| | Machinga | 100 | 15 | 48 | 4 | 1 | 54 | 17 | 0 | 0 | 0 | 3 |
| | Blantyre | 99 | 13 | 50 | 1 | 0 | 54 | 14 | 0 | 0 | 0 | 1 |
| | Shire Valley | 100 | 16 | 59 | 10 | 0 | 62 | 10 | 0 | 0 | 5 | 5 |

**Table 2.29: Proportion of households who owned structures by type of structure, according to background variables. 2006/2007 Agricultural Season**

| | | Chicken house | Livestock kraal | Poultry kraal | Attic | Drying area | Storage house | Water pump | Granary | Barn |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Malawi** | **18** | **18** | **9** | **3** | **7** | **7** | **0** | **22** | **7** |
| Sex of head of Household | Male | 20 | 20 | 11 | 3 | 8 | 8 | 0 | 23 | 8 |
| | Female | 12 | 14 | 6 | 2 | 6 | 5 | 0 | 19 | 4 |
| Poverty quintile | Poorest quintile | 16 | 19 | 8 | 4 | 7 | 6 | 0 | 21 | 5 |
| | Second quintile | 16 | 18 | 9 | 3 | 7 | 5 | 0 | 24 | 6 |
| | 3rd quintile | 19 | 20 | 10 | 3 | 9 | 6 | 0 | 24 | 8 |
| | Fourth quintile | 20 | 18 | 10 | 3 | 8 | 8 | 1 | 23 | 8 |
| | Highest quintile | 22 | 17 | 10 | 2 | 6 | 9 | 0 | 20 | 6 |
| Holding size | <0.100 ha | 16 | 11 | 5 | 1 | 5 | 6 | 0 | 13 | 3 |
| | 0.100-0.199 ha | 14 | 8 | 5 | 1 | 4 | 3 | 0 | 10 | 3 |
| | 0.200-0.499 ha | 12 | 11 | 5 | 2 | 5 | 5 | 0 | 14 | 3 |
| | 0.500-0.999 ha | 18 | 16 | 9 | 3 | 7 | 7 | 0 | 22 | 6 |
| | 1.000 -1.999 ha | 22 | 27 | 14 | 4 | 10 | 8 | 1 | 33 | 11 |
| | 2.000 ha+ | 28 | 40 | 21 | 5 | 13 | 12 | 1 | 38 | 16 |
| Region | Northern | 26 | 24 | 27 | 5 | 22 | 12 | 1 | 37 | 12 |
| | Central | 19 | 20 | 7 | 2 | 7 | 6 | 0 | 26 | 10 |
| | Southern | 15 | 15 | 7 | 3 | 4 | 6 | 0 | 15 | 2 |
| ADD | Karonga | 29 | 20 | 26 | 3 | 28 | 15 | 0 | 23 | 4 |
| | Mzuzu | 25 | 25 | 28 | 6 | 19 | 10 | 1 | 44 | 16 |
| | Kasungu | 24 | 27 | 11 | 3 | 13 | 10 | 1 | 27 | 15 |
| | Salima | 27 | 18 | 13 | 8 | 10 | 5 | 2 | 20 | 1 |
| | Lilongwe | 16 | 17 | 5 | 1 | 4 | 5 | 0 | 27 | 10 |
| | Machinga | 14 | 13 | 9 | 3 | 6 | 5 | 0 | 27 | 3 |
| | Blantyre | 14 | 15 | 5 | 1 | 4 | 5 | 0 | 7 | 1 |
| | Shire Valley | 18 | 23 | 9 | 8 | 2 | 11 | 1 | 14 | 7 |

**Table 2.30: Proportion of households with casual workers by activity , according to background variables. 2006/2007 Agricultural Season.**

| | | Land preparation | | Planting | | Weeding | | Harvesting | | Marketing | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| | Malawi | 17 | 8 | 7 | 5 | 18 | 12 | 9 | 10 | 1 | 0 |
| | Male | 19 | 8 | 8 | 6 | 19 | 13 | 10 | 11 | 1 | 0 |
| Sex of head | Female | 14 | 7 | 6 | 4 | 15 | 9 | 7 | 7 | 0 | 0 |
| Poverty quintile | Poorest quintile | 9 | 5 | 3 | 3 | 8 | 7 | 4 | 4 | 1 | 0 |
| | Second quintile | 13 | 6 | 5 | 4 | 14 | 10 | 6 | 7 | 1 | 1 |
| | 3rd quintile | 15 | 7 | 7 | 5 | 19 | 12 | 8 | 9 | 1 | 0 |
| | Fourth quintile | 20 | 9 | 7 | 6 | 20 | 15 | 11 | 12 | 1 | 0 |
| | Highest quintile | 36 | 13 | 18 | 12 | 36 | 20 | 22 | 20 | 1 | 0 |
| Holding size | <0.099 ha | 21 | 8 | 12 | 8 | 20 | 11 | 13 | 11 | 1 | 0 |
| | 0.100-0.199 ha | 11 | 4 | 5 | 2 | 11 | 6 | 5 | 3 | 0 | 0 |
| | 0.200-0.499 ha | 15 | 5 | 7 | 5 | 16 | 9 | 8 | 8 | 0 | 0 |
| | 0.500-0.999 ha | 15 | 6 | 6 | 4 | 16 | 10 | 8 | 8 | 1 | 0 |
| | 1.000-1.999ha | 22 | 10 | 9 | 8 | 23 | 17 | 12 | 13 | 1 | 1 |
| | 2.000 ha+ | 26 | 17 | 12 | 9 | 26 | 22 | 14 | 18 | 2 | 1 |
| Region | Northern | 22 | 8 | 7 | 5 | 18 | 13 | 7 | 8 | 1 | 1 |
| | Central | 15 | 8 | 6 | 5 | 15 | 11 | 8 | 10 | 1 | 0 |
| | Southern | 18 | 7 | 9 | 6 | 20 | 12 | 10 | 9 | 0 | 0 |
| ADD | Karonga | 28 | 5 | 10 | 5 | 14 | 11 | 4 | 6 | 0 | 0 |
| | Mzuzu | 20 | 10 | 6 | 5 | 19 | 14 | 8 | 9 | 2 | 2 |
| | Kasungu | 14 | 8 | 5 | 3 | 14 | 10 | 8 | 8 | 1 | 1 |
| | Salima | 17 | 10 | 8 | 6 | 16 | 13 | 8 | 6 | 0 | 0 |
| | Lilongwe | 15 | 7 | 6 | 6 | 16 | 11 | 8 | 12 | 1 | 0 |
| | Machinga | 15 | 5 | 6 | 5 | 20 | 13 | 8 | 8 | 0 | 0 |
| | Blantyre | 21 | 9 | 10 | 7 | 22 | 12 | 12 | 10 | 0 | 0 |
| | Shire Valley | 13 | 8 | 8 | 6 | 14 | 11 | 10 | 11 | 2 | 1 |

**Table 2.31: Proportion of households with permanent workers by activity, according to background variables. 2006/2007 Agricultural Season.**

| | | Land preparation | | Planting | | Weeding | | Harvesting | | Marketing | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men | Women | Men | Women | Men | Women | Men | Women | Men | Women |
| | Malawi | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 3 | 1 | 1 |
| | Male | 5 | 3 | 4 | 3 | 5 | 4 | 4 | 3 | 2 | 1 |
| Sex of head | Female | 2 | 3 | 2 | 2 | 2 | 3 | 2 | 2 | 1 | 1 |
| Poverty quintile | Poorest quintile | 2 | 3 | 2 | 3 | 3 | 4 | 2 | 3 | 1 | 1 |
| | Second quintile | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 1 |
| | 3rd quintile | 4 | 3 | 3 | 2 | 4 | 3 | 3 | 2 | 1 | 1 |
| | Fourth quintile | 5 | 3 | 4 | 2 | 4 | 3 | 4 | 2 | 1 | 1 |
| | Highest quintile | 5 | 2 | 5 | 2 | 5 | 3 | 5 | 3 | 1 | 1 |
| | Less than 0.1 ha | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 3 | 1 | 1 |
| Holding size | 0.100-0.199 ha | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 0 | 0 |
| | 0.200-0.499 ha | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 |
| | 0.500-0.999 ha | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 |
| | 1.000-1.999ha | 5 | 3 | 4 | 2 | 6 | 3 | 4 | 3 | 1 | 1 |
| | 2.000 ha+ | 11 | 5 | 9 | 5 | 10 | 6 | 10 | 5 | 3 | 3 |
| Region | Northern | 6 | 4 | 5 | 4 | 5 | 4 | 5 | 4 | 3 | 2 |
| | Central | 4 | 3 | 4 | 2 | 4 | 3 | 4 | 3 | 1 | 1 |
| | Southern | 4 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 1 | 1 |
| ADD | Karonga | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| | Mzuzu | 7 | 5 | 7 | 5 | 7 | 5 | 7 | 5 | 4 | 3 |
| | Kasungu | 6 | 3 | 6 | 3 | 6 | 4 | 6 | 3 | 2 | 2 |
| | Salima | 3 | 0 | 3 | 0 | 2 | 1 | 3 | 1 | 0 | 0 |
| | Lilongwe | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 |
| | Machinga | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 1 | 1 |
| | Blantyre | 3 | 2 | 3 | 2 | 4 | 3 | 3 | 2 | 1 | 1 |
| | Shire Valley | 10 | 11 | 10 | 10 | 10 | 13 | 10 | 10 | 2 | 0 |

**Table 2.32: Proportion of households who attended various extension services during the 2006/07 agricultural season, according to background variables. 2006/2007 Agricultural Season**

| | | Proportion that attended | Attended extension course | Attended village meeting | Visited on farm |
|---|---|---|---|---|---|
| | **Malawi** | **18** | **4** | **12** | **4** |
| | Male | 20 | 4 | 14 | 4 |
| **Sex of operator** | Female | 14 | 3 | 9 | 3 |
| Holding size | <0.099 ha | 13 | 4 | 8 | 2 |
| | 0.100-0.199 ha | 14 | 4 | 8 | 4 |
| | 0.200-0.499 ha | 16 | 3 | 12 | 3 |
| | 0.500-0.999 ha | 19 | 3 | 12 | 4 |
| | 1.000-1.999ha | 21 | 6 | 14 | 6 |
| | 2.000 ha+ | 25 | 6 | 18 | 6 |
| Region | Northern | 33 | 8 | 22 | 7 |
| | Central | 18 | 4 | 11 | 3 |
| | Southern | 16 | 3 | 11 | 4 |
| ADD | Karonga | 37 | 10 | 24 | 9 |
| | Mzuzu | 32 | 7 | 22 | 7 |
| | Kasungu | 17 | 4 | 11 | 4 |
| | Salima | 14 | 4 | 7 | 5 |
| | Lilongwe | 18 | 4 | 12 | 3 |
| | Machinga | 14 | 3 | 9 | 4 |
| | Blantyre | 15 | 2 | 12 | 4 |
| | Shire Valley | 23 | 3 | 16 | 4 |
| District | Chitipa | 51 | 17 | 29 | 10 |
| | Karonga | 28 | 5 | 21 | 7 |
| | Rumphi | 37 | 18 | 27 | 12 |
| | Nkhata Bay | 25 | 7 | 16 | 3 |
| | Likoma | 20 | 5 | 11 | 5 |
| | Mzimba | 34 | 4 | 23 | 6 |
| | Kasungu | 18 | 4 | 12 | 4 |
| | Ntchisi | 20 | 2 | 13 | 5 |
| | Dowa | 14 | 4 | 8 | 3 |
| | Nkhota kota | 16 | 6 | 8 | 7 |
| | Salima | 12 | 2 | 6 | 4 |
| | Dedza | 18 | 7 | 11 | 3 |
| | Ntcheu | 24 | 4 | 16 | 3 |
| | Lilongwe Rural | 18 | 4 | 12 | 3 |
| | Mchinji | 19 | 5 | 12 | 4 |
| | Balaka | 11 | 4 | 7 | 3 |
| | Mangochi | 15 | 2 | 12 | 5 |
| | Machinga | 15 | 4 | 8 | 3 |
| | Zomba Rural | 13 | 3 | 7 | 3 |
| | Chiradzulu | 23 | 3 | 18 | 5 |
| | Blantyre Rural | 16 | 1 | 13 | 2 |
| | Thyolo | 13 | 2 | 9 | 2 |
| | Mulanje | 20 | 6 | 15 | 9 |
| | Phalombe | 9 | 0 | 5 | 3 |
| | Mwanza | 26 | 3 | 20 | 7 |
| | Chikwawa | 25 | 3 | 18 | 4 |
| | Nsanje | 16 | 2 | 13 | 2 |

**Table 2.33: Proportion of households who did not attend and Percentage distribution of households who did not attend extension services during the 2006/07 agricultural season by reason for not attending, according to background variables. 2006/2007 Agricultural Season**

| | | | Reason for not attending | | | |
|---|---|---|---|---|---|---|
| | | Proportion that did not attend | Extension worker not available | Available but no visit | Available but farmer not part in ext work meet | Total |
| | **Malawi** | **82** | **38** | **49** | **13** | **100** |
| Sex of head of Household | Male | 80 | 39 | 49 | 12 | 100 |
| | Female | 86 | 37 | 48 | 15 | 100 |
| Holding size | <0.099 ha | 87 | 48 | 37 | 14 | 100 |
| | 0.100-0.199 ha | 86 | 46 | 41 | 13 | 100 |
| | 0.200-0.499 ha | 84 | 37 | 46 | 17 | 100 |
| | 0.500-0.999 ha | 81 | 38 | 50 | 12 | 100 |
| | 1.000-1.999ha | 79 | 36 | 55 | 9 | 100 |
| | 2.000 ha+ | 75 | 37 | 53 | 10 | 100 |
| Region | Northern | 67 | 24 | 61 | 15 | 100 |
| | Central | 82 | 36 | 53 | 11 | 100 |
| | Southern | 84 | 42 | 43 | 14 | 100 |
| ADD | Karonga | 63 | 20 | 60 | 20 | 100 |
| | Mzuzu | 68 | 25 | 62 | 13 | 100 |
| | Kasungu | 83 | 37 | 57 | 6 | 100 |
| | Salima | 86 | 37 | 56 | 8 | 100 |
| | Lilongwe | 82 | 36 | 50 | 13 | 100 |
| | Machinga | 86 | 42 | 43 | 16 | 100 |
| | Blantyre | 85 | 44 | 45 | 11 | 100 |
| | Shire Valley | 77 | 39 | 34 | 27 | 100 |
| District | Chitipa | 49 | 11 | 67 | 23 | 100 |
| | Karonga | 72 | 25 | 57 | 18 | 100 |
| | Rumphi | 63 | 14 | 71 | 15 | 100 |
| | Nkhata Bay | 75 | 25 | 65 | 11 | 100 |
| | Likoma | 80 | 24 | 32 | 44 | 100 |
| | Mzimba | 66 | 25 | 61 | 14 | 100 |
| | Kasungu | 82 | 31 | 63 | 6 | 100 |
| | Ntchisi | 80 | 26 | 69 | 5 | 100 |
| | Dowa | 86 | 50 | 46 | 3 | 100 |
| | Nkhota kota | 84 | 44 | 43 | 14 | 100 |
| | Salima | 88 | 31 | 67 | 3 | 100 |
| | Dedza | 82 | 32 | 58 | 10 | 100 |
| | Ntcheu | 76 | 35 | 55 | 9 | 100 |
| | Lilongwe Rural | 82 | 37 | 50 | 12 | 100 |
| | Mchinji | 81 | 31 | 57 | 12 | 100 |
| | Balaka | 89 | 43 | 52 | 5 | 100 |
| | Mangochi | 85 | 35 | 42 | 23 | 100 |
| | Machinga | 85 | 41 | 49 | 10 | 100 |
| | Zomba Rural | 87 | 44 | 38 | 18 | 100 |
| | Chiradzulu | 77 | 33 | 56 | 11 | 100 |
| | Blantyre Rural | 84 | 37 | 53 | 11 | 100 |
| | Thyolo | 87 | 42 | 44 | 13 | 100 |
| | Mulanje | 80 | 39 | 42 | 18 | 100 |
| | Phalombe | 91 | 37 | 57 | 6 | 100 |
| | Mwanza | 74 | 24 | 66 | 11 | 100 |
| | Chikwawa | 75 | 32 | 35 | 33 | 100 |
| | Nsanje | 84 | 53 | 34 | 13 | 100 |

**Table 2.34: Percentage distribution of parcels by whether they have ever been left fallow during the last three years, according to background variables. 2006/2007 Agricultural Season**

| | | Left fallow | Not left fallow | Total |
|---|---|---|---|---|
| | **Malawi** | **14** | **86** | **100** |
| | Male | 14 | 86 | 100 |
| **Sex of operator** | Female | 13 | 87 | 100 |
| **Parcel size** | <0.100 ha | 10 | 90 | 100 |
| | 0.100-0.199 ha | 10 | 90 | 100 |
| | 0.200-0.499 ha | 12 | 88 | 100 |
| | 0.500-0.999 ha | 18 | 82 | 100 |
| | 1.000 ha + | 26 | 74 | 100 |
| **Region** | Southern | 10 | 90 | 100 |
| | Central | 15 | 85 | 100 |
| | Northern | 24 | 76 | 100 |
| **ADD** | Karonga | 22 | 78 | 100 |
| | Mzuzu | 26 | 74 | 100 |
| | Kasungu | 23 | 77 | 100 |
| | Salima | 19 | 81 | 100 |
| | Lilongwe | 11 | 89 | 100 |
| | Machinga | 11 | 89 | 100 |
| | Blantyre | 8 | 92 | 100 |
| | Shire Valley | 15 | 85 | 100 |
| **District** | Chitipa | 36 | 64 | 100 |
| | Karonga | 13 | 87 | 100 |
| | Rumphi | 13 | 87 | 100 |
| | Nkhata Bay | 27 | 73 | 100 |
| | Likoma | 37 | 63 | 100 |
| | Mzimba | 31 | 69 | 100 |
| | Kasungu | 27 | 73 | 100 |
| | Ntchisi | 24 | 76 | 100 |
| | Dowa | 20 | 80 | 100 |
| | Nkhota kota | 25 | 75 | 100 |
| | Salima | 14 | 86 | 100 |
| | Dedza | 9 | 91 | 100 |
| | Ntcheu | 14 | 86 | 100 |
| | Lilongwe Rural | 12 | 88 | 100 |
| | Mchinji | 19 | 81 | 100 |
| | Balaka | 11 | 89 | 100 |
| | Mangochi | 6 | 94 | 100 |
| | Machinga | 8 | 92 | 100 |
| | Zomba Rural | 14 | 86 | 100 |
| | Chiradzulu | 7 | 93 | 100 |
| | Blantyre Rural | 7 | 93 | 100 |
| | Thyolo | 6 | 94 | 100 |
| | Mulanje | 8 | 92 | 100 |
| | Phalombe | 11 | 89 | 100 |
| | Mwanza | 23 | 77 | 100 |
| | Chikwawa | 16 | 84 | 100 |
| | Nsanje | 12 | 88 | 100 |

**Table 2.35: Percentage distribution of parcels by whether crop rotation has been practiced, and type of rotation on plots with crop rotation according to background variables. 2006/2007 Agricultural Season**

| | | If crop rotation has been practiced | | | | Type of rotation | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Yes, on all | Yes, on a part | No | Total | Irregular rotation of crops | Systematic rotation of crops | Other | Total |
| **Sex of operator** | Malawi | 19 | 9 | 72 | 100 | **51** | **46** | **2** | **100** |
| | Male | 22 | 9 | 69 | 100 | 51 | 47 | 2 | 100 |
| | Female | 15 | 8 | 78 | 100 | 53 | 44 | 3 | 100 |
| **Parcel size** | <0.100 ha | 15 | 4 | 82 | 100 | 50 | 46 | 4 | 100 |
| | 0.100-0.199 ha | 16 | 5 | 79 | 100 | 47 | 50 | 3 | 100 |
| | 0.200-0.499 ha | 19 | 7 | 74 | 100 | 51 | 47 | 2 | 100 |
| | 0.500-0.999 ha | 24 | 12 | 64 | 100 | 53 | 45 | 3 | 100 |
| | 1.000 ha + | 29 | 24 | 47 | 100 | 50 | 48 | 2 | 100 |
| **Region** | Southern | 7 | 4 | 89 | 100 | 58 | 33 | 9 | 100 |
| | Central | 36 | 14 | 50 | 100 | 48 | 51 | 1 | 100 |
| | Northern | 17 | 12 | 71 | 100 | 52 | 47 | 1 | 100 |
| **ADD** | Karonga | 11 | 9 | 79 | 100 | 54 | 46 | 0 | 100 |
| | Mzuzu | 21 | 13 | 66 | 100 | 52 | 47 | 2 | 100 |
| | Kasungu | 47 | 22 | 30 | 100 | 57 | 43 | 1 | 100 |
| | Salima | 24 | 7 | 68 | 100 | 64 | 32 | 3 | 100 |
| | Lilongwe | 33 | 12 | 55 | 100 | 41 | 59 | 1 | 100 |
| | Machinga | 10 | 5 | 85 | 100 | 64 | 33 | 3 | 100 |
| | Blantyre | 4 | 3 | 94 | 100 | 58 | 28 | 14 | 100 |
| | Shire Valley | 13 | 4 | 84 | 100 | 40 | 43 | 17 | 100 |
| **District** | Chitipa | 17 | 16 | 68 | 100 | 46 | 54 | 1 | 100 |
| | Karonga | 8 | 5 | 87 | 100 | 69 | 31 | 0 | 100 |
| | Rumphi | 30 | 6 | 64 | 100 | 52 | 47 | 1 | 100 |
| | Nkhata Bay | 3 | 6 | 91 | 100 | 66 | 19 | 15 | 100 |
| | Likoma | 5 | 13 | 83 | 100 | 100 | 0 | 0 | 100 |
| | Mzimba | 23 | 19 | 58 | 100 | 51 | 49 | 1 | 100 |
| | Kasungu | 43 | 22 | 36 | 100 | 69 | 31 | 1 | 100 |
| | Ntchisi | 49 | 18 | 33 | 100 | 35 | 64 | 1 | 100 |
| | Dowa | 53 | 21 | 26 | 100 | 68 | 31 | 1 | 100 |
| | Nkhota kota | 18 | 7 | 75 | 100 | 65 | 30 | 5 | 100 |
| | Salima | 30 | 8 | 62 | 100 | 63 | 34 | 3 | 100 |
| | Dedza | 21 | 14 | 65 | 100 | 39 | 60 | 2 | 100 |
| | Ntcheu | 13 | 9 | 79 | 100 | 55 | 43 | 2 | 100 |
| | Lilongwe Rural | 47 | 13 | 40 | 100 | 42 | 58 | 1 | 100 |
| | Mchinji | 46 | 28 | 26 | 100 | 28 | 72 | 0 | 100 |
| | Balaka | 18 | 13 | 70 | 100 | 70 | 30 | 1 | 100 |
| | Mangochi | 6 | 5 | 89 | 100 | 65 | 27 | 8 | 100 |
| | Machinga | 5 | 4 | 92 | 100 | 67 | 28 | 4 | 100 |
| | Zomba Rural | 12 | 4 | 84 | 100 | 58 | 39 | 3 | 100 |
| | Chiradzulu | 7 | 4 | 88 | 100 | 55 | 39 | 5 | 100 |
| | Blantyre Rural | 2 | 4 | 94 | 100 | 69 | 13 | 18 | 100 |
| | Thyolo | 2 | 1 | 96 | 100 | 72 | 21 | 8 | 100 |
| | Mulanje | 3 | 1 | 96 | 100 | 52 | 32 | 16 | 100 |
| | Phalombe | 9 | 3 | 88 | 100 | 54 | 40 | 7 | 100 |
| | Mwanza | 3 | 6 | 91 | 100 | 56 | 34 | 10 | 100 |
| | Chikwawa | 15 | 4 | 81 | 100 | 33 | 53 | 15 | 100 |
| | Nsanje | 7 | 3 | 90 | 100 | 67 | 9 | 24 | 100 |

**Table 2.36: Proportion of parcels with irrigation and percentage distribution of parcels with irrigation by irrigation method used, according to background variables. 2006/2007 Agricultural Season**

| | | | Irrigation method used | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Proportion with irrigation | Motorised pump | Treadle pump | Gravity fed | Sprinkler | Watering cans | Flooding | Other | Total |
| | **Malawi** | **5** | **1** | **6** | **11** | **1** | **62** | **14** | **5** | **100** |
| **Sex of operator** | Male | 5 | 1 | 7 | 11 | 1 | 64 | 13 | 3 | 100 |
| | Female | 4 | 0 | 4 | 11 | 1 | 57 | 18 | 9 | 100 |
| **Parcel size** | <0.100 ha | 7 | 0 | 4 | 9 | 0 | 66 | 14 | 6 | 100 |
| | 0.100-0.199 ha | 5 | 1 | 8 | 10 | 0 | 60 | 16 | 6 | 100 |
| | 0.200-0.499 ha | 4 | 2 | 5 | 11 | 1 | 60 | 17 | 4 | 100 |
| | 0.500-0.999 ha | 4 | 2 | 9 | 14 | 2 | 57 | 12 | 4 | 100 |
| | 1.000 ha + | 4 | 0 | 11 | 8 | 1 | 69 | 6 | 5 | 100 |
| **Region** | Southern | 4 | 1 | 4 | 14 | 0 | 55 | 18 | 8 | 100 |
| | Central | 6 | 1 | 9 | 7 | 0 | 70 | 12 | 2 | 100 |
| | Northern | 3 | 4 | 6 | 20 | 4 | 49 | 11 | 6 | 100 |
| **ADD** | Karonga | 3 | 10 | 5 | 38 | 3 | 23 | 18 | 5 | 100 |
| | Mzuzu | 3 | 0 | 6 | 7 | 6 | 68 | 6 | 6 | 100 |
| | Kasungu | 7 | 2 | 10 | 7 | 0 | 79 | 1 | 0 | 100 |
| | Salima | 4 | 0 | 14 | 24 | 0 | 33 | 20 | 9 | 100 |
| | Lilongwe | 6 | 0 | 8 | 4 | 0 | 69 | 17 | 2 | 100 |
| | Machinga | 5 | 1 | 5 | 15 | 1 | 45 | 31 | 3 | 100 |
| | Blantyre | 4 | 0 | 2 | 15 | 0 | 68 | 2 | 13 | 100 |
| | Shire Valley | 4 | 1 | 16 | 5 | 0 | 28 | 47 | 2 | 100 |
| **District** | Chitipa | 2 | 0 | 3 | 16 | 2 | 51 | 16 | 12 | 100 |
| | Karonga | 4 | 13 | 5 | 45 | 3 | 13 | 18 | 2 | 100 |
| | Rumphi | 2 | 2 | 2 | 5 | 30 | 58 | 3 | 1 | 100 |
| | Nkhata Bay | 5 | 0 | 8 | 13 | 3 | 47 | 16 | 14 | 100 |
| | Likoma | 12 | 0 | 49 | 0 | 0 | 22 | 11 | 19 | 100 |
| | Mzimba | 3 | 0 | 5 | 2 | 0 | 90 | 0 | 3 | 100 |
| | Kasungu | 7 | 1 | 11 | 0 | 0 | 86 | 2 | 0 | 100 |
| | Ntchisi | 6 | 21 | 23 | 2 | 0 | 52 | 1 | 0 | 100 |
| | Dowa | 10 | 0 | 4 | 16 | 0 | 81 | 0 | 0 | 100 |
| | Nkhota kota | 6 | 0 | 9 | 26 | 0 | 36 | 18 | 11 | 100 |
| | Salima | 1 | 0 | 29 | 17 | 0 | 22 | 29 | 3 | 100 |
| | Dedza | 8 | 0 | 9 | 1 | 0 | 57 | 31 | 2 | 100 |
| | Ntcheu | 4 | 1 | 7 | 7 | 0 | 37 | 47 | 1 | 100 |
| | Lilongwe Rural | 6 | 0 | 6 | 5 | 0 | 83 | 3 | 2 | 100 |
| | Mchinji | 4 | 0 | 20 | 0 | 0 | 71 | 6 | 3 | 100 |
| | Balaka | 4 | 4 | 2 | 9 | 0 | 74 | 2 | 9 | 100 |
| | Mangochi | 3 | 0 | 20 | 0 | 2 | 54 | 17 | 8 | 100 |
| | Machinga | 9 | 0 | 1 | 31 | 0 | 7 | 61 | 0 | 100 |
| | Zomba Rural | 5 | 1 | 3 | 10 | 1 | 60 | 25 | 0 | 100 |
| | Chiradzulu | 5 | 0 | 2 | 0 | 0 | 88 | 0 | 10 | 100 |
| | Blantyre Rural | 4 | 0 | 1 | 7 | 0 | 76 | 0 | 15 | 100 |
| | Thyolo | 5 | 0 | 1 | 2 | 0 | 80 | 1 | 16 | 100 |
| | Mulanje | 2 | 0 | 1 | 16 | 0 | 65 | 8 | 10 | 100 |
| | Phalombe | 7 | 0 | 1 | 50 | 0 | 34 | 4 | 10 | 100 |
| | Mwanza | 5 | 0 | 8 | 7 | 2 | 64 | 1 | 17 | 100 |
| | Chikwawa | 3 | 0 | 24 | 11 | 0 | 56 | 6 | 3 | 100 |
| | Nsanje | 7 | 2 | 9 | 0 | 0 | 3 | 84 | 2 | 100 |

**Table 2.37: Percent distribution of Plots by ridging method, according to background variables, 2006/2007 Agricultural Season**

| | | Not ridged | Used a hoe | Mechanized ridging | Total |
|---|---|---|---|---|---|
| | **Malawi** | **7** | **91** | **2** | **100** |
| **Sex of operator** | Male | 7 | 90 | 3 | 100 |
| | Female | 7 | 91 | 2 | 100 |
| **Plot size** | <0.100 ha | 9 | 89 | 1 | 100 |
| | 0.100-0.199 ha | 8 | 90 | 2 | 100 |
| | 0.200-0.499 ha | 7 | 91 | 2 | 100 |
| | 0.500-0.999 ha | 4 | 92 | 3 | 100 |
| | 1.000 ha+ | 6 | 91 | 3 | 100 |
| **Region** | Northern | 11 | 81 | 8 | 100 |
| | Central | 3 | 95 | 2 | 100 |
| | Southern | 9 | 90 | 1 | 100 |
| **ADD** | Karonga | 22 | 76 | 2 | 100 |
| | Mzuzu | 5 | 84 | 11 | 100 |
| | Kasungu | 2 | 95 | 3 | 100 |
| | Salima | 12 | 87 | 0 | 100 |
| | Lilongwe | 3 | 96 | 1 | 100 |
| | Machinga | 6 | 93 | 1 | 100 |
| | Blantyre | 4 | 96 | 1 | 100 |
| | Shire Valley | 51 | 48 | 1 | 100 |
| **District** | Chitipa | 7 | 92 | 1 | 100 |
| | Karonga | 41 | 55 | 4 | 100 |
| | Rumphi | 2 | 97 | 0 | 100 |
| | Nkhata Bay | 11 | 89 | 0 | 100 |
| | Likoma | 0 | 100 | 0 | 100 |
| | Mzimba | 5 | 78 | 18 | 100 |
| | Kasungu | 1 | 92 | 7 | 100 |
| | Ntchisi | 2 | 97 | 1 | 100 |
| | Dowa | 4 | 96 | 0 | 100 |
| | Nkhotakota | 16 | 84 | 0 | 100 |
| | Salima | 8 | 92 | 0 | 100 |
| | Dedza | 3 | 95 | 2 | 100 |
| | Ntcheu | 2 | 95 | 3 | 100 |
| | Lilongwe rural | 2 | 97 | 1 | 100 |
| | Mchinji | 0 | 99 | 0 | 100 |
| | Balaka | 5 | 94 | 1 | 100 |
| | Mangochi | 8 | 91 | 2 | 100 |
| | Machinga | 9 | 89 | 2 | 100 |
| | Zomba rural | 5 | 95 | 0 | 100 |
| | Chiradzulu | 3 | 97 | 0 | 100 |
| | Blantyre rural | 2 | 98 | 0 | 100 |
| | Thyolo | 3 | 97 | 0 | 100 |
| | Mulanje | 3 | 94 | 3 | 100 |
| | Phalombe | 10 | 90 | 0 | 100 |
| | Mwanza | 2 | 96 | 2 | 100 |
| | Chikwawa | 45 | 53 | 2 | 100 |
| | Nsanje | 63 | 37 | 1 | 100 |

**Table 2.38: Percent distribution of Plots by planting method, according to background variables, 2006/2007 Agricultural Season**

| | | Manual only | Used a hoe | Mechanized | Total |
|---|---|---|---|---|---|
| | **Malawi** | **25** | **74** | **1** | **100** |
| **Sex of operator** | Male | 26 | 73 | 1 | 100 |
| | Female | 23 | 76 | 0 | 100 |
| **Plot size** | <0.100 ha | 36 | 64 | 1 | 100 |
| | 0.100-0.199 ha | 29 | 71 | 1 | 100 |
| | 0.200-0.499 ha | 21 | 79 | 1 | 100 |
| | 0.500-0.999 ha | 17 | 82 | 0 | 100 |
| | 1.000 ha+ | 16 | 84 | 0 | 100 |
| **Region** | Northern | 49 | 50 | 1 | 100 |
| | Central | 30 | 70 | 1 | 100 |
| | Southern | 10 | 90 | 1 | 100 |
| **ADD** | Karonga | 45 | 53 | 2 | 100 |
| | Mzuzu | 52 | 48 | 0 | 100 |
| | Kasungu | 33 | 67 | 0 | 100 |
| | Salima | 37 | 63 | 0 | 100 |
| | Lilongwe | 27 | 73 | 1 | 100 |
| | Machinga | 12 | 87 | 1 | 100 |
| | Blantyre | 9 | 91 | 0 | 100 |
| | Shire Valley | 8 | 92 | 1 | 100 |
| **District** | Chitipa | 30 | 70 | 0 | 100 |
| | Karonga | 64 | 32 | 5 | 100 |
| | Rumphi | 33 | 67 | 0 | 100 |
| | Nkhata Bay | 84 | 16 | 0 | 100 |
| | Likoma | 75 | 25 | 0 | 100 |
| | Mzimba | 48 | 52 | 0 | 100 |
| | Kasungu | 45 | 55 | 0 | 100 |
| | Ntchisi | 43 | 57 | 1 | 100 |
| | Dowa | 25 | 75 | 0 | 100 |
| | Nkhotakota | 66 | 34 | 0 | 100 |
| | Salima | 6 | 94 | 0 | 100 |
| | Dedza | 42 | 57 | 1 | 100 |
| | Ntcheu | 38 | 61 | 1 | 100 |
| | Lilongwe rural | 18 | 82 | 0 | 100 |
| | Mchinji | 18 | 82 | 0 | 100 |
| | Balaka | 21 | 79 | 1 | 100 |
| | Mangochi | 9 | 89 | 2 | 100 |
| | Machinga | 17 | 81 | 1 | 100 |
| | Zomba rural | 10 | 90 | 0 | 100 |
| | Chiradzulu | 5 | 95 | 0 | 100 |
| | Blantyre rural | 11 | 88 | 0 | 100 |
| | Thyolo | 2 | 98 | 0 | 100 |
| | Mulanje | 5 | 93 | 1 | 100 |
| | Phalombe | 14 | 85 | 0 | 100 |
| | Mwanza | 31 | 68 | 0 | 100 |
| | Chikwawa | 7 | 92 | 1 | 100 |
| | Nsanje | 8 | 91 | 1 | 100 |

**Table 2.39: Percent distribution of Plots by weeding method, according to background variables, 2006/2007 Agricultural Season**

| | | Not weeded | Manual only | Used a hoe | Mechanized | Total |
|---|---|---|---|---|---|---|
| | **Malawi** | **1** | **3** | **95** | **1** | **100** |
| **Sex of operator** | Male | 1 | 3 | 95 | 1 | 100 |
| | Female | 1 | 4 | 95 | 0 | 100 |
| **Plot size** | <0.100 ha | 2 | 5 | 92 | 1 | 100 |
| | 0.100-0.199 ha | 2 | 4 | 94 | 1 | 100 |
| | 0.200-0.499 ha | 1 | 3 | 96 | 1 | 100 |
| | 0.500-0.999 ha | 1 | 1 | 98 | 0 | 100 |
| | 1.000 ha+ | 2 | 2 | 96 | 0 | 100 |
| **Region** | Northern | 2 | 7 | 89 | 1 | 100 |
| | Central | 1 | 2 | 96 | 0 | 100 |
| | Southern | 1 | 3 | 95 | 0 | 100 |
| **ADD** | Karonga | 3 | 14 | 80 | 2 | 100 |
| | Mzuzu | 2 | 3 | 94 | 1 | 100 |
| | Kasungu | 1 | 1 | 97 | 0 | 100 |
| | Salima | 1 | 9 | 91 | 0 | 100 |
| | Lilongwe | 1 | 1 | 97 | 0 | 100 |
| | Machinga | 1 | 4 | 95 | 0 | 100 |
| | Blantyre | 1 | 2 | 97 | 0 | 100 |
| | Shire Valley | 3 | 6 | 91 | 1 | 100 |
| **District** | Chitipa | 5 | 5 | 90 | 0 | 100 |
| | Karonga | 1 | 26 | 68 | 5 | 100 |
| | Rumphi | 3 | 3 | 95 | 0 | 100 |
| | Nkhata Bay | 2 | 9 | 89 | 0 | 100 |
| | Likoma | 0 | 2 | 98 | 0 | 100 |
| | Mzimba | 2 | 1 | 96 | 1 | 100 |
| | Kasungu | 1 | 0 | 99 | 0 | 100 |
| | Ntchisi | 3 | 1 | 96 | 0 | 100 |
| | Dowa | 1 | 4 | 95 | 0 | 100 |
| | Nkhotakota | 1 | 13 | 86 | 0 | 100 |
| | Salima | 0 | 4 | 95 | 1 | 100 |
| | Dedza | 1 | 3 | 96 | 1 | 100 |
| | Ntcheu | 1 | 1 | 98 | 1 | 100 |
| | Lilongwe rural | 2 | 1 | 97 | 0 | 100 |
| | Mchinji | 1 | 0 | 99 | 0 | 100 |
| | Balaka | 0 | 5 | 94 | 1 | 100 |
| | Mangochi | 1 | 1 | 97 | 0 | 100 |
| | Machinga | 2 | 9 | 87 | 2 | 100 |
| | Zomba rural | 0 | 5 | 95 | 0 | 100 |
| | Chiradzulu | 3 | 0 | 96 | 1 | 100 |
| | Blantyre rural | 0 | 1 | 99 | 0 | 100 |
| | Thyolo | 1 | 0 | 99 | 0 | 100 |
| | Mulanje | 1 | 3 | 96 | 0 | 100 |
| | Phalombe | 5 | 7 | 88 | 0 | 100 |
| | Mwanza | 1 | 1 | 99 | 0 | 100 |
| | Chikwawa | 3 | 4 | 92 | 1 | 100 |
| | Nsanje | 2 | 10 | 88 | 0 | 100 |

**Table 2.40: Proportion of plots where pesticides were applied, according to background variables. 2006/2007 Agricultural Season.**

| | | Pesticides applied | Pesticides not applied | Total |
|---|---|---|---|---|
| | Malawi | 2 | 98 | 100 |
| Sex of operator | Male | 3 | 97 | 100 |
| | Female | 2 | 98 | 100 |
| Plot size | <0.100 ha | 2 | 98 | 100 |
| | 0.100-0.199 ha | 2 | 98 | 100 |
| | 0.200-0.499 ha | 3 | 97 | 100 |
| | 0.500-0.999 ha | 3 | 97 | 100 |
| | 1.000 ha+ | 3 | 97 | 100 |
| Region | Northern | 2 | 98 | 100 |
| | Central | 2 | 98 | 100 |
| | Southern | 3 | 97 | 100 |
| ADD | Karonga | 3 | 97 | 100 |
| | Mzuzu | 1 | 99 | 100 |
| | Kasungu | 1 | 99 | 100 |
| | Salima | 7 | 93 | 100 |
| | Lilongwe | 1 | 99 | 100 |
| | Machinga | 4 | 96 | 100 |
| | Blantyre | 1 | 99 | 100 |
| | Shire Valley | 13 | 87 | 100 |
| District | Chitipa | 1 | 99 | 100 |
| | Karonga | 6 | 94 | 100 |
| | Rumphi | 1 | 99 | 100 |
| | Nkhata Bay | 0 | 100 | 100 |
| | Likoma | 0 | 100 | 100 |
| | Mzimba | 1 | 99 | 100 |
| | Kasungu | 1 | 99 | 100 |
| | Ntchisi | 2 | 98 | 100 |
| | Dowa | 2 | 98 | 100 |
| | Nkhotakota | 1 | 99 | 100 |
| | Salima | 14 | 86 | 100 |
| | Dedza | 3 | 97 | 100 |
| | Ntcheu | 1 | 99 | 100 |
| | Lilongwe rural | 1 | 99 | 100 |
| | Mchinji | 1 | 99 | 100 |
| | Balaka | 11 | 89 | 100 |
| | Mangochi | 4 | 96 | 100 |
| | Machinga | 1 | 99 | 100 |
| | Zomba rural | 3 | 97 | 100 |
| | Chiradzulu | 1 | 99 | 100 |
| | Blantyre rural | 1 | 99 | 100 |
| | Thyolo | 1 | 99 | 100 |
| | Mulanje | 0 | 100 | 100 |
| | Phalombe | 0 | 100 | 100 |
| | Mwanza | 3 | 97 | 100 |
| | Chikwawa | 18 | 82 | 100 |
| | Nsanje | 4 | 96 | 100 |

**Table 2.41: Number of Plots by fertilizer use, according to background variables. 2006/2007 Agricultural Season.**

| | | Not fertilized | Used organic fertilizer | Used inorganic fertilizer | Total |
|---|---|---|---|---|---|
| | Malawi | 47 | 1 | 51 | 100 |
| Sex | Male | 46 | 1 | 52 | 100 |
| | Female | 49 | 1 | 50 | 100 |
| Plot size | <0.100 ha | 61 | 1 | 38 | 100 |
| | 0.100-0.199 ha | 50 | 1 | 49 | 100 |
| | 0.200-0.499 ha | 44 | 1 | 55 | 100 |
| | 0.500-0.999 ha | 37 | 1 | 62 | 100 |
| | 1.000 ha+ | 36 | 2 | 61 | 100 |
| Region | Northern | 50 | 1 | 49 | 100 |
| | Central | 48 | 2 | 51 | 100 |
| | Southern | 46 | 1 | 53 | 100 |
| ADD | Karonga | 63 | 1 | 36 | 100 |
| | Mzuzu | 43 | 0 | 56 | 100 |
| | Kasungu | 48 | 2 | 51 | 100 |
| | Salima | 70 | 1 | 30 | 100 |
| | Lilongwe | 43 | 2 | 54 | 100 |
| | Machinga | 44 | 1 | 55 | 100 |
| | Blantyre | 38 | 1 | 61 | 100 |
| | Shire Valley | 92 | 0 | 8 | 100 |
| District | Chitipa | 45 | 2 | 53 | 100 |
| | Karonga | 86 | 0 | 14 | 100 |
| | Rumphi | 30 | 0 | 69 | 100 |
| | Nkhata Bay | 81 | 0 | 19 | 100 |
| | Likoma | 29 | 7 | 64 | 100 |
| | Mzimba | 37 | 0 | 63 | 100 |
| | Kasungu | 49 | 1 | 50 | 100 |
| | Ntchisi | 47 | 2 | 51 | 100 |
| | Dowa | 48 | 3 | 49 | 100 |
| | Nkhotakota | 70 | 1 | 29 | 100 |
| | Salima | 69 | 1 | 30 | 100 |
| | Dedza | 50 | 1 | 49 | 100 |
| | Ntcheu | 35 | 2 | 63 | 100 |
| | Lilongwe rural | 46 | 3 | 52 | 100 |
| | Mchinji | 46 | 1 | 53 | 100 |
| | Balaka | 68 | 2 | 31 | 100 |
| | Mangochi | 57 | 1 | 42 | 100 |
| | Machinga | 36 | 2 | 62 | 100 |
| | Zomba rural | 32 | 0 | 68 | 100 |
| | Chiradzulu | 29 | 1 | 71 | 100 |
| | Blantyre rural | 33 | 1 | 66 | 100 |
| | Thyolo | 31 | 2 | 68 | 100 |
| | Mulanje | 61 | 1 | 38 | 100 |
| | Phalombe | 46 | 1 | 53 | 100 |
| | Mwanza | 52 | 1 | 47 | 100 |
| | Chikwawa | 91 | 0 | 9 | 100 |
| | Nsanje | 95 | 0 | 5 | 100 |

**Table 2.42 : Proportion of plots where inorganic fertilizer was applied by how it was obtained according to background variables. 2006/2007 Agricultural Season.**

| | | Bought | Credit | Contract farming | Subsidy | Free,NGO, Church | Other |
|---|---|---|---|---|---|---|---|
| | Malawi | 47 | 1 | 1 | 60 | 2 | 1 |
| Sex of operator | Male | 47 | 1 | 1 | 61 | 1 | 1 |
| | Female | 46 | 1 | 1 | 59 | 2 | 1 |
| Plot size | <0.100 ha | 45 | 2 | 1 | 55 | 3 | 1 |
| | 0.100-0.199 ha | 40 | 1 | 1 | 63 | 2 | 1 |
| | 0.200-0.499 ha | 48 | 1 | 1 | 60 | 1 | 1 |
| | 0.500-0.999 ha | 51 | 1 | 1 | 61 | 1 | 0 |
| | 1.000 ha+ | 61 | 2 | 1 | 54 | 1 | 1 |
| Region | Northern | 38 | 1 | 0 | 75 | 1 | 1 |
| | Central | 57 | 1 | 1 | 53 | 1 | 0 |
| | Southern | 40 | 2 | 1 | 61 | 3 | 1 |
| ADD | Karonga | 38 | 1 | 1 | 66 | 2 | 1 |
| | Mzuzu | 38 | 1 | 0 | 78 | 1 | 1 |
| | Kasungu | 46 | 2 | 1 | 66 | 1 | 1 |
| | Salima | 53 | 1 | 0 | 45 | 4 | 1 |
| | Lilongwe | 63 | 1 | 1 | 48 | 1 | 0 |
| | Machinga | 42 | 2 | 2 | 60 | 3 | 1 |
| | Blantyre | 39 | 1 | 1 | 62 | 2 | 1 |
| | Shire Valley | 66 | 18 | 0 | 22 | 20 | 5 |
| District | Chitipa | 40 | 1 | 1 | 65 | 2 | 0 |
| | Karonga | 30 | 1 | 0 | 68 | 2 | 4 |
| | Rumphi | 42 | 2 | 0 | 72 | 1 | 3 |
| | Nkhata Bay | 49 | 0 | 0 | 42 | 3 | 9 |
| | Likoma | 9 | 0 | 0 | 54 | 39 | 0 |
| | Mzimba | 35 | 1 | 0 | 85 | 1 | 0 |
| | Kasungu | 50 | 1 | 1 | 64 | 1 | 1 |
| | Ntchisi | 41 | 3 | 0 | 79 | 2 | 0 |
| | Dowa | 55 | 2 | 1 | 54 | 0 | 1 |
| | Nkhotakota | 55 | 1 | 1 | 39 | 5 | 1 |
| | Salima | 50 | 1 | 0 | 51 | 3 | 0 |
| | Dedza | 74 | 1 | 0 | 37 | 2 | 0 |
| | Ntcheu | 58 | 1 | 0 | 64 | 1 | 0 |
| | Lilongwe rural | 51 | 1 | 1 | 57 | 1 | 0 |
| | Mchinji | 30 | 1 | 1 | 78 | 0 | 0 |
| | Balaka | 41 | 4 | 1 | 59 | 2 | 1 |
| | Mangochi | 48 | 1 | 0 | 53 | 2 | 1 |
| | Machinga | 28 | 0 | 0 | 79 | 1 | 1 |
| | Zomba rural | 40 | 2 | 3 | 61 | 4 | 1 |
| | Chiradzulu | 28 | 2 | 0 | 74 | 2 | 0 |
| | Blantyre rural | 38 | 1 | 3 | 61 | 1 | 1 |
| | Thyolo | 50 | 4 | 1 | 53 | 1 | 1 |
| | Mulanje | 22 | 0 | 0 | 80 | 1 | 1 |
| | Phalombe | 8 | 1 | 0 | 88 | 4 | 2 |
| | Mwanza | 39 | 1 | 0 | 71 | 2 | 1 |
| | Chikwawa | 66 | 22 | 0 | 19 | 15 | 4 |
| | Nsanje | 66 | 3 | 0 | 32 | 39 | 11 |

**Table 2.43: Percentage distribution of maize plots by number of times organic fertilizer was applied, according to background variables. 2006/2007 Agricultural Season.**

| | | Not applied | Once | Twice | Total |
|---|---|---|---|---|---|
| | Malawi | 60 | 35 | 5 | 100 |
| **Sex of operator** | Male | 58 | 37 | 5 | 100 |
| | Female | 64 | 32 | 4 | 100 |
| **Plot size** | < 0.099 ha | 62 | 30 | 7 | 100 |
| | 0.100-0.199 ha | 58 | 38 | 4 | 100 |
| | 0.200-0.499 ha | 64 | 32 | 5 | 100 |
| | 0.500-0.999 ha | 49 | 46 | 5 | 100 |
| | 1.000 ha+ | 61 | 36 | 3 | 100 |
| **Region** | Northern | 41 | 48 | 10 | 100 |
| | Central | 62 | 34 | 4 | 100 |
| | Southern | 61 | 34 | 5 | 100 |
| **ADD** | Karonga | 17 | 72 | 11 | 100 |
| | Mzuzu | 44 | 45 | 10 | 100 |
| | Kasungu | 31 | 65 | 4 | 100 |
| | Salima | 89 | 10 | 1 | 100 |
| | Lilongwe | 68 | 28 | 4 | 100 |
| | Machinga | 81 | 18 | 1 | 100 |
| | Blantyre | 59 | 37 | 4 | 100 |
| | Shire Valley | 54 | 8 | 38 | 100 |

**Table 2.44: Percentage distribution of maize plots by number of times inorganic fertilizer was applied, according to background variables. 2006/2007 Agricultural Season.**

| | | Not applied | Once | Twice | Total |
|---|---|---|---|---|---|
| | Malawi | 7 | 62 | 32 | 100 |
| **Sex of operator** | Male | 6 | 61 | 33 | 100 |
| | Female | 8 | 63 | 29 | 100 |
| **Plot size** | < 0.099 ha | 8 | 63 | 29 | 100 |
| | 0.100-0.199 ha | 6 | 66 | 28 | 100 |
| | 0.200-0.499 ha | 7 | 61 | 32 | 100 |
| | 0.500-0.999 ha | 6 | 62 | 32 | 100 |
| | 1.000 ha+ | 6 | 51 | 43 | 100 |
| **Region** | Northern | 2 | 44 | 54 | 100 |
| | Central | 8 | 65 | 27 | 100 |
| | Southern | 7 | 65 | 28 | 100 |
| **ADD** | Karonga | 1 | 44 | 55 | 100 |
| | Mzuzu | 2 | 44 | 54 | 100 |
| | Kasungu | 3 | 68 | 29 | 100 |
| | Salima | 12 | 59 | 29 | 100 |
| | Lilongwe | 10 | 65 | 25 | 100 |
| | Machinga | 4 | 66 | 30 | 100 |
| | Blantyre | 6 | 66 | 28 | 100 |
| | Shire Valley | 83 | 7 | 11 | 100 |

**Table 2.45: Percentage distribution of local maize plots by number of times inorganic fertilizer was applied, according to background variables. 2006/2007 Agricultural Season.**

| | | Not applied | Once | Twice | Total |
|---|---|---|---|---|---|
| | Malawi | 9 | 63 | 28 | 100 |
| **Sex of operator** | Male | 8 | 61 | 31 | 100 |
| | Female | 11 | 65 | 24 | 100 |
| **Plot size** | < 0.099 ha | 12 | 63 | 24 | 100 |
| | 0.100-0.199 ha | 8 | 66 | 26 | 100 |
| | 0.200-0.499 ha | 9 | 63 | 28 | 100 |
| | 0.500-0.999 ha | 7 | 63 | 30 | 100 |
| | 1.000 ha+ | 9 | 51 | 40 | 100 |
| **Region** | Northern | 2 | 42 | 55 | 100 |
| | Central | 11 | 67 | 21 | 100 |
| | Southern | 9 | 67 | 24 | 100 |
| **ADD** | Karonga | 1 | 49 | 50 | 100 |
| | Mzuzu | 2 | 41 | 56 | 100 |
| | Kasungu | 5 | 70 | 25 | 100 |
| | Salima | 17 | 61 | 21 | 100 |
| | Lilongwe | 14 | 67 | 20 | 100 |
| | Machinga | 6 | 68 | 26 | 100 |
| | Blantyre | 9 | 68 | 23 | 100 |
| | Shire Valley | 81 | 1 | 18 | 100 |

**Table 2.46: Percentage distribution of hybrid maize plots by number of times inorganic fertilizer was applied, according to background variables. 2006/2007 Agricultural Season.**

| | | Not applied | Once | Twice | Total |
|---|---|---|---|---|---|
| | Malawi | 4 | 60 | 36 | 100 |
| **Sex of operator** | Male | 3 | 59 | 37 | 100 |
| | Female | 5 | 62 | 33 | 100 |
| | < 0.099 ha | 5 | 62 | 33 | 100 |
| | 0.100-0.199 ha | 4 | 65 | 31 | 100 |
| | 0.200-0.499 ha | 4 | 59 | 37 | 100 |
| | 0.500-0.999 ha | 4 | 58 | 38 | 100 |
| | 1.000 ha+ | 3 | 50 | 47 | 100 |
| **Region** | Northern | 2 | 45 | 53 | 100 |
| | Central | 5 | 63 | 33 | 100 |
| | Southern | 4 | 61 | 35 | 100 |
| **ADD** | Karonga | 1 | 36 | 63 | 100 |
| | Mzuzu | 2 | 48 | 50 | 100 |
| | Kasungu | 2 | 64 | 34 | 100 |
| | Salima | 13 | 55 | 32 | 100 |
| | Lilongwe | 6 | 63 | 32 | 100 |
| | Machinga | 2 | 59 | 39 | 100 |
| | Blantyre | 3 | 62 | 35 | 100 |
| | Shire Valley | 79 | 17 | 4 | 100 |

**Table 2.47: Percentage distribution of plots by number of times weeded, according to background variables. 2006/2007 Agricultural Season.**

| | | Not weeded | Weeded twice | Weeded once | Total |
|---|---|---|---|---|---|
| | Malawi | 1 | 40 | 60 | 100 |
| **Sex of operator** | Male | 1 | 40 | 60 | 100 |
| | Female | 0 | 40 | 60 | 100 |
| **Plot size** | < 0.099 ha | 1 | 40 | 59 | 100 |
| | 0.100-0.199 ha | 0 | 42 | 58 | 100 |
| | 0.200-0.499 ha | 1 | 39 | 60 | 100 |
| | 0.500-0.999 ha | 0 | 41 | 58 | 100 |
| | 1.000 ha+ | 0 | 37 | 63 | 100 |
| **Region** | Northern | 1 | 42 | 58 | 100 |
| | Central | 1 | 41 | 59 | 100 |
| | Southern | 0 | 38 | 62 | 100 |
| **ADD** | Karonga | 0 | 46 | 54 | 100 |
| | Mzuzu | 1 | 40 | 59 | 100 |
| | Kasungu | 0 | 47 | 52 | 100 |
| | Salima | 0 | 51 | 49 | 100 |
| | Lilongwe | 1 | 33 | 66 | 100 |
| | Machinga | 0 | 25 | 75 | 100 |
| | Blantyre | 0 | 41 | 59 | 100 |
| | Shire Valley | 0 | 20 | 80 | 100 |

**Table 2.48: Percentage distribution of maize plots by number of times weeded, according to background variables. 2006/2007 Agricultural Season.**

| | | Not weeded | Weeded twice | Weeded once | Total |
|---|---|---|---|---|---|
| | Malawi | 0 | 39 | 61 | 100 |
| **Sex of operator** | Male | 0 | 39 | 61 | 100 |
| | Female | 0 | 40 | 60 | 100 |
| **Plot size** | < 0.099 ha | 0 | 38 | 62 | 100 |
| | 0.100-0.199 ha | 0 | 43 | 57 | 100 |
| | 0.200-0.499 ha | 0 | 38 | 61 | 100 |
| | 0.500-0.999 ha | 0 | 40 | 60 | 100 |
| | 1.000 ha+ | 0 | 36 | 64 | 100 |
| **Region** | Northern | 0 | 41 | 59 | 100 |
| | Central | 0 | 41 | 59 | 100 |
| | Southern | 0 | 37 | 63 | 100 |
| **ADD** | Karonga | 0 | 47 | 53 | 100 |
| | Mzuzu | 0 | 38 | 62 | 100 |
| | Kasungu | 0 | 51 | 49 | 100 |
| | Salima | 0 | 40 | 60 | 100 |
| | Lilongwe | 0 | 34 | 65 | 100 |
| | Machinga | 0 | 23 | 76 | 100 |
| | Blantyre | 0 | 40 | 60 | 100 |
| | Shire Valley | 0 | 10 | 90 | 100 |

**Table 2.49: Percentage distribution of plots by storage facility used for local maize , according to background variables. 2006/2007 Agricultural Season.**

| | | Granary | Bags | Not stored anyhere | Other | Total |
|---|---|---|---|---|---|---|
| | Malawi | 42 | 39 | 7 | 12 | 100 |
| **Sex of operator** | Male | 46 | 38 | 7 | 9 | 100 |
| | Female | 37 | 39 | 8 | 16 | 100 |
| **Plot size** | < 0.099 ha | 29 | 46 | 12 | 13 | 100 |
| | 0.100-0.199 ha | 37 | 42 | 8 | 13 | 100 |
| | 0.200-0.499 ha | 43 | 38 | 8 | 12 | 100 |
| | 0.500-0.999 ha | 54 | 32 | 4 | 10 | 100 |
| | 1.000 ha+ | 53 | 33 | 7 | 8 | 100 |
| **Region** | Northern | 50 | 30 | 15 | 6 | 100 |
| | Central | 56 | 31 | 5 | 9 | 100 |
| | Southern | 22 | 53 | 7 | 19 | 100 |
| **ADD** | Karonga | 16 | 55 | 16 | 14 | 100 |
| | Mzuzu | 60 | 22 | 14 | 3 | 100 |
| | Kasungu | 57 | 30 | 5 | 9 | 100 |
| | Salima | 52 | 36 | 6 | 6 | 100 |
| | Lilongwe | 56 | 30 | 5 | 9 | 100 |
| | Machinga | 39 | 40 | 6 | 16 | 100 |
| | Blantyre | 18 | 55 | 7 | 19 | 100 |
| | Shire Valley | 29 | 48 | 9 | 15 | 100 |
| **District** | Chitipa | 15 | 64 | 11 | 9 | 100 |
| | Karonga | 16 | 33 | 26 | 25 | 100 |
| | Rumphi | 43 | 41 | 12 | 3 | 100 |
| | Nkhata Bay | 26 | 21 | 44 | 10 | 100 |
| | Likoma | 0 | 41 | 59 | 0 | 100 |
| | Mzimba | 65 | 19 | 13 | 3 | 100 |
| | Kasungu | 41 | 46 | 3 | 9 | 100 |
| | Ntchisi | 42 | 42 | 6 | 9 | 100 |
| | Dowa | 64 | 22 | 3 | 11 | 100 |
| | Nkhota kota | 14 | 57 | 15 | 15 | 100 |
| | Salima | 65 | 29 | 3 | 3 | 100 |
| | Dedza | 58 | 24 | 8 | 10 | 100 |
| | Ntcheu | 61 | 25 | 3 | 11 | 100 |
| | Lilongwe Rural | 55 | 32 | 4 | 8 | 100 |
| | Mchinji | 71 | 18 | 8 | 3 | 100 |
| | Balaka | 19 | 53 | 25 | 4 | 100 |
| | Mangochi | 51 | 15 | 25 | 9 | 100 |
| | Machinga | 55 | 18 | 9 | 18 | 100 |
| | Zomba Rural | 40 | 38 | 5 | 16 | 100 |
| | Chiradzulu | 14 | 68 | 6 | 13 | 100 |
| | Blantyre Rural | 25 | 56 | 5 | 13 | 100 |
| | Thyolo | 1 | 91 | 4 | 5 | 100 |
| | Mulanje | 15 | 62 | 12 | 11 | 100 |
| | Phalombe | 27 | 21 | 7 | 45 | 100 |
| | Mwanza | 46 | 24 | 2 | 28 | 100 |
| | Chikwawa | 51 | 34 | 16 | 0 | 100 |
| | Nsanje | 23 | 52 | 7 | 18 | 100 |

**Table 2.50: Percentage distribution of plots by storage facility used for Hybrid maize , according to background variables. 2006/2007 Agricultural Season.**

| | | Granary | Bags | Not stored anyhere | Other | Total |
|---|---|---|---|---|---|---|
| | Malawi | 27 | 59 | 8 | 6 | 100 |
| **Sex of operator** | Male | 30 | 57 | 8 | 5 | 100 |
| | Female | 20 | 65 | 8 | 7 | 100 |
| **Plot size** | < 0.099 ha | 17 | 63 | 11 | 8 | 100 |
| | 0.100-0.199 ha | 21 | 68 | 6 | 5 | 100 |
| | 0.200-0.499 ha | 29 | 56 | 9 | 6 | 100 |
| | 0.500-0.999 ha | 35 | 54 | 4 | 6 | 100 |
| | 1.000 ha+ | 38 | 52 | 5 | 5 | 100 |
| **Region** | Northern | 28 | 51 | 15 | 5 | 100 |
| | Central | 44 | 46 | 5 | 6 | 100 |
| | Southern | 6 | 79 | 9 | 6 | 100 |
| **ADD** | Karonga | 7 | 71 | 12 | 10 | 100 |
| | Mzuzu | 37 | 43 | 16 | 4 | 100 |
| | Kasungu | 46 | 42 | 5 | 7 | 100 |
| | Salima | 29 | 59 | 9 | 3 | 100 |
| | Lilongwe | 45 | 46 | 4 | 5 | 100 |
| | Machinga | 16 | 77 | 3 | 4 | 100 |
| | Blantyre | 5 | 79 | 10 | 6 | 100 |
| | Shire Valley | 5 | 82 | 3 | 10 | 100 |
| **District** | Chitipa | 9 | 72 | 11 | 7 | 100 |
| | Karonga | 3 | 67 | 15 | 16 | 100 |
| | Rumphi | 46 | 43 | 8 | 4 | 100 |
| | Nkhata Bay | 8 | 54 | 25 | 13 | 100 |
| | Likoma | 0 | 44 | 44 | 12 | 100 |
| | Mzimba | 43 | 39 | 17 | 1 | 100 |
| | Kasungu | 26 | 68 | 3 | 3 | 100 |
| | Ntchisi | 53 | 32 | 9 | 6 | 100 |
| | Dowa | 44 | 39 | 4 | 13 | 100 |
| | Nkhota kota | 8 | 76 | 14 | 3 | 100 |
| | Salima | 50 | 44 | 4 | 2 | 100 |
| | Dedza | 53 | 34 | 6 | 6 | 100 |
| | Ntcheu | 52 | 33 | 4 | 11 | 100 |
| | Lilongwe Rural | 48 | 43 | 4 | 5 | 100 |
| | Mchinji | 65 | 20 | 6 | 9 | 100 |
| | Balaka | 100 | 0 | 0 | 0 | 100 |
| | Mangochi | 53 | 36 | 11 | 0 | 100 |
| | Zomba Rural | 17 | 76 | 3 | 5 | 100 |
| | Chiradzulu | 5 | 86 | 5 | 3 | 100 |
| | Blantyre Rural | 5 | 79 | 5 | 11 | 100 |
| | Thyolo | 0 | 91 | 7 | 1 | 100 |
| | Mulanje | 6 | 77 | 16 | 1 | 100 |
| | Phalombe | 11 | 55 | 8 | 26 | 100 |
| | Mwanza | 27 | 46 | 5 | 22 | 100 |
| | Chikwawa | 0 | 69 | 15 | 16 | 100 |
| | Nsanje | 5 | 85 | 1 | 9 | 100 |

**Table 2.51: Percentage distribution of plots by Postharvest treatment used for hybrid maize, according to background variables. 2006/2007 Agricultural Season.**

| | | Actelic Super | Super grain dust | Ash | Sun or heat baked | Other | Not treated | Total |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 33 | 7 | 1 | 2 | 3 | 55 | 100 |
| **Sex of operator** | Male | 31 | 7 | 1 | 2 | 3 | 56 | 100 |
| | Female | 36 | 5 | 1 | 2 | 4 | 53 | 100 |
| **Plot size** | < 0.099 ha | 35 | 6 | 1 | 2 | 6 | 51 | 100 |
| | 0.100-0.199 ha | 37 | 7 | 0 | 2 | 3 | 51 | 100 |
| | 0.200-0.499 ha | 28 | 7 | 1 | 1 | 3 | 60 | 100 |
| | 0.500-0.999 ha | 37 | 6 | 0 | 2 | 3 | 52 | 100 |
| | 1.000 ha+ | 33 | 10 | 1 | 1 | 1 | 54 | 100 |
| **Region** | Northern | 26 | 7 | 0 | 3 | 6 | 57 | 100 |
| | Central | 20 | 4 | 1 | 2 | 2 | 72 | 100 |
| | Southern | 50 | 10 | 1 | 1 | 4 | 34 | 100 |
| **ADD** | Karonga | 34 | 16 | 1 | 2 | 12 | 34 | 100 |
| | Mzuzu | 23 | 3 | 0 | 4 | 4 | 67 | 100 |
| | Kasungu | 20 | 7 | 0 | 1 | 1 | 70 | 100 |
| | Salima | 24 | 5 | 0 | 2 | 4 | 64 | 100 |
| | Lilongwe | 19 | 1 | 1 | 2 | 2 | 75 | 100 |
| | Machinga | 46 | 7 | 0 | 0 | 7 | 40 | 100 |
| | Blantyre | 50 | 11 | 1 | 1 | 4 | 34 | 100 |
| | Shire Valley | 73 | 0 | 2 | 4 | 0 | 20 | 100 |

**Table 2.52: Percentage distribution of plots by Postharvest treatment used for local maize , according to background variables. 2006/2007 Agricultural Season.**

| | | Actelic Super | Super grain dust | Ash | Sun or heat baked | Other | Not treated | Total |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 16 | 4 | 2 | 3 | 3 | 71 | 100 |
| **Sex of operator** | Male | 16 | 4 | 2 | 3 | 3 | 71 | 100 |
| | Female | 17 | 4 | 2 | 2 | 3 | 72 | 100 |
| **Plot size** | < 0.099 ha | 19 | 3 | 2 | 3 | 5 | 68 | 100 |
| | 0.100-0.199 ha | 19 | 3 | 1 | 3 | 4 | 69 | 100 |
| | 0.200-0.499 ha | 15 | 5 | 2 | 3 | 3 | 72 | 100 |
| | 0.500-0.999 ha | 16 | 5 | 3 | 1 | 2 | 73 | 100 |
| | 1.000 ha+ | 16 | 4 | 2 | 3 | 1 | 74 | 100 |
| **Region** | Northern | 15 | 3 | 1 | 1 | 4 | 76 | 100 |
| | Central | 10 | 3 | 2 | 3 | 2 | 79 | 100 |
| | Southern | 25 | 6 | 2 | 2 | 5 | 59 | 100 |
| **ADD** | Karonga | 37 | 8 | 0 | 2 | 7 | 46 | 100 |
| | Mzuzu | 9 | 2 | 1 | 1 | 3 | 85 | 100 |
| | Kasungu | 7 | 4 | 1 | 2 | 1 | 84 | 100 |
| | Salima | 7 | 2 | 3 | 4 | 3 | 81 | 100 |
| | Lilongwe | 12 | 3 | 3 | 3 | 2 | 76 | 100 |
| | Machinga | 19 | 2 | 0 | 2 | 7 | 70 | 100 |
| | Blantyre | 26 | 7 | 3 | 2 | 4 | 57 | 100 |
| | Shire Valley | 30 | 0 | 5 | 11 | 8 | 46 | 100 |

**Table 2.53: Percentage distribution of plots by Postharvest treatment used for maize, according to background variables. 2006/2007 Agricultural Season.**

| | | Actelic Super | Super grain dust | Ash | Sun or heat baked | Other | Not treated | Total |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 23 | 5 | 1 | 2 | 3 | 65 | 100 |
| **Sex of operator** | Male | 23 | 6 | 1 | 2 | 3 | 65 | 100 |
| | Female | 24 | 5 | 1 | 2 | 3 | 65 | 100 |
| **Plot size** | < 0.099 ha | 26 | 4 | 1 | 3 | 5 | 61 | 100 |
| | 0.100-0.199 ha | 26 | 5 | 1 | 3 | 3 | 62 | 100 |
| | 0.200-0.499 ha | 21 | 6 | 1 | 2 | 3 | 67 | 100 |
| | 0.500-0.999 ha | 24 | 5 | 2 | 1 | 2 | 66 | 100 |
| | 1.000 ha+ | 23 | 7 | 1 | 2 | 1 | 66 | 100 |
| **Region** | Northern | 19 | 5 | 0 | 2 | 4 | 70 | 100 |
| | Central | 14 | 4 | 2 | 2 | 2 | 76 | 100 |
| | Southern | 37 | 8 | 2 | 2 | 5 | 47 | 100 |
| **ADD** | Karonga | 36 | 12 | 0 | 2 | 8 | 43 | 100 |
| | Mzuzu | 13 | 2 | 0 | 2 | 3 | 80 | 100 |
| | Kasungu | 13 | 5 | 1 | 2 | 1 | 77 | 100 |
| | Salima | 16 | 3 | 2 | 3 | 3 | 74 | 100 |
| | Lilongwe | 15 | 3 | 2 | 3 | 2 | 75 | 100 |
| | Machinga | 30 | 3 | 0 | 2 | 6 | 58 | 100 |
| | Blantyre | 37 | 9 | 2 | 2 | 5 | 46 | 100 |
| | Shire Valley | 54 | 0 | 3 | 7 | 3 | 32 | 100 |

**Table 2.54: Proportion of plots where various staple food crops were grown, according to background variables, 2006/2007 Agricultural Season**

| | | | | Maize variety | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | All staple | Maize | Hybrid Maize | Composite Maize | recycled maize | Local maize | Rice | Sorghum | Millet | Cassava |
| | Malawi | 73 | 63 | 21 | 6 | 6 | 34 | 3 | 3 | 2 | 8 |
| **Sex of operator** | Male | 71 | 62 | 22 | 6 | 6 | 31 | 3 | 3 | 2 | 8 |
| | Female | 77 | 67 | 20 | 6 | 5 | 41 | 3 | 4 | 2 | 8 |
| **Plot size** | < 0.099 ha | 62 | 47 | 15 | 5 | 5 | 26 | 5 | 3 | 2 | 11 |
| | 0.100-0.199 ha | 70 | 60 | 22 | 6 | 6 | 30 | 4 | 3 | 2 | 9 |
| | 0.200-0.499 ha | 77 | 69 | 23 | 6 | 7 | 38 | 3 | 3 | 2 | 7 |
| | 0.500-0.999 ha | 80 | 75 | 22 | 7 | 8 | 43 | 1 | 3 | 2 | 5 |
| | 1.000 ha+ | 78 | 73 | 29 | 5 | 4 | 39 | 1 | 3 | 2 | 5 |
| **Region** | Northern | 72 | 52 | 15 | 6 | 6 | 29 | 5 | 0 | 2 | 17 |
| | Central | 64 | 59 | 20 | 6 | 7 | 30 | 2 | 0 | 0 | 4 |
| | Southern | 82 | 73 | 25 | 6 | 5 | 42 | 4 | 8 | 4 | 8 |
| **ADD** | Karonga | 78 | 51 | 14 | 6 | 8 | 25 | 12 | 0 | 3 | 19 |
| | Mzuzu | 68 | 52 | 15 | 6 | 5 | 31 | 2 | 0 | 1 | 15 |
| | Kasungu | 56 | 54 | 22 | 6 | 6 | 23 | 0 | 0 | 0 | 2 |
| | Salima | 77 | 49 | 14 | 7 | 10 | 19 | 9 | 0 | 0 | 26 |
| | Lilongwe | 67 | 65 | 20 | 6 | 7 | 35 | 1 | 0 | 0 | 1 |
| | Machinga | 79 | 70 | 19 | 6 | 5 | 50 | 5 | 6 | 5 | 10 |
| | Blantyre | 85 | 81 | 32 | 6 | 5 | 42 | 3 | 6 | 2 | 8 |
| | Shire Valley | 80 | 43 | 12 | 8 | 6 | 24 | 7 | 24 | 12 | 1 |
| **District** | Chitipa | 69 | 59 | 16 | 8 | 9 | 28 | 1 | 0 | 4 | 7 |
| | Karonga | 89 | 40 | 11 | 4 | 7 | 21 | 27 | 0 | 1 | 36 |
| | Rumphi | 49 | 43 | 27 | 4 | 2 | 27 | 0 | 0 | 0 | 6 |
| | Nkhata Bay | 89 | 27 | 12 | 6 | 2 | 7 | 8 | 0 | 0 | 63 |
| | Likoma | 98 | 88 | 48 | 11 | 2 | 25 | 1 | 0 | 0 | 10 |
| | Mzimba | 68 | 62 | 11 | 7 | 6 | 39 | 0 | 0 | 2 | 4 |
| | Kasungu | 60 | 55 | 24 | 7 | 9 | 15 | 1 | 0 | 1 | 5 |
| | Ntchisi | 49 | 48 | 14 | 7 | 3 | 30 | 0 | 0 | 0 | 1 |
| | Dowa | 51 | 50 | 14 | 8 | 5 | 30 | 0 | 0 | 0 | 1 |
| | Nkhotakota | 85 | 36 | 13 | 11 | 5 | 10 | 13 | 0 | 0 | 47 |
| | Salima | 69 | 63 | 16 | 4 | 16 | 29 | 4 | 0 | 0 | 3 |
| | Dedza | 70 | 65 | 16 | 5 | 6 | 42 | 3 | 0 | 1 | 2 |
| | Ntcheu | 77 | 76 | 12 | 5 | 8 | 52 | 0 | 0 | 1 | 4 |
| | Lilongwe rural | 60 | 58 | 20 | 6 | 6 | 30 | 0 | 0 | 0 | 1 |
| | Mchinji | 61 | 60 | 35 | 2 | 2 | 23 | 0 | 0 | 0 | 2 |
| | Balaka | 72 | 66 | 10 | 7 | 7 | 53 | 4 | 1 | 3 | 2 |
| | Mangochi | 81 | 78 | 19 | 5 | 4 | 50 | 2 | 5 | 6 | 3 |
| | Machinga | 83 | 71 | 18 | 8 | 4 | 46 | 11 | 3 | 1 | 7 |
| | Zomba rural | 79 | 67 | 21 | 5 | 4 | 49 | 6 | 9 | 6 | 18 |
| | Chiradzulu | 82 | 77 | 25 | 5 | 5 | 49 | 1 | 15 | 9 | 13 |
| | Blantyre rural | 82 | 80 | 30 | 6 | 3 | 44 | 0 | 3 | 0 | 4 |
| | Thyolo | 87 | 85 | 31 | 7 | 13 | 36 | 0 | 2 | 1 | 16 |
| | Mulanje | 94 | 88 | 45 | 3 | 2 | 38 | 5 | 9 | 3 | 13 |
| | Phalombe | 83 | 70 | 12 | 6 | 8 | 53 | 11 | 11 | 2 | 2 |
| | Mwanza | 68 | 66 | 24 | 4 | 3 | 41 | 0 | 0 | 1 | 3 |
| | Chikwawa | 78 | 49 | 11 | 11 | 7 | 29 | 5 | 20 | 10 | 0 |
| | Nsanje | 82 | 32 | 13 | 3 | 4 | 13 | 11 | 31 | 17 | 1 |

**Table 2.55: Percent distribution of Maize Plots by type of stand, according to background variables. 2006/2007 Agricultural Season**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | **Malawi** | **75** | **24** | **0** | **1** | **100** |
| Sex of operator | Male | 77 | 22 | 0 | 1 | 100 |
| | Female | 72 | 27 | 0 | 1 | 100 |
| **Plot size** | < 0.099 ha | 69 | 30 | 0 | 1 | 100 |
| | 0.100-0.199 ha | 72 | 27 | 0 | 1 | 100 |
| | 0.200-0.499 ha | 76 | 23 | 0 | 1 | 100 |
| | 0.500-0.999 ha | 81 | 18 | 0 | 1 | 100 |
| | 1.000 ha+ | 82 | 18 | 0 | 0 | 100 |
| Region | Northern | 82 | 17 | 0 | 1 | 100 |
| | Central | 83 | 16 | 0 | 1 | 100 |
| | Southern | 66 | 32 | 0 | 1 | 100 |
| ADD | Karonga | 79 | 20 | 0 | 1 | 100 |
| | Mzuzu | 83 | 16 | 0 | 1 | 100 |
| | Kasungu | 93 | 7 | 0 | 1 | 100 |
| | Salima | 87 | 12 | 0 | 1 | 100 |
| | Lilongwe | 78 | 21 | 0 | 1 | 100 |
| | Machinga | 69 | 29 | 0 | 1 | 100 |
| | Blantyre | 64 | 35 | 0 | 1 | 100 |
| | Shire Valley | 72 | 23 | 0 | 4 | 100 |
| District | Chitipa | 88 | 12 | 0 | 0 | 100 |
| | Karonga | 63 | 35 | 0 | 2 | 100 |
| | Rumphi | 89 | 9 | 0 | 2 | 100 |
| | Nkhata Bay | 70 | 29 | 0 | 1 | 100 |
| | Likoma | 100 | 0 | 0 | 0 | 100 |
| | Mzimba | 83 | 15 | 0 | 1 | 100 |
| | Kasungu | 95 | 5 | 0 | 0 | 100 |
| | Ntchisi | 95 | 5 | 0 | 0 | 100 |
| | Dowa | 89 | 10 | 0 | 1 | 100 |
| | Nkhotakota | 71 | 27 | 0 | 3 | 100 |
| | Salima | 98 | 2 | 0 | 0 | 100 |
| | Dedza | 53 | 46 | 0 | 1 | 100 |
| | Ntcheu | 81 | 18 | 0 | 1 | 100 |
| | Lilongwe rural | 87 | 13 | 0 | 0 | 100 |
| | Mchinji | 91 | 7 | 0 | 2 | 100 |
| | Balaka | 85 | 14 | 0 | 0 | 100 |
| | Mangochi | 90 | 10 | 0 | 0 | 100 |
| | Machinga | 78 | 21 | 0 | 0 | 100 |
| | Zomba rural | 47 | 51 | 0 | 2 | 100 |
| | Chiradzulu | 59 | 40 | 0 | 1 | 100 |
| | Blantyre rural | 80 | 20 | 0 | 0 | 100 |
| | Thyolo | 28 | 71 | 0 | 0 | 100 |
| | Mulanje | 66 | 31 | 0 | 3 | 100 |
| | Phalombe | 71 | 28 | 0 | 1 | 100 |
| | Mwanza | 48 | 51 | 0 | 1 | 100 |
| | Chikwawa | 66 | 28 | 0 | 5 | 100 |
| | Nsanje | 89 | 10 | 0 | 1 | 100 |

**Table 2.56: Percent distribution of Cassava Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | **Malawi** | **54** | **19** | **0** | **27** | **100** |
| **Sex of operator** | Male | 57 | 18 | 0 | 25 | 100 |
| | Female | 49 | 20 | 0 | 31 | 100 |
| **Plot size** | < 0.099 ha | 58 | 22 | 0 | 19 | 100 |
| | 0.100-0.199 ha | 54 | 18 | 0 | 27 | 100 |
| | 0.200-0.499 ha | 51 | 16 | 0 | 33 | 100 |
| | 0.500-0.999 ha | 51 | 18 | 1 | 30 | 100 |
| | 1.000 ha+ | 54 | 13 | 0 | 32 | 100 |
| **Region** | Northern | 77 | 19 | 0 | 3 | 100 |
| | Central | 79 | 17 | 0 | 4 | 100 |
| | Southern | 19 | 19 | 0 | 61 | 100 |
| **ADD** | Karonga | 63 | 30 | 0 | 7 | 100 |
| | Mzuzu | 86 | 13 | 0 | 1 | 100 |
| | Kasungu | 86 | 9 | 0 | 5 | 100 |
| | Salima | 77 | 21 | 0 | 2 | 100 |
| | Lilongwe | 79 | 10 | 0 | 11 | 100 |
| | Machinga | 19 | 10 | 0 | 70 | 100 |
| | Blantyre | 19 | 27 | 0 | 54 | 100 |
| | Shire Valley | 56 | 0 | 0 | 44 | 100 |
| **District** | Chitipa | 69 | 8 | 0 | 23 | 100 |
| | Karonga | 62 | 35 | 0 | 3 | 100 |
| | Rumphi | 94 | 4 | 0 | 2 | 100 |
| | Nkhata Bay | 85 | 14 | 0 | 0 | 100 |
| | Likoma | 100 | 0 | 0 | 0 | 100 |
| | Mzimba | 90 | 9 | 0 | 1 | 100 |
| | Kasungu | 98 | 2 | 0 | 0 | 100 |
| | Ntchisi | 100 | 0 | 0 | 0 | 100 |
| | Dowa | 71 | 21 | 0 | 7 | 100 |
| | Nkhotakota | 77 | 21 | 0 | 2 | 100 |
| | Salima | 75 | 24 | 0 | 1 | 100 |
| | Dedza | 83 | 9 | 0 | 8 | 100 |
| | Ntcheu | 64 | 11 | 0 | 25 | 100 |
| | Lilongwe rural | 91 | 9 | 0 | 0 | 100 |
| | Mchinji | 22 | 46 | 0 | 32 | 100 |
| | Balaka | 51 | 19 | 0 | 30 | 100 |
| | Mangochi | 63 | 23 | 0 | 14 | 100 |
| | Machinga | 37 | 15 | 2 | 47 | 100 |
| | Zomba rural | 12 | 8 | 0 | 80 | 100 |
| | Chiradzulu | 13 | 9 | 0 | 78 | 100 |
| | Blantyre rural | 52 | 16 | 0 | 32 | 100 |
| | Thyolo | 9 | 50 | 0 | 41 | 100 |
| | Mulanje | 13 | 15 | 0 | 72 | 100 |
| | Phalombe | 47 | 34 | 0 | 19 | 100 |
| | Mwanza | 37 | 60 | 0 | 3 | 100 |
| | Chikwawa | 91 | 0 | 0 | 9 | 100 |
| | Nsanje | 9 | 0 | 0 | 91 | 100 |

**Table 2.57: Proportion of plots where beans and pulses were grown, according to background variables. 2006/2007 Agricultural Season.**

| | | Beans pulses | Beans | Soya beans | Ground beans | Pigeon peas | Cow peas | Ground nuts |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 29 | 5 | 3 | 1 | 9 | 2 | 12 |
| **Sex of operator** | Male | 27 | 4 | 3 | 1 | 8 | 2 | 11 |
| | Female | 33 | 6 | 3 | 1 | 11 | 3 | 13 |
| **Plot size** | < 0.099 ha | 31 | 4 | 3 | 2 | 9 | 2 | 13 |
| | 0.100-0.199 ha | 33 | 5 | 3 | 1 | 10 | 2 | 15 |
| | 0.200-0.499 ha | 28 | 5 | 3 | 1 | 9 | 2 | 11 |
| | 0.500-0.999 ha | 25 | 5 | 3 | 1 | 8 | 2 | 9 |
| | 1.000 ha+ | 22 | 4 | 2 | 1 | 7 | 1 | 9 |
| **Region** | Northern | 15 | 3 | 2 | 2 | 0 | 0 | 8 |
| | Central | 29 | 8 | 6 | 1 | 0 | 1 | 16 |
| | Southern | 35 | 3 | 0 | 1 | 22 | 4 | 9 |
| **ADD** | Karonga | 13 | 3 | 1 | 1 | 1 | 0 | 8 |
| | Mzuzu | 16 | 4 | 2 | 2 | 0 | 0 | 8 |
| | Kasungu | 30 | 4 | 8 | 1 | 1 | 1 | 18 |
| | Salima | 10 | 0 | 0 | 1 | 0 | 0 | 9 |
| | Lilongwe | 33 | 11 | 6 | 1 | 0 | 1 | 16 |
| | Machinga | 35 | 1 | 1 | 2 | 19 | 4 | 13 |
| | Blantyre | 39 | 4 | 0 | 1 | 27 | 4 | 8 |
| | Shire Valley | 13 | 1 | 0 | 0 | 6 | 3 | 3 |
| **District** | Chitipa | 20 | 4 | 2 | 1 | 0 | 1 | 12 |
| | Karonga | 5 | 0 | 0 | 1 | 1 | 0 | 4 |
| | Rumphi | 15 | 6 | 1 | 0 | 0 | 0 | 8 |
| | Nkhata Bay | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| | Likoma | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Mzimba | 20 | 4 | 4 | 4 | 0 | 1 | 10 |
| | Kasungu | 26 | 2 | 8 | 0 | 0 | 1 | 16 |
| | Ntchisi | 32 | 2 | 17 | 1 | 0 | 0 | 13 |
| | Dowa | 31 | 9 | 6 | 1 | 2 | 1 | 17 |
| | Nkhotakota | 7 | 0 | 1 | 1 | 1 | 0 | 6 |
| | Salima | 14 | 0 | 0 | 0 | 0 | 0 | 13 |
| | Dedza | 49 | 26 | 12 | 1 | 0 | 0 | 16 |
| | Ntcheu | 26 | 12 | 1 | 1 | 1 | 0 | 13 |
| | Lilongwe rural | 30 | 6 | 5 | 1 | 0 | 1 | 19 |
| | Mchinji | 33 | 1 | 8 | 1 | 0 | 0 | 25 |
| | Balaka | 17 | 0 | 0 | 2 | 5 | 3 | 8 |
| | Mangochi | 25 | 1 | 1 | 2 | 6 | 5 | 12 |
| | Machinga | 26 | 3 | 0 | 2 | 14 | 2 | 9 |
| | Zomba rural | 50 | 1 | 1 | 1 | 33 | 4 | 16 |
| | Chiradzulu | 53 | 11 | 1 | 1 | 37 | 4 | 8 |
| | Blantyre rural | 25 | 3 | 0 | 2 | 12 | 2 | 9 |
| | Thyolo | 67 | 6 | 0 | 1 | 52 | 9 | 6 |
| | Mulanje | 38 | 0 | 0 | 2 | 28 | 7 | 8 |
| | Phalombe | 39 | 1 | 0 | 1 | 30 | 2 | 12 |
| | Mwanza | 41 | 2 | 0 | 1 | 30 | 6 | 6 |
| | Chikwawa | 14 | 1 | 0 | 0 | 8 | 3 | 2 |
| | Nsanje | 12 | 1 | 0 | 1 | 3 | 2 | 5 |

**Table 2.58: Percent distribution of ordinary beans Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | Malawi | 12 | 75 | 0 | 13 | 100 |
| **Sex of operator** | Male | 14 | 73 | 0 | 13 | 100 |
| | Female | 9 | 79 | 0 | 11 | 100 |
| **Plot size** | < 0.099 ha | 21 | 70 | 0 | 9 | 100 |
| | 0.100-0.199 ha | 11 | 78 | 0 | 11 | 100 |
| | 0.200-0.499 ha | 8 | 78 | 0 | 13 | 100 |
| | 0.500-0.999 ha | 11 | 74 | 0 | 15 | 100 |
| | 1.000 ha+ | 18 | 67 | 0 | 14 | 100 |
| **Region** | Northern | 36 | 57 | 0 | 7 | 100 |
| | Central | 10 | 75 | 0 | 15 | 100 |
| | Southern | 6 | 86 | 1 | 7 | 100 |
| **ADD** | Karonga | 54 | 25 | 1 | 20 | 100 |
| | Mzuzu | 29 | 69 | 0 | 2 | 100 |
| | Kasungu | 13 | 68 | 0 | 19 | 100 |
| | Salima | 97 | 3 | 0 | 0 | 100 |
| | Lilongwe | 8 | 77 | 0 | 15 | 100 |
| | Machinga | 15 | 61 | 0 | 24 | 100 |
| | Blantyre | 3 | 92 | 1 | 4 | 100 |
| | Shire Valley | 42 | 58 | 0 | 0 | 100 |
| **District** | Chitipa | 54 | 25 | 1 | 20 | 100 |
| | Karonga | 51 | 11 | 0 | 38 | 100 |
| | Rumphi | 49 | 51 | 0 | 0 | 100 |
| | Nkhata Bay | 0 | 100 | 0 | 0 | 100 |
| | Mzimba | 21 | 76 | 0 | 3 | 100 |
| | Ntchisi | 53 | 42 | 0 | 4 | 100 |
| | Dowa | 6 | 78 | 0 | 16 | 100 |
| | Nkhotakota | 95 | 5 | 0 | 0 | 100 |
| | Salima | 100 | 0 | 0 | 0 | 100 |
| | Dedza | 9 | 84 | 0 | 7 | 100 |
| | Ntcheu | 4 | 70 | 0 | 26 | 100 |
| | Lilongwe rural | 9 | 66 | 0 | 25 | 100 |
| | Balaka | 65 | 35 | 0 | 0 | 100 |
| | Mangochi | 25 | 48 | 0 | 27 | 100 |
| | Machinga | 0 | 100 | 0 | 0 | 100 |
| | Zomba rural | 20 | 47 | 0 | 33 | 100 |
| | Blantyre rural | 0 | 95 | 2 | 3 | 100 |
| | Mulanje | 34 | 45 | 0 | 22 | 100 |
| | Phalombe | 64 | 2 | 34 | 0 | 100 |
| | Mwanza | 10 | 88 | 0 | 3 | 100 |
| | Chikwawa | 33 | 67 | 0 | 0 | 100 |
| | Nsanje | 80 | 20 | 0 | 0 | 100 |

**Table 2.59: Percent distribution of Soya beans Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | Malawi | 53 | 38 | 0 | 9 | 100 |
| Sex of operator | Male | 53 | 38 | 0 | 9 | 100 |
| | Female | 53 | 39 | 0 | 8 | 100 |
| **Plot size** | < 0.099 ha | 71 | 24 | 0 | 5 | 100 |
| | 0.100-0.199 ha | 52 | 40 | 0 | 8 | 100 |
| | 0.200-0.499 ha | 45 | 45 | 0 | 10 | 100 |
| | 0.500-0.999 ha | 41 | 44 | 1 | 14 | 100 |
| | 1.000 ha+ | 60 | 36 | 1 | 3 | 100 |
| Region | Northern | 71 | 22 | 0 | 7 | 100 |
| | Central | 51 | 41 | 0 | 7 | 100 |
| | Southern | 36 | 30 | 0 | 34 | 100 |
| ADD | Karonga | 70 | 24 | 0 | 6 | 100 |
| | Mzuzu | 72 | 21 | 0 | 7 | 100 |
| | Kasungu | 78 | 19 | 0 | 3 | 100 |
| | Salima | 93 | 7 | 0 | 0 | 100 |
| | Lilongwe | 29 | 60 | 0 | 11 | 100 |
| | Machinga | 33 | 26 | 0 | 41 | 100 |
| | Blantyre | 38 | 36 | 0 | 26 | 100 |
| | Shire Valley | 43 | 17 | 0 | 40 | 100 |
| District | Chitipa | 71 | 23 | 0 | 6 | 100 |
| | Karonga | 56 | 44 | 0 | 0 | 100 |
| | Rumphi | 59 | 26 | 0 | 15 | 100 |
| | Nkhata Bay | 100 | 0 | 0 | 0 | 100 |
| | Mzimba | 74 | 20 | 0 | 6 | 100 |
| | Ntchisi | 87 | 10 | 0 | 3 | 100 |
| | Dowa | 68 | 24 | 1 | 6 | 100 |
| | Nkhotakota | 100 | 0 | 0 | 0 | 100 |
| | Salima | 70 | 30 | 0 | 0 | 100 |
| | Dedza | 23 | 65 | 0 | 11 | 100 |
| | Ntcheu | 31 | 33 | 0 | 36 | 100 |
| | Lilongwe rural | 36 | 54 | 0 | 10 | 100 |
| | Balaka | 0 | 100 | 0 | 0 | 100 |
| | Mangochi | 31 | 12 | 0 | 56 | 100 |
| | Machinga | 78 | 22 | 0 | 0 | 100 |
| | Zomba rural | 30 | 29 | 0 | 40 | 100 |
| | Blantyre rural | 60 | 26 | 0 | 14 | 100 |
| | Thyolo | 28 | 45 | 0 | 27 | 100 |
| | Phalombe | 8 | 43 | 0 | 48 | 100 |
| | Mwanza | 0 | 24 | 0 | 76 | 100 |
| | Chikwawa | 53 | 47 | 0 | 0 | 100 |
| | Nsanje | 37 | 0 | 0 | 63 | 100 |

**Table 2.60: Percent distribution of Pigeon peas Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | Malawi | 8 | 52 | 0 | 40 | 100 |
| Sex of operator | Male | 7 | 51 | 0 | 42 | 100 |
| | Female | 9 | 55 | 0 | 37 | 100 |
| **Plot size** | < 0.099 ha | 7 | 61 | 1 | 32 | 100 |
| | 0.100-0.199 ha | 7 | 54 | 0 | 39 | 100 |
| | 0.200-0.499 ha | 7 | 51 | 0 | 42 | 100 |
| | 0.500-0.999 ha | 11 | 49 | 0 | 40 | 100 |
| | 1.000 ha+ | 15 | 52 | 0 | 33 | 100 |
| Region | Northern | 19 | 38 | 0 | 43 | 100 |
| | Central | 25 | 20 | 0 | 54 | 100 |
| | Southern | 8 | 54 | 0 | 39 | 100 |
| ADD | Karonga | 7 | 28 | 0 | 65 | 100 |
| | Mzuzu | 35 | 50 | 0 | 15 | 100 |
| | Kasungu | 12 | 21 | 0 | 67 | 100 |
| | Salima | 100 | 0 | 0 | 0 | 100 |
| | Lilongwe | 28 | 23 | 0 | 49 | 100 |
| | Machinga | 7 | 30 | 0 | 63 | 100 |
| | Blantyre | 7 | 64 | 0 | 29 | 100 |
| | Shire Valley | 22 | 74 | 0 | 4 | 100 |
| District | Chitipa | 14 | 16 | 0 | 70 | 100 |
| | Karonga | 0 | 40 | 0 | 60 | 100 |
| | Rumphi | 75 | 25 | 0 | 0 | 100 |
| | Mzimba | 27 | 62 | 0 | 11 | 100 |
| | Kasungu | 23 | 27 | 0 | 50 | 100 |
| | Ntchisi | 61 | 39 | 0 | 0 | 100 |
| | Dowa | 8 | 20 | 0 | 72 | 100 |
| | Nkhotakota | 100 | 0 | 0 | 0 | 100 |
| | Dedza | 62 | 38 | 0 | 0 | 100 |
| | Ntcheu | 39 | 0 | 0 | 61 | 100 |
| | Lilongwe rural | 7 | 21 | 0 | 72 | 100 |
| | Mchinji | 13 | 1 | 0 | 86 | 100 |
| | Balaka | 2 | 9 | 0 | 90 | 100 |
| | Mangochi | 12 | 23 | 0 | 65 | 100 |
| | Machinga | 10 | 42 | 0 | 48 | 100 |
| | Zomba rural | 6 | 31 | 0 | 63 | 100 |
| | Chiradzulu | 11 | 29 | 0 | 61 | 100 |
| | Blantyre rural | 20 | 32 | 0 | 47 | 100 |
| | Thyolo | 3 | 89 | 0 | 7 | 100 |
| | Mulanje | 4 | 59 | 0 | 37 | 100 |
| | Phalombe | 7 | 61 | 0 | 32 | 100 |
| | Mwanza | 5 | 91 | 1 | 4 | 100 |
| | Chikwawa | 19 | 77 | 0 | 3 | 100 |
| | Nsanje | 36 | 56 | 0 | 8 | 100 |

**Table 2.61: Percent distribution of GroundNuts Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | **Malawi** | **65** | **24** | **0** | **11** | **100** |
| **Sex of operator** | Male | 67 | 22 | 0 | 10 | 100 |
| | Female | 60 | 26 | 0 | 14 | 100 |
| **Plot size** | < 0.099 ha | 76 | 19 | 0 | 5 | 100 |
| | 0.100-0.199 ha | 70 | 20 | 0 | 10 | 100 |
| | 0.200-0.499 ha | 61 | 25 | 0 | 14 | 100 |
| | 0.500-0.999 ha | 55 | 27 | 0 | 18 | 100 |
| | 1.000 ha+ | 45 | 43 | 0 | 12 | 100 |
| **Region** | Northern | 74 | 18 | 0 | 8 | 100 |
| | Central | 85 | 13 | 0 | 3 | 100 |
| | Southern | 25 | 45 | 0 | 29 | 100 |
| **ADD** | Karonga | 67 | 24 | 0 | 9 | 100 |
| | Mzuzu | 78 | 15 | 0 | 8 | 100 |
| | Kasungu | 89 | 10 | 0 | 1 | 100 |
| | Salima | 94 | 5 | 0 | 1 | 100 |
| | Lilongwe | 81 | 15 | 0 | 3 | 100 |
| | Machinga | 30 | 33 | 0 | 36 | 100 |
| | Blantyre | 17 | 60 | 0 | 23 | 100 |
| | Shire Valley | 53 | 37 | 0 | 10 | 100 |
| **District** | Chitipa | 71 | 20 | 0 | 9 | 100 |
| | Karonga | 52 | 40 | 0 | 9 | 100 |
| | Rumphi | 85 | 10 | 0 | 5 | 100 |
| | Nkhata Bay | 44 | 47 | 0 | 10 | 100 |
| | Mzimba | 78 | 14 | 0 | 8 | 100 |
| | Kasungu | 94 | 6 | 0 | 0 | 100 |
| | Ntchisi | 96 | 4 | 0 | 1 | 100 |
| | Dowa | 81 | 16 | 0 | 3 | 100 |
| | Nkhotakota | 87 | 10 | 0 | 4 | 100 |
| | Salima | 97 | 3 | 0 | 0 | 100 |
| | Dedza | 61 | 35 | 0 | 4 | 100 |
| | Ntcheu | 54 | 27 | 0 | 19 | 100 |
| | Lilongwe rural | 93 | 6 | 0 | 1 | 100 |
| | Mchinji | 87 | 11 | 0 | 2 | 100 |
| | Balaka | 40 | 35 | 0 | 25 | 100 |
| | Mangochi | 56 | 28 | 0 | 16 | 100 |
| | Machinga | 37 | 36 | 0 | 27 | 100 |
| | Zomba rural | 17 | 35 | 0 | 48 | 100 |
| | Chiradzulu | 25 | 53 | 0 | 22 | 100 |
| | Blantyre rural | 15 | 65 | 0 | 19 | 100 |
| | Blantyre city | 0 | 82 | 0 | 18 | 100 |
| | Thyolo | 10 | 82 | 0 | 8 | 100 |
| | Mulanje | 5 | 48 | 0 | 47 | 100 |
| | Phalombe | 25 | 52 | 0 | 23 | 100 |
| | Mwanza | 54 | 43 | 0 | 3 | 100 |
| | Chikwawa | 30 | 70 | 0 | 0 | 100 |
| | Nsanje | 70 | 12 | 0 | 18 | 100 |

**Table 2.62: Percent distribution of Sweet potato Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | | Type of stand | | | | |
|---|---|---|---|---|---|---|---|
| | | Proportion of plots with Sweet potato | Pure | Mixed stand | Relay cropping | Scattered | Total |
| | **Malawi** | 5 | **88** | **7** | **0** | **5** | **100** |
| **Sex of operator** | Male | 5 | 88 | 7 | 0 | 4 | 100 |
| | Female | 3 | 86 | 7 | 1 | 6 | 100 |
| **Plot size** | < 0.099 ha | 11 | 88 | 8 | 0 | 2 | 100 |
| | 0.100-0.199 ha | 5 | 89 | 6 | 0 | 5 | 100 |
| | 0.200-0.499 ha | 2 | 83 | 8 | 1 | 7 | 100 |
| | 0.500-0.999 ha | 1 | 77 | 7 | 0 | 16 | 100 |
| | 1.000 ha+ | 1 | 72 | 28 | 0 | 0 | 100 |
| **Region** | Northern | 6 | 89 | 8 | 0 | 3 | 100 |
| | Central | 5 | 93 | 4 | 0 | 3 | 100 |
| | Southern | 4 | 82 | 10 | 1 | 7 | 100 |
| **ADD** | Karonga | 4 | 95 | 3 | 0 | 2 | 100 |
| | Mzuzu | 7 | 87 | 10 | 0 | 3 | 100 |
| | Kasungu | 5 | 94 | 4 | 0 | 1 | 100 |
| | Salima | 2 | 81 | 1 | 0 | 18 | 100 |
| | Lilongwe | 5 | 93 | 4 | 0 | 3 | 100 |
| | Machinga | 4 | 78 | 10 | 1 | 11 | 100 |
| | Blantyre | 5 | 85 | 9 | 1 | 5 | 100 |
| | Shire Valley | 1 | 41 | 52 | 1 | 6 | 100 |
| **District** | Chitipa | 7 | 95 | 2 | 0 | 2 | 100 |
| | Karonga | 0 | 89 | 11 | 0 | 0 | 100 |
| | Rumphi | 5 | 92 | 1 | 0 | 8 | 100 |
| | Nkhata Bay | 5 | 66 | 27 | 0 | 7 | 100 |
| | Mzimba | 0 | 92 | 7 | 0 | 1 | 100 |
| | Kasungu | 8 | 98 | 1 | 0 | 1 | 100 |
| | Ntchisi | 6 | 91 | 3 | 0 | 6 | 100 |
| | Dowa | 2 | 88 | 10 | 0 | 2 | 100 |
| | Nkhotakota | 5 | 69 | 2 | 0 | 29 | 100 |
| | Salima | 2 | 100 | 0 | 0 | 0 | 100 |
| | Dedza | 2 | 95 | 5 | 0 | 0 | 100 |
| | Ntcheu | 5 | 93 | 5 | 1 | 1 | 100 |
| | Lilongwe rural | 5 | 92 | 3 | 0 | 5 | 100 |
| | Mchinji | 5 | 97 | 3 | 0 | 0 | 100 |
| | Balaka | 5 | 86 | 10 | 0 | 4 | 100 |
| | Mangochi | 4 | 78 | 10 | 0 | 12 | 100 |
| | Machinga | 4 | 92 | 3 | 0 | 5 | 100 |
| | Zomba rural | 2 | 73 | 10 | 2 | 15 | 100 |
| | Chiradzulu | 4 | 76 | 13 | 5 | 5 | 100 |
| | Blantyre rural | 7 | 91 | 4 | 0 | 5 | 100 |
| | Thyolo | 7 | 79 | 17 | 0 | 4 | 100 |
| | Mulanje | 5 | 85 | 8 | 3 | 4 | 100 |
| | Phalombe | 4 | 79 | 14 | 0 | 7 | 100 |
| | Mwanza | 2 | 96 | 2 | 0 | 2 | 100 |
| | Chikwawa | 4 | 30 | 60 | 0 | 10 | 100 |
| | Nsanje | 1 | 53 | 44 | 1 | 1 | 100 |

**Table 2.63: Percent distribution of Irish potato Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | | Type of stand | | | | |
|---|---|---|---|---|---|---|---|
| | | Proportion of plots with Irish potato | Pure | Mixed stand | Relay cropping | Scattered | Total |
| | **Malawi** | 0.4 | **84** | **12** | **0** | **3** | **100** |
| **Sex of operator** | Male | 0.5 | 88 | 9 | 0 | 3 | 100 |
| | Female | 0.4 | 75 | 21 | 0 | 4 | 100 |
| **Plot size** | < 0.099 ha | 0.5 | 99 | 1 | 0 | 0 | 100 |
| | 0.100-0.199 ha | 0.5 | 92 | 3 | 0 | 5 | 100 |
| | 0.200-0.499 ha | 0.4 | 73 | 22 | 0 | 4 | 100 |
| | 0.500-0.999 ha | 0.2 | 68 | 28 | 0 | 5 | 100 |
| | 1.000 ha+ | 0.4 | 95 | 5 | 0 | 0 | 100 |
| **Region** | Northern | 0.1 | 76 | 24 | 0 | 0 | 100 |
| | Central | 0.9 | 84 | 13 | 0 | 3 | 100 |
| | Southern | 0.1 | 96 | 1 | 0 | 3 | 100 |
| **ADD** | Karonga | 0.0 | 46 | 54 | 0 | 0 | 100 |
| | Mzuzu | 0.2 | 79 | 21 | 0 | 0 | 100 |
| | Kasungu | 0.6 | 86 | 7 | 0 | 7 | 100 |
| | Salima | 0.2 | 100 | 0 | 0 | 0 | 100 |
| | Lilongwe | 1.2 | 83 | 15 | 0 | 2 | 100 |
| | Machinga | 0.2 | 96 | 0 | 0 | 4 | 100 |
| | Blantyre | 0.0 | 94 | 6 | 0 | 0 | 100 |
| | Shire Valley | 0.1 | 100 | 0 | 0 | 0 | 100 |
| **District** | Chitipa | 0.0 | 46 | 54 | 0 | 0 | 100 |
| | Rumphi | 0.0 | 100 | 0 | 0 | 0 | 100 |
| | Nkhata Bay | 0.0 | 100 | 0 | 0 | 0 | 100 |
| | Mzimba | 0.0 | 76 | 24 | 0 | 0 | 100 |
| | Kasungu | 0.0 | 100 | 0 | 0 | 0 | 100 |
| | Ntchisi | 0.3 | 97 | 3 | 0 | 0 | 100 |
| | Dowa | 0.2 | 80 | 0 | 0 | 20 | 100 |
| | Nkhotakota | 1.5 | 100 | 0 | 0 | 0 | 100 |
| | Salima | 0.3 | 100 | 0 | 0 | 0 | 100 |
| | Dedza | 0.3 | 77 | 21 | 0 | 2 | 100 |
| | Ntcheu | 0.1 | 88 | 8 | 0 | 4 | 100 |
| | Lilongwe rural | 2.7 | 97 | 3 | 0 | 0 | 100 |
| | Mchinji | 1.9 | 75 | 17 | 0 | 9 | 100 |
| | Mangochi | 0.4 | 100 | 0 | 0 | 0 | 100 |
| | Zomba rural | 1.0 | 94 | 0 | 0 | 6 | 100 |
| | Mulanje | 0.0 | 83 | 17 | 0 | 0 | 100 |
| | Phalombe | 0.2 | 100 | 0 | 0 | 0 | 100 |
| | Mwanza | 0.0 | 100 | 0 | 0 | 0 | 100 |
| | Chikwawa | 0.3 | 100 | 0 | 0 | 0 | 100 |
| | Nsanje | 0.0 | 100 | 0 | 0 | 0 | 100 |

**Table 2.64: Proportion of plots where various cash crops were grown, according to background variables. 2006/2007 Agricultural Season.**

| | | Wheat | Sun flower | Tobacco | Cotton | Tea | Sugar cane | Coffee |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 0.1 | 0.4 | 3.2 | 1.6 | 0.1 | 0.7 | 0.1 |
| **Sex of** | Male | 0.1 | 0.4 | 4.1 | 2.0 | 0.0 | 0.7 | 0.1 |
| **operator** | Female | 0.1 | 0.5 | 1.2 | 1.0 | 0.1 | 0.6 | 0.1 |
| **Plot size** | < 0.099 ha | 0.1 | 0.3 | 2.6 | 0.7 | 0.0 | 1.1 | 0.1 |
| | 0.100-0.199 ha | 0.1 | 0.3 | 3.0 | 1.2 | 0.1 | 0.8 | 0.1 |
| | 0.200-0.499 ha | 0.0 | 0.4 | 3.2 | 2.1 | 0.1 | 0.6 | 0.0 |
| | 0.500-0.999 ha | 0.2 | 0.5 | 3.5 | 1.9 | 0.0 | 0.2 | 0.2 |
| | 1.000 ha+ | 0.0 | 1.0 | 4.2 | 2.1 | 0.1 | 0.2 | 0.1 |
| **Region** | Northern | 0.0 | 0.7 | 3.8 | 0.4 | 0.0 | 0.3 | 0.3 |
| | Central | 0.1 | 0.2 | 4.9 | 1.0 | 0.0 | 0.6 | 0.0 |
| | Southern | 0.1 | 0.5 | 0.9 | 2.8 | 0.1 | 0.9 | 0.1 |
| **ADD** | Karonga | 0.0 | 1.4 | 2.0 | 0.9 | 0.0 | 0.2 | 0.5 |
| | Mzuzu | 0.0 | 0.3 | 4.8 | 0.2 | 0.1 | 0.3 | 0.1 |
| | Kasungu | 0.0 | 0.2 | 8.3 | 0.4 | 0.0 | 0.7 | 0.0 |
| | Salima | 0.3 | 0.2 | 0.2 | 6.5 | 0.2 | 0.2 | 0.0 |
| | Lilongwe | 0.1 | 0.1 | 3.9 | 0.2 | 0.0 | 0.6 | 0.1 |
| | Machinga | 0.2 | 0.6 | 1.6 | 3.5 | 0.0 | 0.5 | 0.2 |
| | Blantyre | 0.1 | 0.6 | 0.7 | 0.3 | 0.1 | 1.2 | 0.0 |
| | Shire Valley | 0.1 | 0.2 | 0.2 | 12.1 | 0.1 | 0.8 | 0.0 |

**Table 2.65: Percent distribution of Tobacco Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | **Malawi** | **90** | **8** | **0** | **2** | **100** |
| **Sex of operator** | Male | 91 | 7 | 0 | 2 | 100 |
| | Female | 83 | 15 | 0 | 2 | 100 |
| **Plot size** | < 0.099 ha | 91 | 7 | 0 | 2 | 100 |
| | 0.100-0.199 ha | 86 | 12 | 0 | 2 | 100 |
| | 0.200-0.499 ha | 91 | 6 | 0 | 3 | 100 |
| | 0.500-0.999 ha | 93 | 7 | 0 | 0 | 100 |
| | 1.000 ha+ | 86 | 12 | 0 | 3 | 100 |
| **Region** | Northern | 97 | 3 | 0 | 0 | 100 |
| | Central | 92 | 6 | 0 | 2 | 100 |
| | Southern | 67 | 28 | 0 | 5 | 100 |
| **ADD** | Karonga | 99 | 1 | 0 | 0 | 100 |
| | Mzuzu | 96 | 4 | 0 | 0 | 100 |
| | Kasungu | 89 | 9 | 0 | 2 | 100 |
| | Salima | 100 | 0 | 0 | 0 | 100 |
| | Lilongwe | 96 | 2 | 0 | 2 | 100 |
| | Machinga | 63 | 31 | 0 | 6 | 100 |
| | Blantyre | 73 | 24 | 0 | 3 | 100 |
| | Shire Valley | 86 | 14 | 0 | 0 | 100 |
| **District** | Chitipa | 99 | 1 | 0 | 0 | 100 |
| | Karonga | 96 | 0 | 0 | 4 | 100 |
| | Rumphi | 98 | 1 | 0 | 1 | 100 |
| | Nkhata Bay | 100 | 0 | 0 | 0 | 100 |
| | Mzimba | 94 | 6 | 0 | 0 | 100 |
| | Kasungu | 99 | 1 | 0 | 0 | 100 |
| | Ntchisi | 91 | 2 | 0 | 7 | 100 |
| | Dowa | 80 | 18 | 0 | 2 | 100 |
| | Nkhotakota | 100 | 0 | 0 | 0 | 100 |
| | Salima | 100 | 0 | 0 | 0 | 100 |
| | Dedza | 82 | 18 | 0 | 0 | 100 |
| | Ntcheu | 100 | 0 | 0 | 0 | 100 |
| | Lilongwe rural | 96 | 1 | 0 | 3 | 100 |
| | Mchinji | 96 | 4 | 0 | 0 | 100 |
| | Balaka | 100 | 0 | 0 | 0 | 100 |
| | Mangochi | 93 | 7 | 0 | 0 | 100 |
| | Machinga | 100 | 0 | 0 | 0 | 100 |
| | Zomba rural | 57 | 35 | 0 | 7 | 100 |
| | Chiradzulu | 52 | 39 | 0 | 9 | 100 |
| | Blantyre rural | 100 | 0 | 0 | 0 | 100 |
| | Mulanje | 100 | 0 | 0 | 0 | 100 |
| | Phalombe | 75 | 23 | 0 | 2 | 100 |
| | Chikwawa | 100 | 0 | 0 | 0 | 100 |
| | Nsanje | 75 | 25 | 0 | 0 | 100 |

**Table 2.66: Percent distribution of Cotton Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | Malawi | 76 | 10 | 14 | 0 | 100 |
| Sex of operator | Male | 77 | 13 | 10 | 0 | 100 |
| | Female | 72 | 0 | 28 | 0 | 100 |
| Plot size | <0.100 ha | 94 | 6 | 0 | 0 | 100 |
| | 0.100-0.199 ha | 56 | 0 | 44 | 0 | 100 |
| | 0.200-0.499 ha | 77 | 23 | 0 | 0 | 100 |
| | 0.500-0.999 ha | 67 | 0 | 33 | 0 | 100 |
| | 1.000 ha+ | 100 | 0 | 0 | 0 | 100 |
| Region | Northern | 72 | 28 | 0 | 0 | 100 |
| | Central | 59 | 0 | 41 | 0 | 100 |
| | Southern | 95 | 5 | 0 | 0 | 100 |
| ADD | Karonga | 61 | 39 | 0 | 0 | 100 |
| | Mzuzu | 100 | 0 | 0 | 0 | 100 |
| | Kasungu | 40 | 0 | 60 | 0 | 100 |
| | Salima | 100 | 0 | 0 | 0 | 100 |
| | Lilongwe | 0 | 0 | 0 | 0 | 0 |
| | Machinga | 100 | 0 | 0 | 0 | 100 |
| | Blantyre | 100 | 0 | 0 | 0 | 100 |
| | Shire Valley | 74 | 26 | 0 | 0 | 100 |
| District | Chitipa | 61 | 39 | 0 | 0 | 100 |
| | Mzimba | 100 | 0 | 0 | 0 | 100 |
| | Kasungu | 32 | 0 | 68 | 0 | 100 |
| | Nkhota kota | 100 | 0 | 0 | 0 | 100 |
| | Salima | 100 | 0 | 0 | 0 | 100 |
| | Mchinji | 100 | 0 | 0 | 0 | 100 |
| | Balaka | 100 | 0 | 0 | 0 | 100 |
| | Mangochi | 100 | 0 | 0 | 0 | 100 |
| | Zomba Rural | 100 | 0 | 0 | 0 | 100 |
| | Blantyre Rural | 100 | 0 | 0 | 0 | 100 |
| | Mulanje | 100 | 0 | 0 | 0 | 100 |
| | Phalombe | 100 | 0 | 0 | 0 | 100 |
| | Mwanza | 100 | 0 | 0 | 0 | 100 |
| | Chikwawa | 74 | 26 | 0 | 0 | 100 |
| | Nsanje | 100 | 0 | 0 | 0 | 100 |

**Table 2.67: Percent distribution of Sun flower Plots by type of stand, according to background variables. 2006/2007 Agricultural Season.**

| | | Pure | Mixed stand | Relay cropping | Scattered | Total |
|---|---|---|---|---|---|---|
| | **Malawi** | **38** | **28** | **1** | **33** | **100** |
| **Sex of operator** | Male | 40 | 35 | 1 | 24 | 100 |
| | Female | 35 | 17 | 1 | 46 | 100 |
| **Plot size** | < 0.099 ha | 59 | 18 | 0 | 23 | 100 |
| | 0.100-0.199 ha | 39 | 26 | 0 | 36 | 100 |
| | 0.200-0.499 ha | 34 | 29 | 1 | 36 | 100 |
| | 0.500-0.999 ha | 16 | 36 | 3 | 45 | 100 |
| | 1.000 ha+ | 81 | 5 | 0 | 15 | 100 |
| **Region** | Northern | 38 | 19 | 0 | 43 | 100 |
| | Central | 54 | 37 | 0 | 9 | 100 |
| | Southern | 34 | 29 | 2 | 35 | 100 |
| **ADD** | Karonga | 17 | 24 | 0 | 59 | 100 |
| | Mzuzu | 91 | 6 | 0 | 3 | 100 |
| | Kasungu | 30 | 63 | 0 | 8 | 100 |
| | Salima | 100 | 0 | 0 | 0 | 100 |
| | Lilongwe | 69 | 18 | 0 | 13 | 100 |
| | Machinga | 20 | 16 | 0 | 64 | 100 |
| | Blantyre | 40 | 40 | 4 | 16 | 100 |
| | Shire Valley | 77 | 5 | 0 | 18 | 100 |
| **District** | Chitipa | 9 | 26 | 0 | 65 | 100 |
| | Karonga | 76 | 8 | 0 | 16 | 100 |
| | Mzimba | 92 | 5 | 0 | 3 | 100 |
| | Kasungu | 29 | 63 | 0 | 8 | 100 |
| | Ntchisi | 50 | 50 | 0 | 0 | 100 |
| | Nkhotakota | 100 | 0 | 0 | 0 | 100 |
| | Dedza | 68 | 22 | 0 | 10 | 100 |
| | Ntcheu | 69 | 0 | 0 | 31 | 100 |
| | Lilongwe rural | 100 | 0 | 0 | 0 | 100 |
| | Mchinji | 66 | 34 | 0 | 0 | 100 |
| | Balaka | 100 | 0 | 0 | 0 | 100 |
| | Mangochi | 18 | 8 | 0 | 73 | 100 |
| | Machinga | 0 | 0 | 0 | 100 | 100 |
| | Zomba rural | 20 | 18 | 0 | 62 | 100 |
| | Chiradzulu | 0 | 100 | 0 | 0 | 100 |
| | Blantyre rural | 0 | 100 | 0 | 0 | 100 |
| | Blantyre city | 100 | 0 | 0 | 0 | 100 |
| | Thyolo | 0 | 50 | 0 | 50 | 100 |
| | Mulanje | 36 | 31 | 0 | 34 | 100 |
| | Phalombe | 29 | 51 | 6 | 14 | 100 |
| | Mwanza | 61 | 0 | 0 | 39 | 100 |
| | Chikwawa | 100 | 0 | 0 | 0 | 100 |
| | Nsanje | 66 | 8 | 0 | 26 | 100 |

**Table 2.68: Proportion of households who experienced thefts of livestock or produce during the last 5 years, according to background variables. 2006/2007 Agricultural Season.**

| | | Livestock | Crop produce in field | Crop produce from storage |
|---|---|---|---|---|
| | Malawi | 17 | 28 | 5 |
| Sex of head | Male | 17 | 28 | 5 |
| | Female | 17 | 28 | 5 |
| Poverty quintile | Poorest quintile | 16 | 26 | 5 |
| | Second quintile | 15 | 28 | 5 |
| | Third quintileile | 19 | 30 | 5 |
| | Fourth quintile | 18 | 29 | 5 |
| | Highest quintile | 17 | 32 | 6 |
| Holding size | <0.100 ha | 12 | 25 | 3 |
| | 0.100-0.199 ha | 9 | 26 | 3 |
| | 0.200-0.499 ha | 13 | 26 | 5 |
| | 0.500-0.999 ha | 18 | 28 | 5 |
| | 1.000-1.999ha | 21 | 31 | 6 |
| | 2.000 ha+ | 26 | 34 | 9 |
| Region | Northern | 18 | 24 | 6 |
| | Central | 18 | 28 | 5 |
| | Southern | 15 | 29 | 5 |
| ADD | Karonga | 22 | 24 | 8 |
| | Mzuzu | 16 | 24 | 5 |
| | Kasungu | 25 | 32 | 9 |
| | Salima | 9 | 19 | 1 |
| | Lilongwe | 16 | 28 | 4 |
| | Machinga | 13 | 22 | 6 |
| | Blantyre | 15 | 31 | 4 |
| | Shire Valley | 26 | 45 | 8 |
| District | Chitipa | 26 | 20 | 12 |
| | Karonga | 20 | 27 | 5 |
| | Rumphi | 20 | 33 | 8 |
| | Nkhata Bay | 22 | 22 | 5 |
| | Mzimba | 14 | 22 | 4 |
| | Kasungu | 25 | 29 | 9 |
| | Ntchisi | 17 | 31 | 8 |
| | Dowa | 27 | 34 | 11 |
| | Nkhota kota | 9 | 15 | 1 |
| | Salima | 9 | 23 | 1 |
| | Dedza | 15 | 25 | 4 |
| | Ntcheu | 16 | 23 | 4 |
| | Lilongwe Rural | 19 | 30 | 5 |
| | Mchinji | 25 | 32 | 8 |
| | Balaka | 19 | 29 | 6 |
| | Mangochi | 8 | 13 | 3 |
| | Machinga | 13 | 22 | 6 |
| | Zomba Rural | 15 | 27 | 8 |
| | Chiradzulu | 22 | 35 | 5 |
| | Blantyre Rural | 15 | 22 | 3 |
| | Thyolo | 16 | 34 | 5 |
| | Mulanje | 15 | 30 | 3 |
| | Phalombe | 10 | 19 | 6 |
| | Mwanza | 17 | 36 | 6 |
| | Chikwawa | 27 | 51 | 10 |
| | Nsanje | 26 | 31 | 5 |

**Table 2.69: Proportion of households who used various protection methods this season, according to background variables. 2006/2007 Agricultural Season.**

| | | fencing the garden | Post guards | Owner guarded the field | Scare crows | Harvest early | Store harvested crop in house | Used magic | No protection method |
|---|---|---|---|---|---|---|---|---|---|
| | Malawi | 2 | 4 | 18 | 6 | 20 | 32 | 4 | 47 |
| Sex of head | Male | 2 | 4 | 19 | 6 | 21 | 31 | 5 | 46 |
| | Female | 1 | 3 | 15 | 5 | 19 | 34 | 4 | 49 |
| | Poorest quintile | 2 | 4 | 20 | 6 | 19 | 33 | 4 | 46 |
| Poverty quintile | Second quintile | 2 | 4 | 18 | 5 | 21 | 29 | 5 | 49 |
| | 3rd quintile | 3 | 4 | 18 | 6 | 21 | 32 | 5 | 46 |
| | Fourth quintile | 2 | 4 | 18 | 6 | 21 | 32 | 4 | 46 |
| | Highest quintile | 2 | 4 | 16 | 5 | 22 | 36 | 4 | 44 |
| Holding size | <0.099 ha | 1 | 4 | 12 | 5 | 16 | 34 | 3 | 49 |
| | 0.100-0.199 ha | 2 | 3 | 15 | 4 | 18 | 36 | 3 | 48 |
| | 0.200-0.499 ha | 2 | 4 | 17 | 5 | 20 | 35 | 4 | 46 |
| | 0.500-0.999 ha | 2 | 4 | 18 | 6 | 20 | 32 | 5 | 47 |
| | 1.000-1.999ha | 3 | 5 | 20 | 6 | 23 | 29 | 5 | 46 |
| | 2.000 ha+ | 3 | 5 | 22 | 8 | 24 | 27 | 7 | 47 |
| Region | Northern | 2 | 3 | 20 | 7 | 22 | 31 | 3 | 46 |
| | Central | 3 | 4 | 18 | 5 | 24 | 21 | 4 | 52 |
| | Southern | 2 | 4 | 18 | 6 | 17 | 42 | 5 | 43 |
| ADD | Karonga | 2 | 4 | 16 | 9 | 26 | 44 | 4 | 35 |
| | Mzuzu | 2 | 3 | 22 | 6 | 20 | 25 | 2 | 52 |
| | Kasungu | 6 | 8 | 23 | 8 | 28 | 22 | 5 | 43 |
| | Salima | 1 | 4 | 19 | 6 | 19 | 24 | 2 | 52 |
| | Lilongwe | 2 | 2 | 15 | 3 | 22 | 19 | 4 | 59 |
| | Machinga | 2 | 5 | 18 | 7 | 16 | 31 | 7 | 48 |
| | Blantyre | 0 | 2 | 12 | 4 | 19 | 50 | 4 | 41 |
| | Shire Valley | 4 | 8 | 40 | 6 | 16 | 48 | 6 | 28 |
| District | Chitipa | 2 | 7 | 14 | 14 | 29 | 28 | 7 | 42 |
| | Karonga | 1 | 1 | 17 | 4 | 23 | 58 | 1 | 28 |
| | Rumphi | 0 | 2 | 27 | 5 | 11 | 17 | 5 | 49 |
| | Nkhata Bay | 2 | 6 | 28 | 5 | 14 | 31 | 1 | 48 |
| | Mzimba | 4 | 2 | 17 | 5 | 22 | 22 | 2 | 56 |
| | Kasungu | 0 | 2 | 19 | 2 | 34 | 35 | 1 | 38 |
| | Ntchisi | 1 | 2 | 20 | 8 | 23 | 22 | 3 | 48 |
| | Dowa | 21 | 25 | 27 | 15 | 24 | 10 | 16 | 40 |
| | Nkhota kota | 0 | 5 | 17 | 6 | 22 | 33 | 0 | 46 |
| | Salima | 2 | 3 | 20 | 6 | 17 | 14 | 4 | 58 |
| | Dedza | 1 | 2 | 14 | 4 | 17 | 13 | 3 | 63 |
| | Ntcheu | 1 | 0 | 8 | 1 | 15 | 25 | 10 | 62 |
| | Lilongwe Rural | 3 | 1 | 21 | 5 | 28 | 17 | 3 | 54 |
| | Mchinji | 0 | 1 | 25 | 7 | 30 | 18 | 1 | 49 |
| | Balaka | 1 | 9 | 15 | 3 | 21 | 30 | 1 | 48 |
| | Mangochi | 3 | 3 | 27 | 9 | 19 | 18 | 8 | 55 |
| | Machinga | 0 | 2 | 15 | 3 | 24 | 34 | 3 | 49 |
| | Zomba Rural | 5 | 9 | 17 | 13 | 8 | 28 | 14 | 50 |
| | Chiradzulu | 0 | 2 | 15 | 2 | 28 | 61 | 2 | 33 |
| | Blantyre Rural | 0 | 4 | 19 | 3 | 13 | 41 | 5 | 41 |
| | Thyolo | 0 | 3 | 12 | 4 | 17 | 60 | 3 | 40 |
| | Mulanje | 0 | 0 | 7 | 3 | 22 | 57 | 4 | 34 |
| | Phalombe | 1 | 0 | 9 | 8 | 16 | 57 | 7 | 40 |
| | Mwanza | 1 | 1 | 13 | 6 | 14 | 15 | 2 | 59 |
| | Chikwawa | 5 | 7 | 42 | 10 | 9 | 30 | 12 | 37 |
| | Nsanje | 3 | 9 | 38 | 3 | 23 | 66 | 1 | 19 |

# Chapter 3: Food security

## 3.1 Introduction

Apart from the obvious macroeconomic importance of small holder agricultural activities in Malawi, it is important to determine the importance of food security. The question is to what extent the small holder agricultural sector, together with the estate sector, can produce enough staple food and other foods to keep the population from hunger and malnourishment. In addition to providing data on food and livestock production at an aggregate level, one of the purposes of the NACAL was to collect information on household food security trends in 2007.

The households sampled were asked about food security and nutrition status at three different points in the agricultural season as follows;

1. In January, when food supply might start to run out.
2. In June, when food is expected to be plenty because of the recent harvest.
3. In September, when food supply is expected to be low, because this is after sale of produce.

## 3.2 Food supply

At all three points in time, the households were asked about food reserves either from the 2006/07 or the previous agricultural season. Due to the fact that the data were collected at different times in the year, the questions on food supplies and crop growing are not identical between the NACAL periods.

In January 2007, the households were asked whether they had any staple food left from the 2005/06 agricultural season. Table 3.1 shows that one third of the households had staple food left, but there were substantial differences between sub groups in the population. More male headed households had staple food left from the previous season than female headed households; 37 percent as compared to 27 percent. The table also shows that the poorer the household, the smaller the proportion that had any food left from the previous season, ranging from 21 percent among the poorest households to 51 percent among the least poor households. Also, the smaller the holding size, the lesser the chance of having any food supplies left from the previous season. Households in the Northern region were much better off in this regard than those in Central or Southern regions.

The results further show that 90 percent of households which had grown staple food had staple food left from the 2006/07 agricultural season by June (Table 3.1).The table further indicate that among households which had grown any staple food during the 2006/07 agricultural season, 80 percent of the households had some staple food left by September. More male headed households had some staple food left than female headed households, 82 percent as compared to 76 percent. The poorer the household, the lower the proportion who had any staple food left, and households with larger holdings more often than households with smaller holdings had some staple food left.

Among those households which had grown some staple food in the 2006/07 season, one out of five households had sold some of their produce by September (Table 3.2). There were no major differences between male headed and female headed households. However, poorest households were less likely to have sold any produce than less poor households and the larger the holding size, the more likely the households sold some produce.

### 3.3 Food sources

In January 2007, about 55 percent of the households either relied upon own produce for food the last 7 days prior to the survey or purchased food from the market, 66 percent, (Table 3.3). There were no major differences between female and male headed households. However, the poorer the household, the less likely they relied on own produce, while there was no differences in the proportion that purchased food from the market. Results in table 3.3 also show that households in Northern region (75 percent) often relied on own produce as source of food than households from the other regions, 57 percent in the Central region and 49 percent in the Southern region.
In June, the most common food sources for households were own produce and purchase from the market, 89 percent and 66 percent respectively (Table 3.3). Results also indicate that the proportion of households who relied on own produce was much higher than in January (55 percent). There was no change in the proportion of households buying food from the market.

Results also indicate that in September, own produce and purchased food from the market were the most important food sources, 77 percent and 76 percent respectively. However in September, own produce was less important than in June, but more important than in January.

### 3.4 Number of meals taken daily

In January 2007, one out of three households took three or more main meals daily, during the 7 days prior to the survey, 62 percent of the households took two main meals and five percent took only one meal (Table 3.4). Among female headed households, 29 percent took three main meals daily, as compared to 35 percent in male headed households. The poorer the household, the smaller the proportion which took three main meals daily. Households in the Northern region had three main meals daily more often than households from the other two regions, 47 percent for Northern region, 30 for Central region and 32 percent for Southern region.

The table also shows that the proportion of households taking three or more main meals daily had increased between January and June. In June, almost half the households had taken three or more main meals daily (47 percent). Furthermore, female headed households took less often three main meals than male headed households, 41 percent as compared to 50 percent, and the difference between the two households groups was bigger than in January. The less poor the households were, the larger the proportion that had taken three or more meals daily. Poverty status was, however, less important in June than in January.

In September, 43 percent of households took three or more main meals, while the majority of the households (55 percent) took two main meals daily (Table 3.4). The proportion of households which took three or more main meals daily was larger among male headed than female headed households, 46 percent as compared to 35 percent. Further, the poorer the households, the smaller the proportion which took three or more main meals daily. Households in the Northern region (56 percent) took three or more main meals daily more often than households in the Central (40 percent) and Southern region (43 percent).

### 3.5 Food scarcity

Not being able to keep up a normal diet is an important indicator of food insecurity. In January 2007, 29 percent of the households reported that they could not afford to eat their normal diet during 7 days preceding the survey (Table 3.5). This proportion was higher among female headed than among male headed households, 34 percent as compared to 27 percent.

In June, results indicate that 12 percent of households could not afford what they normally eat in the seven days prior to the survey. The trend is the same as in January across poverty groups, where more female headed households (13 percent) compared to male headed households (11 percent) could not afford what they normally eat in the seven days prior to the survey (Table 3.5).

In September, one out of every ten households reported that they could not eat their normal diet, little or no change from June. A somewhat larger proportion among female headed households than among male headed household reported that they could not eat their normal diet, 12 percent as compared to nine percent (Table 3.5). Further, the poorer the household, the larger the proportion that could not afford to eat their normal diet, ranging from 17 percent among the poorest households to three percent among the least poor households.

### 3.6 Production of various crops

Production figures were collected on all smallholder farms in rural and district urban centres, and estates were excluded. For urban dwellers with parcels outside the city; the parcels were not included in the sample if the parcel was too far from where the holder lived. Apart from cassava and potatoes where fresh weight was used, dry weight was used in all crops to calculate production (*See Annex 2 for further explanation on the methodology of production estimation).*

The results indicate that a total of 2,116,650 tons of maize was produced by the small holder sector in the 2006/07 agricultural season (table 3.6). Of this amount, 255,859 tons, 951,067 tons, and 909,724 tons were produced in Northern, Central and Southern regions respectively. When comparing production by variety at national level it is observed that 865,701 tons of maize produced in that agricultural season was local maize, 760,468 tons was hybrid maize, 203,614 tons was composite maize, 168,659 tons was recycled hybrid maize and 118,209 tons was maize produced under irrigation or winter farming.

Table 3.7 indicates that 68,053 tons of rice was produced in Malawi in the 2006/07 agricultural season. The main producers of rice at ADD level were Karonga (14,757 tons), Salima (10,754 tons), and Machinga (16,925 tons). The table further shows that 8,901 tons of rice came from Blantyre ADD.

Total of 13,256 tons of sorghum was produced in Malawi in 2006/07 season in the small holder sector (Table 3.7). Of this amount 55 tons, 268 tons and 12,934 tons were produced in Northern, Central and Southern regions respectively. Further 10,013 tons were produced in Shire Valley ADD and 2,090 tons from Blantyre ADD. The table also shows that at national level production for total millet (all stand) was 7,609 tons. At regional level, Southern region had the highest production of 5,253 tons followed by the Northern with 2,111 tons. The results show that at ADD level, Shire Valley, Karonga and Mzuzu had higher production of millet (4,317 tons, 1,105 tons and 1,006 tons respectively).

The results also indicate that in 2006/07 season about 407,167 tons of cassava (fresh weight) was produced in Malawi from the smallholder farmers. Of this amount 176,161tons, 213,379 tons, and 17,628 tons were produced from Northern, Central and Southern regions respectively (Table 3.8).

About 12,048 tons of Irish potatoes (all stand fresh weight)were produced in the small holder sector in the 2006/07 season (Table 3.8). Of this amount, 11,362 tons, 603 tons and 82 tons, were produced from Central, Southern and Northern regions respectively. At ADD level, most of this production was in Lilongwe ADD (10,171 tons). Further, 147,774 tons of sweet potatoes (fresh weight) were produced in the 2006/07 agricultural season in the small holder sector for both mixed and pure stand crop. Of this amount, 109,539 tons, 26,009 and 12,225 tons, tons were produced from Central, Southern and Northern, regions respectively. At ADD level, more production was in Lilongwe ADD (48,345 tons), Kasungu ADD (47,622 tons) and Machinga ADD (15,832 tons).

Table 3.9 shows that 13,014 tons of ordinary beans were produced in Malawi in 2006/07 season in the small holder sector. Of this amount, 8,958 tons, 2,175 tons and 1,881 tons, were produced in the Central, Southern and Northern regions of the country respectively. Further 3,227 tons of ground beans were produced in Malawi in 2006/07 season in the small holder sector. Of this amount, 1,926 tons, 859 tons and 442 tons came from Northern, Central and Southern region of the country, respectively. Results also show that 21,550 tons of soya beans were produced in Malawi in 2006/07 season in the small holder sector. Out of this, 20,198 tons 1,196 tons, and 155 tons were produced in the Central, Northern, and Southern region, respectively. Most of the soya beans was produced from Kasungu ADD (12,023 tons) and Lilongwe ADD (8,167 tons).

The table also shows that 2,341 tons of cow peas were produced in 2006/07 season in the small holder sector. Results indicate that the biggest quantity was produced in the Southern region (1,827 tons) compared to the other regions of the country, 34 tons and 479 tons for the Northern and Central regions respectively. The Census results further indicate that 15,673 tons of pigeon peas were produced in the season in the small holder sector, most of which came from the Southern region (15,183 tons).

The results also show that 147,774 tons of groundnuts were produced in Malawi in 2006/07 year in the small holder sector (Table 3.9). Further 109,539 tons, 26,009 tons 12,225 tons, of groundnuts were produced in Central, Southern and Northern regions respectively. At ADD level, a lot of groundnuts were produced in Lilongwe (48,345 tons), Kasungu (47,622 tons) and Machinga (15,832 tons.)

### 3.7 Area under cultivation

Area under cultivation for various crops presented here is for pure stand only.This covers all major food and cash crops grown in the agricultural season. The results on area under maize show that the total area under pure stand maize was 1,168,689 ha; of which 132,777 ha was in Northern region, 595,339 ha was in the Central region, and 440,572 ha was in Southern region (Table 3.10). Results also show that 101,732 ha was under recycled maize, 106,424 ha under composite maize, 559,759 ha under local maize and 400,774 ha was under hybrid maize .

The results further indicate that of the total arable land, 41,952 ha was used to grow rice on pure stand in the same season. At regional level, 17,101 ha, 14,042 ha 10,810 ha of land was utilized in growing pure stand rice in the Southern, Central and Northern regions, respectively (Table 3.11).

About 22,746 ha of arable land was used to growsorghum on pure stand by small holder farmers in 2006/07 agricultural season. Most of this was in Southern region (21,527 ha); especially in Shire Valley ADD about 16,299 ha (Table 3.11). The results also show that about 16,215 ha of arable land was used to grow millet on pure stand. Most of this land was in the Southern region (11,751 ha).

The results further indicate that 61,787 ha of arable land from small holder sector was used to grow cassava on pure stand. At regional level, 34,571 ha, 24,057 ha and 3,159 ha of land was exclusively used for cassava in Northern, Central and Southern region, respectively (Table 3.12).

In the same season 7,026 ha of land was used to grow pure stand Irish potatoes. Most of this land was in Central region (5,875 ha. Further, 46,122 ha of arable land was used to grow pure stand sweet potatoes for the small holder farmers. At regional level, 28,073 ha, 11,165 ha and 6,884 ha of land from Central, Southern and Northern, regions respectively was used exclusively for sweet potatoes.

The results show that about 11,559 ha of land was used to grow ordinary beans on pure stand in the 2006/07 season in the small holder sector. At regional level, 2,709 ha, 7,956 ha and 894 ha was grown by pure stand beans in the Northern, Central and Southern regions, respectively (Table 3.13).

The results also show that about 9,367 ha of land was used to grow ground beans on pure stand. Further, 33,720 ha of land from the small holder sector was used to grow pure stand soya beans in the season. Most of this land was in the Central region (28,555 ha).

Of the total amount of arable land, 6,138 ha was used to grow cow peas on pure stand.The findings also show that about 13,795 ha of arable land was used to grow pigeon peas (on pure stand) in the 2006/07 season. Most of this land was in the Southern region (12,405 ha). The results also indicate that about 143,081 ha of arable land was used to grow groundnuts on pure stand.Most of this land was in the Central region (119,654 ha).

The results show that 64,895 ha of the arable land from small holder sector was used to grow tobacco on pure stand. At regional level 10,949 ha, 49,399 ha and 4,547 ha was grown by pure stand tobacco in the Central, Northern and Southern region, respectively (Table 3.14).

The results show that 45,162 ha of arable land were used to grow pure stand cotton in the 2006/07 season (Table 3.14). At regional level, 901 ha, 13,802 ha and 30,459 ha of land was grown by pure stand cotton in Northern, Central and Southern regions respectively. The results further indicate that 4,681 ha of arable land was used for sunflower on pure stand. Most of this land was in the Southern region (2,904 ha) and Northern region (1,109 ha ).

### 3.8 Yield of various crops

Calculation of yield per crop was done at plot level (production in metric tones divided by area of the plot). Further, the total yield per plot was calculated for pure stand crops only, specifically for the smallholder sector.

The results show that the average yield for all maize pure stand in Malawi was 1,709 kg/ha. For male operators, the average yield for maize was 1,747 kg/ha, while for female operators the yield was 1,644 kg/ha (Table 3.15)). At regional level, results show that Southern region had the highest average yield of maize under pure stand (1,761 kg/ha), followed by Central (1,698 kg/ha) and Northern region, (1,625kg/ha)..

Furthermore, the results show that at regional level, Southern region had higher average yield for composite and hybrid maize varieties,(1,842kg/ha) and (1,982kg/ha) respectively, while Central region had higher yield for local maize, (,419kg/ha and. Furthermore, male operators had more yields in all maize varieties compared to female operators.

The national maize yield was1,384 kg/ha for male operators and 1,353 kg/ha for female operators (Table 3.15). On hybrid maize the yield was 1,915kg/ha for male operators and 1,887kg/ha for female operators. The table also show that composite maize had an average yield of 1,600 kg/ha for female operators and 1,809 kg/ha for male operators. Further, hybrid recycled maize had an average yield of 1,751kg/ha for male operators and 1,482kg/ha for female operators. The table also shows that maize yield for plots with fertilizer was higher than yield for unfertilized maize plots. The results show that yields were higher for plots where fertilizer was applied twice.

At national level, average local maize yield was 1,198 kg/ha for unfertilized maize plots and 1,379 kg/ha for plots where fertilizer was applied once, 1,622kg/ha for plots where fertilizer was applied twice (Table 3.15). Average yield for hybrid maize was 1,740 kg/ha for plots where fertilizer was applied once and 2,342kg/ha for plots where fertilizer was applied twice. Average yield for composite maize was 1,601kg/ha for unfertilized plots, 1,806 kg/ha for plots where fertilizer was applied once, and 2,047 kg/ha for plots where fertilizer was applied twice. Furthermore, for all maize varieties, plots weeded twice yielded higher than plots which were weeded once.

Table 3.16 shows that at national level, average yield for smallholder rice growers was 2,412 kg/ha for pure stand rice. Northern region had an average yield of 2,571 kg/ha, Central region, 2,537 kg/ha and Southern region 2,196 kg/ha. The average yield for male operators was 2,450 kg/ha and 2,347 kg/ha for female operators. The average yield for unfertilized plots was 2,246 kg/ha and 3,205 kg/ha for plots in which fertilizer was applied.

The table further show that at national level, the average yield for sorghum was 1,284 kg/ha for pure stand sorghum. The average yield for female operators was 1,267 kg/ha while for the male operators it was 1,295 kg/ha.

The average yield for millet at national level was 1,201 kg/ha for pure stand millet (Table 3.16). Female operators had higher yield (1,365 kg/ha) than male operators (1,099 kg/ha). Across regions, Northern region had an average yield of 1,330 kg/ha, Central region, 1,198 kg/ha and Southern region, 1,146 kgs per ha.

The results show that the average yield for cassava based on fresh weight was 5,128 kg/ha for pure stand cassava (Table 3.17). Central region had an average yield of 5,476 kg/ha, Northern region had 5,043 kg/ha and Southern region had 3,882 kg/ha.

In this report, calculation of yield for potatoes is based on fresh weight and for pure stand. At national level, the average yield for irish potatoes was 3,454 kg/ha in the year. The average yield for male operators was 3,258 kg/ha and 4,197 kg/ha for female operators . The average yield for unfertilized irish potato plots was 2,493 kg/ha and 3,511 kg/ha for plots in which fertilizer was applied.

The results further show that average yield for fresh weight pure stand sweet potatoes for small holder sector was 2,642 kg/ha (Table 3.17). The average yield at regional level was 2,364 kg/ha, 2,912 kg/ha and 2,349 kg/ha for Northern, Central and Southern regions respectively. The average yield for male operators was higher, 2,694 kg/ha than female operators, 2,460 kg/ha. The average yield for unfertilized plots was 2,626 kg/ha and 2,921 kg/ha for plots in which fertilizer was applied.

The average yield for pure stand beans at national level was 1,154 kg/ha, male operators had higher yield than female operators (1,212 kg/ha and 1,021 kg/ha) respectively (Table 3.18). At regional level, Southern region had an average yield of 1,414 kg/ha, Central region, 1,310 kg/ha and Northern region, 752 kg/ha. Average yield for pure stand ground beans at national level was 472 kg/ha, male operators had higher yield than female operators, 440kg/ha and 509kg/ha,respectively. At regional level, Central region had average yield of 565 kg/ha, Northern region , 399 kg/ha and Southern region 366 kg/ha.

The results show that average yield for pure stand soya beans at national level was 840 kg/ha, male operators had higher yield than female operators, 866 kg/ha and 778 kg/, respectively (Table 3.18). At regional level, Central region had an average yield of 865 kg/ha, Northern, region 725 kg/ha and Southern region, 523 kg/ha. The table also shows that average yield for pure stand cow peas at national level was 689 kg/ha, male operators had higher average yield than female operators, 693 kg/ha and 683 kg/ha, respectively.

The table further shows that the average yield for pure stand pigeon peas at national level was 1,414 kg/ha, male operators had higher average yield than female operators 1,708 kg/ha and 1,066 kg/ha,respectively. Northern region had an average yield of 1,545 kg/ha, Southern region, 1,435 kg/ha and Central region, 515 kg/ha.

At national level, the average yield for pure stand groundnuts was 1,287kg/ha. Southern region had an average of 1,436 kg/ha, Northern region, 1,280 kg/ha and Central region, 1,259 kg/ha . The results show that for male operators the average yield was 1,289 kg/ha and for female operators, 1,284 kg/ha (Table 3.18).

### 3.9 Fruits cultivation

The results show that there were about 10.7 million mangoes in the small holder agriculture sector of which4.9 million was in the Southern region, 4.6 million in the Central region, and 1.2 million in the Northern region (Table 3.19). Results also indicate that in the small holder sector, there were about 2 million pawpaw trees, 2 million guava trees, 1 million avocado pear trees, 0.7 million orange trees, and 0.4 million tangerine trees.

The results show that 78 percent of small holder farming households had at least one kind of a fruit tree (Table 3.209). At national level, 66 percent of households owned at least a mango tree, 27 percent owned at least a pawpaw tree, 12 percent owned at least an orange tree . The proportion of those owning at least a fruit tree increased with increase in land holding size of the households, except for avocado pear (Table 3.20).

**Table 3.1 Proportion of households who still had staple food left from previous season by month , according to background variables, 2006/2007 Agricultural Season.**

| | | January | June | September |
|---|---|---|---|---|
| | **Malawi** | **34** | 90 | 80 |
| **Sex of head of Household** | Male | 37 | 90 | 82 |
| | Female | 27 | 89 | 76 |
| **Poverty quintile** | Poorest quintile | 21 | 86 | 69 |
| | Second quintile | 28 | 90 | 79 |
| | 3rd quintile | 36 | 91 | 82 |
| | Fourth quintile | 40 | 92 | 84 |
| | Highest quintile | 51 | 91 | 87 |
| **Holding size** | Less than 0.1 ha | 29 | 84 | 71 |
| | 0,100-0,199 ha | 21 | 86 | 68 |
| | 0,200-0,499 ha | 25 | 89 | 77 |
| | 0,500-0,999 ha | 34 | 90 | 84 |
| | 1,000 ha+ | 46 | 92 | 88 |
| | 2,000 ha+ | 54 | 91 | 87 |
| **Region** | Northern | 57 | 88 | 85 |
| | Central | 35 | 90 | 82 |
| | Southern | 28 | 90 | 78 |
| **District** | Chitipa | 69 | 89 | 91 |
| | Karonga | 61 | 86 | 82 |
| | Rumphi | 61 | 95 | 94 |
| | Nkhata Bay | 66 | 89 | 81 |
| | Likoma | 2 | 23 | 0 |
| | Mzimba | 49 | 93 | 87 |
| | Kasungu | 27 | 95 | 82 |
| | Ntchisi | 43 | 92 | 89 |
| | Dowa | 38 | 88 | 84 |
| | Nkhota kota | 68 | 92 | 80 |
| | Salima | 37 | 98 | 81 |
| | Dedza | 32 | 74 | 80 |
| | Ntcheu | 48 | 92 | 91 |
| | Lilongwe Rural | 26 | 90 | 77 |
| | Mchinji | 21 | 88 | 83 |
| | Balaka | 31 | 88 | 80 |
| | Mangochi | 24 | 91 | 83 |
| | Machinga | 29 | 93 | 81 |
| | Zomba Rural | 29 | 92 | 87 |
| | Chiradzulu | 33 | 97 | 82 |
| | Blantyre Rural | 28 | 96 | 82 |
| | Thyolo | 34 | 95 | 79 |
| | Mulanje | 15 | 87 | 69 |
| | Phalombe | 33 | 87 | 84 |
| | Mwanza | 33 | 96 | 85 |
| | Chikwawa | 19 | 67 | 45 |
| | Nsanje | 16 | 86 | 54 |

**Table 3.2: Proportion of households who grew staple food in the 2006/07 agricultural season and had sold some of the main staple food, according to background variables, 2006/2007 Agricultural Season.**

| | | Yes | No | Total |
|---|---|---|---|---|
| | **Malawi** | 22 | 78 | 100 |
| **Sex of head** | Male | 22 | 78 | 100 |
| | Female | 20 | 80 | 100 |
| **Poverty quintile** | Poorest quintile | 16 | 84 | 100 |
| | Second quintile | 22 | 78 | 100 |
| | Third quintile | 25 | 75 | 100 |
| | Fourth quintile | 23 | 77 | 100 |
| | Highest quintile | 23 | 77 | 100 |
| **Holding size** | Less than 0.1 ha | 13 | 87 | 100 |
| | 0.100-0.199 ha | 14 | 86 | 100 |
| | 0.200-0.499 ha | 18 | 82 | 100 |
| | 0.500-0.999 ha | 23 | 77 | 100 |
| | 1.000-1.999 ha | 29 | 71 | 100 |
| | 2.000ha+ | 30 | 70 | 100 |
| **Region** | Northern | 22 | 78 | 100 |
| | Central | 26 | 74 | 100 |
| | Southern | 18 | 82 | 100 |
| **District** | Chitipa | 25 | 75 | 100 |
| | Karonga | 31 | 69 | 100 |
| | Rumphi | 27 | 73 | 100 |
| | Nkhata Bay | 15 | 85 | 100 |
| | Likoma | 0 | 100 | 100 |
| | Mzimba | 22 | 78 | 100 |
| | Kasungu | 32 | 68 | 100 |
| | Ntchisi | 39 | 61 | 100 |
| | Dowa | 41 | 59 | 100 |
| | Nkhotakota | 17 | 83 | 100 |
| | Salima | 34 | 66 | 100 |
| | Dedza | 25 | 75 | 100 |
| | Ntcheu | 21 | 79 | 100 |
| | Lilongwe rural | 26 | 74 | 100 |
| | Mchinji | 22 | 78 | 100 |
| | Balaka | 23 | 77 | 100 |
| | Mangochi | 19 | 81 | 100 |
| | Machinga | 14 | 86 | 100 |
| | Zomba rural | 23 | 77 | 100 |
| | Chiradzulu | 24 | 76 | 100 |
| | Blantyre rural | 20 | 80 | 100 |
| | Thyolo | 20 | 80 | 100 |
| | Mulanje | 11 | 89 | 100 |
| | Phalombe | 43 | 57 | 100 |
| | Mwanza | 12 | 88 | 100 |
| | Chikwawa | 10 | 90 | 100 |
| | Nsanje | 10 | 90 | 100 |

**Table 3.3: Proportion of households who used various food sources in the last 7 days by month, according to background variables,2006/2007 Agricultural Season.**

| | | January | | | | June | | | | September | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Own produce | Purchase from market | Casual labour paid in food | Food for work | Own produce | Purchase from market | Casual labour paid in food | Food for work | Own produce | Purchase from market | Casual labour paid in food | Food for work |
| | **Malawi** | **55** | **66** | **12** | **6** | 89 | 66 | 2 | 1 | 77 | 76 | 2 | 1 |
| Sex of head of Household | Male | 56 | 67 | 11 | 6 | 89 | 67 | 2 | 1 | 78 | 76 | 2 | 1 |
| | Female | 52 | 64 | 13 | 6 | 88 | 63 | 2 | 1 | 75 | 74 | 2 | 1 |
| Poverty quintile | Poorest quintile | 49 | 67 | 14 | 8 | 86 | 62 | 3 | 1 | 73 | 71 | 3 | 2 |
| | Second quintile | 54 | 63 | 15 | 7 | 90 | 64 | 4 | 1 | 79 | 72 | 2 | 2 |
| | 3rd quintile | 56 | 68 | 11 | 6 | 90 | 65 | 1 | 1 | 82 | 74 | 2 | 1 |
| | Fourth quintile | 59 | 66 | 12 | 5 | 90 | 65 | 2 | 1 | 81 | 77 | 2 | 1 |
| | Highest quintile | 62 | 68 | 7 | 4 | 88 | 74 | 2 | 1 | 72 | 84 | 1 | 1 |
| Holding size | Less than 0.1 ha | 49 | 75 | 7 | 5 | 76 | 77 | 2 | 1 | 70 | 83 | 2 | 1 |
| | 0,100-0,199 ha | 43 | 70 | 13 | 5 | 82 | 68 | 3 | 2 | 68 | 80 | 2 | 2 |
| | 0,200-0,499 ha | 49 | 71 | 12 | 6 | 87 | 65 | 3 | 1 | 77 | 77 | 2 | 1 |
| | 0,500-0,999 ha | 56 | 65 | 13 | 6 | 90 | 65 | 2 | 1 | 82 | 74 | 2 | 1 |
| | 1,000 ha+ | 64 | 61 | 10 | 7 | 92 | 65 | 2 | 1 | 86 | 71 | 2 | 1 |
| Region | Northern | 75 | 58 | 5 | 3 | 92 | 64 | 1 | 0 | 82 | 70 | 1 | 1 |
| | Central | 57 | 57 | 19 | 10 | 92 | 60 | 4 | 2 | 79 | 73 | 3 | 2 |
| | Southern | 49 | 76 | 7 | 4 | 85 | 71 | 2 | 1 | 75 | 78 | 2 | 1 |
| District | Chitipa | 85 | 47 | 3 | 1 | 99 | 74 | 0 | 0 | 94 | 71 | 0 | 0 |
| | Karonga | 73 | 66 | 2 | 1 | 86 | 60 | 1 | 0 | 82 | 66 | 0 | 0 |
| | Rumphi | 75 | 77 | 9 | 2 | 94 | 75 | 0 | 0 | 93 | 74 | 0 | 0 |
| | Nkhata Bay | 86 | 65 | 3 | 1 | 91 | 67 | 2 | 1 | 81 | 68 | 1 | 0 |
| | Likoma | 28 | 93 | 2 | 0 | 28 | 100 | 4 | 2 | 6 | 100 | 0 | 0 |
| | Mzimba | 70 | 48 | 7 | 5 | 94 | 56 | 1 | 0 | 88 | 67 | 2 | 1 |
| | Kasungu | 70 | 71 | 14 | 31 | 96 | 84 | 1 | 1 | 86 | 80 | 1 | 1 |
| | Ntchisi | 65 | 37 | 23 | 6 | 99 | 59 | 1 | 2 | 90 | 69 | 6 | 4 |
| | Dowa | 61 | 48 | 21 | 7 | 90 | 55 | 4 | 0 | 79 | 57 | 7 | 3 |
| | Nkhota kota | 81 | 62 | 2 | 3 | 87 | 69 | 1 | 1 | 81 | 81 | 1 | 1 |
| | Salima | 33 | 81 | 7 | 6 | 91 | 74 | 1 | 0 | 80 | 67 | 2 | 3 |
| | Dedza | 58 | 58 | 21 | 7 | 95 | 69 | 7 | 2 | 82 | 76 | 6 | 1 |
| | Ntcheu | 74 | 64 | 9 | 11 | 91 | 66 | 3 | 6 | 84 | 72 | 1 | 2 |
| | Lilongwe Rural | 47 | 55 | 28 | 9 | 91 | 49 | 4 | 2 | 80 | 76 | 4 | 4 |
| | Mchinji | 53 | 42 | 24 | 4 | 93 | 69 | 8 | 2 | 84 | 72 | 3 | 1 |
| | Balaka | 48 | 73 | 13 | 6 | 91 | 68 | 2 | 0 | 77 | 82 | 4 | 1 |
| | Mangochi | 46 | 71 | 5 | 2 | 82 | 71 | 0 | 1 | 76 | 82 | 2 | 1 |
| | Machinga | 67 | 66 | 10 | 4 | 86 | 59 | 2 | 0 | 79 | 71 | 2 | 1 |
| | Zomba Rural | 61 | 81 | 6 | 1 | 89 | 62 | 2 | 1 | 87 | 68 | 2 | 2 |
| | Chiradzulu | 71 | 78 | 8 | 6 | 89 | 86 | 1 | 0 | 87 | 89 | 0 | 0 |
| | Blantyre Rural | 30 | 67 | 7 | 7 | 79 | 65 | 1 | 0 | 86 | 70 | 2 | 0 |
| | Thyolo | 60 | 79 | 7 | 1 | 95 | 80 | 1 | 1 | 83 | 77 | 1 | 1 |
| | Mulanje | 37 | 79 | 4 | 1 | 81 | 70 | 0 | 2 | 69 | 74 | 2 | 1 |
| | Phalombe | 63 | 73 | 11 | 3 | 94 | 69 | 0 | 0 | 87 | 73 | 1 | 1 |
| | Mwanza | 68 | 57 | 22 | 2 | 86 | 63 | 10 | 0 | 84 | 63 | 5 | 0 |
| | Chikwawa | 45 | 79 | 12 | 12 | 73 | 84 | 5 | 1 | 50 | 85 | 1 | 2 |
| | Nsanje | 24 | 83 | 4 | 8 | 85 | 51 | 0 | 1 | 57 | 78 | 1 | 1 |

**Table 3.4 Percentage distribution of households by number of meals taken daily last 7 days, according to background variables, 2006/2007 Agricultural Season.**

| | | January | | | | June | | | | September | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | One meal | Two meals | Three meals or more | Total | One meal | Two meals | Three meals or more | Total | One meal | Two meals | Three meals or more | Total |
| | **Malawi** | **5** | **62** | **33** | **100** | 2 | 51 | 47 | **100** | 2 | 55 | 43 | **100** |
| Sex of head | Male | 4 | 61 | 35 | 100 | 1 | 49 | 50 | 100 | 2 | 52 | 46 | 100 |
| of Household | Female | 6 | 65 | 29 | 100 | 2 | 57 | 41 | 100 | 3 | 62 | 35 | 100 |
| Poverty | Poorest quintile | 7 | 73 | 20 | 100 | 2 | 64 | 34 | 100 | 3 | 78 | 19 | 100 |
| quintile | Second quintile | 5 | 70 | 25 | 100 | 2 | 57 | 41 | 100 | 2 | 67 | 31 | 100 |
| | 3rd quintile | 4 | 65 | 31 | 100 | 2 | 50 | 48 | 100 | 2 | 59 | 39 | 100 |
| | Fourth quintile | 3 | 57 | 40 | 100 | 1 | 45 | 54 | 100 | 2 | 46 | 52 | 100 |
| | Highest quintile | 3 | 43 | 54 | 100 | 1 | 38 | 61 | 100 | 1 | 25 | 74 | 100 |
| Holding size | Less than 0.1 ha | 4 | 55 | 41 | 100 | 2 | 45 | 53 | 100 | 1 | 40 | 59 | 100 |
| | 0,100-0,199 ha | 4 | 59 | 37 | 100 | 4 | 54 | 42 | 100 | 3 | 57 | 40 | 100 |
| | 0,200-0,499 ha | 5 | 64 | 31 | 100 | 2 | 53 | 46 | 100 | 2 | 57 | 40 | 100 |
| | 0,500-0,999 ha | 5 | 63 | 32 | 100 | 2 | 54 | 44 | 100 | 2 | 58 | 40 | 100 |
| | 1,000-1,999 ha | 4 | 62 | 34 | 100 | 1 | 48 | 51 | 100 | 2 | 56 | 42 | 100 |
| | 2,000 ha+ | 2 | 63 | 35 | 100 | 1 | 45 | 54 | 100 | 1 | 57 | 41 | 100 |
| Region | Northern | 2 | 50 | 47 | 100 | 1 | 36 | 64 | 100 | 1 | 43 | 56 | 100 |
| | Central | 6 | 64 | 30 | 100 | 2 | 53 | 45 | 100 | 2 | 58 | 40 | 100 |
| | Southern | 4 | 64 | 32 | 100 | 2 | 54 | 45 | 100 | 2 | 55 | 43 | 100 |
| District | Chitipa | 1 | 47 | 52 | 100 | 0 | 37 | 63 | 100 | 1 | 36 | 64 | 100 |
| | Karonga | 1 | 48 | 52 | 100 | 0 | 26 | 74 | 100 | 1 | 35 | 64 | 100 |
| | Rumphi | 2 | 38 | 61 | 100 | 0 | 26 | 73 | 100 | 1 | 23 | 77 | 100 |
| | Nkhata Bay | 2 | 54 | 43 | 100 | 2 | 54 | 45 | 100 | 1 | 53 | 47 | 100 |
| | Likoma | 0 | 50 | 50 | 100 | 6 | 31 | 63 | 100 | 2 | 18 | 80 | 100 |
| | Mzimba | 4 | 57 | 39 | 100 | 1 | 39 | 61 | 100 | 2 | 56 | 42 | 100 |
| | Kasungu | 2 | 64 | 35 | 100 | 0 | 41 | 59 | 100 | 0 | 57 | 43 | 100 |
| | Ntchisi | 9 | 76 | 16 | 100 | 1 | 62 | 37 | 100 | 1 | 60 | 39 | 100 |
| | Dowa | 13 | 61 | 26 | 100 | 6 | 58 | 36 | 100 | 6 | 65 | 29 | 100 |
| | Nkhota kota | 2 | 68 | 29 | 100 | 1 | 52 | 47 | 100 | 1 | 37 | 61 | 100 |
| | Salima | 4 | 59 | 37 | 100 | 1 | 53 | 46 | 100 | 1 | 50 | 49 | 100 |
| | Dedza | 9 | 70 | 21 | 100 | 2 | 67 | 31 | 100 | 3 | 72 | 26 | 100 |
| | Ntcheu | 4 | 59 | 37 | 100 | 1 | 55 | 44 | 100 | 1 | 70 | 29 | 100 |
| | Lilongwe Rural | 5 | 70 | 24 | 100 | 2 | 57 | 42 | 100 | 4 | 73 | 23 | 100 |
| | Mchinji | 9 | 71 | 21 | 100 | 2 | 51 | 47 | 100 | 4 | 64 | 33 | 100 |
| | Balaka | 6 | 68 | 25 | 100 | 1 | 65 | 34 | 100 | 2 | 68 | 30 | 100 |
| | Mangochi | 2 | 63 | 34 | 100 | 2 | 46 | 52 | 100 | 2 | 51 | 47 | 100 |
| | Machinga | 7 | 59 | 34 | 100 | 1 | 56 | 43 | 100 | 2 | 66 | 33 | 100 |
| | Zomba Rural | 4 | 60 | 37 | 100 | 1 | 48 | 50 | 100 | 2 | 57 | 41 | 100 |
| | Chiradzulu | 7 | 76 | 18 | 100 | 3 | 63 | 34 | 100 | 2 | 74 | 24 | 100 |
| | Blantyre Rural | 2 | 61 | 37 | 100 | 1 | 50 | 49 | 100 | 1 | 55 | 44 | 100 |
| | Thyolo | 5 | 71 | 24 | 100 | 4 | 43 | 52 | 100 | 1 | 57 | 43 | 100 |
| | Mulanje | 4 | 75 | 21 | 100 | 3 | 52 | 45 | 100 | 3 | 70 | 27 | 100 |
| | Phalombe | 7 | 74 | 19 | 100 | 4 | 73 | 23 | 100 | 4 | 77 | 19 | 100 |
| | Mwanza | 4 | 57 | 39 | 100 | 1 | 49 | 49 | 100 | 3 | 54 | 44 | 100 |
| | Chikwawa | 4 | 70 | 27 | 100 | 1 | 57 | 42 | 100 | 2 | 61 | 37 | 100 |
| | Nsanje | 6 | 62 | 32 | 100 | 2 | 55 | 44 | 100 | 4 | 57 | 39 | 100 |

**Table 3.5: Proportion of households who could not eat what they normally eat last 7 days by month, according to background variables,2006/2007 Agricultural Season.**

| | | January | June | September |
|---|---|---|---|---|
| | **Malawi** | **29** | 12 | 10 |
| Sex of head of | Male | 27 | 11 | 9 |
| Household | Female | 34 | 14 | 12 |
| Poverty quintile | Poorest quintile | 39 | 16 | 17 |
| | Second quintile | 34 | 13 | 11 |
| | 3rd quintile | 29 | 12 | 9 |
| | Fourth quintile | 22 | 11 | 7 |
| | Highest quintile | 19 | 6 | 3 |
| Holding size | Less than 0.1 ha | 30 | 13 | 8 |
| | 0,100-0,199 ha | 32 | 20 | 11 |
| | 0,200-0,499 ha | 31 | 13 | 11 |
| | 0,500-0,999 ha | 30 | 11 | 8 |
| | 1,000-1,999 ha | 25 | 10 | 8 |
| | 2,000 ha+ | 21 | 9 | 7 |
| Region | Northern | 26 | 12 | 7 |
| | Central | 28 | 10 | 9 |
| | Southern | 31 | 13 | 10 |
| District | Chitipa | 12 | 4 | 3 |
| | Karonga | 22 | 12 | 7 |
| | Rumphi | 31 | 7 | 2 |
| | Nkhata Bay | 33 | 20 | 12 |
| | Likoma | 54 | 65 | 34 |
| | Mzimba | 27 | 13 | 7 |
| | Kasungu | 30 | 9 | 6 |
| | Ntchisi | 36 | 9 | 11 |
| | Dowa | 27 | 7 | 11 |
| | Nkhota kota | 35 | 23 | 15 |
| | Salima | 20 | 3 | 8 |
| | Dedza | 30 | 9 | 13 |
| | Ntcheu | 25 | 10 | 8 |
| | Lilongwe Rural | 31 | 12 | 10 |
| | Mchinji | 25 | 14 | 11 |
| | Balaka | 24 | 12 | 8 |
| | Mangochi | 21 | 6 | 10 |
| | Machinga | 32 | 12 | 11 |
| | Zomba Rural | 27 | 12 | 10 |
| | Chiradzulu | 35 | 16 | 13 |
| | Blantyre Rural | 35 | 19 | 7 |
| | Thyolo | 26 | 13 | 9 |
| | Mulanje | 36 | 11 | 14 |
| | Phalombe | 24 | 13 | 11 |
| | Mwanza | 21 | 10 | 4 |
| | Chikwawa | 51 | 27 | 21 |
| | Nsanje | 56 | 17 | 16 |

**Table 3.6: Production of maize in tons by variety by background characteristics, 2006/2007 Agricultural Season.**

| | | Local | Composite | Recycled | Hybrid | Winter production | Total |
|---|---|---|---|---|---|---|---|
| | Malawi | 865,701 | 203,614 | 168,659 | 760,468 | 118,209 | 2,116,650 |
| Region | Northern | 136,117 | 21,344 | 21,190 | 63,678 | 13,530 | 255,859 |
| | Central | 362,784 | 104,853 | 102,367 | 328,859 | 52,204 | 951,067 |
| | Southern | 366,800 | 77,416 | 45,102 | 367,930 | 52,475 | 909,724 |
| ADD | Karonga | 20,276 | 4,340 | 5,876 | 17,303 | 5,460 | 53,255 |
| | Mzuzu | 115,841 | 17,004 | 15,313 | 46,376 | 8,070 | 202,604 |
| | Kasungu | 136,680 | 37,893 | 35,926 | 159,881 | 10,125 | 380,506 |
| | Salima | 31,615 | 17,546 | 22,831 | 35,741 | 9,613 | 117,348 |
| | Lilongwe | 194,489 | 49,414 | 43,609 | 133,237 | 32,466 | 453,214 |
| | Machinga | 200,020 | 36,398 | 18,478 | 90,745 | 19,545 | 365,186 |
| | Blantyre | 148,216 | 31,126 | 20,565 | 265,096 | 12,707 | 477,709 |
| | Shire Valley | 18,564 | 9,892 | 6,059 | 12,089 | 20,224 | 66,828 |
| District | Chitipa | 12,195 | 3,297 | 3,395 | 12,500 | 1,451 | 32,837 |
| | Karonga | 8,081 | 1,043 | 2,481 | 4,803 | 4,010 | 20,418 |
| | Rumphi | 14,987 | 2,198 | 1,408 | 16,224 | 1,342 | 36,160 |
| | Nkhata Bay | 3,669 | 2,462 | 709 | 7,227 | 1,241 | 15,308 |
| | Likoma | 138 | 65 | 2 | 49 | 9 | 264 |
| | Mzimba | 96,046 | 12,111 | 13,057 | 20,871 | 5,240 | 147,325 |
| | Mzuzu City | 1,001 | 168 | 138 | 2,004 | 237 | 3,547 |
| | Kasungu | 30,018 | 17,725 | 17,882 | 58,651 | 5,636 | 129,912 |
| | Ntchisi | 27,362 | 5,462 | 1,922 | 15,842 | 626 | 51,215 |
| | Dowa | 52,660 | 13,067 | 12,052 | 38,013 | 1,522 | 117,314 |
| | Nkhota kota | 5,819 | 7,966 | 6,396 | 16,150 | 2,390 | 38,721 |
| | Salima | 25,797 | 9,580 | 16,435 | 19,591 | 7,223 | 78,626 |
| | Dedza | 52,387 | 7,736 | 9,482 | 25,373 | 4,997 | 99,974 |
| | Ntcheu | 59,191 | 5,367 | 7,202 | 12,993 | 3,681 | 88,434 |
| | Lilongwe Rural | 69,958 | 28,177 | 15,412 | 62,838 | 14,581 | 190,966 |
| | Lilongwe City | 12,951 | 8,136 | 11,514 | 32,034 | 10,204 | 73,840 |
| | Mchinji | 26,641 | 1,638 | 4,070 | 47,375 | 2,340 | 82,065 |
| | Balaka | 47,303 | 14,016 | 3,757 | 6,682 | 1,907 | 73,666 |
| | Mangochi | 67,241 | 11,410 | 7,762 | 36,090 | 6,873 | 129,376 |
| | Machinga | 27,016 | 3,354 | 1,331 | 9,669 | 4,657 | 46,027 |
| | Zomba Rural | 54,704 | 7,458 | 5,235 | 34,538 | 5,798 | 107,734 |
| | Zomba City | 4,258 | 222 | 419 | 4,388 | 10 | 9,518 |
| | Chiradzulu | 24,667 | 3,850 | 2,494 | 14,753 | 2,643 | 48,408 |
| | Blantyre Rural | 24,278 | 5,322 | 1,985 | 19,971 | 916 | 52,471 |
| | Blantyre City | 5,037 | 3,550 | 2,197 | 39,748 | 80 | 51,383 |
| | Thyolo | 25,465 | 8,517 | 8,244 | 27,084 | 1,750 | 71,060 |
| | Mulanje | 20,269 | 1,518 | 1,001 | 146,151 | 4,571 | 173,510 |
| | Phalombe | 32,100 | 6,886 | 3,648 | 8,151 | 1,137 | 51,924 |
| | Mwanza | 15,898 | 1,421 | 970 | 8,617 | 913 | 27,819 |
| | Chikwawa | 13,790 | 9,156 | 5,043 | 6,274 | 12,176 | 46,440 |
| | Nsanje | 4,774 | 736 | 1,016 | 5,814 | 8,048 | 20,388 |

**Table 3.7: Production of Other staple food crops in *metric tons* by background characteristics, 2006/2007 Agricultural Season.**

| | | Millet | Sorghum | Rice |
|---|---|---|---|---|
| | Malawi | 7,609 | 13,256 | 68,053 |
| Region | Northern | 2,111 | 55 | 18,977 |
| | Central | 245 | 268 | 17,582 |
| | Southern | 5,253 | 12,934 | 31,494 |
| ADD | Karonga | 1,105 | 10 | 14,757 |
| | Mzuzu | 1,006 | 45 | 4,220 |
| | Kasungu | 95 | 61 | 1,134 |
| | Salima | . | 18 | 10,754 |
| | Lilongwe | 149 | 189 | 5,694 |
| | Machinga | 661 | 832 | 16,925 |
| | Blantyre | 276 | 2,090 | 8,901 |
| | Shire Valley | 4,317 | 10,013 | 5,668 |
| District | Chitipa | 349 | 1 | 305 |
| | Karonga | 756 | 9 | 14,452 |
| | Rumphi | 41 | . | 45 |
| | Nkhata Bay | 41 | 11 | 3,559 |
| | Mzimba | 925 | 34 | 607 |
| | Mzuzu city | . | . | 9 |
| | Kasungu | 95 | 60 | 409 |
| | Ntchisi | . | . | . |
| | Dowa | . | 1 | 673 |
| | Nkhotakota | . | | 8,330 |
| | Salima | . | 18 | 2,424 |
| | Dedza | 103 | 24 | 5,005 |
| | Ntcheu | 40 | 1 | 67 |
| | Lilongwe rural | 6 | 164 | 620 |
| | Lilongwe City | 1 | 0 | 54 |
| | Mchinji | . | . | 51 |
| | Balaka | 296 | 66 | 1,831 |
| | Mangochi | . | 342 | 1,346 |
| | Machinga | 3 | 186 | 6,819 |
| | Zomba rural | 362 | 238 | 6,927 |
| | Zomba City | . | . | 1 |
| | Chiradzulu | 123 | 146 | 113 |
| | Blantyre rural | . | 9 | 109 |
| | Blantyre City | . | . | 5 |
| | Thyolo | 39 | 160 | 175 |
| | Mulanje | 59 | 481 | 1,817 |
| | Phalombe | 5 | 1,237 | 6,612 |
| | Mwanza | 49 | 58 | 72 |
| | Chikwawa | 1,785 | 5,137 | 3,320 |
| | Nsanje | 2,532 | 4,876 | 2,347 |

**Table 3.8: Production of root crops in metric tons by type and background characteristics 2006/2007 Agricultural Season**

| | | Cassava | Sweet potato | Irish Potato |
|---|---|---|---|---|
| | Malawi | 407,167 | 147,774 | 12,048 |
| Region | Northern | 176,161 | 12,225 | 82 |
| | Central | 213,379 | 109,539 | 11,362 |
| | Southern | 17,628 | 26,009 | 603 |
| ADD | Karonga | 70,399 | 1,826 | 36 |
| | Mzuzu | 105,761 | 10,400 | 46 |
| | Kasungu | 17,372 | 47,622 | 1,186 |
| | Salima | 181,802 | 13,573 | 5 |
| | Lilongwe | 14,204 | 48,345 | 10,171 |
| | Machinga | 8,300 | 15,832 | 359 |
| | Blantyre | 9,123 | 8,608 | 222 |
| | Shire Valley | 204 | 1,570 | 22 |
| District | Chitipa | 4,368 | 1,218 | 36 |
| | Karonga | 66,031 | 607 | . |
| | Rumphi | 3,416 | 1,611 | 13 |
| | Nkhata Bay | 90,437 | 274 | |
| | Likoma | 50 | . | . |
| | Mzimba | 11,830 | 8,495 | 31 |
| | Mzuzu city | 28 | 19 | 2 |
| | Kasungu | 15,598 | 14,258 | 164 |
| | Ntchisi | 465 | 2,851 | 443 |
| | Dowa | 772 | 11,861 | 239 |
| | Nkhotakota | 180,078 | 1,639 | |
| | Salima | 1,724 | 11,934 | 5 |
| | Dedza | 4,642 | 13,911 | 5,741 |
| | Ntcheu | 4,828 | 4,431 | 4,025 |
| | Lilongwe rural | 4,656 | 27,674 | 405 |
| | Lilongwe city | 78 | 2,329 | . |
| | Mchinji | 538 | 18,652 | 341 |
| | Balaka | 580 | 2,052 | 1 |
| | Mangochi | 4,096 | 6,922 | 261 |
| | Machinga | 809 | 1,307 | 6 |
| | Zomba rural | 2,689 | 5,447 | 92 |
| | Zomba City | 126 | 104 | . |
| | Chiradzulu | 551 | 1,329 | . |
| | Blantyre rural | 615 | 1,387 | 17 |
| | Blantyre city | . | 55 | 39 |
| | Thyolo | 3,963 | 1,125 | 43 |
| | Mulanje | 2,525 | 971 | 64 |
| | Phalombe | 1,023 | 3,009 | 41 |
| | Mwanza | 446 | 732 | 18 |
| | Chikwawa | 176 | 402 | 16 |
| | Nsanje | 28 | 1,168 | 6 |

**Table 3.9: Production in metric tons of various pulses/nuts by background characteristics 2006/2007 Agricultural Season**

| | | Groundnuts | Ordinary Beans | Ground Beans | Soya Beans | Pigeon Peas | Cow peas |
|---|---|---|---|---|---|---|---|
| | Malawi | 147,774 | 13,014 | 3,227 | 21,550 | 15,673 | 2,341 |
| Region | Northern | 12,225 | 1,881 | 1,926 | 1,196 | 146 | 34 |
| | Central | 109,539 | 8,958 | 859 | 20,198 | 343 | 479 |
| | Southern | 26,009 | 2,175 | 442 | 155 | 15,183 | 1,827 |
| ADD | Karonga | 1,826 | 339 | 80 | 87 | 16 | 21 |
| | Mzuzu | 10,400 | 1,541 | 1,846 | 1,108 | 131 | 13 |
| | Kasungu | 47,622 | 2,188 | 381 | 12,023 | 90 | 194 |
| | Salima | 13,573 | 21 | 28 | 9 | . | 34 |
| | Lilongwe | 48,345 | 6,750 | 450 | 8,167 | 253 | 251 |
| | Machinga | 15,832 | 399 | 289 | 98 | 3,398 | 517 |
| | Blantyre | 8,608 | 1,607 | 118 | 57 | 11,570 | 1,224 |
| | Shire Valley | 1,570 | 169 | 34 | 1 | 215 | 86 |
| District | Chitipa | 1,218 | 339 | 68 | 85 | 7 | 15 |
| | Karonga | 607 | . | 12 | 3 | 9 | 6 |
| | Rumphi | 1,611 | 729 | 2 | 27 | 28 | 1 |
| | Nkhata Bay | 274 | 17 | 37 | 5 | . | . |
| | Likoma | . | . | . | . | . | . |
| | Mzimba | 8,495 | 774 | 1,807 | 1,075 | 102 | 11 |
| | Kasungu | 14,258 | 303 | 3 | 3,079 | 27 | 4 |
| | Ntchisi | 2,851 | 338 | 59 | 4,193 | 1 | |
| | Dowa | 11,861 | 1,472 | 318 | 2,451 | 62 | 190 |
| | Nkhotakota | 1,639 | 2 | 21 | 4 | . | 10 |
| | Salima | 11,934 | 19 | 7 | 5 | . | 24 |
| | Dedza | 13,911 | 4,653 | 250 | 5,437 | 83 | 85 |
| | Ntcheu | 4,431 | 1,150 | 41 | 60 | . | 2 |
| | Lilongwe rural | 27,674 | 905 | 158 | 2,627 | 103 | 133 |
| | Mchinji | 18,652 | 74 | 1 | 2,299 | . | . |
| | Balaka | 2,052 | 26 | 92 | 1 | 237 | 73 |
| | Mangochi | 6,922 | 99 | 43 | 60 | 51 | 7 |
| | Machinga | 1,307 | 127 | 68 | 6 | 450 | 129 |
| | Zomba rural | 5,447 | 146 | 84 | 27 | 2,655 | 269 |
| | Chiradzulu | 1,329 | 712 | 21 | 13 | 1,279 | 39 |
| | Blantyre rural | 1,387 | 60 | 31 | | 170 | 10 |
| | Thyolo | 1,125 | 273 | 13 | 16 | 2,338 | 268 |
| | Mulanje | 971 | 80 | 2 | 2 | 2,790 | 781 |
| | Phalombe | 3,009 | 215 | 1 | 25 | 3,993 | 8 |
| | Mwanza | 732 | 60 | 9 | 1 | 415 | 117 |
| | Chikwawa | 402 | 125 | 34 | 1 | 129 | 12 |
| | Nsanje | 1,168 | 44 | . | . | 85 | 74 |

**Table 3.10: Area in ha under crop (pure stand) for maize varieties by background characteristics 2006/2007 Agricultural Season**

| | | Local | Composite | Recycled | Hybrid | Total |
|---|---|---|---|---|---|---|
| | Malawi | 559,759 | 106,424 | 101,732 | 400,774 | 1,168,689 |
| Region | Northern | 77,498 | 11,546 | 13,191 | 30,542 | 132,777 |
| | Central | 258,046 | 64,629 | 64,941 | 207,724 | 595,339 |
| | Southern | 224,215 | 30,249 | 23,600 | 162,508 | 440,572 |
| ADD | Karonga | 15,814 | 3,699 | 3,383 | 7,300 | 30,196 |
| | Mzuzu | 61,684 | 7,847 | 9,808 | 23,242 | 102,582 |
| | Kasungu | 92,409 | 26,535 | 26,650 | 100,479 | 246,073 |
| | Salima | 26,078 | 14,491 | 10,719 | 22,878 | 74,166 |
| | Lilongwe | 139,559 | 23,602 | 27,572 | 84,367 | 275,099 |
| | Machinga | 109,269 | 15,864 | 10,187 | 38,199 | 173,519 |
| | Blantyre | 101,419 | 12,198 | 9,890 | 117,078 | 240,585 |
| | Shire Valley | 13,527 | 2,187 | 3,523 | 7,231 | 26,468 |
| District | Chitipa | 11,745 | 3,338 | 2,617 | 5,975 | 23,675 |
| | Karonga | 4,069 | 361 | 765 | 1,325 | 6,521 |
| | Rumphi | 4,720 | 721 | 556 | 6,796 | 12,793 |
| | Nkhata Bay | 984 | 985 | 384 | 1,627 | 3,980 |
| | Likoma | 20 | 10 | 4 | 42 | 77 |
| | Mzimba | 55,424 | 6,125 | 8,816 | 13,695 | 84,060 |
| | Kasungu | 23,560 | 13,139 | 14,603 | 40,670 | 91,972 |
| | Ntchisi | 15,264 | 3,993 | 1,761 | 8,004 | 29,022 |
| | Dowa | 32,434 | 7,263 | 8,546 | 19,120 | 67,362 |
| | Nkhota kota | 3,991 | 5,091 | 1,622 | 9,335 | 20,040 |
| | Salima | 22,087 | 9,400 | 9,097 | 13,543 | 54,127 |
| | Dedza | 22,794 | 3,190 | 3,341 | 11,440 | 40,763 |
| | Ntcheu | 32,331 | 2,951 | 3,773 | 5,767 | 44,822 |
| | Lilongwe Rural | 79,053 | 15,537 | 13,521 | 48,100 | 156,212 |
| | Mchinji | 21,151 | 2,140 | 1,740 | 32,686 | 57,718 |
| | Balaka | 21,288 | 4,683 | 2,641 | 3,457 | 32,070 |
| | Mangochi | 51,677 | 5,446 | 5,236 | 19,931 | 82,290 |
| | Machinga | 15,308 | 2,690 | 925 | 6,028 | 24,952 |
| | Zomba Rural | 20,867 | 3,019 | 1,348 | 8,629 | 33,863 |
| | Chiradzulu | 9,369 | 1,473 | 592 | 5,082 | 16,516 |
| | Blantyre Rural | 19,394 | 2,870 | 544 | 8,632 | 31,440 |
| | Thyolo | 5,320 | 1,576 | 1,794 | 4,104 | 12,794 |
| | Mulanje | 14,190 | 1,923 | 1,581 | 65,367 | 83,061 |
| | Phalombe | 44,666 | 2,728 | 4,166 | 12,652 | 64,211 |
| | Mwanza | 4,217 | 509 | 426 | 3,636 | 8,788 |
| | Chikwawa | 10,656 | 1,651 | 3,015 | 4,307 | 19,630 |
| | Nsanje | 2,871 | 536 | 507 | 2,924 | 6,838 |

**Table 3.11: Distribution of area under crop [in hectares] for pure stand by crop and area of residence, 2006/2007 Agricultural Season.**

| | | Rice | Millet | Sorghum |
|---|---|---|---|---|
| | Malawi | 41,952 | 16,215 | 22,746 |
| Region | Northern | 10,810 | 3,359 | 24 |
| | Central | 14,042 | 1,105 | 1,196 |
| | Southern | 17,101 | 11,751 | 21,527 |
| ADD | Karonga | 9,608 | 1,314 | . |
| | Mzuzu | 1,202 | 2,046 | 24 |
| | Kasungu | 1,102 | 670 | 99 |
| | Salima | 7,687 | . | 306 |
| | Lilongwe | 5,253 | 435 | 790 |
| | Machinga | 6,876 | 3,510 | 3,139 |
| | Blantyre | 6,729 | 872 | 2,088 |
| | Shire Valley | 3,495 | 7,369 | 16,299 |
| District | Chitipa | 652 | 766 | . |
| | Karonga | 8,955 | 547 | . |
| | Rumphi | 19 | 8 | . |
| | Nkhata Bay | 1,005 | 93 | 4 |
| | Likoma | . | . | . |
| | Mzimba | 167 | 1,945 | 12 |
| | Kasungu | 914 | 669 | 63 |
| | Ntchisi | . | . | 0 |
| | Dowa | 107 | . | . |
| | Nkhotakota | 6,010 | . | 306 |
| | Salima | 1,677 | . | . |
| | Dedza | 4,907 | 174 | 201 |
| | Ntcheu | 208 | 196 | 223 |
| | Lilongwe rural | 139 | 55 | 366 |
| | Mchinji | 81 | 1 | 36 |
| | Balaka | 936 | 558 | 151 |
| | Mangochi | 1,137 | 2,409 | 2,365 |
| | Machinga | 3,308 | 91 | 308 |
| | Zomba rural | 1,496 | 453 | 315 |
| | Chiradzulu | 75 | 366 | 551 |
| | Blantyre rural | 144 | 29 | 7 |
| | Thyolo | 1 | 42 | 336 |
| | Mulanje | 1,900 | 345 | 371 |
| | Phalombe | 4,543 | 70 | 823 |
| | Mwanza | 65 | 21 | . |
| | Chikwawa | 1,840 | 2,751 | 6,688 |
| | Nsanje | 1,656 | 4,618 | 9,612 |

**Table 3.12: Distribution of area under crop [in hectares] for pure stand by crop and area of residence,2006/2007 Agricultural Season.**

| | | Sweet potatoes | Irish Potatoes | Cassava |
|---|---|---|---|---|
| | Malawi | 46,122 | 7,026 | 61,787 |
| Region | Northern | 6,884 | 381 | 34,571 |
| | Central | 28,073 | 5,875 | 24,057 |
| | Southern | 11,165 | 769 | 3,159 |
| ADD | Karonga | 1,355 | 13 | 11,795 |
| | Mzuzu | 5,530 | 368 | 22,776 |
| | Kasungu | 6,068 | 1,048 | 5,408 |
| | Salima | 592 | 83 | 15,261 |
| | Lilongwe | 21,413 | 4,743 | 3,387 |
| | Machinga | 6,204 | 668 | 1,797 |
| | Blantyre | 4,521 | 26 | 1,324 |
| | Shire Valley | 440 | 75 | 39 |
| District | Chitipa | 1,142 | 13 | 1,501 |
| | Karonga | 213 | . | 10,294 |
| | Rumphi | 253 | . | 1,003 |
| | Nkhata Bay | 255 | . | 18,564 |
| | Likoma | . | . | 14 |
| | Mzimba | 4,936 | 368 | 3,194 |
| | Kasungu | 3,109 | 134 | 4,189 |
| | Ntchisi | 317 | 171 | 110 |
| | Dowa | 1,342 | 536 | 641 |
| | Nkhotakota | 165 | 47 | 14,245 |
| | Salima | 427 | 37 | 1,016 |
| | Dedza | 5,564 | 2,180 | 1,621 |
| | Ntcheu | 1,116 | 1,705 | 500 |
| | Lilongwe rural | 14,687 | 858 | 1,266 |
| | Mchinji | 1,300 | 207 | 468 |
| | Balaka | 1,131 | . | 135 |
| | Mangochi | 2,592 | 126 | 1,030 |
| | Machinga | 801 | . | 227 |
| | Zomba rural | 1,680 | 542 | 405 |
| | Chiradzulu | 1,007 | . | 74 |
| | Blantyre rural | 826 | . | 137 |
| | Thyolo | 832 | . | 141 |
| | Mulanje | 1,372 | 1 | 298 |
| | Phalombe | 231 | 22 | 577 |
| | Mwanza | 254 | 4 | 97 |
| | Chikwawa | 28 | . | 39 |
| | Nsanje | 412 | 75 | . |

**Table 3.13: Distribution of area under crop [in hectares] for pure stand by crop and area of residence 2006/2007 Agricultural Season**

| | | Groundnuts | Ground beans | Soya-beans | Pigeon peas | Cow peas | Ordinary Beans |
|---|---|---|---|---|---|---|---|
| | Malawi | 143,081 | 9,367 | 33,720 | 13,795 | 6,138 | 11,559 |
| Region | Northern | 9,507 | 1,536 | 4,621 | 124 | 420 | 2,709 |
| | Central | 119,654 | 5,158 | 28,555 | 1,265 | 2,035 | 7,956 |
| | Southern | 13,920 | 2,673 | 543 | 12,405 | 3,684 | 894 |
| ADD | Karonga | 2,198 | 84 | 140 | . | 34 | 436 |
| | Mzuzu | 7,308 | 1,452 | 4,481 | 124 | 386 | 2,273 |
| | Kasungu | 49,570 | 1,278 | 16,796 | 254 | 355 | 1,779 |
| | Salima | 11,855 | 306 | 1,442 | 159 | 467 | 1,964 |
| | Lilongwe | 58,228 | 3,574 | 10,318 | 853 | 1,212 | 4,214 |
| | Machinga | 8,300 | 1,839 | 335 | 2,816 | 2,692 | 304 |
| | Blantyre | 3,786 | 437 | 131 | 7,953 | 856 | 342 |
| | Shire Valley | 1,834 | 397 | 77 | 1,637 | 135 | 247 |
| District | Chitipa | 1,795 | 45 | 136 | . | 20 | 389 |
| | Karonga | 404 | 39 | 4 | . | 15 | 47 |
| | Rumphi | 786 | . | 66 | 23 | . | 948 |
| | Nkhata Bay | 91 | 17 | 7 | . | . | . |
| | Likoma | . | . | . | . | . | . |
| | Mzimba | 6,411 | 1,435 | 4,406 | 98 | 386 | 1,298 |
| | Kasungu | 18,289 | 505 | 5,682 | 140 | 132 | 790 |
| | Ntchisi | 3,684 | 160 | 5,795 | 0 | . | 499 |
| | Dowa | 9,602 | 219 | 1,845 | 85 | 155 | 450 |
| | Nkhotakota | 4,506 | 227 | 1,442 | 159 | 375 | 1,930 |
| | Salima | 7,350 | 79 | . | . | 92 | 34 |
| | Dedza | 6,888 | 661 | 4,364 | 262 | 313 | 3,097 |
| | Ntcheu | 2,200 | 146 | 99 | 462 | 25 | 532 |
| | Lilongwe rural | 48,270 | 2,767 | 5,855 | 129 | 93 | 578 |
| | Mchinji | 17,995 | 394 | 3,474 | 28 | 68 | 40 |
| | Balaka | 940 | 178 | . | 46 | 54 | 11 |
| | Mangochi | 4,599 | 1,142 | 142 | 651 | 1,872 | 89 |
| | Machinga | 912 | 353 | 51 | 600 | 457 | . |
| | Zomba rural | 1,849 | 166 | 142 | 1,490 | 309 | 204 |
| | Chiradzulu | 576 | 92 | 6 | 1,866 | 187 | 25 |
| | Blantyre rural | 229 | 71 | 59 | 1,429 | 40 | 0 |
| | Thyolo | 123 | 70 | . | 2,042 | 20 | 53 |
| | Mulanje | 245 | 83 | 28 | 681 | 158 | 65 |
| | Phalombe | 2,225 | 53 | 38 | 1,381 | 200 | 53 |
| | Mwanza | 388 | 61 | . | 551 | 251 | 139 |
| | Chikwawa | 512 | 11 | 3 | 1,283 | 58 | 121 |
| | Nsanje | 1,322 | 386 | 74 | 354 | 78 | 126 |

**Table 3.14: Distribution of area under crop [in hectares] for pure stand by crop and area of residence 2006/2007 Agricultural Season**

| | | Cotton | Tobacco | Sunflower |
|---|---|---|---|---|
| | Malawi | 45,162 | 64,895 | 4,681 |
| Region | Northern | 901 | 10,949 | 1,109 |
| | Central | 13,802 | 49,399 | 667 |
| | Southern | 30,459 | 4,547 | 2,904 |
| ADD | Karonga | 716 | 797 | 166 |
| | Mzuzu | 185 | 10,153 | 943 |
| | Kasungu | 1,670 | 34,376 | 190 |
| | Salima | 11,442 | 742 | 47 |
| | Lilongwe | 691 | 14,280 | 430 |
| | Machinga | 17,030 | 2,028 | 176 |
| | Blantyre | 1,110 | 2,489 | 2,610 |
| | Shire Valley | 12,319 | 31 | 118 |
| District | Chitipa | 95 | 723 | 88 |
| | Karonga | 621 | 73 | 78 |
| | Rumphi | 72 | 3,309 | . |
| | Nkhata Bay | . | 39 | . |
| | Likoma | . | . | . |
| | Mzimba | 114 | 6,801 | 943 |
| | Kasungu | 772 | 14,217 | 169 |
| | Ntchisi | 519 | 6,533 | 2 |
| | Dowa | 166 | 10,848 | . |
| | Nkhotakota | 692 | . | 47 |
| | Salima | 10,749 | 742 | . |
| | Dedza | 349 | 639 | 371 |
| | Ntcheu | 228 | 1,093 | 51 |
| | Lilongwe rural | 114 | 11,405 | 8 |
| | Mchinji | 212 | 2,778 | 19 |
| | Balaka | 9,016 | 48 | . |
| | Mangochi | 5,807 | 395 | 60 |
| | Machinga | 372 | 252 | . |
| | Zomba rural | 1,835 | 1,333 | 117 |
| | Chiradzulu | . | 274 | . |
| | Blantyre rural | 271 | 10 | . |
| | Thyolo | . | . | . |
| | Mulanje | 19 | 362 | 106 |
| | Phalombe | 275 | 1,844 | 420 |
| | Mwanza | 545 | . | 5 |
| | Chikwawa | 10,872 | 24 | 15 |
| | Nsanje | 1,446 | 7 | 104 |

**Table 3.15: Maize yield [kg/ha] by variety and background characteristics 2006/2007 Agricultural Season**

| | | All Maize | Local | Composite | Recycled | Hybrid |
|---|---|---|---|---|---|---|
| | Malawi | 1,709 | 1,371 | 1,741 | 1,674 | 1,904 |
| Sex of operator | Male | 1,747 | 1,384 | 1,809 | 1,751 | 1,915 |
| | Female | 1,644 | 1,353 | 1,600 | 1,482 | 1,887 |
| Inorganic fertilizer application | Not applied | 1,541 | 1,198 | 1,601 | 1,322 | .. |
| | Applied once | 1,658 | 1,379 | 1,806 | 1,571 | 1,740 |
| | Applied twice | 2,104 | 1,622 | 2,047 | 1,988 | 2,342 |
| Weeding | Weeded once | 1,647 | 1,307 | 1,670 | 1,527 | 1,874 |
| | Weeded twice | 1,766 | 1,431 | 1,757 | 1,846 | 1,913 |
| Region | Northern | 1,625 | 1,225 | 1,809 | 1,747 | 1,924 |
| | Central | 1,698 | 1,419 | 1,650 | 1,624 | 1,842 |
| | Southern | 1,761 | 1,385 | 1,842 | 1,744 | 1,982 |
| ADD | Karonga | 1,483 | 1,121 | 1,285 | 1,519 | 1,842 |
| | Mzuzu | 1,688 | 1,269 | 2,137 | 1,888 | 1,957 |
| | Kasungu | 1,652 | 1,398 | 1,625 | 1,643 | 1,813 |
| | Salima | 2,156 | 1,673 | 2,270 | 1,975 | 2,604 |
| | Lilongwe | 1,640 | 1,391 | 1,498 | 1,468 | 1,732 |
| | Machinga | 1,732 | 1,366 | 1,886 | 1,623 | 2,045 |
| | Blantyre | 1,818 | 1,453 | 1,859 | 1,957 | 1,969 |
| | Shire Valley | 1,532 | 1,066 | 1,561 | 1,548 | 1,783 |

**Table 3.16: Distribution of yield [kg/ha] of various selected crops by crop and background characteristics 2006/2007 Agricultural Season**

| | | Rice | Millet | Sorghum |
|---|---|---|---|---|
| | Malawi | 2,412 | 1,201 | 1,284 |
| Sex of operator | Male | 2,450 | 1,099 | 1,295 |
| | Female | 2,347 | 1,365 | 1,267 |
| Fertilezer use | Not fertilized | 2,246 | . | . |
| | Fertilized | 3,205 | . | . |
| Region | Northern | 2,571 | 1,330 | . |
| | Central | 2,537 | 1,198 | 1,130 |
| | Southern | 2,196 | 1,146 | 1,277 |
| ADD | Karonga | 2,192 | 1,079 | . |
| | Mzuzu | .. | 1,508 | . |
| | Kasungu | . | 1,171 | . |
| | Salima | 2,893 | . | . |
| | Lilongwe | 2,014 | 1,257 | . |
| | Machinga | 2,292 | 996 | . |
| | Blantyre | 2,048 | 1,299 | . |
| | Shire Valley | 2,301 | 1,187 | |

**Table 3.17: Distribution of yield[kg/ha] of various selected crops by crop and background characteristics [*Wet Weight*] 2006/2007 Agricultural Season**

| | | Cassava | Sweet potatoes | Irish Potatoes |
|---|---|---|---|---|
| | Malawi | 5,128 | 2,642 | 3,454 |
| Sex of operator | Male | 5,100 | 2,694 | 3,258 |
| | Female | 5,205 | 2,460 | 4,197 |
| Fertilizer use | Not fertilized | . | 2,626 | 2,493 |
| | Fertilized | . | 2,921 | 3,511 |
| Region | Northern | 5,043 | 2,364 | . |
| | Central | 5,476 | 2,912 | 3,501 |
| | Southern | 3,882 | 2,349 | 2,454 |
| ADD | Karonga | 4,631 | 2,869 | . |
| | Mzuzu | 5,240 | 2,181 | . |
| | Kasungu | 4,282 | 2,864 | 3,486 |
| | Salima | 5,906 | 3,673 | . |
| | Lilongwe | 5,366 | 2,863 | 3,503 |
| | Machinga | 4,120 | 2,355 | 2,357 |
| | Blantyre | 3,619 | 2,338 | 3,030 |
| | Shire Valley | 2,762 | 2,876 | . |

**Table 3.18: Distribution of yield [kg/ha] of various selected crops bycrop and background characteristics 2006/2007 Agricultural Season**

| | | Ground nuts | Soya Beans | Ground beans | Pigieon peas | Cow peas | Beans |
|---|---|---|---|---|---|---|---|
| | Malawi | 1,287 | 840 | 472 | 1,414 | 689 | 1,154 |
| Sex of operator | Male | 1,289 | 866 | 440 | 1,708 | 693 | 1,212 |
| | Female | 1,284 | 778 | 509 | 1,066 | 683 | 1,021 |
| Region | | | | | | | |
| | Northern | 1,280 | 725 | 399 | 1,545 | . | 752 |
| | Central | 1,259 | 865 | 565 | 515 | 1,025 | 1,310 |
| | Southern | 1,436 | 523 | 366 | 1,435 | 613 | 1,414 |
| ADD | | | | | | | |
| | Karonga | 770 | 624 | 632 | . | . | 489 |
| | Mzuzu | 1,423 | 736 | 329 | 1,545 | . | 936 |
| | Kasungu | 1,224 | 823 | 601 | 515 | . | 1,299 |
| | Salima | 1,377 | . | 290 | | 1,026 | 1,111 |
| | Lilongwe | 1,275 | 1,019 | 658 | | 1,024 | 1,329 |
| | Machinga | 1,378 | 514 | 354 | 1,718 | 891 | 1,211 |
| | Blantyre | 1,680 | 587 | 388 | 1,584 | 371 | 1,651 |
| | Shire Valley | 1,170 | . | 127 | 456 | . | 1,337 |

**Table 3.19: Number of fruit trees[ in 000'S] by type and area of residence 2006/2007 Agricultural Season**

| | | Mangoes | Oranges | Paw paw | Avocado pear | Guava | Lemons | Tange-rines | Peaches | Custade apple | Mexican Apple | Masau |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Malawi | 10,688 | 721 | 2,085 | 1,014 | 2,018 | 393 | 406 | 436 | 433 | 943 | 434 |
| Region | Northern | 1,191 | 153 | 218 | 93 | 193 | 33 | 27 | 10 | 18 | 34 | 7 |
| | Central | 4,631 | 279 | 637 | 153 | 804 | 120 | 104 | 187 | 107 | 243 | 110 |
| | Southern | 4,866 | 289 | 1,230 | 768 | 1,020 | 240 | 276 | 239 | 308 | 666 | 317 |
| ADD | Karonga | 273 | 35 | 69 | 24 | 28 | 6 | 9 | 3 | 7 | 8 | 2 |
| | Mzuzu | 917 | 118 | 149 | 69 | 165 | 27 | 18 | 7 | 11 | 26 | 5 |
| | Kasungu | 2,137 | 131 | 221 | 43 | 299 | 33 | 14 | 27 | 26 | 85 | 13 |
| | Salima | 323 | 37 | 104 | 11 | 52 | 11 | 12 | 1 | 11 | 6 | 10 |
| | Lilongwe | 2,161 | 110 | 310 | 98 | 452 | 76 | 77 | 159 | 69 | 152 | 88 |
| | Machinga | 1,909 | 101 | 378 | 168 | 232 | 55 | 32 | 50 | 110 | 156 | 150 |
| | Blantyre | 2,672 | 168 | 727 | 564 | 756 | 175 | 203 | 183 | 164 | 498 | 66 |
| | Shire Valley | 278 | 20 | 123 | 35 | 32 | 10 | 39 | 5 | 34 | 11 | 101 |
| District | Chitipa | 161 | 18 | 22 | 15 | 18 | 3 | 2 | 1 | 1 | 7 | 1 |
| | Karonga | 112 | 17 | 48 | 9 | 10 | 3 | 6 | 2 | 6 | 1 | 1 |
| | Rumphi | 145 | 17 | 31 | 2 | 20 | 5 | 3 | 2 | 4 | 4 | 0 |
| | Nkhata Bay | 168 | 37 | 41 | 46 | 30 | 18 | 13 | 2 | 4 | 6 | 1 |
| | Likoma | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | Mzimba | 595 | 62 | 73 | 14 | 106 | 3 | 2 | 1 | 1 | 15 | 3 |
| | Mzuzu City | 9 | 2 | 2 | 6 | 8 | 1 | 0 | 2 | 0 | 1 | 0 |
| | Kasungu | 691 | 64 | 83 | 9 | 107 | 10 | 5 | 4 | 11 | 43 | 8 |
| | Ntchisi | 159 | 7 | 14 | 5 | 28 | 1 | 0 | 8 | 5 | 6 | 1 |
| | Dowa | 482 | 49 | 76 | 19 | 105 | 17 | 8 | 14 | 8 | 8 | 4 |
| | Nkhota kota | 196 | 34 | 33 | 10 | 47 | 7 | 12 | 1 | 9 | 5 | 3 |
| | Salima | 128 | 4 | 72 | 2 | 6 | 4 | 0 | | 2 | 0 | 7 |
| | Dedza | 546 | 23 | 64 | 19 | 106 | 15 | 8 | 62 | 13 | 36 | 12 |
| | Ntcheu | 471 | 16 | 76 | 18 | 124 | 9 | 5 | 45 | 16 | 15 | 23 |
| | Lilongwe Rural | 993 | 48 | 107 | 37 | 184 | 31 | 36 | 24 | 23 | 54 | 28 |
| | Lilongwe City | 151 | 23 | 64 | 25 | 38 | 22 | 28 | 28 | 18 | 48 | 25 |
| | Mchinji | 812 | 12 | 48 | 10 | 58 | 5 | 0 | 1 | 2 | 28 | |
| | Balaka | 234 | 7 | 33 | 4 | 22 | 3 | 1 | 1 | 20 | 6 | 36 |
| | Mangochi | 509 | 15 | 85 | 22 | 44 | 9 | 0 | 2 | 20 | 35 | 59 |
| | Machinga | 370 | 39 | 54 | 50 | 38 | 26 | 18 | 32 | 32 | 25 | 38 |
| | Zomba Rural | 768 | 37 | 195 | 87 | 123 | 16 | 13 | 15 | 37 | 86 | 16 |
| | Zomba City | 29 | 2 | 10 | 6 | 5 | 1 | 0 | 1 | 1 | 4 | 0 |
| | Chiradzulu | 433 | 16 | 98 | 67 | 101 | 26 | 2 | 20 | 17 | 92 | 2 |
| | Blantyre Rural | 393 | 20 | 99 | 36 | 96 | 18 | 5 | 4 | 51 | 37 | 26 |
| | Blantyre City | 372 | 7 | 105 | 112 | 289 | 15 | 5 | 94 | 32 | 130 | 18 |
| | Thyolo | 790 | 59 | 248 | 229 | 193 | 56 | 60 | 38 | 27 | 149 | 5 |
| | Mulanje | 326 | 39 | 104 | 76 | 26 | 38 | 16 | 20 | 14 | 52 | 8 |
| | Phalombe | 170 | 9 | 40 | 9 | 11 | 6 | 2 | 2 | 6 | 10 | 2 |
| | Mwanza | 194 | 18 | 35 | 35 | 40 | 17 | 114 | 5 | 17 | 29 | 5 |
| | Chikwawa | 212 | 17 | 89 | 22 | 26 | 9 | 39 | 5 | 33 | 10 | 75 |
| | Nsanje | 67 | 3 | 35 | 13 | 5 | 1 | 1 | 0 | 1 | 1 | 26 |

**Table 3.20: Proportion of households who owned various types of fruit trees, according to backgroud variables 2006/2007 Agricultural Season**

| | Any type | Mango | Orange | Paw paw | avocado | tangerine | banana | guava | peaches | Custade apple | Mexican apple | masau |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Malawi | 78 | 66 | 12 | 27 | 14 | 5 | 34 | 22 | 7 | 7 | 15 | 8 |
| Sex of household head | | | | | | | | | | | | |
| Male | 78 | 67 | 12 | 28 | 14 | 5 | 35 | 22 | 8 | 7 | 15 | 8 |
| Female | 78 | 65 | 11 | 25 | 15 | 4 | 33 | 21 | 7 | 7 | 16 | 8 |
| Holding size | | | | | | | | | | | | |
| < 0,050 ha | 65 | 53 | 10 | 24 | 18 | 3 | 22 | 18 | 7 | 5 | 14 | 9 |
| 0,050-0,999 ha | 67 | 55 | 11 | 24 | 19 | 5 | 22 | 20 | 8 | 6 | 17 | 5 |
| 0.100-0.199 ha | 69 | 58 | 6 | 26 | 18 | 5 | 23 | 17 | 8 | 6 | 16 | 7 |
| 0.200-0.499 ha | 74 | 61 | 10 | 25 | 16 | 5 | 29 | 19 | 8 | 8 | 16 | 9 |
| 0.500-0.999 ha | 77 | 66 | 12 | 26 | 13 | 5 | 31 | 21 | 7 | 7 | 14 | 8 |
| 1.000-1.999ha | 83 | 72 | 14 | 29 | 13 | 4 | 42 | 25 | 6 | 8 | 14 | 7 |
| 2,000ha + | 87 | 78 | 19 | 31 | 13 | 6 | 53 | 31 | 8 | 9 | 15 | 8 |
| Region of residence | | | | | | | | | | | | |
| Northern | 80 | 66 | 19 | 25 | 11 | 4 | 45 | 19 | 2 | 3 | 6 | 1 |
| Central | 78 | 66 | 12 | 22 | 8 | 5 | 35 | 23 | 8 | 5 | 12 | 6 |
| Southern | 77 | 67 | 11 | 32 | 22 | 5 | 31 | 22 | 8 | 11 | 21 | 12 |
| ADD | | | | | | | | | | | | |
| Karonga | 75 | 62 | 18 | 27 | 13 | 4 | 50 | 10 | 1 | 3 | 3 | 1 |
| Mzuzu | 81 | 67 | 20 | 24 | 10 | 3 | 42 | 23 | 2 | 2 | 7 | 1 |
| Kasungu | 83 | 74 | 13 | 18 | 5 | 2 | 43 | 23 | 4 | 3 | 12 | 2 |
| Salima | 62 | 50 | 11 | 21 | 3 | 3 | 14 | 15 | 0 | 4 | 2 | 4 |
| Lilongwe | 76 | 62 | 10 | 24 | 10 | 7 | 33 | 24 | 13 | 7 | 14 | 9 |
| Machinga | 75 | 64 | 9 | 28 | 13 | 2 | 24 | 17 | 3 | 10 | 13 | 15 |
| Blantyre | 85 | 77 | 13 | 40 | 35 | 7 | 39 | 29 | 15 | 12 | 32 | 6 |
| Shire Valley | 52 | 35 | 5 | 19 | 6 | 5 | 21 | 8 | 1 | 6 | 3 | 22 |
| District | | | | | | | | | | | | |
| Chitipa | 81 | 69 | 23 | 18 | 17 | 3 | 59 | 13 | 2 | 1 | 5 | 1 |
| Karonga | 71 | 58 | 15 | 34 | 10 | 6 | 45 | 8 | 1 | 5 | 1 | 1 |
| Rumphi | 76 | 66 | 19 | 28 | 4 | 3 | 29 | 21 | 4 | 4 | 6 | 1 |
| Nkhata Bay | 87 | 76 | 40 | 45 | 41 | 13 | 45 | 31 | 3 | 7 | 9 | 2 |
| Likoma | 73 | 67 | 22 | 45 | 23 | 18 | 32 | 28 | 16 | 51 | 23 | 37 |
| Mzimba | 82 | 66 | 15 | 17 | 3 | 1 | 45 | 21 | 0 | 0 | 7 | 1 |
| Kasungu | 83 | 76 | 19 | 20 | 5 | 2 | 43 | 24 | 2 | 4 | 15 | 4 |
| Ntchisi | 78 | 63 | 4 | 13 | 2 | 0 | 48 | 24 | 6 | 4 | 5 | 1 |
| Dowa | 77 | 65 | 13 | 21 | 7 | 4 | 34 | 22 | 7 | 4 | 5 | 3 |
| Nkhota kota | 69 | 64 | 21 | 20 | 6 | 5 | 16 | 30 | 1 | 7 | 5 | 3 |
| Salima | 56 | 38 | 3 | 23 | 1 | 1 | 12 | 3 | 0 | 1 | 0 | 5 |
| Dedza | 76 | 60 | 7 | 19 | 6 | 3 | 40 | 25 | 16 | 4 | 14 | 5 |
| Ntcheu | 81 | 64 | 5 | 25 | 9 | 3 | 30 | 30 | 12 | 8 | 8 | 9 |
| Lilongwe | | | | | | | | | | | | |
| Rural | 75 | 62 | 11 | 20 | 7 | 6 | 30 | 17 | 5 | 4 | 11 | 5 |
| Mchinji | 95 | 90 | 7 | 15 | 6 | 0 | 55 | 23 | 1 | 1 | 20 | 0 |
| Balaka | 74 | 60 | 5 | 19 | 3 | 1 | 18 | 11 | 1 | 15 | 5 | 24 |
| Mangochi | 68 | 52 | 5 | 20 | 6 | 0 | 17 | 12 | 1 | 8 | 8 | 18 |
| Machinga | 74 | 65 | 15 | 24 | 16 | 5 | 22 | 15 | 5 | 9 | 11 | 16 |
| Zomba Rural | 88 | 80 | 11 | 47 | 23 | 3 | 42 | 31 | 3 | 13 | 27 | 5 |
| Chiradzulu | 93 | 83 | 12 | 47 | 38 | 1 | 35 | 39 | 12 | 10 | 44 | 1 |
| Blantyre | | | | | | | | | | | | |
| Rural | 79 | 72 | 10 | 34 | 19 | 4 | 22 | 31 | 4 | 20 | 20 | 12 |
| Thyolo | 92 | 83 | 14 | 46 | 45 | 9 | 56 | 21 | 13 | 9 | 33 | 2 |
| Mulanje | 89 | 84 | 26 | 36 | 35 | 6 | 38 | 14 | 16 | 8 | 33 | 3 |
| Phalombe | 67 | 58 | 7 | 21 | 6 | 2 | 19 | 7 | 2 | 6 | 9 | 3 |
| Mwanza | 71 | 64 | 15 | 30 | 31 | 34 | 40 | 35 | 9 | 14 | 25 | 6 |
| Chikwawa | 56 | 36 | 6 | 20 | 6 | 7 | 24 | 10 | 1 | 9 | 4 | 25 |
| Nsanje | 45 | 33 | 4 | 16 | 5 | 1 | 16 | 3 | 0 | 1 | 1 | 16 |

# Chapter 4 : Impact of HIV/AIDS on Agriculture Sector

## 4.1 Introduction

Malawi, like any other country in the Sub Saharan region has not been spared by the negative effects of HIV/AIDS. This has caused enormous human suffering and lowered productivity due to sickness and death. The impact of HIV/AIDS on the agricultural sector is therefore crucial considering that Agriculture is Malawiôs economic mainstay.

The effect of HIV/AIDS on agriculture include loss of persons in their most economically productive years due to death and an added burden on affected households through:

- Need for money to care for the sick
- Increased work load for household members to care for the sick
- Less time devoted to income generating activities due to caring for the sick
- Taking care of orphans
- Loss of work days in order to attend funerals
- Helping households in need of extra help

## 4.2 Prevalence of chronic disease

Chronic disease was defined as a disease that lasted for at least three months during the 2006/07 agricultural season. Information on chronic illness was collected both for household members and persons related to any household member.

Table 4.1 shows that one out of every five Malawian households had at least one chronically ill household member during the 2006/07 agricultural season, 13 percent had at least a chronically ill relative, two out of three households had neither a sick household member or a sick relative. The poorest households had higher prevalence of chronically ill members in the household than least poor households.

Table 4.2 shows that among households with chronically ill members, 78 percent had one chronically ill household member, 17 percent had two chronically ill members and 5 percent had three or more chronically ill members.

The results show that 53 percent of the households in the smallholder sector had at least a member suffering from malaria, 30 percent HIV/AIDS, 26 percent aesthema, 9 percent TB and 12 percent diabetes (Table 4.3).

## 4.3 Care for chronically ill persons

Table 4.4 shows that in a majority of households, care for chronically ill persons took place both at home and in a clinic (54 percent). In one third of the households, care was solely provided by the household at home and 14 percent of the households provided care at a clinic only. No differences between male headed and female headed households were observed as to where care for the chronically ill took place.

Furthermore, more female household members carried the burden of caring for sick persons than male household members. In 80 percent of the households who gave care to sick persons care was given by female household members and, in one third of the households care was given by male household members (Table 4.4).

In one out of ten households, children were care givers. Servants were rarely mentioned as care givers (1 percent). In female headed households, care was more often given by female household members, and less often by male household members.

### 4.4 Consequences of chronic illness

Caring for sick persons can be a burden not only in terms of extra work load involved, but also in terms of how the household welfare may be affected. The Census results show that one third of households with chronically ill persons sold produce because of the illness, one in four households had to engage in ganyu, and 13 percent had to obtain a loan or get credit, while eight percent of households sold assets to take care of the illness (Table 4.5). Furthermore, 27 percent of the households reported that the chronic illness did not affect their welfare. Table 4.6 shows that 40 percent of households reported that their farming activities were not affected by chronic illness, one in five could not prepare land in time and one third had no time for weeding.

### 4.5 Death Occurrences

Table 4.7 shows that 7 percent of the households experienced at least one death during the 2006/07 agricultural season, while 79 percent experienced at least one death in their community. Furthermore, 29 percent of households experienced six or more deaths in the community.

### 4.6 Death Consequences

Table 4.8 shows that of households which experienced one or more deaths in the community, 79 percent postponed farming activities.Table 4.9 shows that 30 percent of the households spent 10 days or more attending funerals or mourning periods instead of doing farm activities.

### 4.7 Keeping of orphans

The results show that 28 percent of the households kept orphans (Table 4.10). The table also shows that the proportion of households with orphans was larger in female headed than in male headed households, 36 percent as compared to 24 percent. The table further shows that poorer the households, the larger the proportion who had orphans, varying from 33 percent to 21 percent.

### 4.8 Consequences of keeping orphans

The results indicate that one in three households reported that orphans provided farm labour and half of households said that orphans helped with household chores (Table 4.11). The table also shows that one third of the households had to look for food instead of farming, one in five households had to look for school fees instead of farming and two out of five households spent time caring for sick orphans.

**Table 4.1: Percentage distribution of households with chronically ill persons during the 2006/07 agricultural season according to background variables , 2006/2007 Agricultural Season.**

| | | Household member | Related to household member | None sick | Total |
|---|---|---|---|---|---|
| | Malawi | 20 | 13 | 67 | 100 |
| Sex of head | Male | 20 | 13 | 67 | 100 |
| | Female | 21 | 13 | 67 | 100 |
| Poverty quintile | Poorest quintile | 25 | 11 | 63 | 100 |
| | Second quintile | 20 | 11 | 69 | 100 |
| | 3rd quintile | 20 | 14 | 65 | 100 |
| | Fourth quintile | 19 | 14 | 66 | 100 |
| | Highest quintile | 14 | 13 | 73 | 100 |
| Holding size | Less than 0.1 ha | 20 | 11 | 69 | 100 |
| | 0,100-0,199 ha | 22 | 14 | 65 | 100 |
| | 0,200-0,499 ha | 17 | 14 | 69 | 100 |
| | 0,500-0,999 ha | 22 | 13 | 65 | 100 |
| | 1,000 ha+ | 20 | 13 | 67 | 100 |
| Region | Northern | 18 | 14 | 68 | 100 |
| | Central | 20 | 13 | 67 | 100 |
| | Southern | 21 | 12 | 68 | 100 |
| District | Chitipa | 13 | 13 | 74 | 100 |
| | Karonga | 23 | 8 | 70 | 100 |
| | Rumphi | 17 | 18 | 65 | 100 |
| | Nkhata Bay | 33 | 14 | 53 | 100 |
| | Likoma | 18 | 22 | 60 | 100 |
| | Mzimba | 12 | 17 | 71 | 100 |
| | Kasungu | 19 | 11 | 70 | 100 |
| | Ntchisi | 19 | 10 | 72 | 100 |
| | Dowa | 16 | 8 | 76 | 100 |
| | Nkhota kota | 25 | 13 | 62 | 100 |
| | Salima | 23 | 10 | 68 | 100 |
| | Dedza | 20 | 11 | 69 | 100 |
| | Ntcheu | 18 | 15 | 67 | 100 |
| | Lilongwe Rural | 23 | 19 | 58 | 100 |
| | Mchinji | 23 | 12 | 65 | 100 |
| | Balaka | 32 | 12 | 56 | 100 |
| | Mangochi | 17 | 12 | 70 | 100 |
| | Machinga | 23 | 13 | 64 | 100 |
| | Zomba Rural | 19 | 13 | 68 | 100 |
| | Chiradzulu | 14 | 11 | 75 | 100 |
| | Blantyre Rural | 22 | 6 | 72 | 100 |
| | Thyolo | 18 | 15 | 67 | 100 |
| | Mulanje | 28 | 14 | 59 | 100 |
| | Phalombe | 18 | 14 | 69 | 100 |
| | Mwanza | 22 | 10 | 68 | 100 |
| | Chikwawa | 15 | 7 | 78 | 100 |
| | Nsanje | 31 | 6 | 63 | 100 |

**Table 4.2: Percentage distribution of households with chronically ill persons during the 2006/07 agricultural season by number of household members and relatives sick, according to background variables , 2006/2007 Agricultural Season**

| | | Number of household members sick | | | | Number of relatives sick | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3+ | Total | 1 | 2 | 3+ | Total |
| | Malawi | 78 | 17 | 5 | 100 | 80 | 15 | 6 | 100 |
| Sex of head | Male | 76 | 19 | 5 | 100 | 81 | 13 | 6 | 100 |
| | Female | 84 | 13 | 3 | 100 | 77 | 20 | 4 | 100 |
| Poverty quintile | Poorest quintile | 78 | 17 | 4 | 100 | 81 | 16 | 3 | 100 |
| | Second quintile | 76 | 18 | 6 | 100 | 82 | 13 | 5 | 100 |
| | 3rd quintile | 83 | 12 | 4 | 100 | 73 | 23 | 4 | 100 |
| | Fourth quintile | 77 | 19 | 4 | 100 | 79 | 9 | 12 | 100 |
| | Highest quintile | 87 | 10 | 4 | 100 | 86 | 12 | 2 | 100 |
| Holding size | Less than 0.1 ha | 78 | 19 | 3 | 100 | 90 | 8 | 2 | 100 |
| | 0,100-0,199 ha | 63 | 31 | 6 | 100 | 86 | 12 | 1 | 100 |
| | 0,200-0,499 ha | 84 | 12 | 3 | 100 | 76 | 14 | 10 | 100 |
| | 0,500-0,999 ha | 78 | 19 | 3 | 100 | 80 | 16 | 4 | 100 |
| | 1,000 ha+ | 79 | 14 | 6 | 100 | 80 | 16 | 4 | 100 |
| Region | Northern | 81 | 14 | 4 | 100 | 78 | 17 | 5 | 100 |
| | Central | 79 | 15 | 5 | 100 | 77 | 15 | 8 | 100 |
| | Southern | 78 | 18 | 4 | 100 | 80 | 17 | 3 | 100 |
| District | Chitipa | 83 | 12 | 5 | 100 | 83 | 12 | 5 | 100 |
| | Karonga | 83 | 14 | 3 | 100 | 77 | 12 | 11 | 100 |
| | Rumphi | 88 | 11 | 1 | 100 | 81 | 15 | 4 | 100 |
| | Nkhata Bay | 73 | 19 | 8 | 100 | 68 | 23 | 9 | 100 |
| | Likoma | 89 | 11 | 0 | 100 | 63 | 37 | 0 | 100 |
| | Mzimba | 85 | 11 | 4 | 100 | 81 | 17 | 2 | 100 |
| | Kasungu | 76 | 17 | 7 | 100 | 79 | 12 | 9 | 100 |
| | Ntchisi | 80 | 15 | 5 | 100 | 69 | 22 | 9 | 100 |
| | Dowa | 83 | 15 | 2 | 100 | 79 | 18 | 3 | 100 |
| | Nkhota kota | 76 | 15 | 8 | 100 | 84 | 8 | 8 | 100 |
| | Salima | 86 | 13 | 1 | 100 | 85 | 12 | 2 | 100 |
| | Dedza | 84 | 13 | 3 | 100 | 80 | 16 | 3 | 100 |
| | Ntcheu | 80 | 15 | 5 | 100 | 79 | 18 | 3 | 100 |
| | Lilongwe Rural | 74 | 20 | 6 | 100 | 73 | 16 | 11 | 100 |
| | Mchinji | 76 | 15 | 9 | 100 | 88 | 8 | 4 | 100 |
| | Balaka | 71 | 22 | 7 | 100 | 73 | 21 | 5 | 100 |
| | Mangochi | 83 | 17 | 1 | 100 | 89 | 11 | 0 | 100 |
| | Machinga | 84 | 15 | 1 | 100 | 81 | 12 | 7 | 100 |
| | Zomba Rural | 88 | 8 | 4 | 100 | 86 | 13 | 1 | 100 |
| | Chiradzulu | 82 | 11 | 7 | 100 | 83 | 16 | 1 | 100 |
| | Blantyre Rural | 72 | 20 | 8 | 100 | 83 | 17 | 0 | 100 |
| | Thyolo | 88 | 11 | 1 | 100 | 75 | 17 | 8 | 100 |
| | Mulanje | 74 | 26 | 0 | 100 | 63 | 35 | 2 | 100 |
| | Phalombe | 81 | 15 | 4 | 100 | 79 | 17 | 4 | 100 |
| | Mwanza | 61 | 29 | 10 | 100 | 75 | 21 | 4 | 100 |
| | Chikwawa | 90 | 8 | 1 | 100 | 84 | 7 | 9 | 100 |
| | Nsanje | 65 | 27 | 8 | 100 | 81 | 17 | 2 | 100 |

**Table 4.3: Proportion of households with chronically ill persons during the 2006/07 agricultural season by type of illness the sick person(s) suffered from according to background variables , 2006/2007 Agricultural Season Cont**

| | | Malaria | TB | HIV | Diabetes | Asthma | Bilharzia | Arthritis |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 53 | 9 | 30 | 12 | 26 | 3 | 5 |
| **Sex of head** | Male | 53 | 9 | 30 | 12 | 26 | 3 | 5 |
| | Female | 54 | 9 | 32 | 12 | 28 | 3 | 7 |
| **Poverty quintile** | Poorest quintile | 50 | 7 | 32 | 11 | 26 | 3 | 4 |
| | Second quintile | 53 | 8 | 28 | 13 | 28 | 2 | 4 |
| | 3rd quintile | 58 | 8 | 31 | 10 | 29 | 2 | 7 |
| | Fourth quintile | 53 | 8 | 31 | 13 | 26 | 2 | 7 |
| | Highest quintile | 52 | 14 | 33 | 11 | 22 | 3 | 3 |
| **Holding size** | Less than 0.1 ha | 51 | 9 | 25 | 10 | 21 | 2 | 1 |
| | 0,100-0,199 ha | 62 | 4 | 36 | 9 | 26 | 3 | 2 |
| | 0,200-0,499 ha | 58 | 10 | 27 | 12 | 21 | 2 | 6 |
| | 0,500-0,999 ha | 52 | 10 | 33 | 13 | 28 | 5 | 6 |
| | 1,000 ha+ | 51 | 7 | 30 | 13 | 26 | 3 | 6 |
| **Region** | Northern | 43 | 9 | 29 | 16 | 32 | 3 | 5 |
| | Central | 55 | 10 | 31 | 12 | 27 | 2 | 8 |
| | Southern | 57 | 7 | 29 | 12 | 24 | 4 | 3 |
| **ADD** | Karonga | 46 | 6 | 27 | 16 | 36 | 3 | 4 |
| | Mzuzu | 42 | 10 | 29 | 15 | 31 | 3 | 6 |
| | Kasungu | 47 | 10 | 30 | 14 | 30 | 3 | 6 |
| | Salima | 62 | 10 | 25 | 17 | 29 | 1 | 3 |
| | Lilongwe | 56 | 10 | 33 | 10 | 25 | 2 | 10 |
| | Machinga | 58 | 8 | 33 | 16 | 27 | 3 | 4 |
| | Blantyre | 54 | 7 | 27 | 9 | 23 | 4 | 2 |
| | Shire Valley | 62 | 7 | 24 | 11 | 20 | 4 | 2 |

**Table 4.3: Proportion of households with chronically ill persons during the 2006/07 agricultural season by type of illness the sick person(s) suffered from according to background variables. 2006/2007 Agricultural Season**

| | | Nerves | Stomach | Sores | Cancer | Pneumonia | Other |
|---|---|---|---|---|---|---|---|
| | Malawi | 8.0 | 5.0 | 1.5 | 0.6 | 2.1 | 2.1 |
| **Sex of head** | Male | 8.4 | 5.0 | 0.7 | 0.7 | 2.3 | 2.2 |
| | Female | 7.1 | 5.0 | 3.2 | 0.6 | 1.5 | 2.0 |
| **Poverty quintile** | Poorest quintile | 9.8 | 7.2 | 0.8 | 1.3 | 1.4 | 2.3 |
| | Second quintile | 9.6 | 7.9 | 0.8 | 0.5 | 1.7 | 3.2 |
| | 3rd quintile | 5.8 | 3.4 | 4.2 | 0.4 | 1.5 | 2.4 |
| | Fourth quintile | 8.2 | 3.5 | 1.1 | 0.3 | 4.5 | 1.7 |
| | Highest quintile | 6.5 | 2.9 | 0.4 | 0.9 | 1.0 | 1.0 |
| **Holding size** | Less than 0.1 ha | 7.9 | 5.7 | 0.7 | 0.5 | 0.7 | 0.8 |
| | 0,100-0,199 ha | 17.0 | 2.8 | 0.2 | 1.0 | 1.7 | 2.3 |
| | 0,200-0,499 ha | 7.5 | 3.5 | 0.8 | 0.3 | 4.7 | 1.2 |
| | 0,500-0,999 ha | 7.8 | 6.1 | 3.6 | 0.5 | 1.0 | 1.8 |
| | 1,000 ha+ | 6.6 | 5.0 | 0.8 | 0.8 | 1.2 | 2.4 |
| **Region** | Northern | 6.1 | 6.3 | 0.5 | 0.6 | 0.6 | 3.6 |
| | Central | 8.4 | 4.6 | 2.6 | 0.6 | 3.2 | 2.6 |
| | Southern | 8.9 | 4.8 | 0.7 | 1.7 | 1.3 | 1.3 |
| **ADD** | Karonga | 5.6 | 5.5 | 0.9 | 1.2 | 0.8 | 4.6 |
| | Mzuzu | 6.4 | 6.6 | 0.3 | 0.3 | 0.6 | 3.2 |
| | Kasungu | 7.6 | 4.6 | 0.7 | 1.2 | 2.8 | 4.0 |
| | Salima | 8.1 | 5.5 | 1.1 | 0.3 | 2.4 | 2.4 |
| | Lilongwe | 8.7 | 4.4 | 3.6 | 0.4 | 3.6 | 2.1 |
| | Machinga | 8.1 | 4.2 | 0.7 | 0.8 | 1.6 | 1.4 |
| | Blantyre | 10.4 | 5.6 | 0.7 | 2.6 | 1.1 | 1.2 |
| | Shire Valley | 4.0 | 3.5 | 0.2 | 1.0 | 1.1 | 1.1 |

**Table 4.4: Percentage distribution of households with chronically ill persons during the 2006/07 agricultural season, by where the sick were cared for and who cared for them , according to background variables , 2006/2007 Agricultural Season**

| | | Where the sick were cared for | | | | Proportion that cared for the sick | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | At home only | At the clinic only | Both at home and at the clinic | Total | Female household members | Male household members | Child | Servant |
| | Malawi | 32 | 14 | 54 | 100 | 80 | 33 | 11 | 1 |
| **Sex of head** | Male | 32 | 14 | 54 | 100 | 78 | 39 | 10 | 1 |
| | Female | 32 | 15 | 53 | 100 | 84 | 20 | 13 | 2 |
| **Poverty quintile** | Poorest quintile | 39 | 15 | 46 | 100 | 81 | 33 | 14 | 1 |
| | Second quintile | 38 | 15 | 47 | 100 | 81 | 30 | 9 | 0 |
| | 3rd quintile | 34 | 13 | 53 | 100 | 81 | 37 | 10 | 1 |
| | Fourth quintile | 23 | 14 | 63 | 100 | 82 | 32 | 11 | 1 |
| | Highest quintile | 24 | 14 | 62 | 100 | 76 | 40 | 8 | 1 |
| **Holding size** | Less than 0.1 ha | 30 | 12 | 58 | 100 | 76 | 28 | 9 | 1 |
| | 0,100-0,199 ha | 29 | 11 | 60 | 100 | 84 | 25 | 11 | 0 |
| | 0,200-0,499 ha | 33 | 17 | 50 | 100 | 82 | 26 | 12 | 1 |
| | 0,500-0,999 ha | 29 | 13 | 58 | 100 | 82 | 34 | 9 | 1 |
| | 1,000 ha+ | 36 | 13 | 51 | 100 | 78 | 39 | 11 | 1 |
| **Region** | Northern | 23 | 14 | 63 | 100 | 76 | 43 | 10 | 0 |
| | Central | 34 | 14 | 52 | 100 | 81 | 36 | 11 | 1 |
| | Southern | 32 | 14 | 54 | 100 | 80 | 30 | 11 | 1 |
| **District** | Chitipa | 46 | 9 | 45 | 100 | 85 | 29 | 9 | 0 |
| | Karonga | 22 | 22 | 57 | 100 | 75 | 43 | 14 | 1 |
| | Rumphi | 11 | 15 | 74 | 100 | 71 | 47 | 8 | 1 |
| | Nkhata Bay | 30 | 7 | 63 | 100 | 90 | 40 | 9 | 0 |
| | Likoma | 16 | 43 | 41 | 100 | 73 | 17 | 25 | 0 |
| | Mzimba | 17 | 13 | 70 | 100 | 67 | 49 | 9 | 0 |
| | Kasungu | 33 | 20 | 47 | 100 | 78 | 38 | 15 | 1 |
| | Ntchisi | 38 | 16 | 45 | 100 | 66 | 53 | 12 | 0 |
| | Dowa | 30 | 8 | 61 | 100 | 78 | 31 | 5 | 0 |
| | Nkhota kota | 46 | 19 | 36 | 100 | 72 | 45 | 9 | 0 |
| | Salima | 29 | 27 | 44 | 100 | 86 | 27 | 6 | 0 |
| | Dedza | 38 | 17 | 45 | 100 | 83 | 31 | 7 | 1 |
| | Ntcheu | 40 | 9 | 51 | 100 | 81 | 32 | 10 | 1 |
| | Lilongwe Rural | 33 | 9 | 58 | 100 | 86 | 39 | 12 | 1 |
| | Mchinji | 31 | 9 | 60 | 100 | 74 | 31 | 13 | 0 |
| | Balaka | 38 | 20 | 42 | 100 | 84 | 25 | 9 | 5 |
| | Mangochi | 39 | 16 | 45 | 100 | 76 | 38 | 7 | 2 |
| | Machinga | 24 | 20 | 56 | 100 | 72 | 43 | 14 | 0 |
| | Zomba Rural | 35 | 14 | 51 | 100 | 74 | 33 | 18 | 0 |
| | Chiradzulu | 43 | 14 | 43 | 100 | 82 | 26 | 8 | 1 |
| | Blantyre Rural | 32 | 13 | 55 | 100 | 77 | 23 | 6 | 1 |
| | Thyolo | 34 | 13 | 53 | 100 | 88 | 21 | 14 | 0 |
| | Mulanje | 30 | 6 | 64 | 100 | 93 | 37 | 14 | 1 |
| | Phalombe | 40 | 6 | 54 | 100 | 71 | 23 | 15 | 3 |
| | Mwanza | 34 | 13 | 53 | 100 | 74 | 30 | 22 | 0 |
| | Chikwawa | 21 | 23 | 56 | 100 | 74 | 37 | 10 | 3 |
| | Nsanje | 40 | 22 | 38 | 100 | 70 | 37 | 10 | 0 |

**Table 4.5: Proportion of households with chronically ill persons during the 2006/07 agricultural season, whose welfare was affected in the following ways because of caring for the sick according to background variables , 2006/2007 Agricultural Season**

| | | The household had to sell produce | The household had to sell assets | The household had to obtain loans or credit | Household members had to do Ganyu | Other | The welfare was not affected |
|---|---|---|---|---|---|---|---|
| | Malawi | 33 | 8 | 13 | 26 | 15 | 27 |
| **Sex of head** | Male | 33 | 8 | 13 | 25 | 15 | 27 |
| | Female | 32 | 7 | 14 | 26 | 13 | 27 |
| **Poverty quintile** | Poorest quintile | 28 | 9 | 12 | 33 | 14 | 25 |
| | Second quintile | 34 | 7 | 9 | 26 | 17 | 26 |
| | 3rd quintile | 37 | 7 | 16 | 25 | 13 | 29 |
| | Fourth quintile | 30 | 9 | 14 | 26 | 13 | 28 |
| | Highest quintile | 35 | 9 | 15 | 14 | 19 | 26 |
| **Holding size** | Less than 0.1 ha | 21 | 9 | 14 | 27 | 16 | 29 |
| | 0,100-0,199 ha | 20 | 7 | 19 | 35 | 12 | 23 |
| | 0,200-0,499 ha | 30 | 6 | 12 | 28 | 13 | 30 |
| | 0,500-0,999 ha | 33 | 6 | 15 | 28 | 15 | 25 |
| | 1,000 ha+ | 39 | 11 | 13 | 18 | 13 | 25 |
| **Region** | Northern | 38 | 11 | 10 | 17 | 21 | 28 |
| | Central | 38 | 7 | 11 | 30 | 12 | 27 |
| | Southern | 26 | 9 | 17 | 24 | 15 | 26 |
| **District** | Chitipa | 40 | 13 | 3 | 11 | 10 | 34 |
| | Karonga | 37 | 9 | 9 | 18 | 29 | 31 |
| | Rumphi | 40 | 12 | 14 | 21 | 10 | 22 |
| | Nkhata Bay | 39 | 11 | 13 | 16 | 34 | 18 |
| | Likoma | 26 | 4 | 20 | 14 | 11 | 38 |
| | Mzimba | 40 | 12 | 8 | 17 | 16 | 30 |
| | Kasungu | 27 | 5 | 8 | 23 | 11 | 42 |
| | Ntchisi | 43 | 10 | 15 | 19 | 15 | 30 |
| | Dowa | 51 | 12 | 12 | 21 | 16 | 26 |
| | Nkhota kota | 33 | 4 | 7 | 18 | 7 | 41 |
| | Salima | 20 | 5 | 15 | 35 | 14 | 31 |
| | Dedza | 42 | 8 | 7 | 34 | 11 | 22 |
| | Ntcheu | 32 | 7 | 13 | 31 | 10 | 28 |
| | Lilongwe Rural | 44 | 6 | 13 | 32 | 11 | 24 |
| | Mchinji | 37 | 14 | 19 | 33 | 15 | 14 |
| | Balaka | 31 | 10 | 12 | 23 | 12 | 26 |
| | Mangochi | 19 | 8 | 12 | 37 | 20 | 29 |
| | Machinga | 40 | 6 | 5 | 23 | 14 | 27 |
| | Zomba Rural | 45 | 9 | 10 | 17 | 14 | 28 |
| | Chiradzulu | 20 | 8 | 8 | 18 | 13 | 46 |
| | Blantyre Rural | 23 | 5 | 11 | 27 | 13 | 29 |
| | Thyolo | 23 | 10 | 21 | 24 | 4 | 35 |
| | Mulanje | 12 | 22 | 40 | 21 | 16 | 17 |
| | Phalombe | 39 | 7 | 9 | 25 | 13 | 25 |
| | Mwanza | 42 | 9 | 12 | 38 | 11 | 18 |
| | Chikwawa | 34 | 14 | 21 | 34 | 15 | 25 |
| | Nsanje | 20 | 10 | 8 | 20 | 21 | 27 |

**Table 4.6: Proportion of households with chronically ill persons during the 2006/07 agricultural season, whose farming activities were affected in the following way because of caring for the sick according to background variables , 2006/2007 Agricultural Season**

| | | Did not have time for land preparation | Did not have time for weeding | Did not have time to apply fertilizer or pesticides | Livestock was left unattended | Did not harvest in time | Other | Farming activities were not affected |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 21 | 33 | 11 | 3 | 16 | 8 | 40 |
| **Sex of head** | Male | 20 | 32 | 11 | 4 | 16 | 8 | 42 |
| | Female | 25 | 36 | 11 | 2 | 17 | 9 | 36 |
| **Poverty quintile** | Poorest quintile | 23 | 38 | 11 | 5 | 15 | 11 | 34 |
| | Second quintile | 21 | 32 | 8 | 3 | 17 | 7 | 43 |
| | 3rd quintile | 18 | 28 | 12 | 3 | 16 | 11 | 41 |
| | Fourth quintile | 22 | 36 | 14 | 3 | 14 | 5 | 40 |
| | Highest quintile | 18 | 31 | 11 | 2 | 20 | 6 | 45 |
| **Holding size** | Less than 0.1 ha | 21 | 42 | 16 | 3 | 12 | 7 | 38 |
| | 0,100-0,199 ha | 21 | 25 | 10 | 3 | 15 | 10 | 48 |
| | 0,200-0,499 ha | 20 | 36 | 9 | 2 | 17 | 9 | 37 |
| | 0,500-0,999 ha | 20 | 29 | 9 | 2 | 15 | 7 | 45 |
| | 1,000 ha+ | 22 | 31 | 11 | 5 | 18 | 7 | 40 |
| **Region** | Northern | 30 | 43 | 16 | 5 | 18 | 11 | 31 |
| | Central | 20 | 33 | 9 | 3 | 15 | 6 | 42 |
| | Southern | 22 | 32 | 11 | 3 | 18 | 11 | 40 |
| **District** | Chitipa | 21 | 30 | 16 | 6 | 18 | 8 | 38 |
| | Karonga | 23 | 39 | 10 | 5 | 16 | 15 | 38 |
| | Rumphi | 20 | 54 | 9 | 2 | 10 | 4 | 30 |
| | Nkhata Bay | 32 | 50 | 8 | 4 | 25 | 24 | 19 |
| | Likoma | 43 | 33 | 5 | 16 | 4 | 5 | 35 |
| | Mzimba | 40 | 41 | 28 | 6 | 21 | 4 | 30 |
| | Kasungu | 19 | 42 | 11 | 3 | 19 | 1 | 35 |
| | Ntchisi | 21 | 41 | 6 | 3 | 14 | 8 | 28 |
| | Dowa | 25 | 31 | 10 | 2 | 22 | 11 | 33 |
| | Nkhota kota | 24 | 34 | 3 | 1 | 11 | 3 | 42 |
| | Salima | 30 | 39 | 9 | 2 | 16 | 3 | 38 |
| | Dedza | 23 | 34 | 12 | 4 | 18 | 7 | 33 |
| | Ntcheu | 23 | 38 | 13 | 4 | 15 | 1 | 43 |
| | Lilongwe City | 51 | 65 | 48 | 0 | 1 | 6 | 17 |
| | Mchinji | 27 | 39 | 9 | 1 | 23 | 18 | 19 |
| | Balaka | 15 | 33 | 7 | 2 | 26 | 9 | 43 |
| | Mangochi | 19 | 33 | 11 | 0 | 14 | 13 | 45 |
| | Machinga | 18 | 40 | 9 | 2 | 31 | 12 | 25 |
| | Zomba Rural | 32 | 36 | 14 | 3 | 21 | 5 | 40 |
| | Chiradzulu | 15 | 21 | 11 | 3 | 9 | 7 | 55 |
| | Blantyre Rural | 18 | 26 | 4 | 0 | 14 | 18 | 37 |
| | Thyolo | 28 | 23 | 8 | 2 | 11 | 4 | 55 |
| | Mulanje | 15 | 18 | 20 | 10 | 9 | 14 | 51 |
| | Phalombe | 14 | 26 | 11 | 1 | 25 | 8 | 41 |
| | Mwanza | 27 | 33 | 12 | 3 | 20 | 10 | 35 |
| | Chikwawa | 32 | 48 | 6 | 7 | 31 | 19 | 20 |
| | Nsanje | 16 | 30 | 3 | 2 | 22 | 10 | 29 |

**Table 4.7: Proportion of households with death in the household and community and percentage distribution of households who experienced deaths in the community by number of deaths experienced according to background variables , 2006/2007 Agricultural Season**

| | | | | Number of deaths in the community | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Proportion with death in the household | Proportion with deaths in the community | 1 | 2-3 | 4-5 | 6-9 | 10+ | Total |
| | Malawi | 7 | 79 | 14 | 32 | 25 | 18 | 11 | 100 |
| **Sex of head** | Male | 6 | 80 | 14 | 32 | 26 | 18 | 11 | 100 |
| | Female | 10 | 78 | 14 | 31 | 22 | 19 | 13 | 100 |
| **Poverty quintile** | Poorest quintile | 9 | 79 | 14 | 30 | 23 | 21 | 12 | 100 |
| | Second quintile | 5 | 80 | 14 | 29 | 25 | 20 | 12 | 100 |
| | 3rd quintile | 8 | 80 | 15 | 32 | 24 | 17 | 11 | 100 |
| | Fourth quintile | 8 | 79 | 14 | 35 | 24 | 17 | 10 | 100 |
| | Highest quintile | 4 | 79 | 12 | 32 | 25 | 20 | 11 | 100 |
| **Holding size** | Less than 0.1 ha | 7 | 77 | 14 | 37 | 19 | 16 | 14 | 100 |
| | 0,100-0,199 ha | 8 | 79 | 14 | 32 | 23 | 21 | 11 | 100 |
| | 0,200-0,499 ha | 8 | 79 | 13 | 31 | 25 | 18 | 13 | 100 |
| | 0,500-0,999 ha | 8 | 82 | 14 | 32 | 25 | 18 | 11 | 100 |
| | 1,000 ha+ | 6 | 80 | 15 | 31 | 26 | 19 | 9 | 100 |
| **Region** | Northern | 7 | 84 | 17 | 32 | 22 | 21 | 8 | 100 |
| | Central | 7 | 75 | 16 | 36 | 26 | 16 | 6 | 100 |
| | Southern | 7 | 82 | 12 | 29 | 24 | 20 | 16 | 100 |
| **District** | Chitipa | 5 | 93 | 10 | 30 | 33 | 20 | 6 | 100 |
| | Karonga | 8 | 86 | 12 | 25 | 25 | 31 | 7 | 100 |
| | Rumphi | 3 | 87 | 15 | 27 | 24 | 29 | 5 | 100 |
| | Nkhata Bay | 11 | 84 | 12 | 34 | 19 | 19 | 16 | 100 |
| | Likoma | 11 | 91 | 12 | 35 | 19 | 26 | 9 | 100 |
| | Mzimba | 8 | 78 | 24 | 38 | 16 | 14 | 8 | 100 |
| | Kasungu | 4 | 83 | 15 | 29 | 32 | 21 | 4 | 100 |
| | Ntchisi | 5 | 64 | 26 | 56 | 14 | 3 | 1 | 100 |
| | Dowa | 7 | 69 | 26 | 44 | 15 | 12 | 3 | 100 |
| | Nkhota kota | 7 | 71 | 29 | 31 | 16 | 18 | 6 | 100 |
| | Salima | 5 | 72 | 19 | 36 | 28 | 12 | 5 | 100 |
| | Dedza | 6 | 77 | 17 | 38 | 25 | 16 | 5 | 100 |
| | Ntcheu | 7 | 82 | 14 | 20 | 28 | 23 | 16 | 100 |
| | Lilongwe Rural | 12 | 71 | 13 | 40 | 27 | 15 | 5 | 100 |
| | Mchinji | 6 | 87 | 11 | 29 | 36 | 19 | 5 | 100 |
| | Balaka | 7 | 68 | 13 | 36 | 26 | 15 | 10 | 100 |
| | Mangochi | 10 | 88 | 7 | 22 | 28 | 19 | 24 | 100 |
| | Machinga | 9 | 68 | 22 | 35 | 13 | 13 | 18 | 100 |
| | Zomba Rural | 8 | 82 | 16 | 28 | 19 | 21 | 16 | 100 |
| | Chiradzulu | 5 | 81 | 17 | 32 | 22 | 22 | 7 | 100 |
| | Blantyre Rural | 11 | 83 | 12 | 32 | 25 | 21 | 9 | 100 |
| | Thyolo | 5 | 81 | 12 | 23 | 27 | 25 | 14 | 100 |
| | Mulanje | 4 | 85 | 7 | 34 | 28 | 19 | 12 | 100 |
| | Phalombe | 4 | 81 | 17 | 34 | 28 | 13 | 8 | 100 |
| | Mwanza | 5 | 88 | 6 | 30 | 20 | 20 | 24 | 100 |
| | Chikwawa | 5 | 87 | 9 | 24 | 22 | 21 | 24 | 100 |
| | Nsanje | 5 | 71 | 12 | 30 | 23 | 28 | 6 | 100 |

**Table 4.8: Proportion of households who experienced deaths in the community by how those deaths affected the household, according to background variables , 2006/2007 Agricultural Season**

| | | Farming activities had to be postponed or not carried out | Had to help out through sale of produce or asset | Other |
|---|---|---|---|---|
| | Malawi | 79 | 9 | 7 |
| **Sex of head** | Male | 79 | 9 | 8 |
| | Female | 78 | 8 | 5 |
| **Poverty quintile** | Poorest quintile | 79 | 8 | 5 |
| | Second quintile | 82 | 9 | 6 |
| | 3rd quintile | 81 | 10 | 7 |
| | Fourth quintile | 78 | 8 | 9 |
| | Highest quintile | 74 | 7 | 9 |
| **Holding size** | Less than 0.1 ha | 67 | 5 | 7 |
| | 0,100-0,199 ha | 72 | 6 | 6 |
| | 0,200-0,499 ha | 77 | 7 | 7 |
| | 0,500-0,999 ha | 79 | 9 | 7 |
| | 1,000 ha+ | 84 | 11 | 7 |
| **Region** | Northern | 89 | 11 | 10 |
| | Central | 78 | 11 | 9 |
| | Southern | 77 | 6 | 5 |
| **District** | Chitipa | 86 | 8 | 2 |
| | Karonga | 91 | 14 | 12 |
| | Rumphi | 92 | 9 | 4 |
| | Nkhata Bay | 93 | 15 | 14 |
| | Likoma | 73 | 6 | 0 |
| | Mzimba | 87 | 9 | 12 |
| | Kasungu | 90 | 11 | 7 |
| | Ntchisi | 84 | 17 | 11 |
| | Dowa | 77 | 20 | 16 |
| | Nkhota kota | 82 | 7 | 1 |
| | Salima | 73 | 3 | 2 |
| | Dedza | 85 | 9 | 3 |
| | Ntcheu | 82 | 8 | 3 |
| | Lilongwe Rural | 68 | 13 | 13 |
| | Mchinji | 93 | 18 | 13 |
| | Balaka | 74 | 10 | 12 |
| | Mangochi | 76 | 2 | 8 |
| | Machinga | 89 | 11 | 8 |
| | Zomba Rural | 89 | 9 | 4 |
| | Chiradzulu | 83 | 4 | 5 |
| | Blantyre Rural | 67 | 4 | 0 |
| | Thyolo | 85 | 5 | 2 |
| | Mulanje | 77 | 10 | 5 |
| | Phalombe | 70 | 9 | 4 |
| | Mwanza | 76 | 10 | 3 |
| | Chikwawa | 68 | 8 | 3 |
| | Nsanje | 73 | 2 | 6 |

**Table 4.9: Percentage distribution of households who experienced deaths in the community by number of days the household spent attending funerals/ mourning periods according to background variables , 2006/2007 Agricultural Season**

| | | 1-4 | 5-9 | 10-14 | 15-19 | 20+ | Total |
|---|---|---|---|---|---|---|---|
| | Malawi | 40 | 30 | 15 | 7 | 8 | 100 |
| Sex of head | Male | 40 | 30 | 16 | 7 | 8 | 100 |
| | Female | 40 | 30 | 15 | 7 | 7 | 100 |
| Poverty quintile | Poorest quintile | 41 | 31 | 15 | 7 | 7 | 100 |
| | Second quintile | 37 | 29 | 15 | 8 | 11 | 100 |
| | 3rd quintile | 39 | 33 | 15 | 6 | 7 | 100 |
| | Fourth quintile | 38 | 30 | 17 | 8 | 8 | 100 |
| | Highest quintile | 42 | 26 | 17 | 6 | 9 | 100 |
| Holding size | Less than 0.1 ha | 49 | 28 | 11 | 6 | 6 | 100 |
| | 0,100-0,199 ha | 38 | 30 | 18 | 7 | 7 | 100 |
| | 0,200-0,499 ha | 40 | 29 | 16 | 6 | 9 | 100 |
| | 0,500-0,999 ha | 39 | 31 | 16 | 7 | 7 | 100 |
| | 1,000 ha+ | 40 | 29 | 15 | 8 | 9 | 100 |
| Region | Northern | 37 | 28 | 15 | 8 | 12 | 100 |
| | Central | 38 | 29 | 17 | 8 | 8 | 100 |
| | Southern | 42 | 31 | 14 | 6 | 7 | 100 |
| District | Chitipa | 25 | 36 | 20 | 11 | 8 | 100 |
| | Karonga | 44 | 25 | 14 | 7 | 9 | 100 |
| | Rumphi | 26 | 31 | 19 | 12 | 12 | 100 |
| | Nkhata Bay | 30 | 25 | 19 | 10 | 15 | 100 |
| | Likoma | 69 | 14 | 7 | 4 | 5 | 100 |
| | Mzimba | 42 | 28 | 11 | 5 | 14 | 100 |
| | Kasungu | 39 | 36 | 16 | 4 | 4 | 100 |
| | Ntchisi | 51 | 36 | 5 | 2 | 5 | 100 |
| | Dowa | 53 | 31 | 9 | 4 | 4 | 100 |
| | Nkhota kota | 43 | 40 | 12 | 1 | 4 | 100 |
| | Salima | 50 | 33 | 8 | 6 | 4 | 100 |
| | Dedza | 32 | 29 | 23 | 8 | 8 | 100 |
| | Ntcheu | 25 | 24 | 23 | 10 | 18 | 100 |
| | Lilongwe Rural | 31 | 28 | 21 | 10 | 9 | 100 |
| | Mchinji | 47 | 22 | 10 | 16 | 5 | 100 |
| | Balaka | 37 | 42 | 13 | 4 | 4 | 100 |
| | Mangochi | 42 | 36 | 12 | 6 | 5 | 100 |
| | Machinga | 42 | 27 | 16 | 8 | 7 | 100 |
| | Zomba Rural | 42 | 29 | 11 | 7 | 12 | 100 |
| | Chiradzulu | 42 | 35 | 14 | 4 | 6 | 100 |
| | Blantyre Rural | 53 | 25 | 13 | 5 | 4 | 100 |
| | Thyolo | 37 | 27 | 20 | 7 | 8 | 100 |
| | Mulanje | 45 | 42 | 9 | 1 | 4 | 100 |
| | Phalombe | 53 | 28 | 12 | 3 | 3 | 100 |
| | Mwanza | 44 | 22 | 21 | 6 | 7 | 100 |
| | Chikwawa | 29 | 35 | 14 | 11 | 12 | 100 |
| | Nsanje | 57 | 30 | 8 | 3 | 2 | 100 |

**Table 4.10: Percentage distribution of households with orphans according to background variables , 2006/2007 Agricultural Season**

| | | Orphans | No orphans | Total |
|---|---|---|---|---|
| | Malawi | 28 | 72 | 100 |
| **Sex of head** | Male | 24 | 76 | 100 |
| | Female | 36 | 64 | 100 |
| **Poverty quintile** | Poorest quintile | 33 | 67 | 100 |
| | Second quintile | 27 | 73 | 100 |
| | 3rd quintile | 29 | 71 | 100 |
| | Fourth quintile | 26 | 74 | 100 |
| | Highest quintile | 21 | 79 | 100 |
| **Holding size** | Less than 0.1 ha | 21 | 79 | 100 |
| | 0,100-0,199 ha | 26 | 74 | 100 |
| | 0,200-0,499 ha | 24 | 76 | 100 |
| | 0,500-0,999 ha | 29 | 71 | 100 |
| | 1,000 ha+ | 32 | 68 | 100 |
| **Region** | Northern | 32 | 68 | 100 |
| | Central | 25 | 75 | 100 |
| | Southern | 29 | 71 | 100 |
| **District** | Chitipa | 23 | 77 | 100 |
| | Karonga | 31 | 69 | 100 |
| | Rumphi | 37 | 63 | 100 |
| | Nkhata Bay | 50 | 50 | 100 |
| | Likoma | 47 | 53 | 100 |
| | Mzimba | 29 | 71 | 100 |
| | Kasungu | 26 | 74 | 100 |
| | Ntchisi | 26 | 74 | 100 |
| | Dowa | 51 | 49 | 100 |
| | Nkhota kota | 27 | 73 | 100 |
| | Salima | 20 | 80 | 100 |
| | Dedza | 19 | 81 | 100 |
| | Ntcheu | 29 | 71 | 100 |
| | Lilongwe Rural | 17 | 83 | 100 |
| | Mchinji | 27 | 73 | 100 |
| | Balaka | 23 | 77 | 100 |
| | Mangochi | 34 | 66 | 100 |
| | Machinga | 26 | 74 | 100 |
| | Zomba Rural | 41 | 59 | 100 |
| | Chiradzulu | 23 | 77 | 100 |
| | Blantyre Rural | 27 | 73 | 100 |
| | Thyolo | 20 | 80 | 100 |
| | Mulanje | 14 | 86 | 100 |
| | Phalombe | 28 | 72 | 100 |
| | Mwanza | 20 | 80 | 100 |
| | Chikwawa | 47 | 53 | 100 |
| | Nsanje | 33 | 67 | 100 |

**Table 4.11: Proportion of households with orphans by the effects of having orphans according to background variables , 2006/2007 Agricultural Season**

| | | They provide farm labour | They help in household chores | Have to spend time to look for food for orphans instead of farming | Have to spend time to look for fees for orphans instead of farming | Have to spend time to care the orphans when sick instead of farming | Other |
|---|---|---|---|---|---|---|---|
| | Malawi | 36 | 50 | 33 | 22 | 42 | 12 |
| Sex of | Male | 35 | 49 | 33 | 24 | 43 | 13 |
| head | Female | 38 | 51 | 32 | 20 | 40 | 10 |
| Poverty | Poorest quintile | 37 | 48 | 35 | 17 | 47 | 12 |
| quintile | Second quintile | 39 | 54 | 34 | 19 | 41 | 12 |
| | 3rd quintile | 36 | 49 | 30 | 25 | 36 | 11 |
| | Fourth quintile | 35 | 48 | 33 | 29 | 43 | 12 |
| | Highest quintile | 31 | 49 | 33 | 29 | 42 | 13 |
| Holding | Less than 0.1 ha | 33 | 52 | 38 | 20 | 32 | 8 |
| size | 0,100-0,199 ha | 28 | 46 | 41 | 28 | 31 | 11 |
| | 0,200-0,499 ha | 36 | 51 | 33 | 21 | 41 | 12 |
| | 0,500-0,999 ha | 35 | 52 | 31 | 23 | 39 | 9 |
| | 1,000 ha+ | 36 | 47 | 30 | 18 | 43 | 15 |
| Region | Northern | 45 | 54 | 37 | 26 | 56 | 17 |
| | Central | 33 | 49 | 33 | 22 | 42 | 10 |
| | Southern | 36 | 49 | 33 | 22 | 37 | 12 |
| District | Chitipa | 60 | 64 | 39 | 32 | 45 | 21 |
| | Karonga | 45 | 52 | 39 | 35 | 56 | 18 |
| | Rumphi | 54 | 58 | 29 | 33 | 40 | 14 |
| | Nkhata Bay | 32 | 50 | 38 | 21 | 58 | 23 |
| | Likoma | 45 | 94 | 18 | 25 | 29 | 0 |
| | Mzimba | 45 | 49 | 41 | 19 | 67 | 12 |
| | Kasungu | 39 | 62 | 28 | 10 | 34 | 6 |
| | Ntchisi | 30 | 50 | 42 | 13 | 35 | 12 |
| | Dowa | 44 | 59 | 33 | 16 | 40 | 14 |
| | Nkhota kota | 41 | 60 | 19 | 10 | 32 | 9 |
| | Salima | 49 | 40 | 31 | 25 | 27 | 10 |
| | Dedza | 33 | 54 | 31 | 23 | 34 | 8 |
| | Ntcheu | 45 | 62 | 45 | 15 | 60 | 6 |
| | Lilongwe Rural | 27 | 43 | 27 | 28 | 38 | 11 |
| | Mchinji | 29 | 46 | 48 | 25 | 42 | 12 |
| | Balaka | 34 | 53 | 23 | 8 | 61 | 9 |
| | Mangochi | 40 | 54 | 17 | 10 | 40 | 10 |
| | Machinga | 34 | 63 | 37 | 28 | 43 | 14 |
| | Zomba Rural | 43 | 57 | 30 | 18 | 37 | 11 |
| | Chiradzulu | 56 | 53 | 54 | 42 | 52 | 29 |
| | Blantyre Rural | 18 | 47 | 22 | 18 | 29 | 10 |
| | Thyolo | 45 | 62 | 23 | 13 | 43 | 8 |
| | Mulanje | 58 | 56 | 10 | 7 | 30 | 5 |
| | Phalombe | 36 | 46 | 38 | 11 | 34 | 10 |
| | Mwanza | 35 | 41 | 53 | 17 | 58 | 4 |
| | Chikwawa | 50 | 55 | 27 | 17 | 32 | 15 |
| | Nsanje | 24 | 18 | 40 | 19 | 47 | 10 |

# Chapter 5: Livestock and Poultry

## 5.1 Introduction

Ownership of livestock and poultry at household level is important for food security as a source of food and as an asset to be sold if need arises. This chapter presents figures on the ownership, number, and types of livestock and poultry in Malawi.

## 5.2 Ownership of livestock and poultry

Table 5.1 shows that 57 percent of the households in Malawi owned or kept livestock or poultry. The proportion who owned or kept livestock was larger among male headed households as compared to female headed households, 61 percent and 48 percent, respectively. Households in the Northern region were more likely to have kept livestock than households in the other regions, 77 percent compared to 51 and 57 percent for the Southern and Central regions, respectively.

The table further shows that 49 percent of households in Malawi owned at least one chicken, 24 percent owned at least one goat, 9 percent owned at least one pig, 6 percent owned at least one head of cattle and two percent owned at least one sheep. Except for sheep, male headed households were more likely to own the major types of livestock and poultry as compared to female headed households. Across the regions, households in the Northern region were more likely to own cattle, pigs and chickens as compared to households in the Central and Southern regions.

## 5.3 Number of major types of livestock and poultry

Table 5.2 shows that there were 884,132 heads of cattle in Malawi, 2,623,017 goats, 76,613 sheep, 792,364 pigs and 7,557,746 chickens . The table further shows that 434,743 heads of cattle were in the Northern region, 262,745 in the Central region, 186, 644 in the Southern region. Central region had 1,118,254 goats, Southern region, 1,083,799 and Northern region, 420,964 goats

The results further indicate that there were 452,937 pigs in Central region, 187,275 in Northern region, 152,151 in Southern region. The Central region had 3,282,044 chickens, while the Southern and Northern regions had, 2,755,513, and 1,520,189 ,respectively.

## 5.4 Number of other types of livestock and poultry

Data on other types of livestock and poultry, such as donkeys, rabbits, guinea pigs, ducks, guinea fowls, doves and turkeys.

Table 5.3 shows that there were 14,191 donkeys, 167,501 rabbits, 34,011 Guinea pigs, 429,171 ducks, 281,514 guinea fowls, 610,575 doves and 61,081 turkeys in the small holder sector as at the time of the Census.

**Table 5.1: Proportion of households who owned major classes of livestock, according to background variables , 2006/2007 Agricultural Season**

| | | | Proportion by livestock type | | | | |
|---|---|---|---|---|---|---|---|
| | | Proportion of Households owned or kept livestock or poultry | Cattle | Goats | Sheep | Pigs | Chicken |
| | **Malawi** | 57 | 6 | 24 | 2 | 9 | 49 |
| **Sex of household head** | Male | 61 | 7 | 25 | 2 | 10 | 52 |
| | Female | 48 | 5 | 20 | 2 | 5 | 41 |
| **Poverty quintiles** | Poorest quintile | 53 | 5 | 23 | 2 | 7 | 44 |
| | Second quintile | 58 | 6 | 24 | 2 | 10 | 50 |
| | Third quintile | 58 | 8 | 26 | 2 | 11 | 48 |
| | Fourth quintile | 60 | 7 | 25 | 2 | 8 | 55 |
| | Highest quintile | 51 | 5 | 19 | 2 | 7 | 46 |
| **Region** | Northern | 77 | 25 | 22 | 3 | 21 | 70 |
| | Central | 57 | 4 | 23 | 1 | 9 | 45 |
| | Southern | 51 | 3 | 21 | 2 | 5 | 40 |
| **ADD** | Karonga | 81 | 36 | 19 | 2 | 32 | 72 |
| | Mzuzu | 75 | 20 | 24 | 4 | 16 | 69 |
| | Kasungu | 65 | 8 | 25 | 2 | 13 | 53 |
| | Salima | 49 | 1 | 17 | 2 | 4 | 37 |
| | Lilongwe | 55 | 3 | 23 | 0 | 8 | 43 |
| | Machinga | 49 | 2 | 19 | 2 | 2 | 38 |
| | Blantyre | 51 | 2 | 21 | 2 | 6 | 41 |
| | Shire Valley | 60 | 9 | 31 | 4 | 7 | 45 |
| **District** | Chitipa | 83 | 35 | 27 | 2 | 22 | 78 |
| | Karonga | 81 | 37 | 14 | 1 | 39 | 68 |
| | Rumphi | 82 | 12 | 21 | 5 | 15 | 72 |
| | Nkhata Bay | 71 | 5 | 18 | 1 | 4 | 73 |
| | Likoma | 88 | 2 | 41 | 3 | 0 | 73 |
| | Mzimba | 81 | 29 | 29 | 5 | 21 | 75 |
| | Mzuzu city | 28 | 1 | 1 | 0 | 2 | 24 |
| | Kasungu | 71 | 6 | 23 | 4 | 15 | 58 |
| | Ntchisi | 70 | 10 | 31 | 0 | 21 | 56 |
| | Dowa | 61 | 6 | 30 | 2 | 11 | 49 |
| | Nkhotakota | 49 | 1 | 9 | 3 | 3 | 42 |
| | Salima | 49 | 2 | 23 | 1 | 4 | 33 |
| | Dedza | 56 | 3 | 29 | 1 | 10 | 48 |
| | Ntcheu | 56 | 4 | 25 | 0 | 10 | 44 |
| | Lilongwe rural | 56 | 2 | 26 | 0 | 7 | 42 |
| | Lilongwe city | 50 | 2 | 11 | 0 | 5 | 37 |
| | Mchinji | 61 | 11 | 21 | 0 | 10 | 53 |
| | Balaka | 52 | 2 | 22 | 3 | 4 | 43 |
| | Mangochi | 44 | 2 | 19 | 1 | 1 | 33 |
| | Machinga | 46 | 2 | 17 | 4 | 1 | 34 |
| | Zomba rural | 58 | 2 | 21 | 2 | 2 | 46 |
| | Zomba City | 27 | 4 | 2 | 0 | 3 | 19 |
| | Chiradzulu | 59 | 7 | 41 | 8 | 11 | 50 |
| | Blantyre rural | 55 | 3 | 20 | 1 | 6 | 45 |
| | Blantyre city | 26 | 0 | 6 | 0 | 0 | 22 |
| | Thyolo | 65 | 3 | 20 | 2 | 10 | 54 |
| | Mulanje | 47 | 1 | 27 | 2 | 1 | 37 |
| | Phalombe | 52 | 3 | 25 | 1 | 12 | 37 |
| | Mwanza | 70 | 5 | 28 | 4 | 13 | 64 |
| | Chikwawa | 58 | 11 | 31 | 4 | 7 | 43 |
| | Nsanje | 63 | 7 | 32 | 4 | 6 | 50 |

**Table 5.2: Total number of livestock and poultry owned, according to background variables , 2006/2007 Agricultural Season**

| | | Cattle | goats | sheep | pigs | Chicken |
|---|---|---|---|---|---|---|
| Region | Malawi | 884,132 | 2,623,017 | 76,613 | 792,364 | 7,557,746 |
| | Northern | 434,743 | 420,964 | 25,622 | 187,275 | 1,520,189 |
| | Central | 262,745 | 1,118,254 | 25,189 | 452,937 | 3,282,044 |
| | Southern | 186,644 | 1,083,799 | 25,801 | 152,151 | 2,755,513 |
| ADD | Karonga | 147,256 | 45,273 | 2,017 | 79,070 | 395,226 |
| | Mzuzu | 287,487 | 375,691 | 23,605 | 108,205 | 1,124,963 |
| | Kasungu | 155,264 | 393,838 | 11,922 | 197,991 | 1,149,008 |
| | Salima | 8,054 | 105,065 | 9,534 | 32,714 | 292,338 |
| | Lilongwe | 99,427 | 619,351 | 3,733 | 222,231 | 1,840,697 |
| | Machinga | 45,808 | 382,624 | 18,945 | 21,749 | 1,031,434 |
| | Blantyre | 39,246 | 486,143 | 4,689 | 101,012 | 1,345,551 |
| | Shire Valley | 101,590 | 215,031 | 2,167 | 29,390 | 378,529 |
| District | Chitipa | 59,382 | 28,736 | 1,686 | 19,686 | 183,186 |
| | Karonga | 87,874 | 16,537 | 331 | 59,384 | 212,041 |
| | Rumphi | 13,564 | 32,813 | 3,742 | 22,558 | 170,685 |
| | Nkhata Bay | 3,110 | 21,329 | 741 | 3,829 | 167,738 |
| | Likoma | 76 | 2,645 | .. | .. | 8,988 |
| | Mzimba | 269,754 | 318,375 | 18,959 | 80,625 | 740,687 |
| | Mzuzu city | 982 | 529 | 163 | 1,193 | 36,865 |
| | Kasungu | 46,191 | 123,195 | 4,011 | 75,957 | 440,587 |
| | Ntchisi | 19,408 | 57,168 | 755 | 40,051 | 159,164 |
| | Dowa | 36,396 | 157,165 | 7,016 | 45,206 | 289,072 |
| | Nkhotakota | 2,714 | 26,528 | 7,728 | 9,538 | 153,800 |
| | Salima | 5,340 | 78,537 | 1,806 | 23,177 | 138,538 |
| | Dedza | 42,629 | 141,972 | 1,949 | 59,955 | 383,481 |
| | Ntcheu | 21,991 | 102,846 | 206 | 41,311 | 245,094 |
| | Lilongwe rural | 25,170 | 257,579 | 1,577 | 83,354 | 560,804 |
| | Lilongwe city | 9,636 | 116,955 | .. | 37,612 | 651,318 |
| | Mchinji | 53,270 | 56,310 | 141 | 36,777 | 260,185 |
| | Balaka | 7,648 | 53,822 | 5,042 | 7,980 | 155,304 |
| | Mangochi | 15,771 | 139,957 | 6,953 | 2,875 | 270,704 |
| | Machinga | 8,921 | 82,241 | 3,296 | 1,912 | 208,464 |
| | Zomba rural | 11,394 | 105,336 | 3,552 | 8,076 | 358,128 |
| | Zomba City | 2,075 | 1,268 | 101 | 906 | 38,834 |
| | Chiradzulu | 4,064 | 77,381 | 1,645 | 12,424 | 149,277 |
| | Blantyre rural | 7,600 | 49,560 | 899 | 9,172 | 149,691 |
| | Blantyre city | 354 | 53,989 | .. | 773 | 277,979 |
| | Thyolo | 3,290 | 80,479 | 3 | 37,927 | 338,347 |
| | Mulanje | 2,174 | 115,052 | 1,397 | 3,842 | 162,658 |
| | Phalombe | 10,300 | 60,882 | 351 | 17,710 | 103,603 |
| | Mwanza | 11,464 | 48,800 | 393 | 19,164 | 163,995 |
| | Chikwawa | 74,065 | 138,359 | 1,919 | 18,544 | 240,633 |
| | Nsanje | 27,525 | 76,672 | 248 | 10,846 | 137,895 |

**Table 5.3: Population of minor classes of livestock and poultry, according to background characteristics , 2006/2007 Agricultural Season**

| | | Donkeys | Rabbits | Guinea pigs | Ducks | Guinea fowls | Pegions/Doves | Turkeys |
|---|---|---|---|---|---|---|---|---|
| | **Malawi** | 14,191 | 167,501 | 34,011 | 429,171 | 281,514 | 610,575 | 61,081 |
| **Region** | Northern | 3,144 | 18,839 | 3,693 | 66,120 | 63,586 | 215,288 | 25,193 |
| | Central | 2,779 | 86,199 | 19,185 | 156,261 | 124,485 | 173,937 | 10,464 |
| | Southern | 8,268 | 62,463 | 11,133 | 206,790 | 93,442 | 221,350 | 25,423 |
| **ADD** | Karonga | | 1,834 | 52 | 16,194 | 9,992 | 54,802 | 796 |
| | Mzuzu | 3,144 | 17,005 | 3,640 | 49,926 | 53,594 | 160,485 | 24,397 |
| | Kasungu | 516 | 42,773 | 1,357 | 41,259 | 46,352 | 106,151 | 1,374 |
| | Salima | | 5,894 | 441 | 20,972 | 22,315 | 13,016 | 623 |
| | Lilongwe | 2,264 | 37,532 | 17,387 | 94,029 | 55,818 | 54,770 | 8,468 |
| | Machinga | 2,465 | 17,808 | 4,538 | 105,856 | 39,652 | 121,183 | 8,430 |
| | Blantyre | 5,351 | 42,196 | 5,477 | 52,839 | 21,390 | 80,213 | 13,177 |
| | Shire Valley | 452 | 2,459 | 1,118 | 48,095 | 32,400 | 19,954 | 3,816 |
| **District** | Chitipa | | 1,832 | | 4,812 | 3,472 | 21,891 | 796 |
| | Karonga | | 2 | 52 | 11,382 | 6,521 | 32,911 | |
| | Rumphi | | 5,366 | 2 | 12,109 | 3,873 | 15,305 | 153 |
| | Nkhata Bay | | 3,224 | | 19,609 | 9,903 | 14,668 | 9,410 |
| | Likoma | | | | 271 | 52 | 102 | 102 |
| | Mzimba | 3,144 | 6,043 | 3,638 | 14,313 | 38,449 | 127,682 | 13,391 |
| | Mzuzu city | | 2,371 | | 3,624 | 1,317 | 2,728 | 1,342 |
| | Kasungu | 421 | 12,047 | 425 | 4,210 | 20,743 | 50,455 | 6 |
| | Ntchisi | 31 | 9,353 | 88 | 8,984 | 13,707 | 5,917 | 185 |
| | Dowa | 63 | 19,364 | 585 | 18,568 | 5,538 | 35,444 | 6 |
| | Nkhotakota | | 3,702 | 441 | 4,633 | 5,515 | 4,670 | 201 |
| | Salima | | 2,192 | | 16,339 | 16,800 | 8,345 | 422 |
| | Dedza | | 18,055 | 737 | 34,123 | 11,836 | 8,994 | 6,027 |
| | Ntcheu | | 4,414 | 4,291 | 5,940 | 6,301 | 21,665 | 565 |
| | Lilongwe rural | 1,653 | 9,234 | 12,359 | 15,492 | 25,104 | 20,377 | 1,331 |
| | Lilongwe city | 610 | 5,828 | | 38,474 | 12,578 | 3,733 | 545 |
| | Mchinji | | 2,009 | 260 | 9,497 | 6,364 | 14,335 | 1,177 |
| | Balaka | 27 | 4,867 | 1,181 | 10,542 | 7,764 | 16,184 | 1,440 |
| | Mangochi | 1,149 | 818 | 1,823 | 42,059 | 8,837 | 52,585 | 480 |
| | Machinga | 510 | 3,445 | 508 | 18,154 | 14,644 | 28,209 | 551 |
| | Zomba rural | 387 | 7,080 | 506 | 32,818 | 8,016 | 23,638 | 5,908 |
| | Zomba City | 392 | 1,599 | 521 | 2,282 | 391 | 567 | 51 |
| | Chiradzulu | 242 | 5,923 | 177 | 10,333 | 3,738 | 18,792 | 6,974 |
| | Blantyre rural | | 1,468 | 2,639 | 8,505 | 3,438 | 11,912 | 2,574 |
| | Blantyre city | | 226 | | 2,559 | | 1,083 | 483 |
| | Thyolo | 510 | 13,176 | 1,393 | 7,488 | 4,152 | 22,737 | 181 |
| | Mulanje | 4,575 | 14,246 | 660 | 10,340 | 2,519 | 6,260 | 544 |
| | Phalombe | 1 | 3,924 | | 10,436 | 3,972 | 10,531 | 2,309 |
| | Mwanza | 23 | 3,233 | 608 | 3,179 | 3,571 | 8,898 | 112 |
| | Chikwawa | 115 | | 1 | 21,264 | 13,710 | 14,223 | 2,570 |
| | Nsanje | 336 | 2,459 | 1,117 | 26,831 | 18,691 | 5,731 | 1,246 |

# Chapter 6: Village information

## 6.1 Introduction

The NACAL also collected information on geographical and social context in which agricultural activities took place. The village is the lowest level of the decentralized administrative system in Malawi, and many aspects important to agricultural activities, such as access to, and use of land, are regulated at this level.

Villages were sampled based on the sampling frame of the 1998 Population and Housing Census. All villages found within the sampled enumeration areas were included in the sample, whether the whole village or only part of the village was located inside the Enumeration area; provided that the village had been identified during the 1998 Population and Housing Census , giving an average of 3 villages per enumeration area.

## 6.2 Physical infrastructure

Table 6.1 shows that 62 percent of the villages had a foot path, 60 percent had a track, 30 percent gravel road and 8 percent tarmac roads passing through the village. Table 6.2 shows that 56 percent of villages without tarmac or gravel road passing through the village were located 4 km or more from the nearest all season road. Table 6.3 shows that 75 percent of villages without tarmac or gravel roads accessed nearest all season road by foot, 22 percent by bicycle and 2 percent by public transport.

## 6.3 Access to financial institutions

The Census collected information on availability of financial institutions such as banks and other credit giving institutions. Table 6.4 indicates that one out of every four villages were located within a 10 km distance from a financial institution and 17 percent of the villages were located 50km or more from such an institution.

## 6.4 Access to marketing agents in agriculture

Access and proximity to marketing agents is important both for provision of inputs and selling of produce. Table 6.5 indicate that 72 percent of villages were located less than 5 kilometers to local markets or mobile markets and 58 percent were located less than 5km to ADMARC depot.

## 6.5 Transportation of produce to markets

Table 6.6 shows that 53 percent of villages transported farm produce to the market by head, 35 percent by bicycle, 6 percent by ox or donkeyï cart and 5 percent by public transport or matola.

## 6.6 Migration to and from villages

The Census results indicate that in one out of three villages, households moved away during the past 12 months (Table 6.7). Among villages in which households moved away, 61 percent moved outside the TA, 39 percent moved to another village within the TA. Table 6.8 indicate that 33 percent of the households moved away to look for land for cultivation, 20 percent to look for paid work and 10 percent run away from conflict among households.

### 6.7 Types of marriage and payment of lobola

Results show that 40 percent of the villages were matrilineal and matrilocal, 28 percent patrilineal and patrilocal systems, 24 percent matrilineal and patrilocal, and 4 percent Matrilineal and Neo local marriages. (Table 6.9).

### 6.8 Conflict over land

Table 6.10 indicate that 47 percent of villages had conflicts over land, 29 percent between family groups and households, 20 percent between villages and 5 percent between villages and estates.

**Table 6.1: Proportion of villages by type of road that passes through the village, according to area of residence , 2006/2007 Agricultural Season.**

| | | Tarmac | Gravel road | Track | Foot path | Other |
|---|---|---|---|---|---|---|
| | Malawi | 8 | 30 | 60 | 62 | 4 |
| Region | Northern | 10 | 38 | 51 | 60 | 5 |
| | Central | 9 | 31 | 58 | 59 | 4 |
| | Southern | 7 | 24 | 67 | 66 | 4 |
| ADD | Karonga | 13 | 37 | 58 | 63 | 3 |
| | Mzuzu | 9 | 39 | 48 | 59 | 5 |
| | Kasungu | 7 | 36 | 56 | 54 | 5 |
| | Salima | 18 | 32 | 62 | 63 | 4 |
| | Lilongwe | 7 | 24 | 60 | 64 | 2 |
| | Machinga | 8 | 21 | 64 | 69 | 6 |
| | Blantyre | 8 | 28 | 70 | 65 | 4 |
| | Shire Valley | 2 | 22 | 65 | 58 | 1 |
| District | Chitipa | 1 | 47 | 46 | 55 | 3 |
| | Karonga | 28 | 24 | 71 | 71 | 3 |
| | Rumphi | 11 | 37 | 47 | 65 | 0 |
| | Nkhata Bay | 19 | 46 | 41 | 46 | 21 |
| | Likoma | 0 | 100 | 54 | 77 | 8 |
| | Mzimba | 3 | 34 | 52 | 62 | 2 |
| | Kasungu | 10 | 33 | 55 | 39 | 1 |
| | Ntchisi | 4 | 31 | 57 | 62 | 10 |
| | Dowa | 7 | 45 | 52 | 59 | 11 |
| | Nkhota kota | 27 | 29 | 59 | 59 | 1 |
| | Salima | 12 | 35 | 64 | 66 | 6 |
| | Dedza | 11 | 25 | 57 | 63 | 3 |
| | Ntcheu | 11 | 45 | 55 | 63 | 4 |
| | Lilongwe Rural | 5 | 19 | 61 | 64 | 1 |
| | Mchinji | 5 | 37 | 60 | 61 | 1 |
| | Balaka | 13 | 26 | 65 | 61 | 8 |
| | Mangochi | 15 | 18 | 67 | 63 | 2 |
| | Machinga | 3 | 28 | 56 | 67 | 2 |
| | Zomba Rural | 7 | 15 | 67 | 76 | 10 |
| | Chirazulu | 8 | 42 | 71 | 83 | 6 |
| | Blantyre Rural | 15 | 20 | 62 | 56 | 0 |
| | Thyolo | 2 | 29 | 81 | 73 | 2 |
| | Mulanje | 3 | 13 | 62 | 51 | 12 |
| | Phalombe | 0 | 15 | 83 | 60 | 0 |
| | Mwanza | 11 | 44 | 71 | 55 | 1 |
| | Chikwawa | 5 | 17 | 56 | 57 | 1 |
| | Nsanje | 0 | 26 | 72 | 58 | 1 |

**Table 6.2: Percentage distribution of villages without tarmac and gravel roads by distance to nearest all season road, according to area of residence , 2006/2007 Agricultural Season.**

| | | 0-1 km | 2 km | 3 km | 4 km+ | Total |
|---|---|---|---|---|---|---|
| | Malawi | 26 | 10 | 9 | 56 | 100 |
| Region | Northern | 35 | 10 | 10 | 45 | 100 |
| | Central | 24 | 10 | 10 | 56 | 100 |
| | Southern | 23 | 9 | 6 | 62 | 100 |
| ADD | Karonga | 28 | 10 | 12 | 50 | 100 |
| | Mzuzu | 38 | 10 | 9 | 43 | 100 |
| | Kasungu | 24 | 11 | 9 | 56 | 100 |
| | Salima | 20 | 11 | 11 | 59 | 100 |
| | Lilongwe | 26 | 9 | 10 | 54 | 100 |
| | Machinga | 16 | 7 | 5 | 72 | 100 |
| | Blantyre | 27 | 9 | 9 | 55 | 100 |
| | Shire Valley | 37 | 14 | 4 | 46 | 100 |
| District | Chitipa | 15 | 9 | 14 | 62 | 100 |
| | Karonga | 42 | 11 | 9 | 38 | 100 |
| | Rumphi | 44 | 8 | 7 | 41 | 100 |
| | Nkhata Bay | 36 | 12 | 11 | 41 | 100 |
| | Likoma | 100 | 0 | 0 | 0 | 100 |
| | Mzimba | 33 | 11 | 10 | 46 | 100 |
| | Kasungu | 21 | 11 | 9 | 59 | 100 |
| | Ntchisi | 17 | 10 | 8 | 65 | 100 |
| | Dowa | 31 | 5 | 5 | 59 | 100 |
| | Nkhotakota | 33 | 18 | 11 | 39 | 100 |
| | Salima | 13 | 7 | 11 | 70 | 100 |
| | Dedza | 21 | 9 | 9 | 61 | 100 |
| | Ntcheu | 39 | 7 | 11 | 43 | 100 |
| | Lilongwe rural | 25 | 10 | 11 | 54 | 100 |
| | Mchinji | 27 | 17 | 16 | 41 | 100 |
| | Balaka | 12 | 10 | 4 | 73 | 100 |
| | Mangochi | 16 | 10 | 4 | 70 | 100 |
| | Machinga | 17 | 6 | 6 | 70 | 100 |
| | Zomba rural | 16 | 6 | 5 | 74 | 100 |
| | Chiradzulu | 41 | 7 | 7 | 44 | 100 |
| | Blantyre rural | 19 | 8 | 8 | 65 | 100 |
| | Thyolo | 23 | 9 | 9 | 59 | 100 |
| | Mulanje | 19 | 13 | 12 | 56 | 100 |
| | Phalombe | 42 | 8 | 13 | 37 | 100 |
| | Mwanza | 20 | 7 | 7 | 67 | 100 |
| | Chikwawa | 21 | 10 | 2 | 68 | 100 |
| | Nsanje | 51 | 18 | 5 | 27 | 100 |

**Table 6.3: Percentage distribution of villages without tarmac and gravel roads by how villagers access nearest all season road, according to area of residence , 2006/2007 Agricultural Season.**

| | | On foot | Bicycle | Motor vehicle | Public transport | Other | Total |
|---|---|---|---|---|---|---|---|
| | Malawi | 75 | 22 | 1 | 2 | 0 | 100 |
| Region | Northern | 93 | 5 | 1 | 0 | 0 | 100 |
| | Central | 70 | 26 | 2 | 2 | 0 | 100 |
| | Southern | 72 | 25 | 1 | 2 | 0 | 100 |
| ADD | Karonga | 89 | 10 | 0 | 0 | 1 | 100 |
| | Mzuzu | 95 | 3 | 1 | 1 | 0 | 100 |
| | Kasungu | 70 | 24 | 3 | 3 | 0 | 100 |
| | Salima | 60 | 40 | 0 | 0 | 0 | 100 |
| | Lilongwe | 73 | 23 | 1 | 2 | 0 | 100 |
| | Machinga | 64 | 35 | 0 | 1 | 0 | 100 |
| | Blantyre | 81 | 15 | 1 | 3 | 0 | 100 |
| | Shire Valley | 75 | 20 | 2 | 3 | 0 | 100 |
| District | Chitipa | 91 | 8 | 0 | 0 | 1 | 100 |
| | Karonga | 88 | 13 | 0 | 0 | 0 | 100 |
| | Rumphi | 96 | 3 | 1 | 0 | 0 | 100 |
| | Nkhata Bay | 95 | 5 | 0 | 0 | 0 | 100 |
| | Likoma | 100 | 0 | 0 | 0 | 0 | 100 |
| | Mzimba | 94 | 3 | 2 | 1 | 0 | 100 |
| | Kasungu | 60 | 25 | 9 | 6 | 0 | 100 |
| | Ntchisi | 80 | 20 | 0 | 1 | 0 | 100 |
| | Dowa | 69 | 28 | 1 | 2 | 1 | 100 |
| | Nkhotakota | 59 | 40 | 0 | 0 | 1 | 100 |
| | Salima | 60 | 40 | 0 | 0 | 0 | 100 |
| | Dedza | 70 | 28 | 1 | 2 | 0 | 100 |
| | Ntcheu | 88 | 10 | 0 | 1 | 1 | 100 |
| | Lilongwe rural | 71 | 24 | 2 | 2 | 0 | 100 |
| | Mchinji | 77 | 23 | 0 | 0 | 1 | 100 |
| | Balaka | 68 | 32 | 0 | 0 | 0 | 100 |
| | Mangochi | 53 | 47 | 0 | 0 | 0 | 100 |
| | Machinga | 65 | 33 | 0 | 1 | 1 | 100 |
| | Zomba rural | 67 | 32 | 0 | 1 | 1 | 100 |
| | Chiradzulu | 83 | 8 | 0 | 10 | 0 | 100 |
| | Blantyre rural | 98 | 2 | 0 | 0 | 0 | 100 |
| | Thyolo | 84 | 11 | 4 | 0 | 1 | 100 |
| | Mulanje | 65 | 35 | 0 | 0 | 0 | 100 |
| | Phalombe | 71 | 29 | 0 | 0 | 0 | 100 |
| | Mwanza | 79 | 14 | 1 | 6 | 0 | 100 |
| | Chikwawa | 55 | 34 | 5 | 6 | 1 | 100 |
| | Nsanje | 93 | 7 | 0 | 0 | 0 | 100 |

**Table 6.4: Percentage distribution of villages by access to nearest financial institution, according to area of residence. 2006/2007 Agricultural Season.**

| | | Less than 5 km | 5-9 km | 10-19 km | 20-49 km | 50 km+ | Total |
|---|---|---|---|---|---|---|---|
| | Malawi | 14 | 11 | 22 | 36 | 17 | 100 |
| Region | Northern | 15 | 10 | 19 | 34 | 22 | 100 |
| | Central | 10 | 9 | 20 | 40 | 21 | 100 |
| | Southern | 19 | 13 | 27 | 32 | 9 | 100 |
| ADD | Karonga | 16 | 9 | 24 | 34 | 16 | 100 |
| | Mzuzu | 15 | 10 | 16 | 34 | 25 | 100 |
| | Kasungu | 11 | 8 | 23 | 30 | 28 | 100 |
| | Salima | 9 | 4 | 21 | 51 | 15 | 100 |
| | Lilongwe | 9 | 12 | 17 | 46 | 16 | 100 |
| | Machinga | 13 | 12 | 22 | 40 | 13 | 100 |
| | Blantyre | 23 | 14 | 31 | 27 | 5 | 100 |
| | Shire Valley | 26 | 10 | 30 | 22 | 11 | 100 |
| District | Chitipa | 11 | 5 | 17 | 49 | 17 | 100 |
| | Karonga | 22 | 14 | 32 | 17 | 16 | 100 |
| | Rumphi | 9 | 2 | 20 | 32 | 37 | 100 |
| | Nkhata Bay | 18 | 23 | 14 | 33 | 11 | 100 |
| | Likoma | 100 | 0 | 0 | 0 | 0 | 100 |
| | Mzimba | 17 | 11 | 14 | 36 | 21 | 100 |
| | Kasungu | 10 | 5 | 15 | 32 | 38 | 100 |
| | Ntchisi | 17 | 6 | 34 | 24 | 20 | 100 |
| | Dowa | 13 | 9 | 32 | 29 | 17 | 100 |
| | Nkhotakota | 15 | 6 | 13 | 45 | 21 | 100 |
| | Salima | 5 | 3 | 27 | 56 | 9 | 100 |
| | Dedza | 12 | 13 | 15 | 44 | 15 | 100 |
| | Ntcheu | 13 | 6 | 20 | 30 | 31 | 100 |
| | Lilongwe rural | 7 | 12 | 17 | 51 | 13 | 100 |
| | Mchinji | 7 | 15 | 19 | 31 | 27 | 100 |
| | Balaka | 15 | 11 | 33 | 23 | 18 | 100 |
| | Mangochi | 10 | 7 | 18 | 38 | 27 | 100 |
| | Machinga | 4 | 15 | 24 | 45 | 12 | 100 |
| | Zomba rural | 18 | 13 | 19 | 44 | 6 | 100 |
| | Chiradzulu | 23 | 13 | 33 | 30 | 1 | 100 |
| | Blantyre rural | 21 | 18 | 48 | 12 | 1 | 100 |
| | Thyolo | 14 | 21 | 20 | 35 | 10 | 100 |
| | Mulanje | 31 | 16 | 25 | 25 | 3 | 100 |
| | Phalombe | 33 | 4 | 22 | 33 | 7 | 100 |
| | Mwanza | 14 | 11 | 26 | 33 | 17 | 100 |
| | Chikwawa | 21 | 13 | 18 | 25 | 24 | 100 |
| | Nsanje | 31 | 8 | 41 | 20 | 0 | 100 |

**Table 6.5: Proportion of villages with short distance (Less than 5 kilometer ) to marketing organizations, according to area of residence , 2006/2007 Agricultural Season. Cont'**

| | | Agora | ADMARC | Kulima Gold | Farmers world | Private traders |
|---|---|---|---|---|---|---|
| | Malawi | 16 | 58 | 17 | 19 | 60 |
| Region | Northern | 10 | 59 | 15 | 26 | 57 |
| | Central | 13 | 54 | 19 | 24 | 62 |
| | Southern | 22 | 63 | 16 | 11 | 60 |
| ADD | Karonga | 7 | 61 | 5 | 17 | 50 |
| | Mzuzu | 11 | 58 | 21 | 30 | 60 |
| | Kasungu | 14 | 47 | 25 | 28 | 64 |
| | Salima | 9 | 46 | 13 | 13 | 54 |
| | Lilongwe | 13 | 64 | 16 | 23 | 64 |
| | Machinga | 28 | 57 | 19 | 14 | 53 |
| | Blantyre | 19 | 64 | 17 | 12 | 65 |
| | Shire Valley | 14 | 83 | 5 | 2 | 65 |
| District | Chitipa | 5 | 59 | 6 | 14 | 46 |
| | Karonga | 9 | 63 | 5 | 20 | 54 |
| | Rumphi | 4 | 50 | 10 | 27 | 54 |
| | Nkhata Bay | 10 | 50 | 18 | 17 | 72 |
| | Likoma | 0 | 86 | 0 | 0 | 71 |
| | Mzimba | 17 | 66 | 31 | 40 | 58 |
| | Kasungu | 17 | 40 | 25 | 27 | 60 |
| | Ntchisi | 16 | 56 | 23 | 23 | 73 |
| | Dowa | 14 | 48 | 27 | 35 | 63 |
| | Nkhotakota | 12 | 52 | 23 | 23 | 55 |
| | Salima | 6 | 40 | 4 | 4 | 53 |
| | Dedza | 19 | 49 | 23 | 31 | 70 |
| | Ntcheu | 28 | 66 | 20 | 15 | 65 |
| | Lilongwe rural | 7 | 69 | 12 | 22 | 61 |
| | Mchinji | 8 | 48 | 24 | 25 | 61 |
| | Balaka | 24 | 43 | 17 | 17 | 51 |
| | Mangochi | 13 | 45 | 9 | 8 | 38 |
| | Machinga | 18 | 47 | 6 | 4 | 50 |
| | Zomba rural | 41 | 72 | 32 | 22 | 63 |
| | Chiradzulu | 10 | 70 | 9 | 9 | 75 |
| | Blantyre rural | 29 | 70 | 26 | 15 | 56 |
| | Thyolo | 16 | 60 | 16 | 13 | 55 |
| | Mulanje | 26 | 49 | 26 | 20 | 62 |
| | Phalombe | 19 | 79 | 13 | 3 | 69 |
| | Mwanza | 16 | 50 | 16 | 11 | 66 |
| | Chikwawa | 14 | 72 | 9 | 3 | 63 |
| | Nsanje | 15 | 92 | 2 | 1 | 67 |

**Table 6.5: Proportion of villages with short distance (Less than 5 kilometer) to marketing organizations, according to area of residence , 2006/2007 Agricultural Season.**

| | | Local market | Mobile market | Finca | Mardef | SFFRM | Transglobe |
|---|---|---|---|---|---|---|---|
| | Malawi | 72 | 72 | 14 | 14 | 13 | 7 |
| Region | Northern | 72 | 69 | 14 | 14 | 18 | 5 |
| | Central | 71 | 74 | 12 | 12 | 11 | 6 |
| | Southern | 74 | 71 | 17 | 15 | 12 | 9 |
| ADD | Karonga | 76 | 67 | 8 | 16 | 15 | 2 |
| | Mzuzu | 70 | 70 | 17 | 13 | 20 | 7 |
| | Kasungu | 73 | 75 | 16 | 15 | 16 | 9 |
| | Salima | 71 | 78 | 10 | 15 | 14 | 5 |
| | Lilongwe | 70 | 72 | 8 | 8 | 5 | 4 |
| | Machinga | 73 | 71 | 13 | 15 | 12 | 9 |
| | Blantyre | 73 | 77 | 18 | 16 | 15 | 10 |
| | Shire Valley | 78 | 56 | 26 | 14 | 4 | 3 |
| District | Chitipa | 64 | 53 | 6 | 16 | 17 | 5 |
| | Karonga | 85 | 78 | 9 | 16 | 13 | 0 |
| | Rumphi | 68 | 71 | 1 | 5 | 18 | 1 |
| | Nkhata Bay | 80 | 75 | 22 | 14 | 2 | 2 |
| | Likoma | 43 | 0 | 0 | 0 | 0 | 0 |
| | Mzimba | 68 | 71 | 29 | 19 | 29 | 14 |
| | Kasungu | 68 | 68 | 15 | 13 | 14 | 7 |
| | Ntchisi | 87 | 75 | 22 | 25 | 20 | 15 |
| | Dowa | 72 | 77 | 18 | 13 | 16 | 8 |
| | Nkhotakota | 70 | 80 | 13 | 11 | 21 | 7 |
| | Salima | 71 | 75 | 7 | 18 | 7 | 3 |
| | Dedza | 77 | 71 | 18 | 12 | 6 | 4 |
| | Ntcheu | 62 | 70 | 18 | 16 | 8 | 7 |
| | Lilongwe rural | 69 | 73 | 2 | 5 | 4 | 3 |
| | Mchinji | 63 | 83 | 10 | 6 | 14 | 4 |
| | Balaka | 75 | 76 | 23 | 29 | 11 | 11 |
| | Mangochi | 59 | 75 | 8 | 10 | 10 | 8 |
| | Machinga | 68 | 89 | 5 | 6 | 10 | 3 |
| | Zomba rural | 81 | 56 | 17 | 18 | 15 | 13 |
| | Chiradzulu | 86 | 88 | 8 | 8 | 10 | 7 |
| | Blantyre rural | 63 | 66 | 22 | 17 | 12 | 18 |
| | Thyolo | 70 | 84 | 12 | 19 | 12 | 10 |
| | Mulanje | 66 | 79 | 28 | 20 | 30 | 16 |
| | Phalombe | 76 | 70 | 24 | 26 | 16 | 1 |
| | Mwanza | 64 | 64 | 20 | 14 | 11 | 9 |
| | Chikwawa | 71 | 45 | 19 | 7 | 5 | 3 |
| | Nsanje | 84 | 66 | 31 | 20 | 3 | 2 |

**Table 6.6: Percentage distribution of villages by how produce was transported to selling point, according to area of residence , 2006/2007 Agricultural Season.**

| | | On head | Bicycle | Motor bike | Own Motor vehicle | Matola | Public transport | Ox or donkey cart | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Malawi | 53,3 | 35,1 | 0,1 | 0,1 | 2,8 | 1,7 | 6,3 | 0,5 | 100,0 |
| Region | Northern | 73,6 | 13,6 | 0,1 | 0,1 | 2,3 | 1,4 | 8,8 | 0,1 | 100,0 |
| | Central | 43,5 | 41,2 | 0,2 | 0,1 | 3,6 | 2,1 | 8,8 | 0,7 | 100,0 |
| | Southern | 55,2 | 38,7 | 0,2 | 0,1 | 2,1 | 1,3 | 2,1 | 0,5 | 100,0 |
| ADD | Karonga | 65,6 | 23,0 | 0,0 | 0,0 | 0,6 | 0,0 | 10,7 | 0,0 | 100,0 |
| | Mzuzu | 77,4 | 9,1 | 0,1 | 0,1 | 3,1 | 2,1 | 7,9 | 0,1 | 100,0 |
| | Kasungu | 37,7 | 43,8 | 0,3 | 0,1 | 4,5 | 1,3 | 12,2 | 0,2 | 100,0 |
| | Salima | 40,4 | 53,8 | 0,0 | 0,0 | 1,9 | 0,0 | 3,8 | 0,0 | 100,0 |
| | Lilongwe | 51,3 | 33,2 | 0,1 | 0,2 | 3,2 | 3,8 | 6,7 | 1,5 | 100,0 |
| | Machinga | 46,2 | 47,1 | 0,2 | 0,1 | 3,3 | 0,9 | 1,8 | 0,3 | 100,0 |
| | Blantyre | 62,9 | 31,7 | 0,0 | 0,0 | 1,4 | 2,1 | 1,0 | 0,9 | 100,0 |
| | Shire Valley | 61,7 | 32,0 | 0,4 | 0,0 | 0,0 | 0,0 | 5,9 | 0,0 | 100,0 |
| District | Chitipa | 78,5 | 16,4 | 0,0 | 0,0 | 0,6 | 0,0 | 4,5 | 0,0 | 100,0 |
| | Karonga | 50,3 | 30,9 | 0,0 | 0,0 | 0,7 | 0,0 | 18,1 | 0,0 | 100,0 |
| | Rumphi | 76,0 | 13,0 | 0,0 | 0,0 | 5,0 | 0,0 | 5,5 | 0,5 | 100,0 |
| | Nkhata Bay | 91,8 | 6,1 | 0,0 | 0,0 | 2,0 | 0,0 | 0,0 | 0,0 | 100,0 |
| | Likoma | 100,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 100,0 |
| | Mzimba | 70,7 | 8,3 | 0,3 | 0,3 | 2,5 | 4,5 | 13,4 | 0,0 | 100,0 |
| | Kasungu | 27,3 | 45,1 | 0,8 | 0,3 | 8,4 | 2,8 | 14,8 | 0,6 | 100,0 |
| | Ntchisi | 49,4 | 42,3 | 0,0 | 0,0 | 1,7 | 0,4 | 6,2 | 0,0 | 100,0 |
| | Dowa | 41,7 | 32,3 | 0,0 | 0,0 | 5,3 | 1,1 | 19,5 | 0,0 | 100,0 |
| | Nkhotakota | 53,3 | 44,1 | 0,0 | 0,0 | 2,6 | 0,0 | 0,0 | 0,0 | 100,0 |
| | Salima | 31,3 | 60,7 | 0,0 | 0,0 | 1,4 | 0,0 | 6,5 | 0,0 | 100,0 |
| | Dedza | 65,9 | 30,5 | 0,5 | 0,0 | 1,4 | 0,0 | 1,8 | 0,0 | 100,0 |
| | Ntcheu | 66,4 | 15,7 | 0,0 | 0,0 | 7,9 | 4,3 | 5,7 | 0,0 | 100,0 |
| | Lilongwe rural | 42,4 | 38,4 | 0,0 | 0,3 | 2,8 | 5,0 | 8,7 | 2,3 | 100,0 |
| | Mchinji | 37,1 | 55,9 | 0,0 | 0,0 | 0,8 | 0,0 | 6,1 | 0,0 | 100,0 |
| | Balaka | 40,9 | 52,8 | 0,0 | 0,0 | 1,6 | 0,0 | 4,7 | 0,0 | 100,0 |
| | Mangochi | 27,0 | 66,9 | 0,6 | 0,0 | 4,9 | 0,0 | 0,6 | 0,0 | 100,0 |
| | Machinga | 33,0 | 54,6 | 0,0 | 0,5 | 6,4 | 0,9 | 4,1 | 0,5 | 100,0 |
| | Zomba rural | 64,4 | 31,8 | 0,3 | 0,0 | 1,4 | 1,6 | 0,0 | 0,5 | 100,0 |
| | Chiradzulu | 66,5 | 32,1 | 0,0 | 0,0 | 0,5 | 1,0 | 0,0 | 0,0 | 100,0 |
| | Blantyre rural | 76,1 | 12,8 | 0,0 | 0,0 | 1,1 | 7,2 | 0,0 | 2,8 | 100,0 |
| | Thyolo | 78,0 | 18,0 | 0,0 | 0,0 | 3,0 | 0,0 | 0,0 | 1,0 | 100,0 |
| | Mulanje | 43,4 | 56,6 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 100,0 |
| | Phalombe | 45,1 | 54,9 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 100,0 |
| | Mwanza | 54,8 | 29,8 | 0,0 | 0,0 | 4,8 | 1,9 | 7,7 | 1,0 | 100,0 |
| | Chikwawa | 53,2 | 34,7 | 0,8 | 0,0 | 0,0 | 0,0 | 11,3 | 0,0 | 100,0 |
| | Nsanje | 69,0 | 29,7 | 0,0 | 0,0 | 0,0 | 0,0 | 1,4 | 0,0 | 100,0 |

**Table 6.7: Proportion of villages where members moved into or away from village and percentage distribution of villages where any households had moved from the village to settle elsewhere during the past 12 months by where they went, according to area of residence , 2006/2007 Agricultural Season.**

| | | | | Place where households settled after moving from village | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Proportion of villages with households moved away | Proportion of villages with households moved into the village | Other villages within the TA | Other villages outside the TA | Other villages within same district | Other villages outside the district | Another country | Total |
| | Malawi | 34 | 42 | 39 | 61 | 0 | 0 | 0 | 100 |
| Region | Northern | 30 | 43 | 38 | 61 | 1 | 0 | 0 | 100 |
| | Central | 35 | 39 | 36 | 64 | 0 | 0 | 0 | 100 |
| | Southern | 36 | 45 | 42 | 56 | 1 | 1 | 0 | 100 |
| ADD | Karonga | 36 | 49 | 43 | 55 | 2 | 0 | 0 | 100 |
| | Mzuzu | 27 | 41 | 35 | 64 | 0 | 1 | 0 | 100 |
| | Kasungu | 34 | 37 | 32 | 68 | 0 | 0 | 0 | 100 |
| | Salima | 42 | 51 | 37 | 63 | 0 | 0 | 0 | 100 |
| | Lilongwe | 35 | 37 | 39 | 60 | 0 | 1 | 0 | 100 |
| | Machinga | 34 | 41 | 49 | 50 | 1 | 0 | 0 | 100 |
| | Blantyre | 35 | 41 | 30 | 69 | 0 | 0 | 0 | 100 |
| | Shire Valley | 42 | 64 | 54 | 41 | 2 | 3 | 1 | 100 |
| District | Chitipa | 34 | 45 | 50 | 50 | 0 | 0 | 0 | 100 |
| | Karonga | 39 | 52 | 36 | 61 | 3 | 0 | 0 | 100 |
| | Rumphi | 26 | 40 | 33 | 67 | 0 | 0 | 0 | 100 |
| | Nkhata Bay | 17 | 41 | 33 | 67 | 0 | 0 | 0 | 100 |
| | Likoma | 100 | 85 | 31 | 69 | 0 | 0 | 0 | 100 |
| | Mzimba | 29 | 40 | 37 | 62 | 0 | 1 | 0 | 100 |
| | Kasungu | 31 | 31 | 30 | 70 | 0 | 0 | 0 | 100 |
| | Ntchisi | 32 | 32 | 37 | 63 | 0 | 0 | 0 | 100 |
| | Dowa | 34 | 36 | 25 | 75 | 0 | 0 | 0 | 100 |
| | Nkhotakota | 43 | 57 | 45 | 55 | 0 | 0 | 0 | 100 |
| | Salima | 42 | 46 | 31 | 69 | 0 | 0 | 0 | 100 |
| | Dedza | 37 | 30 | 42 | 58 | 0 | 0 | 0 | 100 |
| | Ntcheu | 20 | 29 | 34 | 66 | 0 | 0 | 0 | 100 |
| | Lilongwe rural | 38 | 41 | 38 | 60 | 0 | 1 | 0 | 100 |
| | Mchinji | 40 | 51 | 37 | 63 | 0 | 0 | 0 | 100 |
| | Balaka | 40 | 45 | 38 | 62 | 0 | 0 | 0 | 100 |
| | Mangochi | 39 | 47 | 54 | 44 | 2 | 0 | 0 | 100 |
| | Machinga | 37 | 41 | 54 | 45 | 1 | 0 | 0 | 100 |
| | Zomba rural | 29 | 38 | 47 | 53 | 0 | 0 | 0 | 100 |
| | Chiradzulu | 21 | 25 | 25 | 75 | 0 | 0 | 0 | 100 |
| | Blantyre rural | 37 | 54 | 30 | 70 | 0 | 0 | 0 | 100 |
| | Thyolo | 35 | 32 | 17 | 83 | 0 | 0 | 0 | 100 |
| | Mulanje | 49 | 39 | 26 | 72 | 0 | 2 | 0 | 100 |
| | Phalombe | 46 | 51 | 34 | 66 | 0 | 0 | 0 | 100 |
| | Mwanza | 38 | 58 | 54 | 46 | 0 | 0 | 0 | 100 |
| | Chikwawa | 44 | 61 | 60 | 33 | 4 | 4 | 0 | 100 |
| | Nsanje | 40 | 67 | 48 | 48 | 0 | 2 | 2 | 100 |

**Table 6.8: Percentage distribution of villages where any households had moved from the village to settle elsewhere during the past 12 months by main reason why the household moved away, according to area of residence . 2006/2007 Agricultural Season.**

| | | Conflict among households | Due to natural disasters | Looking for more land to cultivate | Difficulties in marketing produce | Went to Town | Went home | Looking for paid work | Other reasons | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Malawi | 10 | 1 | 33 | 4 | 9 | 11 | 20 | 11 | 100 |
| Region | Northern | 10 | 1 | 27 | 5 | 10 | 14 | 15 | 18 | 100 |
| | Central | 9 | 1 | 30 | 5 | 9 | 10 | 28 | 8 | 100 |
| | Southern | 12 | 2 | 38 | 4 | 8 | 11 | 14 | 10 | 100 |
| ADD | Karonga | 8 | 2 | 26 | 4 | 12 | 13 | 9 | 26 | 100 |
| | Mzuzu | 12 | 1 | 28 | 6 | 9 | 14 | 18 | 12 | 100 |
| | Kasungu | 6 | 1 | 34 | 3 | 9 | 10 | 30 | 7 | 100 |
| | Salima | 17 | 2 | 18 | 4 | 10 | 7 | 33 | 9 | 100 |
| | Lilongwe | 8 | 1 | 32 | 7 | 9 | 13 | 22 | 10 | 100 |
| | Machinga | 12 | 2 | 43 | 5 | 8 | 11 | 12 | 7 | 100 |
| | Blantyre | 10 | 0 | 37 | 3 | 10 | 7 | 18 | 13 | 100 |
| | Shire Valley | 15 | 9 | 28 | 4 | 4 | 19 | 8 | 13 | 100 |
| District | Chitipa | 2 | 0 | 27 | 7 | 8 | 7 | 12 | 37 | 100 |
| | Karonga | 14 | 3 | 24 | 2 | 16 | 19 | 7 | 16 | 100 |
| | Rumphi | 16 | 0 | 36 | 6 | 6 | 22 | 12 | 2 | 100 |
| | Nkhata Bay | 4 | 0 | 26 | 0 | 11 | 11 | 22 | 26 | 100 |
| | Likoma | 15 | 0 | 15 | 0 | 8 | 31 | 23 | 8 | 100 |
| | Mzimba | 11 | 1 | 26 | 8 | 11 | 9 | 20 | 14 | 100 |
| | Kasungu | 5 | 0 | 36 | 3 | 13 | 5 | 37 | 3 | 100 |
| | Ntchisi | 13 | 1 | 37 | 5 | 7 | 13 | 21 | 3 | 100 |
| | Dowa | 5 | 1 | 26 | 1 | 10 | 11 | 28 | 17 | 100 |
| | Nkhotakota | 12 | 0 | 18 | 6 | 12 | 9 | 37 | 7 | 100 |
| | Salima | 21 | 4 | 18 | 3 | 9 | 5 | 30 | 10 | 100 |
| | Dedza | 11 | 0 | 42 | 9 | 5 | 7 | 17 | 9 | 100 |
| | Ntcheu | 10 | 0 | 38 | 7 | 10 | 0 | 31 | 3 | 100 |
| | Lilongwe rural | 6 | 1 | 27 | 6 | 10 | 16 | 23 | 11 | 100 |
| | Mchinji | 4 | 0 | 35 | 3 | 5 | 13 | 32 | 7 | 100 |
| | Balaka | 12 | 10 | 24 | 4 | 22 | 10 | 12 | 6 | 100 |
| | Mangochi | 19 | 0 | 42 | 5 | 6 | 13 | 11 | 5 | 100 |
| | Machinga | 11 | 0 | 63 | 0 | 2 | 7 | 10 | 6 | 100 |
| | Zomba rural | 10 | 0 | 37 | 9 | 8 | 13 | 13 | 11 | 100 |
| | Chiradzulu | 14 | 0 | 34 | 2 | 9 | 5 | 14 | 23 | 100 |
| | Blantyre rural | 6 | 0 | 26 | 1 | 14 | 9 | 23 | 21 | 100 |
| | Thyolo | 3 | 0 | 77 | 0 | 3 | 11 | 6 | 0 | 100 |
| | Mulanje | 3 | 0 | 32 | 2 | 20 | 0 | 36 | 7 | 100 |
| | Phalombe | 16 | 3 | 45 | 3 | 5 | 13 | 5 | 11 | 100 |
| | Mwanza | 27 | 0 | 27 | 14 | 0 | 11 | 14 | 8 | 100 |
| | Chikwawa | 9 | 13 | 39 | 2 | 7 | 16 | 2 | 13 | 100 |
| | Nsanje | 21 | 5 | 17 | 7 | 0 | 22 | 14 | 14 | 100 |

**Table 6.9: Percentage distribution of villages by main type of marriage, according to area of residence , 2006/2007 Agricultural Season.**

| | | Matrilineal and neolocal | Matrilineal and matrilocal | Matrilineal and patrilocal | Patrilineal and neolocal | Patrilineal and patrilocal | Do not know or other | Total |
|---|---|---|---|---|---|---|---|---|
| | Malawi | 4 | 41 | 24 | 2 | 28 | 1 | 100 |
| Region | Northern | 0 | 0 | 3 | 2 | 94 | 1 | 100 |
| | Central | 3 | 32 | 47 | 2 | 16 | 1 | 100 |
| | Southern | 7 | 74 | 6 | 2 | 10 | 2 | 100 |
| ADD | Karonga | 0 | 0 | 0 | 0 | 98 | 1 | 100 |
| | Mzuzu | 0 | 0 | 4 | 2 | 91 | 1 | 100 |
| | Kasungu | 1 | 11 | 59 | 2 | 26 | 1 | 100 |
| | Salima | 7 | 34 | 39 | 3 | 18 | 0 | 100 |
| | Lilongwe | 3 | 56 | 35 | 2 | 3 | 1 | 100 |
| | Machinga | 7 | 83 | 7 | 1 | 1 | 1 | 100 |
| | Blantyre | 8 | 83 | 6 | 0 | 0 | 2 | 100 |
| | Shire Valley | 1 | 11 | 2 | 13 | 71 | 2 | 100 |
| District | Chitipa | 0 | 0 | 1 | 1 | 98 | 1 | 100 |
| | Karonga | 0 | 0 | 0 | 0 | 99 | 1 | 100 |
| | Rumphi | 0 | 0 | 1 | 1 | 98 | 1 | 100 |
| | Nkhata Bay | 0 | 1 | 0 | 1 | 96 | 2 | 100 |
| | Likoma | 0 | 0 | 0 | 31 | 69 | 0 | 100 |
| | Mzimba | 0 | 0 | 9 | 3 | 86 | 2 | 100 |
| | Kasungu | 0 | 11 | 55 | 2 | 32 | 0 | 100 |
| | Ntchisi | 1 | 10 | 63 | 0 | 24 | 1 | 100 |
| | Dowa | 0 | 9 | 61 | 1 | 27 | 1 | 100 |
| | Nkhotakota | 12 | 4 | 43 | 2 | 38 | 1 | 100 |
| | Salima | 3 | 54 | 36 | 3 | 4 | 0 | 100 |
| | Dedza | 2 | 91 | 7 | 0 | 0 | 0 | 100 |
| | Ntcheu | 9 | 75 | 16 | 0 | 0 | 0 | 100 |
| | Lilongwe rural | 3 | 38 | 51 | 2 | 4 | 2 | 100 |
| | Mchinji | 5 | 15 | 59 | 4 | 16 | 1 | 100 |
| | Balaka | 17 | 66 | 16 | 0 | 1 | 0 | 100 |
| | Mangochi | 5 | 78 | 16 | 1 | 0 | 0 | 100 |
| | Machinga | 0 | 97 | 3 | 0 | 0 | 0 | 100 |
| | Zomba rural | 9 | 82 | 3 | 1 | 1 | 3 | 100 |
| | Chiradzulu | 7 | 92 | 0 | 0 | 0 | 0 | 100 |
| | Blantyre rural | 4 | 71 | 15 | 2 | 1 | 6 | 100 |
| | Thyolo | 3 | 93 | 2 | 0 | 0 | 2 | 100 |
| | Mulanje | 7 | 93 | 0 | 0 | 0 | 0 | 100 |
| | Phalombe | 4 | 78 | 18 | 0 | 0 | 0 | 100 |
| | Mwanza | 30 | 68 | 2 | 0 | 0 | 0 | 100 |
| | Chikwawa | 2 | 20 | 3 | 22 | 50 | 4 | 100 |
| | Nsanje | 1 | 3 | 1 | 7 | 88 | 0 | 100 |

**Table 6.10: Proportion of villages with conflicts over land and with whom the conflict was, according to area of residence. 2006/2007 Agricultural Season.**

| | | | Type of conflicts | | | |
|---|---|---|---|---|---|---|
| | | Proportion with conflict | Between villages | Between village and estate | Between family groups | Between households |
| | Malawi | 47 | 20 | 5 | 29 | 28 |
| Region | Northern | 45 | 19 | 5 | 28 | 26 |
| | Central | 46 | 20 | 6 | 28 | 27 |
| | Southern | 49 | 19 | 4 | 32 | 30 |
| ADD | Karonga | 45 | 19 | 1 | 29 | 31 |
| | Mzuzu | 45 | 19 | 6 | 27 | 24 |
| | Kasungu | 44 | 18 | 5 | 26 | 26 |
| | Salima | 49 | 24 | 5 | 28 | 28 |
| | Lilongwe | 48 | 22 | 7 | 30 | 27 |
| | Machinga | 50 | 21 | 3 | 32 | 30 |
| | Blantyre | 51 | 16 | 4 | 34 | 33 |
| | Shire Valley | 42 | 17 | 5 | 25 | 22 |
| District | Chitipa | 39 | 16 | 1 | 24 | 26 |
| | Karonga | 53 | 24 | 0 | 36 | 37 |
| | Rumphi | 49 | 19 | 6 | 27 | 26 |
| | Nkhata Bay | 40 | 12 | 3 | 29 | 27 |
| | Likoma | 92 | 38 | 0 | 92 | 69 |
| | Mzimba | 44 | 21 | 8 | 24 | 19 |
| | Kasungu | 47 | 13 | 8 | 27 | 29 |
| | Ntchisi | 46 | 18 | 4 | 27 | 26 |
| | Dowa | 33 | 13 | 2 | 16 | 21 |
| | Nkhotakota | 50 | 22 | 3 | 28 | 29 |
| | Salima | 48 | 26 | 7 | 28 | 27 |
| | Dedza | 43 | 19 | 8 | 21 | 27 |
| | Ntcheu | 61 | 29 | 3 | 37 | 40 |
| | Lilongwe rural | 46 | 22 | 7 | 32 | 24 |
| | Mchinji | 50 | 31 | 4 | 34 | 27 |
| | Balaka | 65 | 26 | 2 | 48 | 45 |
| | Mangochi | 46 | 22 | 6 | 23 | 24 |
| | Machinga | 52 | 18 | 3 | 31 | 35 |
| | Zomba rural | 45 | 22 | 2 | 30 | 24 |
| | Chiradzulu | 38 | 13 | 3 | 26 | 22 |
| | Blantyre rural | 48 | 13 | 1 | 28 | 28 |
| | Thyolo | 66 | 19 | 10 | 54 | 53 |
| | Mulanje | 50 | 16 | 2 | 39 | 36 |
| | Phalombe | 63 | 20 | 5 | 43 | 51 |
| | Mwanza | 57 | 25 | 5 | 33 | 28 |
| | Chikwawa | 44 | 19 | 10 | 24 | 23 |
| | Nsanje | 40 | 15 | 1 | 25 | 21 |

# Annex 1: Sampling methodology and weight calculation in the NACAL

## A1.1. Introduction

The government of Malawi has previously conducted three rounds of the National Sample Survey of Agriculture (NSSA), the last one in 1991/92. These large scale surveys are often denoted sample censuses or simply censuses. During preparatory activities the sampling of enumeration areas for the NACAL was done. The actual sampling of household was done during the fieldwork based upon complete lists of households from the sampled enumeration areas.

## A1.2. Sampling design

Stage l - sampling of Enumeration Areas(EA)
Based on recommendations from consultants and decisions from the Second NACAL Stakeholder meeting in Lilongwe on 28th September, and some decisions were agreed upon:

- *Coverage.* The NACAL was conducted in all rural and peri-urban areas, In addition another extra sample was drawn from the four cities. This extra sample was to accommodate two last modules: Welfare Monitoring Survey 2007 and Livestock survey.
- *Overall sample size.* It was agreed that at least 25 000 holdings would be selected.
- *Cluster size*. From each EA a cluster of 15 households + estate households would be selected.
- *Stratification within the cluster.* Within each of the selected EA, all households would be listed, identifying four strata, estate households, large scale smallholders, small scale smallholders and landless households. All estates were included in the sample, the large scale farmers would have a five-fold probability and a sub-sample of each of the three latter groups be selected. Large scale farmers were identified by asking each household with a holding to estimate the cultivated area measured in acres.

*Balancing national and district estimates*. Sample allocation among districts was done according to a formula given by Kish (Kish 1988:26). Hence districts with a small population were somewhat oversampled and those with a large population somewhat undersampled as compared to proportional sampling.

*Stratification within districts.* EAs were stratified according to agro-ecological zones by ADD. It was assumed that the coding had been done uniformly within ADD.
*Urban areas.* The four urban areas ï Mzuzu City, Lilongwe City, Blantyre City and Zomba city were treated as separate districts. The sample size in the urban areas was fixed to provide sufficient data for estimates of urban agriculture and hence undersampled as compared to the percentage of the total population. *For urban dwellers with parcels outside the city; the parcels were not included in the sample.*

Stage 2 - Sampling of households
Based upon the listing of households, four strata were identified: estate households, large scale smallholders, small scale smallholders and landless households. All estates were included in the census, while landless households were not in the target population. Actual sampling was done among small scale and large scale smallholders. It was decided to select 5 large scale and 10 small scale households from each EA. Where less than 5 large scale households were found, the number of small scale households sampled was increased correspondingly to have a total of 15 from each EA.

## A1.3. Calculation of weights

**Non-proportional sample**
The applied sample design was a two-stage probability design with stratification at both stages and clustering at stage two. At both stages the sampling was done with unequal probabilities and the combined inclusion probabilities for the census units ï the agricultural holdings ï were unequal. Hence the sample is not self-weighting and to get unbiased estimates the data must be weighted accordingly.

Factors influencing the weights

a. Unequal sampling probabilities

At the first stage EAs (clusters) were selected within each district with probabilites proportionate to size. As size measure was taken the number of households from the 1998 Population Census. At second stage the households were selected with equal probabilities from each stratum separately. Hence the inclusion probability for household ***k*** in stratum ***j*** in cluster ***i*** in district ***h*** can be written

$$P^h_{ij} = w^h_i (C_j/n_j)$$

where $w^h_i$ is the proportion of households in cluster ***i*** in district ***h***

$n_j$ is the number of households belonging to stratum ***j*** (indices h and i omitted)

C is 10 in small scale strata and 5 in large scale strata, or, where total number of large scale household was 4 or less, adjusted accordingly to have a total of 15 households from the cluster. In a few cases less than 15 households were actually sampled for some reason. Wherever this occurred, the reported number actually sampled has been applied in the calculations. The weights must be proportional with the inverse values of the inclusion probabilities, or with $(P^h_{ij})^{-1}$.

b. Non-response

Unit non-response is in general a very small problem in NACAL. In the few cases where an eligible household has failed to participate, the cluster weights are adjusted accordingly. The factor applied is $n_{selected}/n_{responding}$ . Item non-response is assumed to occur more frequently. The general weights have not been designed to compensate or correct for such non-response. The appropriate method must be chosen dependent upon the variable(s) concerned.

A1.4. Balancing of districts

As the districts in Malawi differ significantly in population size, a proportional design would not be efficient. There would have been too few households from the small districts to have sufficiently accurate estimates, while from the large districts the samples would have been unnecessary large. The number of households range from 23 549 in Rumphi to 207 694 in Lilongwe Rural (1998 Population Census).

Hence it was recommended to allocate the sample more evenly, thus to ensure good estimates for the small districts, but still to remain with larger sample from the populous districts as their contribution to national or regional estimates is important. It was chosen to apply a formula given by Kish (Kish 1988:26):

$$n_h = N \times [ w_h^2 + H^{-2}]^{1/2}$$

where N is the fixed gross sample size. $n_h$ is the sample in district h. $w_h$ is the proportion of households in district h. H is the number of districts. The formula was applied only for rural districts, hence H= 27. N was fixed to 23 250. Applying the formula gives 587 units from Likoma and 616 from Rumphi (the smallest districts) up to 1755 units from Lilongwe Rural. The final sample sizes were adjusted to multiples of 45 in order to obtain a smooth work plan. To ensure that the districts are properly balanced, the following term has been included in the weight formula:

$$W_h \times (\times_i \times_j p_k^{-1} / \times_j p_k^{-1})$$

where $w_h$ is the proportion of households in district ***h*** according to 1998 Census

the sum in the numerator is the total sum of inverse probabilities (all surveyed households) the sum in the denominator is the sum of inverse probabilities in district ***h***.

**A1.4. Blowing-up factors**

The census results were weighetd to provide estimates of national, regional and district totals. The weights, or blowing-up factors, thus need to be properly scaled. For this purpose it would not have been sufficient to rely solely upon the population figures from the 1998 Census, as the population has grown significantly over the elapsed ten years and the growth cannot be assumed to have been equal throughout the country.

The blowing-up factors for estimation of totals were obtained by including a last term, composed of

a) scaling according to 1998 Census
b) adjusting by population ratio in cluster

c) adjusting by the fraction of household type according to figures from the listing

Formula:

$$K \times (Total_{2007} / Total_{1998}) \times (n_s / Total_{2007})$$

Where $K = 2238995/(\times_i \times_j p_k^{-1})$

$n_s$ is the number of either small scale or large scale farmers in a cluster, the totals refer to the same cluster.

## Annex 2: Calculation of production and yield figures in NACAL

### A2.1. Introduction

The NACAL used the post harvest farmers interview to get the plot production figures. The issue of how to best evaluate the yield of the main cereal crop production in Sub-Saharan African agriculture has been debated for many years. This annex will discuss this issue in relation to the 2006-07 agricultural (sample) census in Malawi, the National Census of Agriculture and Livestock (NACAL).

An important reference is the *1988 Verma, Marchant and Scott* methodological evaluation of crop-cut methods and farmer reports for estimating crop production in five African countries (The countries were: Benin, Central African Republic, Niger, Zimbabwe and Kenya). Their conclusion is that ñ*estimates of production obtained by interviewing farmers soon after the harvest can be at least as accurate as any estimates obtainable through physical measurement involving crop-cuts on sample subplots*ò. The conclusion applies both to predicting the average value (point estimate), and to the estimateôs variance. However, this conclusion is qualified in four ways: First, it refers to the farmersô *ability* to state their production, and not necessarily their *willingness* to do so. Second, the sample sizes from which the conclusion is drawn are relatively small, as well as a confined span of conditions of cultivation. Third, results apply to the *main* cereal crop. Less important crops often have more complex conditions of cultivation, which affects all types of crop measurement methods. Finally, this method is critically dependent on reliable ñconversionò factors, which translate farmersô traditional volumetric units into standard weight units. Although farmersô *pre-harvest production estimates* are not as good as their post-harvest estimates, they are still fairly good, if obtained a *short* time before the harvest. However, the variance for this measure is significantly higher. *Earlier* pre-harvest estimates are less accurate. However, these measures are most likely also to include *real* changes, such as loss of crop, or premature harvesting.

Estimates based on *crop cutting on sample subplots* are on the average found to *over*-estimate production by around 30%, (ranging from 15% to 40% in the five countries). Weighing of harvested crop at various stages, such as ñfreshò, ñdryò, and ñshelledò is recommended. The estimation of total plot production for this production measurement method also critically depends on a correct measure for the total area of the cultivated plot. However, for area measurement, the conclusion is rather the opposite of that for *production*: Farmers themselves seriously over-estimate their cultivated area. For measurement of *production*, area estimation is not a problem for pre-, and post harvest interviews. However, area estimates evidently re-enter as a critical factor in making estimates of yields from pre-, and post harvest interviews.

Another useful reference is the *1991 Rozelle* working paper ñon ñRural Household Data Collection in Developing Countriesò: First, the method of post-harvest interview about *output* is briefly described. If a high visiting frequency is possible, a ñconsumption studyò approach may be applied, asking for the *uses* of the harvested crop for purposes such as home consumption, sales, gifts etc. Also here, the importance of using local measures, and collecting data for one plot at the time are stressed. The latter method reduces the risk of the farmer reporting his historical average figures, rather than this yearôs actual production volumes. It is recommended to evaluate both the farmersô *ability* to report *yields* correctly, and not least also their willingness to do so. Both chronic under-, and over-reporting have been observed, dependent on the farmersô incentive structure. Yields are generally reported to be less accurate the less scarce land is in that region. This has the important implication that *interviewing the farmer about production and not least yields are considered less suitable for the African context*, where land is less scarce and less irrigated than for example in Asia. Two studies from Malawi is specifically mentioned as a case where farmers had great difficulties providing *yield* estimates from most crops.

### A2. 2. The Survey Design

Information about maize production, as for other types of agricultural production, was collected in Module 3 of the questionnaire. One questionnaire was supposed to be filled in for each plot. A ñPlotò was defined by the enumerator manual as: ñ*a part of a garden that contains a different crop or crop mixture or is kept by a different operator in the same household. It must be a continuous piece of land and should not be split by a path of more than one meter in width*. Hence, the plot definition partially referred to a *physical feature* of the piece of land ï ñhaving a uniform cropò (mixture), and partially to how the production was *organized* ï ñhaving a separate operatorò.

After implementing this plot definition, there were approximately 52 000 recorded plots belonging to the 23 000 sampled households, i.e. on the average a little more than 2 plots per household. The questionnaire was administered to the respondents by resident enumerators who paid several visits to the respondents during the whole agricultural season, among other things asking about the farmersô pre- and post-harvest production estimates. For some selected crop types, including all main varieties of maize, a 7 x 7 meter sub-plot was selected for harvesting (Yield Sub-Plot, (YSP)), and for one household in each survey cluster, a maize plot was selected for *full* harvest.

The questions directly involved in the estimation of yield in maize production were P5 (plot area), P7 (type of stand), P8 (first, second and third main crop on the plot), P9 (farmerôs own *pre*-harvest estimate of production), P21 (farmerôs own *post*-harvest estimate of production), P25a (YSP ñFreshò and ñDryò), and P26a and P26b (full harvest; number of bags harvested and weight of these).

### A2.3. Comparing Yields

A key element in comparing methods for measuring production of maize is to ensure that data are really comparable. In order to achieve this, three filters were used simultaneously to select plots for comparison: First, comparison had to be made for maize in ñpure standò only, i.e. the variety of maize in question should be the only crop on the plot, (variable P7 to take value ñ1ò). It was also clear that a necessary, but not sufficient, condition for this was that the maize type was the first main crop on variable P8. Finally, since some plots, contrary to the definition of ñplotò, had recorded more than one crop having a ñpureò stand on the plot, it was ensured that only plots with *one*, pure stand registered crop was included.

The variables for type of stand, first, second and third main crop on the plot, and the farmerôs own pre-harvest estimate of production were recorded at the same time during the pre-harvest interview. The two first variables also formed the basis for all other, subsequent production measures ï post-harvest interview and yield size plot estimates, although the data capture of these production measures took place much later.

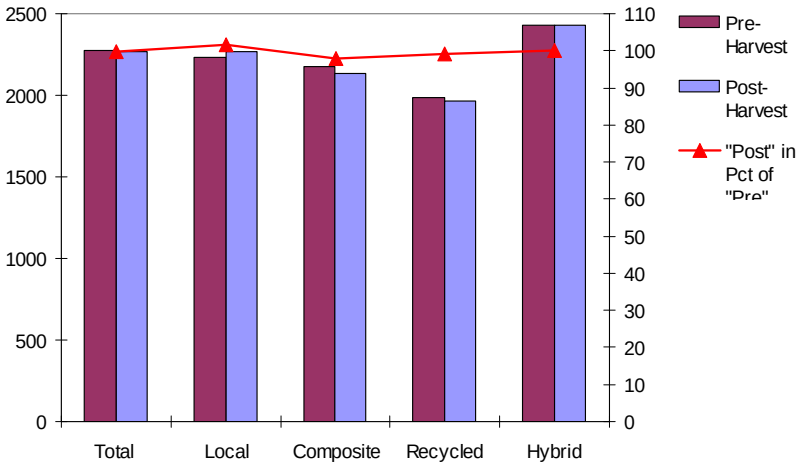
### A2.4 Comparing pre-, and post-harvest estimates

Although being recorded at different times, the pre- and post- harvest production figures have two important common features. First, data are in both cases captured by the enumerator asking the farmer in person about his or her estimate. Second, these production estimates refers to the plot as a whole.

The *aggregated average yields* for all of Malawi for these two production measurement methods were surprisingly similar for all maize varieties, given the 4-5 months time span that actually separated the two measures (Figure 1, *left* axis: national average yield as *kg/hectare*, *right* axis: post-harvest as *percent* of pre-harvest yield). Although it is not possible to derive exactly from the questionnaire at what time the pre-harvest production estimates were captured, they were recorded fairly ñlateò, mostly in January-February 2007. Hence, the farmers had planted their maize and observed the initial parts of the its growth season, and both the area allocated to the various maize varieties, the type of stand, and the initial use of input factors as fertilizer and labor were known. Moreover, at the end of the growth season, in May-June, the total seasonôs rainfall turned out to be very similar to the proceeding year. What remained as separating factors were local climatic conditions, and idiosyncratic shocks at the household level. Both the pre- and the post-harvest interview show the same variation across maize varieties as could be

expected; highest yield for hybrid maize (given the good rainfall), lowest for recycled maize, with yields for local and composite maize in between these two.

**Figure 1 Yield from post-harvest maize production figures by type of imputation and maize variety (kg/ hectare)**

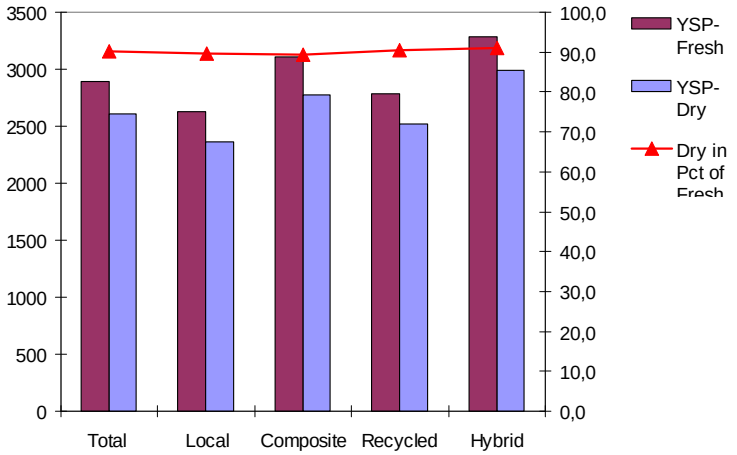



The next step performed was to cross-check whether the *aggregated yield average* for all of Malawi applied also to the plot level, and whether the similarity in the *aggregated average production* for all of Malawi were present in all the countryôs districts. First, for the most important variety, local maize, the national correlation coefficient between pre- and post harvest *yield* estimates was as high as 0.88. For none of the eight ADDôs, this coefficient was below 0.85. Hence, the close connection between pre- and post-harvest estimates was confirmed also at the plot level.

### A2.5 Comparing YSP Fresh and YSP dry estimates

The YSP Fresh and YSP Dry production estimates were to be taken 1-2 weeks apart, using the same basic approach in both data capture and imputation. (We will come back to the selection of the YSP areas in the next section). According to the manual, enumerators had only a one-week ñwindowò to measure the ñFreshò production volume. This is probably the reason that a somewhat higher number of missing information than for ñDryò maize, relative to those plots recorded with a positive pre-harvest estimate.

**Figure 2 Comparison of YSP "Fresh" and "Dry" national average yields by variety of maize**




The *left* axis in Figure 2 shows the pair wise national average yields in *kg/ hectare* by the variety of maize (Fresh in left bars, Dry in right bars). The pattern is as expected. Adding the *right* axis where the dry yield is calculated in *percentage* of the fresh yield confirms the very stable relation between fresh and dry yields over maize varieties, ranging from 89,4 to 91,0 percent. Both the YSP-Fresh and YSP-Dry yield measures show the same variation across maize varieties. However, this are *only partially* as could be expected: Although still highest yields for hybrid maize (given the good rainfall), and lower for recycled maize, both yields for local maize are lower than both the yield pairs for recycled and composite maize. We do not have any good explanation for this finding.

### A2.6. Comparing post-harvest estimates with YSP dried maize measures

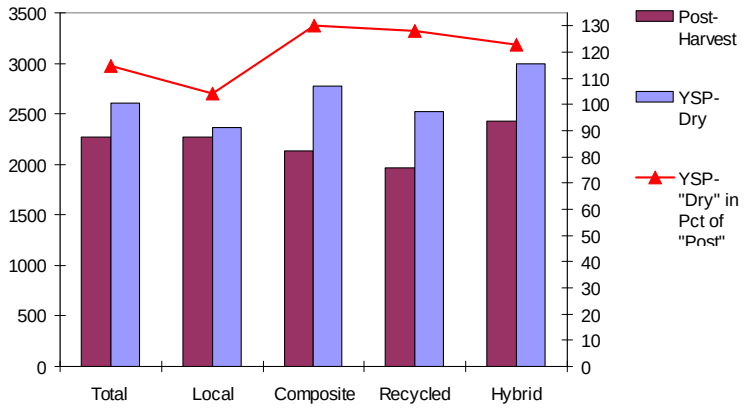
The most important issue in this paper is to compare the post-harvest interview production estimates with the YSP dried maize measures. The pre-harvest production estimate interview serves an important role in explaining farmersô behaviour, but being an *expectation* about a harvest rather than a estimate of the *actual* harvest, for our purpose it serves mainly as a control for the post-harvest production estimate. Similarly, the YSP *fresh* maize estimate primarily serves as a check of the YSP *dried* maize estimate. However, the latter argument may be qualified by the fact that some maize are eaten, sold, stolen, or lost in other ways before it is ever dried. It is difficult to estimate these ñlossesò without using a ñusage typeò questionnaire design. However, the implication is that *both* the drying process, and real ñlossesò cause the dry maize estimates to be lower than the fresh maize estimates.

### A2.7. Comparing farmers' post-harvest yield estimates with yield estimates based on YSP dry maize production

First we compare the ñnon-response matrixò, i.e. whether for one particular plot, *all* production measurement methods had non-response, or whether only some measurement methods had non-response for a single plot. For the most important maize variety, ñlocal maizeò being first main crop in pure stand, 0.3% of the plots strangely had a positive post-harvest production estimate, but no recorded pre-harvest production estimate for maize. Conversely, ten times as many plots, 2.2%, had a positive pre-harvest estimate, but no observed post-harvest figure. This combination is, however, fully plausible, given the possibility of crop failure for various reasons.

For the two YSP measures (fresh and dry), the first figure was even lower, at 0.1% for both YSP measures (i.e. positive YSP quantities recorded, but no positive pre-harvest production estimate). However, the share of plots where there a positive quantity of pure stand local maize was recorded in the pre-harvest interview, but with no YSP quantities was at 14% and 23%, for dry and fresh maize respectively. The main reasons for these relatively high figures may be that the status of the plot changed from pure to mixed stand during the maize growth season, and that in particular for fresh maize, the time span where a reliable measure of the YSP production quantity could be obtained was only one week after the harvest. It is likely that this short time window of opportunity to measure the harvested YSP plots when the maize was still fresh was missed by some enumerators. Then, we turn to the comparison of yields across measurement methods among those farmers who actually responded. At first glance, the pattern of differences between yields derived from the farmersô post-harvest estimates and the yields for dried maize harvested from the YSP plots seem to be as expected (Figure 2).

**Figure 2 Comparison of national average yield from YSP "Dry" production data and post-harvest interview by variety of maize**

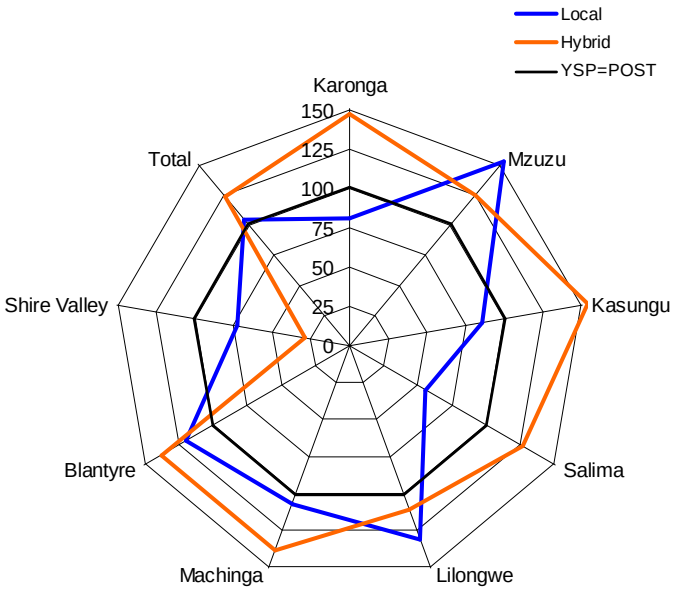



First, the average national YSP-Dry yield is 115% of the average national post-harvest interview yield. This is fully compatible with the findings of Rozelle that the YSP method is upwards biased. We assumed this was at least to some extent due to an overrepresentation of more productive core areas of the plot. Finally, the bias is much higher for the particularly fertilizer-sensitive maize varieties than for ñlocalò maize, which is in line with the edge-core area assumtion.

However, when calculating bivariate correlation coefficients to verify that the pattern is present at the plot level, the picture becomes much more blurred. Although the correlation coefficients between the two measurement methods are positive for all maize varieties (local: 0,03), (composite: 0,08), (recycled: 0,06), (hybrid: 0,05), they are much smaller than could be expected. Moreover, for the total of all maize varieties, as many as 22% of the plots satisfying the criteria for comparison had a *higher* yield based on the post-harvest production estimates than on the YSP production estimates, contrary to Rozelles assumption.

Next, we checked the two measures for the two most important maize varieties, ñlocalò and ñhybridò maize, by the 8 Agricultural Development Divisions (ADD), (Figure 3).

**Figure 3 Comparison of Agricultural Development Division (ADD) average yield from YSP "Dry" production data and post-harvest interview for local and hybrid maize**




For both crops, the figure presents the *YSP based dry maize yield as percentage of the post-harvest based yield.* The pattern gives good reasons to question the consistency of (at least) one of the two measurement methods. While the *national* total for all maize varieties was a reasonable 115%, these figures vary from 30 to 150%. *Moreover, the pattern of variation is neither consistent over maize variety, nor ADD.* Most probably, there are severe unknown field work problems with one of these measures. We assume that most likely the more complicated YSP measure is the ñscapegoatò. However, we recommend that further work should be done to investigate the issue, checking out that similar practices have been followed in the various regions.

## A2.8. Conclusion

The discussion above shows that there is no ñfixed pointò in comparing yield measurement methods for the NACAL. Since the area of the plots was measured, imputed and supervised in the same way for all measurement methods, the comparison of yields effectively boils down to a comparison of plot production volumes. Given the literature, *we tend to rely primarily on the post-harvest interview.* Weaknesses of the YSP crop-cutting have been extensively described above, and there is no reason to believe that NACAL was different in this respect. However, the post-harvest interview has potential weaknesses. First, output was measured in Kg, rather than local measures as sacks, buckets etc. Second, it may not have been perfectly clear to all farmers whether the produce was fresh or dried, or shelled. Third, some produce may have been eaten, sold, stolen, used as harvest in-kind wage payments, loan repayments, gift dispersals or lost in other ways without entering the post-harvest interview estimate. Not least important, different enumerator practices may have developed in different districts and enumeration areas.

The NACAL production estimates are therefore based on the *post-harvest interview. This is the case apart from the root crops cassava and potatoes where pre-harvest estimates were used.*