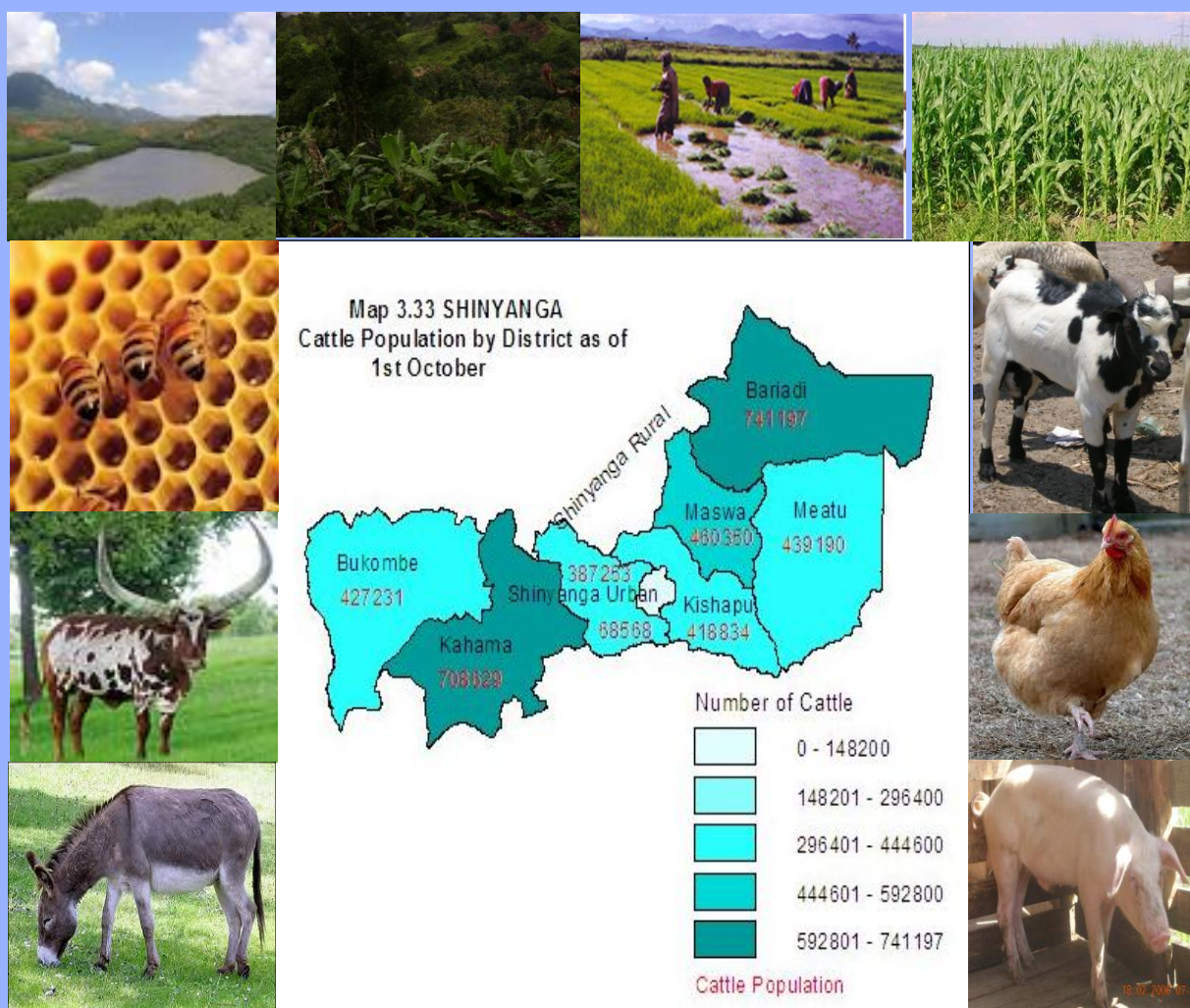




The United Republic of Tanzania

## NATIONAL SAMPLE CENSUS OF AGRICULTURE 2007/2008

### Volume Vh: REGIONAL REPORT: **SHINYANGA REGION**



Ministry of Agriculture, Food Security and Cooperatives; Ministry of Livestock Development and Fisheries;  
Ministry of Water and Irrigation; Ministry of Agriculture, Livestock and Natural Resource, Zanzibar;  
Prime Minister's Office, Regional Administration and Local Governments;  
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National Bureau of Statistics and the Office of the Chief Government Statistician, Zanzibar

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**OCTOBER, 2012**

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**ACRONYMS AND ABBREVIATIONS**

ASDP	Agricultural Sector Development Programme
CSPro	Census and Survey Processing Program
CSTWG	Censuses and Surveys Technical Working Group
DADIPS	District Agricultural Development and Investment Projects
DADO	District Agricultural Development Officer
DFID	Department for International Development
DIAS	District Integrated Agricultural Survey
DS	District Supervisor
EAS	Expanded Agricultural Survey
EAs	Enumeration Areas
EU	European Union
FE	Field Enumerator
GDP	Gross Domestic Product
GIS	Geographical Information System
ha	Hectares
hh	Household
IAS	Integrated Agricultural Survey
ICR	Intelligent Character Recognition
ID	Identity
IEC	Information, Education and Communication
JICA	Japanese International Cooperation Agency
LRS	Long Rainy Season,
MAFC	Ministry of Agriculture, Food Security and Cooperatives
MIT	Ministry of Industry and Trade
MLFD	Ministry of Livestock and Fisheries Development
NBS	National Bureau of Statistics
NGO	Non Governmental Organization
NMS	National Master Sample
NSCA	National Sample Census of Agriculture
NSGRP	National Strategy for Growth and Reduction of Poverty (MKUKUTA)
OCGS	Office of Chief Government Statistician Zanzibar
PMO-RALG	Prime Minister's Office, Regional Administration and Local Government

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PPS	Probability Proportional to Size
PSU	Primary Sampling Unit
RS	Regional Supervisor
RSM	Regional Statistical Manager
SPSS	Statistical Package for Social Science
SRS	Short Rainy Season
TOT	Training of Trainers
UNDP	United Nations Development Programme
UNFAO	United Nations Food and Agriculture Organization

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**PREFACE**

At the end of the 2007/08 Agricultural Year, the National Bureau of Statistics (NBS) in collaboration with the Ministries of Agriculture, Food Security and Cooperatives, Livestock and Fisheries Development; Water; Industry and Trade; the Prime Minister's Office, Regional Administration and Local Government (PMO/RALG) and the Office of the Chief Government Statistician, (OCGS), Ministries of Agriculture and Natural Resources; Livestock and Fisheries conducted the Agricultural Sample Census. This is the fourth Agricultural Census to be carried out in Tanzania, the first one was conducted in 1971/72, the second in 1993/94 and 1994/95 (during 1993/94 data on household characteristics and livestock count were collected and data on crop area and production in 1994/95), and the third was conducted in 2002/03.

The census collected detailed data on crop production, crop marketing, crop storage, livestock production, fish farming, and poverty indicators. In addition to this, the census was large in its scope and coverage as it provides data that can be disaggregated at district level and thus, allow comparisons with the 2002/03 National Sample Census of Agriculture. The census covered smallholders in rural areas only and large scale farms. This report presents data disaggregated at regional and district level and it focuses on smallholders crop production and livestock keeping.

The extensive nature of the census in relation to its scope and coverage is a result of the increasing demand for more detailed information to assist in the proper planning of the agricultural sector and in the administrative decentralization of planning to district level. It is hoped that this report will provide new insights for planners, policy makers, researchers and others involved in the agricultural sector in order to improve the prevailing conditions faced by agricultural households in the country.

On behalf of the Government of Tanzania, I wish to express my appreciation for the financial support provided by the development partners, in particular, the Department for International Development (DFID) and the Japanese Government through the Japan International Cooperation Agency (JICA) and others who contributed through the pooled fund mechanism.

My appreciation also goes to all those who in one-way or the other have contributed to the success of the census. In particular, I would also like to mention the enormous effort made by the Planning Group composed of professionals from the Agriculture Statistics Department of the National Bureau of Statistics, Ministry of Agriculture, Food Security and Cooperatives, Ministry of

Livestock Development and Fisheries, Ministry of Water and Irrigation, Ministry of Agriculture, Livestock and Natural Resource, Zanzibar, the Prime Minister's Office, Regional Administration and Local Government, Ministry of Industries, Trade and Marketing and the Office of the Chief Government Statistician, Zanzibar, the Food and Agriculture Organization of the United Nations and the Censuses and Surveys Technical Working Group (CSTWG).

Finally, I would like to extend my sincere gratitude to all the professionals, the consultants, Regional and District Supervisors and field enumerators for their commendable work. Certainly without their dedication, the census would not have been successful.

Dr. Albina A. Chuwa  
Director General  
National Bureau of Statistics



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## EXECUTIVE SUMMARY

The executive summary highlights the main survey results obtained during the National Sample Census of Agriculture 2007/08. This report covers small-scale agricultural households in rural areas of Shinyanga region. Specifically, it covers, among others, important findings in relation to agricultural production, husbandry practices, and crop productivity.

### i) Household Characteristics

The number of agricultural households in Shinyanga region was 485,212. Kahama District had the largest number of agricultural households (107,477) followed by Bariadi (100,936), Bukombe (65,991), Shinyanga Rural (54,401) Maswa (52,430) Kishapu (48,258), Meatu (40,564) while Shinyanga Urban had the smallest number of households (15,154). Majority of households were involved in crop and livestock production (260, 627, 53.7%) followed by crop growing only (224, 062, 46.2%), and livestock only (523, 0.11%).

Most households in all districts in Shinyanga region depended on crop farming as their main occupation (93%) followed by employment (3%) and other occupations (3%). Dependence on crop farming as the main occupation ranged from 99% in Bukombe to 81% in Shinyanga Urban. Besides, Shinyanga Urban had the highest percent of households whose main occupation is employment (11%).

Shinyanga region had a total rural agricultural population of 3,441,428 of whom 1,757,130 (51%) were males and 1,684,299 (49%) were females. Also, the distribution of household members by age and sex shows that the age group 0-14 constituted 48% and 46% of the total rural agricultural population for male and female respectively. On the other hand, the age group 15-64 (active population) was 49% and 51% for male and female population respectively.

The literacy level of household members in Shinyanga region was 67% (1,933,031) and those who could not read and write accounted for only 33% (959,419) of household members. Meatu (75%), Bukombe (74%) and Shinyanga Urban (71%) were the only districts that recorded literacy level higher than the regional average (67%) while Bariadi recorded the lowest level of literacy (61%).

Data on educational status was collected from individual agricultural households. The results show that 37% (1,072,470) of the population aged 5 years and above in agricultural households had

completed different levels of education followed by 33% (946,547) who were attending school while those who had never attended school accounted for 30% (873,433).

## **ii) Crop Production**

### **Land Area**

The total area of land available to smallholders was 2,236,501 ha while the average usable area per household was 4.6 ha. About 86% (85.9%) of the total usable land was utilised and only 14% was not used. Meatu District had the largest usable area per household (7.9 ha) while the smallest area was reported in Shinyanga Urban (2.2 ha). On the other hand, Kishapu had the highest percent of land utilization (93.28%) while Kahama had the lowest percent (77.12%).

### **Planted Area**

The area planted with annual crops and vegetables was 1,444,248 ha out of which 1,425,384 ha (99%) were planted during the wet season (long rainy season) while only 18,864 ha (1%) were planted during the short rainy season (dry season).

## **iii) Crop Types**

The main crops in the region comprises of cereals (56% (810,787 ha) of the total planted area, followed by cash crops (384,615 ha, 27%), oil seeds and nuts (113,139 ha, 8%), roots and tubers (71,696 ha, 5%), and pulses (60,673, 4%).

### **Cereal Production**

The total area planted with cereals in the region was 810,787 ha where by maize occupied 521,777 ha (64.4%) followed by paddy (175,192 ha, 21.6%) and sorghum (98,145 ha, 12.1%). Other cereals planted were bulrush (14,862 ha, 1.8%) and finger millet (811 ha, 0.1%).

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#### **■ Maize**

Maize is the major cereal crop in Shinyanga region. There were 443,092 households engaged in maize production with Kahama having the largest number of households (101,528) and the smallest number of households engaged in maize production was recorded in Shinyanga Urban (11,948). The total area planted with maize was 521,777 ha. The largest area planted with maize was recorded in Bariadi (141,383 ha) while Shinyanga Urban had the smallest area (8,192 ha). The average area planted with maize per household was 1.2 ha. Bariadi District had the largest planted area per maize growing household (1.42 ha) followed by Meatu (1.35 ha), Kishapu and Shinyanga

Urban (1.31 ha), Bukombe (1.14 ha), Kahama (1.07 ha), Maswa (1.04 ha) and Shinyanga Rural (0.98 ha).

#### ▪ **Paddy**

Paddy was the second most important cereal crop after maize in terms of planted area. A total of 190,419 households were engaged in paddy production. The total cultivated area was 175,192 ha. Kahama had the largest area planted with paddy (78,187 ha) accounting for about 45% (44.6%) of the total area planted with paddy in the region. In contrast, Meatu had 1,222 ha representing only 1% of the total area grown to paddy.

The average area planted with paddy per household was 0.92 ha. Bukombe had the largest planted area per paddy growing household (1.29 ha), followed by Kahama (1.13 ha), Shinyanga Rural (0.84 ha), Maswa (0.74 ha), Kishapu (0.72 ha), Shinyanga Urban (0.53 ha), Bariadi (0.46 ha), and Meatu (0.45 ha).

#### ▪ **Sorghum**

Sorghum was the fourth most important cereal crop in the region in terms of planted area. The number of households that grew sorghum in Shinyanga region during the wet season was 83,253. Meatu recorded the largest planted area with sorghum (28,366 ha) followed by Kishapu (26,665 ha), Bariadi (20,382 ha), and Maswa (11,360 ha). Other districts each had less than 6,000 ha planted with sorghum with Shinyanga Urban having the smallest area (2,748 ha). On the other hand, the largest planted area per household was recorded in Kishapu (1.76 ha) followed by Bukombe (1.46 ha), and Meatu (1.42 ha). Kahama had the smallest planted area per household (0.46 ha).

### **Root and Tuber Crops Production**

The most common roots and tuber crops grown in Shinyanga region were sweet potatoes and cassava. The total production of both cassava and sweet Potatoes was 160,128 tons from an area of 87,378 hectares resulting in a yield of 1.98 t/ha. Sweet potato production accounted for about 96% (136,899 tons) of the total root and tuber production in the region. This was followed by yams (18,487 ton) and cassava (6,434 ton). Other root and tuber crops contributed insignificantly to total production.

**Pulse Crops Production**

The total area planted with pulses was 60,653 ha out of which 22,112 ha were planted with chick peas, followed by beans (21,075 ha, 34%), green gram (6,907 ha), cow peas (6,345 ha), Bambara nuts (4,215 ha), and mug beans (20 ha).

**Oil Seed Production**

The total production of oil seeds was 31,568 tons and was harvested from 65,985 hectares. Groundnuts was the most important oil seed crop with 64,188 hectares followed by sunflower and simsim while the smallest area was planted with castor fung (9,222 ha).

**Fruit and Vegetables**

The total production of vegetables was 3,381 tons. The most cultivated vegetable crop was tomatoes with a production of 1,977 tonnes. The production of other vegetables was relatively small.

**Permanent Crops**

The total planted area with permanent crops was 26,799 ha of which the largest area was planted with other crops (19,295 ha) followed by mango (4,129 ha), oranges (1,701 ha), tea (834 ha), banana (650 ha), pigeon peas (604 ha), and the smallest area was grown to sugarcane (181 ha).

**iv) Use of Inputs****Improved Seeds Use**

The area planted with improved seeds was 390,525 ha representing only 27% of the total area planted with annual crops and vegetables. Cash crops had the largest planted area with improved seeds compared to other crops. Among cash crops, cotton had the largest area planted with improved seeds accounting for about 84% (83.5%) of the area planted with cash crops.

**Fertilizer Use**

A total of 76,918 ha accounting for 5.4% of the area planted with annual and vegetable crops was planted using fertilizer. Of the planted area with fertilizer application inorganic fertilizers were applied on a small area of 13070 hectares while 63,145 ha were planted using organic fertilizer.

**v) Irrigation**

In Shinyanga region, the area planted with annual crops under irrigation was 29,783 ha compared to 10,266 ha in 2002/03 Agriculture Sample Census.

**vi) Crop Storage and Marketing****Crop Storage**

*Crop storage* means keeping a crop for a certain period of time for various reasons including food for the household and in order to sell it at higher prices or as seed for planting in the following season. The results show that there were 472,943 (97.4% of agricultural households in the region) crop growing households that stored various agricultural products in the region during 2007/08 agricultural year. Bariadi had the highest percent of households storing crops (99.5%).

**Crop Marketing**

The number of households reporting selling crops during the long rainy season was 378,823 representing 79% of the crop growing households. Of these the largest highest percentage was recorded in Maswa and Meatu (86% each) followed by Kishapu (83%), Bariadi (81) and Maswa (80%). The lowest percentage was recorded in Shinyanga Urban.

**vii) Agricultural Credit**

Results show that very few agricultural households (12,977, 2.7%) accessed credits and that 10,833 (83%) of these were male household members while 2,144 (17%) were female household members. The major provider of credits in the region was family/friends/relatives (40%).

**viii) Crop Extension Services**

Out of a total of 485,212 crop growing households, 347,359 households representing 71% of the total crop growing households received extension advice on crop production. Most of the households received extension advice from the government extension service providers (67.7%).

**ix) Soil Erosion and Water Harvesting Facilities**

In Shinyanga region out of 60,335 households reporting to have soil erosion problem on their farming land only 24,782 of them reported to have soil erosion and water harvesting facilities on their farming land.

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**x) Livestock and Poultry Production****Cattle**

The total number of cattle in the region was 3,651,251. Bariadi had the largest number of cattle (741,197) followed by Kahama (708,629), Maswa (460,350), Meatu (439,190), Bukombe (427,231), and Kishapu (418,834). Other districts had cattle population of less than 400,000 while Shinyanga Urban recorded the smallest number of cattle (68,568).

**Goats**

A total of 1,963,056 goats were kept in 181,605 households giving an average of 10 goats per goat keeping household. Bariadi had the largest number of goats (429,914, 22%) followed by Meatu (354,256, 18%), Kahama (298,389, 15.2%), Maswa (296,845, 15%), Kishapu (250,705, 12.8%), Shinyanga Rural (148,964, 8%), Bukombe (137,685, 7%) and Shinyanga Urban had the smallest number of goats (46,297, 2.4%).

**Sheep**

The total number of sheep in the region was 739,829. Kishapu had the largest number of sheep (158,954) accounting for 21.5% of the total population of sheep in the region. Other districts with a considerable number of sheep were Maswa (150,818), Meatu (150,637), and Bariadi (140,563). In contrast, Shinyanga Urban had the least number of sheep (14,671).

**Pigs**

The total population of pigs was 14,753 of which over 50% (51.3%) were kept in Kahama District followed by Shinyanga Urban (2,328, 16%), Shinyanga Rural (1,881, 13%) and Maswa (1,812, 12%). The remaining districts accounted for less than 10% of the pig population.

**Chicken**

There were 4,890,370 chickens in the region kept by 353,513 households giving an average of 13 chickens per chicken rearing household. The District with the largest number of chickens was Kahama (1,135,471, 23%) followed by Bariadi (1,030,549, 21%) and Shinyanga Rural (627,154, 13%). Shinyanga Urban District had the smallest number of chickens (89,256, 2%).

**Fish Farming**

While in 2002/03 Census report 430 households representing 0.1% of agricultural households in Shinyanga region practised fish farming none was reported in the 2007/08 Agriculture Sample Census.

**xi) Poverty Indicators****Types of Toilets**

Out of total 485,212 households, 11% reported to have no toilets while the rest (89%) had one type of toilet or the other. Most of those who reported owning toilets used traditional pit latrines (416,630, 86%) while those with improved latrines accounted for 2% (20,148 households) and only 1% had flush toilets.

**Access to Drinking Water**

There are various sources of drinking water in Shinyanga region. However, the main source of drinking water for agricultural households during the dry season was protected well (31.2%), followed by unprotected wells (29.2%). In contrast, in the wet season unprotected well was common (29.8%) closely followed by protected wells (29.5%).

About 50% of the rural agricultural households in Shinyanga region obtained drinking water within a distance of less than one kilometer during the wet season compared to 42% households during the dry season. However, 49% of the agricultural households obtained drinking water from a distance of one or more kilometers during the wet season compared to 59% households in the dry season. The most common distance to the source of drinking water was between 500 m and 2 km

**Number of Meals per Day**

The majority of households in Shinyanga region normally had three (3) meals per day (62.8%) followed by those who had two (2) meals per day (36.7%) while those who had one (1) meal per day accounted for only 0.5% households.

**Food Security**

About 38% of the agricultural households said they had never experienced any food sufficiency problems. Furthermore, there were higher percentages of households who reported to have had never experienced food insufficiency in Bukombe (72%) than in other districts. On the other hand, Meatu had a higher percentage of households reporting always having food insufficiency (15%).

**Roofing Materials**

The most common three roofing materials used for the main dwelling were iron sheets accounting for 47.5% (230,370 households) of the total number of agricultural households in the region. This was followed by grass/leaves (26.7%, 129,618 households) and grass and mud (24.7%, 119,650



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households). The most least common were roofing materials like concrete, tiles and asbestos which were each used by less than one (1%) of the rural agricultural households in the region.

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## **1 BACKGROUND INFORMATION**

### **1.1 Introduction**

This part of the report presents a brief description of the regional profile by providing information on geographical location, land area, climate, administrative set up, population and socio-economic indicators. The information will provide the user with a general understanding of the region and its resources.

### **1.2 Geographical Location and Boundaries**

Shinyanga region is situated at the North of Tanzania between 20 and 30 degrees below the Equator and 310 – 350 degrees east of the Greenwich Meridian. Shinyanga shares borders with Mwanza Region to the North, Tabora and Singida regions to the South, Kigoma region to the West and the Arusha region to the East.

The region comprises eight districts namely Bariadi, Maswa, Kishapu, Shinyanga Rural, Shinyanga Urban, Meatu, Kahama, and Bukombe. The region headquarters is located in Shinyanga District.

### **1.3 Land Area**

The region has an area of 19,483 square kilometers

### **1.4 Climate**

#### **1.4.1 Temperature and Rainfall**

The dominant climate is tropical type of climate with clearly distinguished rainy and dry seasons. The average rainfall ranges from 600mm to 900mm. The rainy season usually starts between mid – October and December, and ends in May.

### **1.5 Population**

According to the 2002 Population and Housing Census, there were 2,805,580 inhabitants in Shinyanga region. In terms of population region ranked 2nd out of 21 regions in Tanzania.

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## **1.6 Socio-Economic Indicators**

The Economy of Shinyanga is predominantly based on subsistence agriculture and livestock rearing. The regional Gross Domestic Product (GDP) at current prices for the year 2008 was estimated to be TShs 1,502,902 million with a per capita income of shillings 423,431. The region held 4th position among regions on GDP and contributed about 6.06 percent to the national GDP.

Shinyanga region has mineral deposits of Diamond and Gold situated at Mwadui Village and Kahama District Respectively. The Main cash crops are cotton and tobacco while the main food crops are maize, paddy, sorghum, millet, Cassava, beans and sweet potatoes. Livestock reared are Cattle, sheep and goats, with chicken mostly dominated by indigenous breed. Modern dairy farming and poultry keeping are confined to urban centers. Industrial activities mostly include cotton ginning, cotton seed oil extraction and small scale industries. Shinyanga Region is well served with communication network with the rest of the country by road and railway lines. There is an airport which is situated in Shinyanga Municipality

## 2 INTRODUCTION

This section provides technical and operational description of the National Sample Census of Agriculture (NSCA), carried out in the rural areas of Tanzania Mainland and Tanzania Zanzibar during the 2007/08 agricultural year. It details the background and the rationale for carrying out the NSCA in 2007/08 agricultural year. It also explains the sampling procedures, designing and implementation of the data processing system.

This report (Volume Vh) is among the 21 regional reports for the Mainland. Other Census reports include the Technical Report (Volume I), Crop Sector Report at National level (Volume II), Livestock Report at National level (Volume III), Large Scale Farms Report (Volume IV), Regional Reports (Volume V series), Zanzibar Livestock Report (Volume VI) and Zanzibar Crop Sector Report (Volume VII). Unlike the 2002/03 Agricultural Sample Census, the 2007/08 Sample Census does not have a separate report for Smallholder Household Characteristics and Access to Natural Resources Report. Other thematic reports will be produced depending on the demand and availability of funds.

This report is divided into five main sections; Background Information, Introduction, Census Results, District Profiles and Appendices. The definitions relating to all aspects of this report can be found in the questionnaire.

### 2.1 The Rationale for Conducting the National Sample Census of Agriculture

The Government of Tanzania has embarked on various plans geared to eradicate poverty by the year 2025 and Tanzania Zanzibar by the year 2020. In order to facilitate intervention and monitoring activities of the Poverty Monitoring Master Plan, the government has planned a series of censuses and surveys to assist in policy formulation, planning and to track changes in the wellbeing of the population of Tanzania. In this Master Plan, a series of Agricultural Censuses have been planned, the first one was undertaken in 2002/03 agricultural year and the second in 2007/08.

Demands for reliable and timely agricultural data have become significantly increasing for monitoring outcomes and progress of the poverty monitoring tools like the Agricultural Sector Development Programme (ASDP) and performance of the respective MDAs (ASLMs).

Following the decentralization of the Government's administration and planning functions, there has been a pressing need for agricultural and rural development data disaggregated at regional and district level. The provision of district level estimates will provide essential baseline information on the state of agriculture that supports decision making by the Local Government Authorities and in the design of District Agricultural Development and Investment Projects (DADIPS). The increase in investment is an essential element in the national strategy for growth and reduction of poverty.

## **2.2 Census Objectives**

The 2007/08 Agricultural Sample Census was designed to meet the data needs of a wide range of users down to the district level including policy makers at local, regional and national levels, rural development agencies, funding institutions, researchers, NGOs, farmers organizations, and the like. The dataset is both extensive in its sample and detailed in its scope and coverage to meet the user demand.

The census was carried out in order to:

- Identify structural changes, in the size of farm household holdings, crop and livestock production, farm inputs and implement use. It also seeks to determine if there are any improvements in the rural infrastructures and the level of agricultural household living conditions.
- Provide benchmark data on productivity, production and agricultural practices in relation to policies and interventions promoted by the Ministry of Agriculture and Food Security and other stakeholders.
- Establish baseline data for the measurement of the impact of high level objectives of the Agricultural Sector Development Programme (ASDP), National Strategy for Growth and Reduction of Poverty and other rural development programmes and projects.

## **2.3 Census Scope and Coverage.**

The 2007/08 Agricultural Sample Census was conducted for both large and small scale farms. The data was collected from a sample of 52,635 small scale agricultural households of which 48,880 were from the Mainland and 4,755 from Zanzibar. To meet National estimates, data was also

collected from 1,006 Large Scale Farms (968 on the Mainland and 38 in Zanzibar) on a complete enumeration basis.

Three different questionnaires were used to collect data on agriculture and related aspects. These were:

- Small scale farms questionnaire;
- Community questionnaire; and
- Large scale farm questionnaire.

The small scale farm questionnaire was the main census instrument which included questions related to crop and livestock production and practices; population demographics; access to services; resources and infrastructure; issues on poverty and gender. Main subjects covered during the study include:-

- Household demographics and activities of the household members;
- Land access/ownership/tenure and use;
- Crop and livestock production and productivity;
- Access to inputs and farming implements;
- Access and use of credits;
- Crop marketing, storage;
- Fish farming;
- Investment activities: Irrigation structures, water harvesting, erosion control;
- Off farm income;
- Household living conditions (housing, sanitary facilities, etc);
- Livelihood constraints; and
- Poverty Indicators.

The community level questionnaire was designed to collect village data such as access and use of common resources, community tree plantation and seasonal farm gate prices. Large Scale Farm questionnaire was administered to all the large scale farms either privately or corporately managed. However, the analysis of Large Scale Farms is presented in a separate report (Volume IV).

## 2.4 Census Methodology

The main focus at all stages of the census execution was on data quality and this has been emphasized all the time. The main activities undertaken include:

- Census organization;
- Tabulation plan preparation;
- Sample design;
- Design of census questionnaire and other instruments;
- Pilot test;
- Training of trainers, supervisors and enumerators;
- Information Education and Communication (IEC) campaign;
- Data collection;
- Field supervision and consistency checks;
- Data processing:
  - Scanning,
  - Structure formatting application,
  - Batch validation application,
  - Manual data entry application,
  - Tabulation preparation using SPSS;
- Table formatting and charts using Excel, maps generation using Arc GIS and Excel, Report preparation using Ms Word and Excel.

### 2.4.1 Census Organization

The census was conducted by the National Bureau of Statistics (NBS) in collaboration with Ministries of Agriculture, Food Security and Cooperatives, Livestock and Fisheries Development; Water; Industry and Trade; and the Prime Minister's Office, Regional Administration and Local Government in Tanzania Mainland. The Office of the Chief Government Statistician (OCGS) and Ministries of Agriculture and Natural Resources, Livestock and Fisheries in Tanzania Zanzibar.

At the national level, the Census was headed by the Director General of the National Bureau of Statistics, Tanzania Mainland in collaboration with the Chief Government Statistician, Tanzania Zanzibar. The planning Group formed by the Director General of NBS and the Chief Government

Statistician consisted of staff from the Department of Agriculture Statistics of NBS, Department of Economic Statistics of OCGS, Department of Policy and Planning of the Ministry of Agriculture, Food Security and Cooperatives, Department of Policy and Planning of the Ministry of Livestock and Fisheries Development in the Mainland, and Ministry of Livestock and Fisheries and the Ministry of Agriculture and Natural Resources in Zanzibar.

The Planning Group was responsible for all the census operations. Implementation of the census activities at the regional level was overseen by the Regional Statistical Managers of NBS and the Regional Agricultural Supervisors from the Prime Minister's Office, Regional Administration and Local Government. At the district level, the census activities were managed by two supervisors from the Prime Minister's Office, Regional Administration and Local Government (PMO-RALG). The supervisors managed the enumerators who also came from PMO-RALG. As for Zanzibar, implementation of the census activities at the regional level was overseen by the Regional Statistical Officers and Regional Agricultural Officers. At District level, implementation of the census activities was managed by District Agricultural Development Officers (DADOs). In addition, there was a national mobile team to supervise the census operations.

The Censuses and Surveys Technical Working Group (CSTWG) under MKUKUTA provided support in sourcing financing, approving budget allocation and monitoring progress of the census. A Technical committee for the census was established with members from key stakeholder organizations and its main function was to approve the proposed instruments and procedures developed by the Planning Group. It also approved the tabulation and analytical reports prepared from the census data.

#### **2.4.2 Tabulation Plan Preparation**

The tabulation plan was developed considering the tabulations from previous censuses and surveys to allow trend analysis and comparisons as well as the needs of end users.

#### **2.4.3 Sample Design**

The Mainland sample consisted of 3,192 villages. These villages were drawn from the National Master Sample (NMS) developed by the National Bureau of Statistics (NBS) to serve as national framework for the conduct of household based surveys in the country. The National Master Sample



was developed from the 2002 Population and Housing Census. The total Mainland sample was 47,880 agricultural households. In Zanzibar, a total of 317 Enumeration Areas (EAs) were selected and 4,755 agricultural households were covered. National wide, all regions and districts were sampled except four urban districts (three from Mainland and one from Zanzibar).

In both Mainland and Zanzibar, a two stage sample was used. The number of villages/Enumeration Areas (EAs) was selected for the first stage with a probability proportional to the number of villages/EAs in each district. In the second stage, 15 households were selected from a list of households in each village/EA using systematic random sampling. Table 1.1 gives the sample size of households, villages and districts for the Mainland and Zanzibar.

**Table 2.1: Census Sample**

Description	Mainland	Zanzibar	Total
Households	47,880	4,755	52,635
Villages/EAs	3,192	317	3,509
Districts	133	9	142
Regions	21	5	26

#### **2.4.4 Questionnaire Design and Other Census Instruments**

The questionnaire was designed following users meetings to ensure that the questions asked were in line with the users data needs. Several features were incorporated into the design of the questionnaire to increase the accuracy of the data as follows:

- Where feasible, all variables were extensively coded to reduce post enumeration coding errors;
- The definitions for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the respondent;
- The responses to all the questions were placed in boxes printed on the questionnaire, with one box per character. This feature made it possible to use scanning and Intelligent Character Recognition (ICR) technologies for data capture;
- Skip patterns were used to reduce unnecessary and incorrect coding of sections which do not apply to the respondent; and
- Each section was clearly numbered, which facilitated the use of skip patterns and provide a reference for data type coding for the programming of CSPro and SPSS.

Three other instruments were used:

- Village Listing Forms were used for the listing of households in the village/EA and from this list, a systematic sample of 15 agricultural households were selected;
- A training manual which was used by the trainer for the cascade/pyramid training of supervisors and enumerators; and
- Enumerator's Instructions Manual was used as reference material.

#### **2.4.5 Field Pilot-Testing of the Census Instruments**

The questionnaire was pilot-tested in four locations, namely Arusha, Dodoma, Unguja, and Pemba. This was done to check the wording, flow and relevance of the questions and to finalize crop lists, questionnaire coding and manuals. In addition, several data collection methodologies had to be finalized, namely; livestock numbers in pastoral communities, mixed cropping, use of percentages in the questionnaire and finalizing skip patterns and documenting consistency checks.

#### **2.4.6 Training of Trainers, Supervisors and Enumerators**

During the training, a cascade/pyramid training techniques were employed to maintain statistical standards. The top level of training was provided to 78 national and regional supervisors (65 from Mainland and 13 from Zanzibar). The trainers were members of the Planning Group from the National Bureau of Statistics, the sector Ministries of Agriculture and Office of the Chief Government Statistician, Zanzibar. In each region, three training sessions were conducted for the district supervisors and enumerators. The training concentrated on questionnaires, listing forms, field level census methodology and definitions. Emphasis was placed on consistency checking in the field. Tests were given to the enumerators and supervisors and the best 50 percent of the trainees were selected for the actual field work. The remaining 50% were assigned the work of listing the households in the villages they belong and they were later terminated. The best trained enumerators were assigned to list the remaining villages. Each enumerator was assigned to enumerate two villages.

#### **2.4.7 Information, Education and Communication (IEC) Campaign**

Radios, televisions, newspapers, leaflets, t-shirts and caps were used to create awareness of the Agricultural Sample Census to the public. This strategy helped in sensitizing the public for the field level activities in order to increase the response rate. The t-shirts and caps were given to the

field staff and the village chairpersons. The village chairpersons assisted to locate the selected households.

#### **2.4.8 Data Collection**

Data collection activities for the 2007/08 Agricultural Sample Census lasted for three months from June to August 2009. The direct interview method was used to collect data during the enumeration. Data collection was monitored by a hierarchical system of supervisors which included the Mobile Response Team, Regional and District Supervisors. The Mobile Response Team headed by the Manager of Agriculture Statistics Department, provided the overall direction to the field operations and responded to queries arising outside the scope of the training exercise. Decisions made on the definitions and procedures were then communicated back to all the enumerators via the Regional and District Supervisors. On the Mainland, each region had 2 Regional Supervisors (total of 42) and 2 district supervisors per district, (Total 266).

District supervision and enumeration were performed by staff from the Prime Minister's Office, Regional Administration and Local Government and the sector Ministry of Agriculture (PMO-RALG). Regional and national supervision was provided by senior staff from the NBS and sector Ministries of Agriculture. In Zanzibar, the enumeration was conducted by staff from the Ministry of Agriculture and Natural Resources and Ministry of Livestock and Fisheries. Supervision was provided by senior officers of the same Ministries and the Office of the Chief Government Statistician.

During the household listing exercise, some 3,192 extension staff participated on the Mainland. A total of 177 enumerators participated during the listing exercise and enumeration using the small holder questionnaire in Zanzibar. A total of 1,596 enumerators were involved in data collection using the small holder questionnaire on the Mainland. Additional five percent of the enumerators were held as reserves in case of drop outs during the enumeration exercise.

#### **2.4.9 Field Supervision and Consistency Checks**

Enumerators were trained to probe the respondents until they were satisfied with the responses before they recorded them in the questionnaire. The first check on the questionnaire was carried out by the enumerators in the field during enumeration, followed by District, Regional and National

supervisors. Supervisory visits at all levels of supervision focused on checking the completeness of the questionnaires and consistency. Inconsistencies encountered were corrected, and where necessary, a call back to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made by the district supervisors.

#### **2.4.10 Data Processing**

Data processing involved the following process:

- Data entry;
- Data structure formatting;
- Batch validation; and
- Tabulation.

#### **Data Entry**

Scanning and ICR data capture technology was used. This did not only increase the speed of data entry but also increased the accuracy due to reduction of keystroke errors. Interactive validation routines were incorporated into the ICR software to trap errors during the verification process.

Prior to scanning, all the questionnaires underwent a manual cleaning exercise by checking that the questionnaire had a full set of pages, correct identification and good hand-writing. A score was given to each questionnaire based on the legibility and the completeness of enumeration. This score was used to assess the quality of enumeration and supervision.

CSPPro was used for data entry of the questionnaires that were rejected by the ICR extraction application.

#### **Batch Validation**

A batch validation program was developed in CSPPro in order to identify inconsistencies within a questionnaire. This was in addition to the interactive validation during the ICR extraction process. The procedures varied from simple range checking within each variable to more complex checking between variables. After data cleaning, the tables were prepared based on a pre-designed tabulation plan.

**Tabulation**

Statistical Package for Social Sciences (SPSS) was used to produce the census tables and Microsoft Excel was used to organize the tables and compute the additional indicators. Excel was also used to produce charts while Arc GIS was used for generating the maps.

**Report Writing**

The report writing was focused on the regional comparisons, time series and national estimates. Microsoft Excel was used to produce charts; Arc GIS and Excel were used to generate maps, whereas Microsoft Word was used in compiling and report writing.

**Data Quality Control**

A great deal of emphasis was placed on data quality throughout the whole exercise, from planning; questionnaire design, training, supervision, data entry, validation and cleaning/editing. As a result of this, it is believed that the census is highly accurate and representative of what was experienced at the field level during the census year. With very few exceptions, the variables in the questionnaire are within the norms for Tanzania and they follow the expected time series trends when compared to historical data.

**2.5 Funding Arrangements**

The 2007/08 Agricultural Sample Census was supported mainly by the Department for International Development (DFID) and the Japan International Cooperation Agency (JICA) which together, financed most of the operational activities. Other funds for the census activities were from the Government of Tanzania. In addition, technical assistance was provided by the Food and Agriculture Organisation (FAO).

### 3 CENSUS RESULTS AND ANALYSIS

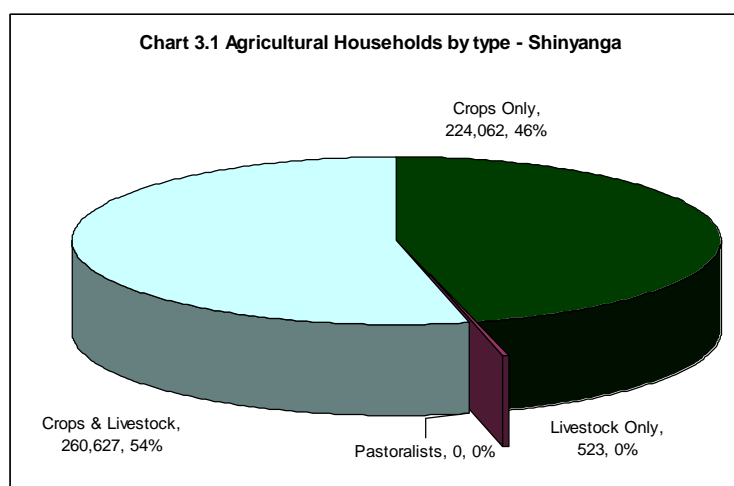
This part of the report presents the results of the census for Shinyanga region, based on the statistical tables presented in Appendix A2. The results are presented in different forms including brief summaries, charts, condensed tables, graphs and maps in order to make it easy for the users to understand. Comparisons are made between related variables and between districts. Comparisons are also made with past censuses and surveys' results for establishment of trend and time series analysis. This include comparison with the 2002/03, 1994/95 National Sample Censuses of Agriculture (NSCA), the 1995/96 and the 1996/97 Expanded Agricultural Survey, the 1997/98 Integrated Agricultural Surveys, the 1998/99 District Integrated Agricultural Survey and the 1999/00 Rapid Agricultural Appraisal Survey. The presentation is divided into four main sections which are household characteristics, crop results, livestock results, and poverty indicators.

#### 3.1 Household Characteristics

##### 3.1.1 Type of Agricultural Household

The number of agricultural households in Shinyanga region was 485,212. Kahama District had the largest number of agricultural households (107,477) followed by Bariadi (100,936), Bukombe (65,991), Shinyanga Rural (54,401) Maswa (52,430) Kishapu (48,258), Meatu (40,564) and Shinyanga Urban had the smallest number of households

(15,154) (Map 3.01). Majority of households were involved in crop and livestock production (260, 627, 53.7%) followed by crop growing only (224, 062, 46.2%) and livestock only (523, 0.11%) (Table 3.1, Chart 3.1).



**Table 3.1: Number of Agricultural Households by Type of Holding and District During 2007/08 Agriculture year**

District	Crops Only		Livestock Only		Pastoralist		Crops & Livestock		Total Number of Households	Total Number of Households Growing Crops	Total Number of Households Rearing Livestock
	Number of households	%	Number of households	%	Number of households	%	Number of households	%			
Bariadi	37,135	37	0	0	0	0	63,802	63	100,936	100,936	63,802
Maswa	21,360	41	0	0	0	0	31,070	59	52,430	52,430	31,070
Shinyanga Rural	20,820	38	134	0	0	0	33,446	61	54,401	54,266	33,581
Kahama	59,891	56	0	0	0	0	47,586	44	107,477	107,477	47,586
Bukombe	39,758	60	0	0	0	0	26,233	40	65,991	65,991	26,233
Meatu	15,925	39	300	1	0	0	24,338	60	40,564	40,263	24,639
Shinyanga Urban	8,082	53	88	1	0	0	6,984	46	15,154	15,066	7,072
Kishapu	21,091	44	0	0	0	0	27,168	56	48,258	48,258	27,168
<b>Total</b>	<b>224,062</b>	<b>46</b>	<b>523</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>260,627</b>	<b>53.7</b>	<b>485,212</b>	<b>484,689</b>	<b>261,150</b>

Furthermore, Shinyanga Urban (448) had the highest density of agricultural households per km<sup>2</sup> of land while Meatu had the lowest density (125) (Map 3.02). Kahama District had the largest number of crop growing households (59,891) while Shinyanga Urban had the smallest number of crop growing households (8,082) (Map 3.03).

Regarding percent of crop growing households, Kahama and Bukombe had the highest percent while the lowest percent was recorded in Bariadi (Map 3.04). Regarding the number of crop growing households per km<sup>2</sup> the highest density was reported in Shinyanga Urban (239) while Meatu had the lowest (49) (Map 3.05). Moreover, the highest percent of crop and livestock households was recorded in Bariadi (963%) while Bukombe had the lowest percent (40%), (Map 3.06).

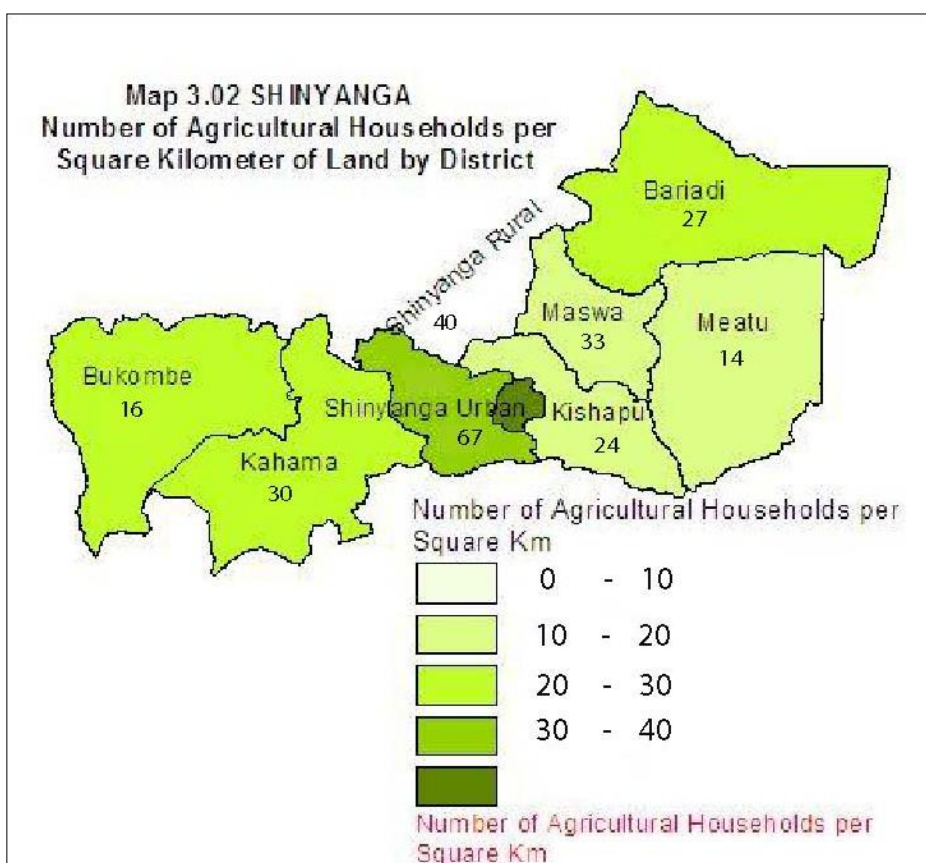
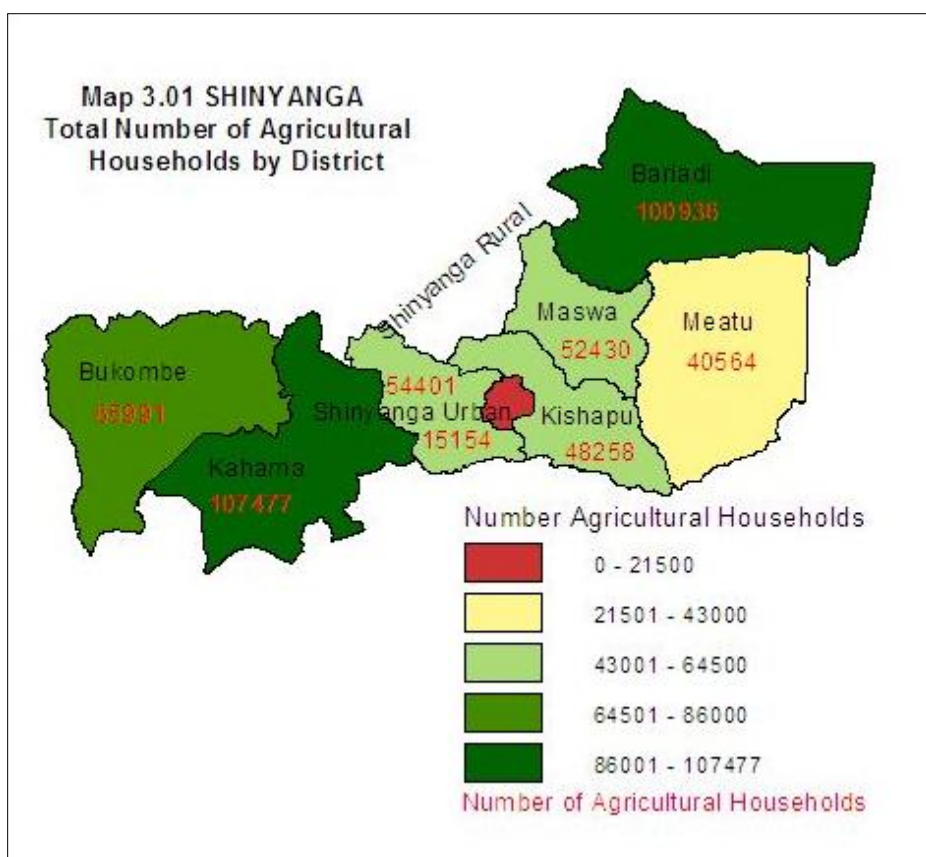
### 3.1.2 Livelihood Activities/Source of Income

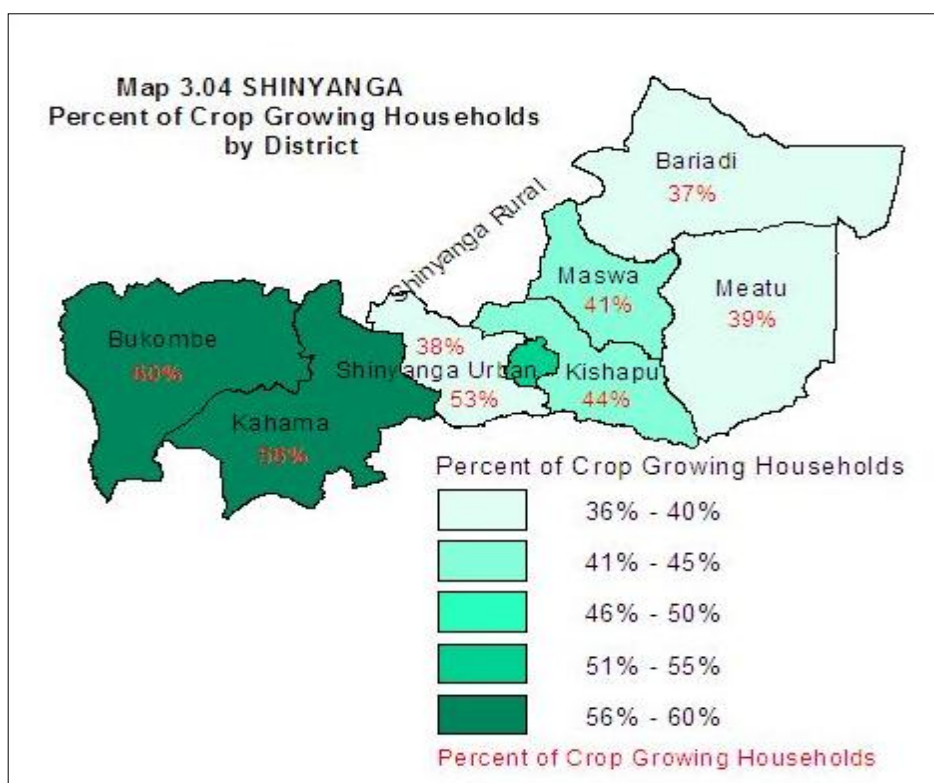
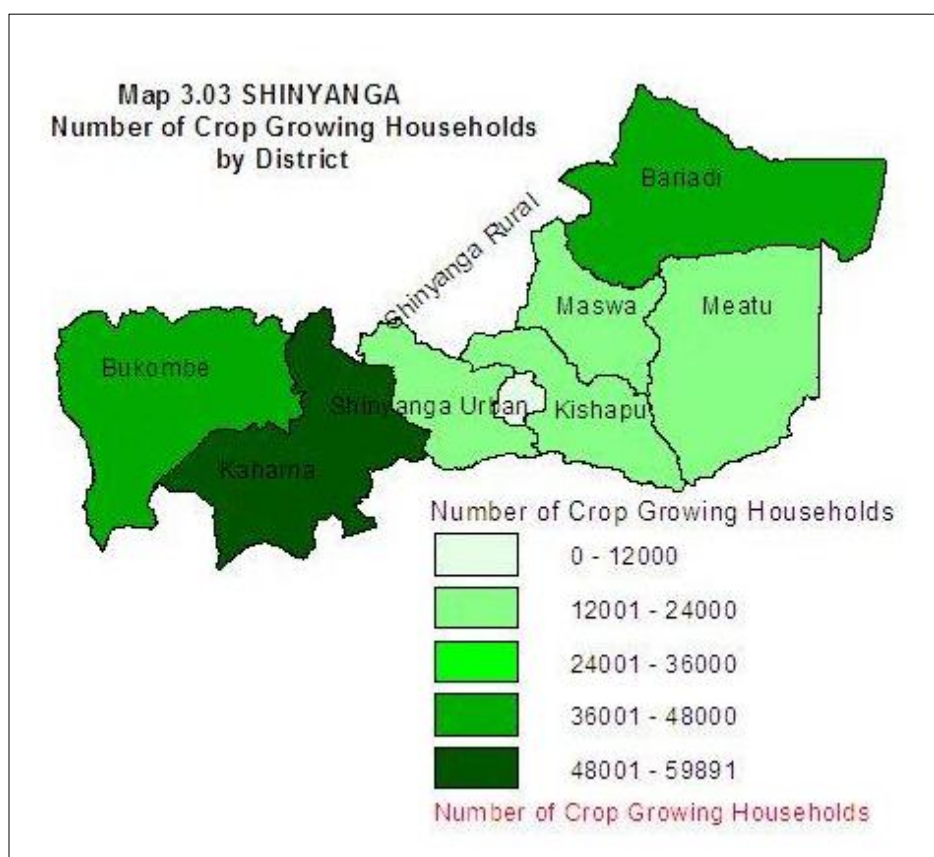
Most households in all districts in Shinyanga region depended on crop farming as their main occupation (93%) followed by employment (3%) and other Occupations (3%). The contribution of livestock keeping and fishing was very small at one (1%) and 1.2% respectively. Dependence on crop farming as the main occupation ranged from 99% in Bukombe to 81% in Shinyanga Urban. Also, Shinyanga Urban had the highest percent of households whose main occupation was employment (11%) and livestock herding (3%), (Table 3.2).

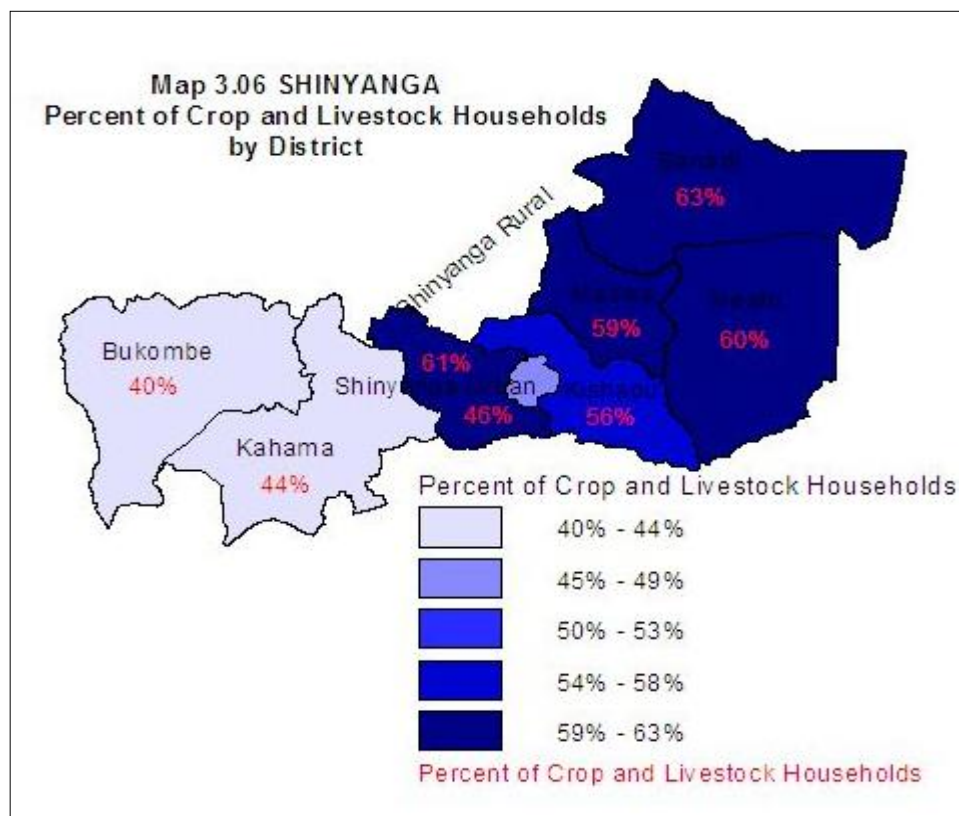
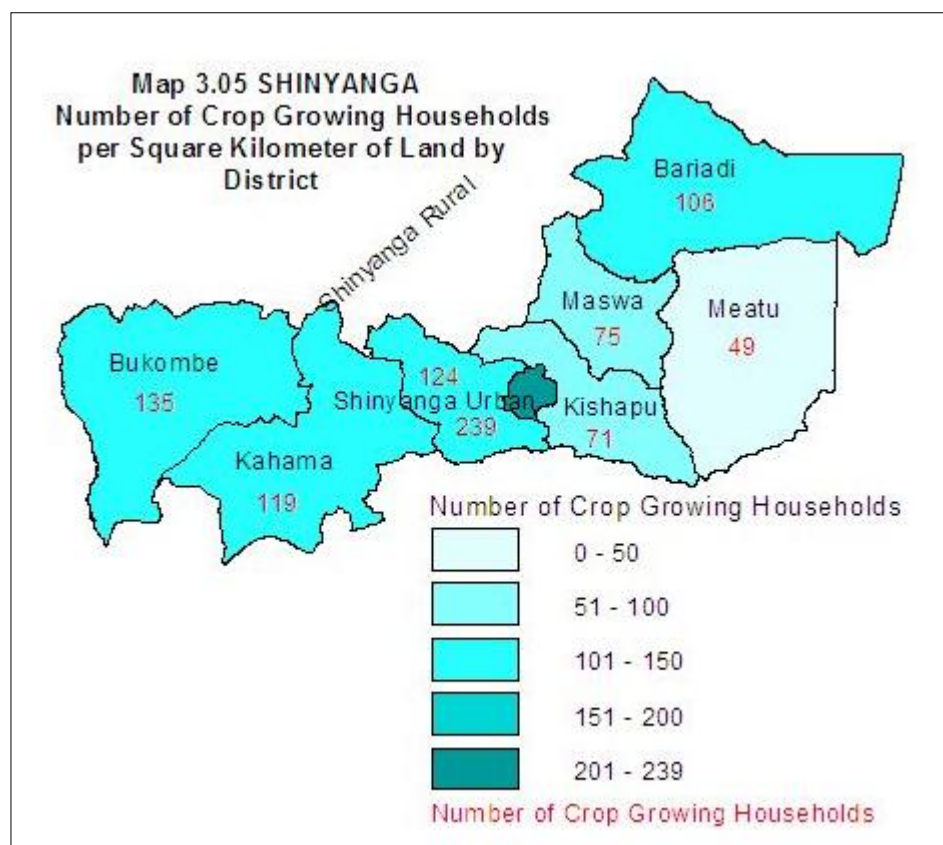
**Table 3.2: Number of Heads of Agricultural Households by Main Activity and District**

District	Crop/Seaweed Farming		Livestock Keeping / Herding		Fishing		Employment		Other		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Bariadi	91,217	90	2,243	2	249	0	2,741	3	4,486	4	100,936	100
Maswa	47,770	91	388	1	-	-	1,942	4	2,330	4	52,430	100
Shinyanga Rural	51,311	94	537	1	-	-	1,343	2	1,209	2	54,401	100
Kahama	100,717	94	1,352	1	-	-	3,245	3	2,163	2	107,477	100
Bukombe	65,339	99	-	-	-	-	489	1	163	0	65,991	100
Meatu	37,659	93	801	2	-	-	1,302	3	801	2	40,564	100
Shinyanga Urban	12,211	81	527	3	-	-	1,713	11	703	5	15,154	100
Kishapu	46,113	96	238	0	238	0	715	1	953	2	48,258	100
Total	452,337	93	6,087	1	488	0	13,490	3	12,809	3	485,212	100







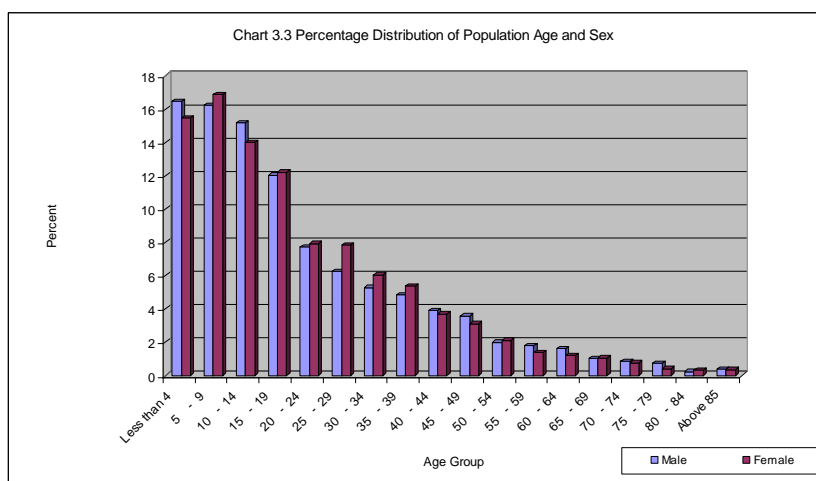


### 3.1.3 Sex and Age of Heads of Households

Of the total number of agricultural households in Shinyanga region the number of male headed households was 411,087 (85%) whilst that of female-headed households was 74,124 (15%) showing no significant changes since the last Agriculture Sample Census. The mean age for household heads was 46 years (46 years for male heads and 50 years for female heads). This had remained the same as in the previous Census.

### 3.1.4 Age and Sex of Household Members

Shinyanga region had a total rural agricultural population of 3,441,428 of whom 1,757,130 (51%) were males and 1,684,299 (49%) were females. However, the distribution of household members by age and sex shows that the age group 0-14 constituted 48% and 46% of the



total rural agricultural population for male and female population respectively. The age group 15–64 (active population) was only 49% and 51% for male and female population respectively (Chart 3.3). Shinyanga region had an average household size of 7.09 with Shinyanga Urban District having the smallest household size of 5.37.

### 3.1.5 Level of Education

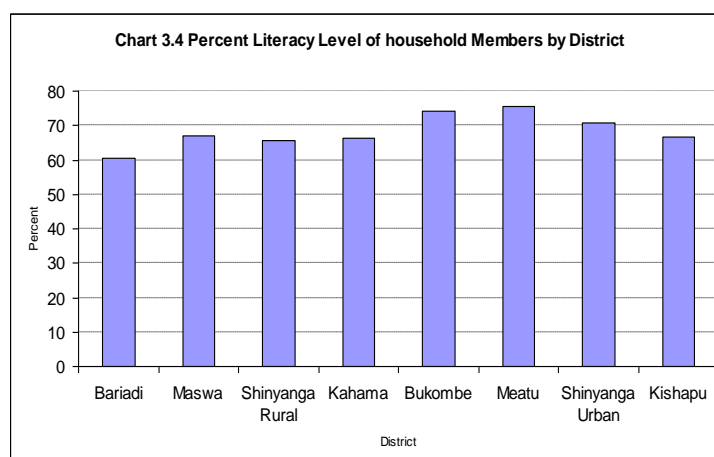
Data on literacy and education attainment were obtained for all persons aged five years and above in all households.

#### 3.1.5.1 Literacy

Data on literacy level for household members aged five years and above were obtained by asking individual households whether their respective household members could read and write in Kiswahili only, English only, both English and Swahili or in any other language. Literacy was based on the ability to read and write Swahili, English or both.

### 3.1.5.2 Literacy Level for Household Members

The literacy level of household members in Shinyanga region was 67% (1,933,031) and those who could not read and write accounted for only 33% (959,419) of household members. Meatu (75%), Bukombe (74%), and Shinyanga Urban (71%) were the only districts that recorded literacy level higher than the regional average (67%). On the other hand, Bariadi District recorded the lowest level of literacy (61%), (Chart

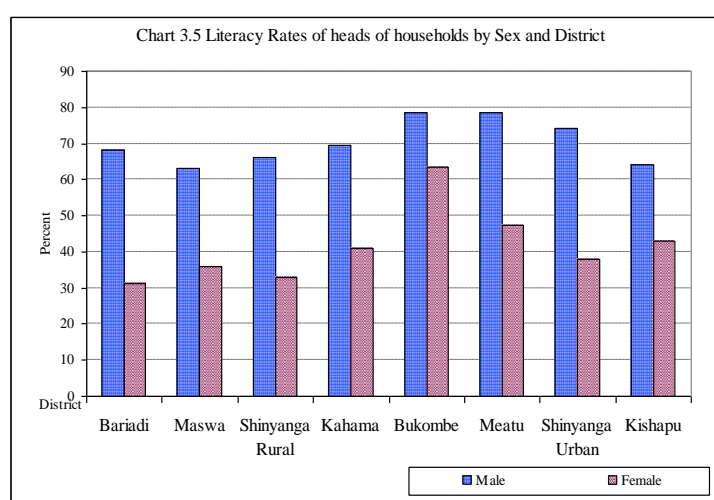


3.4). Generally, household members had the highest level of literacy in Swahili (1,776,075, 61.4%) followed by Swahili and English (155,635, 4%) and other languages (1,320, 0.04%).

At district level, Bukombe had the highest percent of literacy level of household members in Swahili (71%) and the lowest level was recorded in Bariadi (57%). Also, Meatu recorded the highest level in Swahili and English (7%) while Shinyanga Urban, Kishapu and Bukombe had the lowest level of literacy in the two languages (2%). With respect to other languages, both districts had the lowest level of literacy.

### 3.1.5.3 Literacy Rates for Heads of Households

The literacy rate for the heads of households in the region was 65%. The literacy rates for the male heads of household were 70% and that of female heads was 30%. The literacy rate of male heads was higher than that of female heads in all districts. The three districts with the highest literacy rate amongst heads of households was Bukombe (78%), Meatu (74%) and Shinyanga Urban (67%).

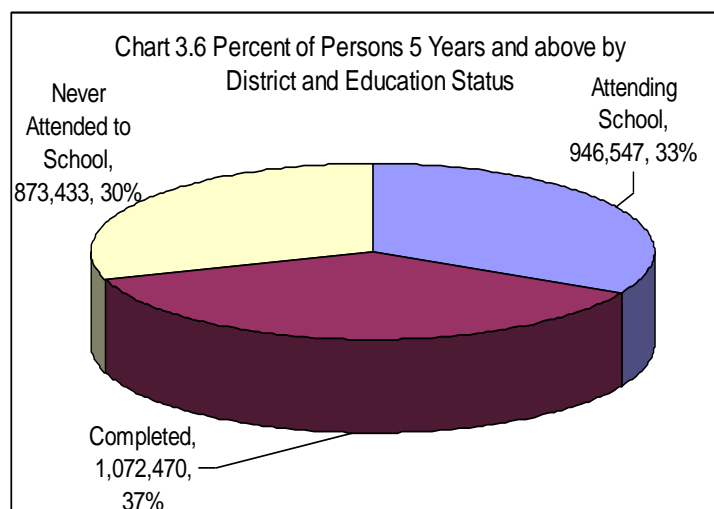


The lowest literacy rates among heads of households were found in Maswa (57%), Shinyanga Rural (61%) and Kishapu (61%), (Chart 3.5).

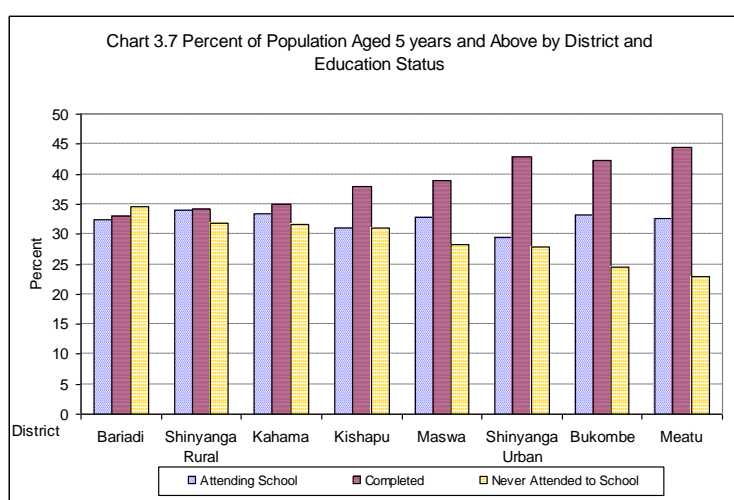


### 3.1.5.4 Educational Status

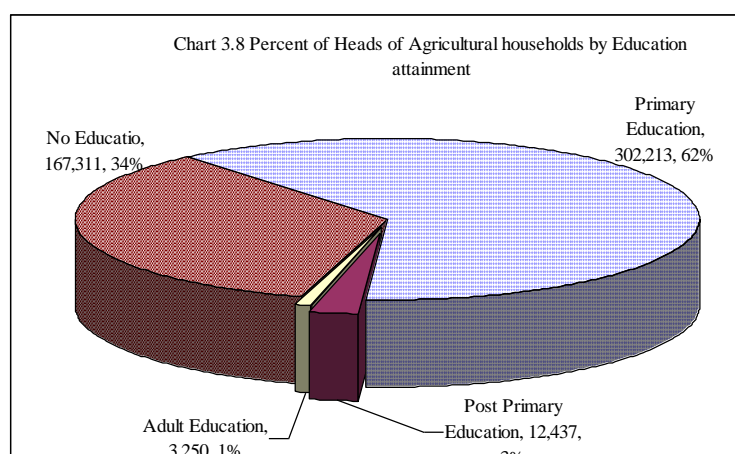
Data on educational status was collected from individual members of agricultural households. The results show that 37% (1,072,470) of the population aged 5 years and above had completed different levels of education followed by 33% (946,547) who were attending school while those who had never attended school accounted for 30% (873,433) of the entire rural population (Chart 3.6).



Meatu and Shinyanga Urban had the highest percent of persons aged 5 years and above who had completed education (44%) and (43%) respectively while Bariadi had the lowest percent (33%). In the category of those who had never been to school, the highest percent was recorded in Bariadi (35%) while Meatu had the lowest percent (23%). Regarding individual household members who were still attending school, Shinyanga Rural had the highest percent (34%) while Shinyanga Urban had the lowest percent (29%), (Chart 3.7).



Regarding educational attainment of heads of household, majority (302,213, 62%) had attained primary education while those with post primary education were 12,437 (3%). The number of those who had attained adult education was very small (3,250 or about 1%). On the other hand, the number of those who had no formal education was 167,311 (34%), (Chart 3.8).



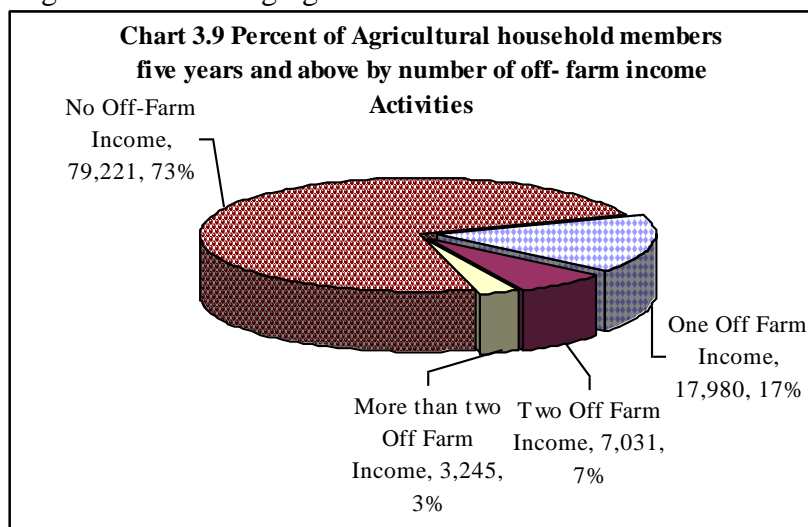
Bukombe District had the highest percent of household heads with primary education attainment (76%) and the lowest percent was reported in Maswa District (56%). On the other hand, heads of household who attained post primary education were mostly recorded in Kahama and Meatu 5% each respectively, (Table 3.3).

**Table 3.3: Percentage Distribution of Heads of Households by Educational Attainment**

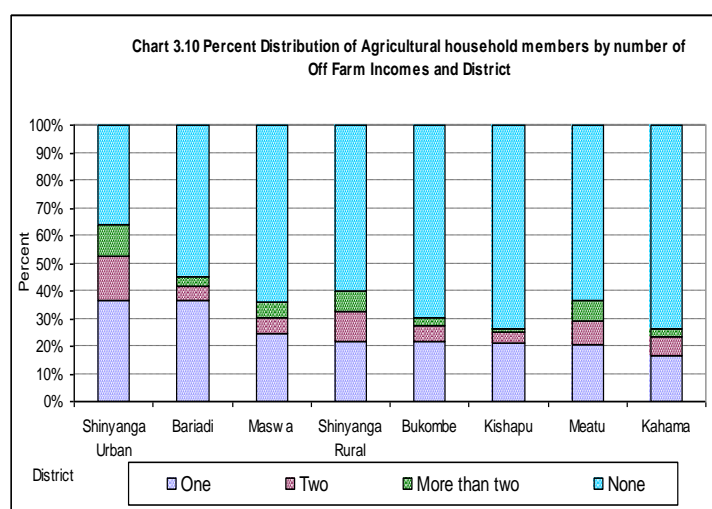
District	Primary Education		Post Primary Education		Adult Education		No Education		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Bariadi	62,306	62	997	1	498	0	37,135	37	100,936	100
Maswa	29,128	56	777	1	647	1	21,878	42	52,430	100
Shinyanga Rural	31,566	58	1,209	2	403	1	21,223	39	54,401	100
Kahama	63,675	59	5,138	5	1,082	1	37,583	35	107,477	100
Bukombe	50,349	76	1,304	2	0	0	14,339	22	65,991	100
Meatu	28,044	69	1,903	5	501	1	10,116	25	40,564	100
Shinyanga Urban	9,620	63	395	3	0	0	5,139	34	15,154	100
Kishapu	27,525	57	715	1	119	0	19,899	41	48,258	100
Total	302,213	62	12,437	3	3,250	1	167,311	34	485,212	100

### 3.1.6 Off-farm Income

Off-farm income refers to cash generated from non-agricultural activities. This can be either from permanent employment (i.e. government and private sector), temporary employment or labourers. It also includes cash generated from working on farms belonging to other farmers. Off-farm income is important amongst agriculture households in Shinyanga with 35% of households reporting having at least one member with off-farm income. In Shinyanga region 117,678 (24%) had only one member aged 5 and above involved in only one off-farm income generating activity, 33,374 (7%) had two members involved in off-farm income generating activities and 20,293 (4%) had more than two members involved in off-farm income generating activities (Chart 3.9).



Shinyanga Urban District had the highest percentage of agriculture households with off-farm income (over 60% of total agriculture households in the district). Other districts with high percent of agriculture households with off-farm income were Bariadi (45%), Shinyanga Rural (40%), Maswa (36%) and Bukombe (30%). Kishapu and Kahama districts had the lowest percent of agriculture households with off-farm income (26%) (Chart 3.10).





### 3.2 Land Use

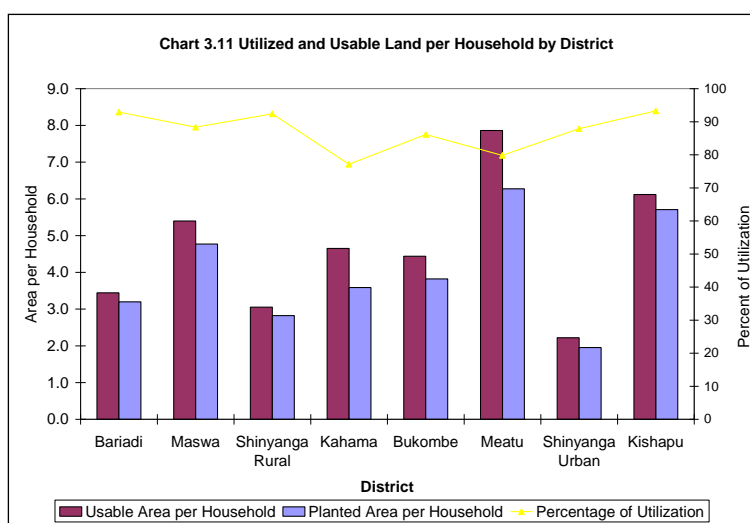
Land area and planted area are two different types of area measurements. Land area refers to the physical area of land and is the same regardless of the number of crops planted on it in one year. Planted area is the total area of crops planted in a year and the area is summed if there were more than one crop on the same land per year. A number of terms are used in this section which requires defining for clarification as follows:

Land available refers to the area of land that has been allocated to smallholders through customary law, official title or other forms of ownership. Land available does not mean the total area of land that is designated as agriculture land in the country; but it is the land that is available to smallholders given the location of villages and lack of access to more remote parcels of unused agriculture designated land. Usable land refers to the available minus the land that cannot be used e.g. bare rock, shallow soils, steep swamp areas etc. It does, however, include un-cleared bush. Utilised land refers to the land that was used during the year.

#### 3.2.1 Area of Land Utilised

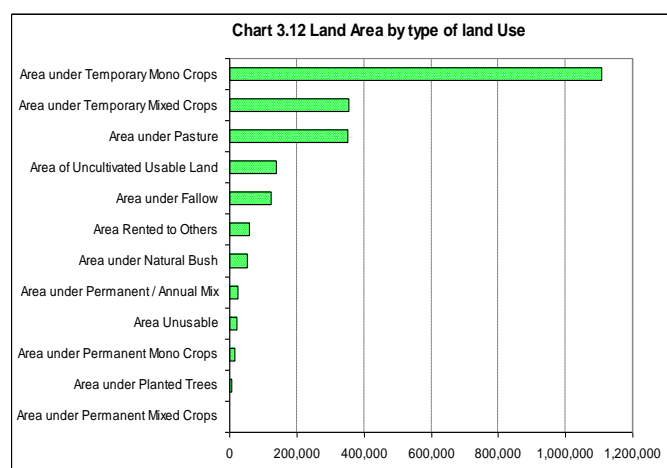
The total area of land available to smallholders was 2,236,501 ha while the average usable area per household was 4.6 ha. About 86% (85.9%) of the total usable land was utilised and only 14% was not used.

There were large differences in land area utilised per household among districts with Meatu District having the largest usable area per household (7.9 ha) while the smallest area was reported in Shinyanga Urban (2.2 ha). On the other hand, Kishapu had the highest percent of land utilization (93.28%) while Kahama had the lowest percent (77.12%) (Chart 3.11, Map 3.7).



### 3.2.2 Types of Land Use

The most important land use type was that of temporary monocrop with 1,108,335 ha accounting for almost 50% (49%) followed by temporary mixed crops (353,922 ha, 15.7%), pasture (350,225 ha, 15.6%), uncultivated usable land (138,517 ha, 6.2%), and fallow (122,381 ha, 5.4%). The remaining land area was put to other types of land use including permanent mixed crop, which had the smallest land area (2,584 ha, 0.1%), (Chart 3.12).

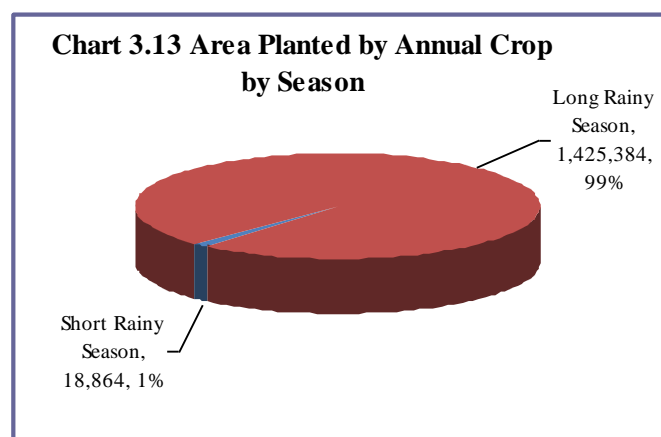


### 3.3 Annual Crops and Vegetable Production

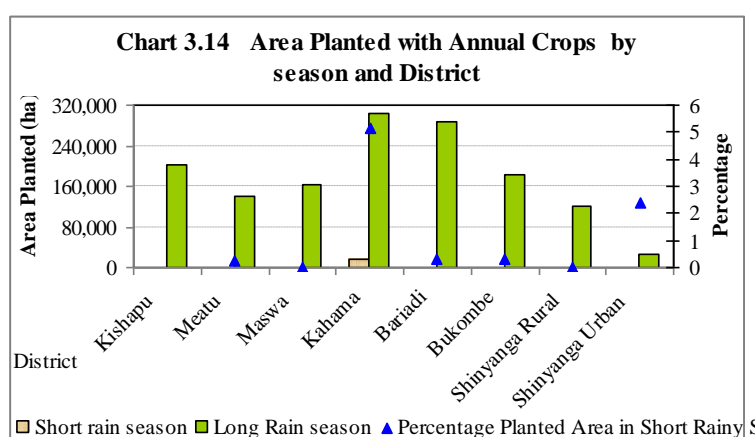
Shinyanga region has a unimodal rainfall pattern with the rains starting in November and ending in March. With the exception of some irrigated annual crops and vegetables grown in the dry season, the rest of the crops are grown during the wet season.

#### 3.3.1 Area Planted

The area planted with annual crops and vegetables was 1,444,248 ha out of which 1,425,384 ha (99%) were planted during the wet season (long rainy season) while only 18,864 ha (1%) were planted during the short rainy season (dry season) (Chart 3.13). The average planted area per household during the long rainy season and short rainy season was 2.75 ha and 2.98 ha respectively.



Generally, during the short rainy season agricultural production was quite limited. In fact, in some districts

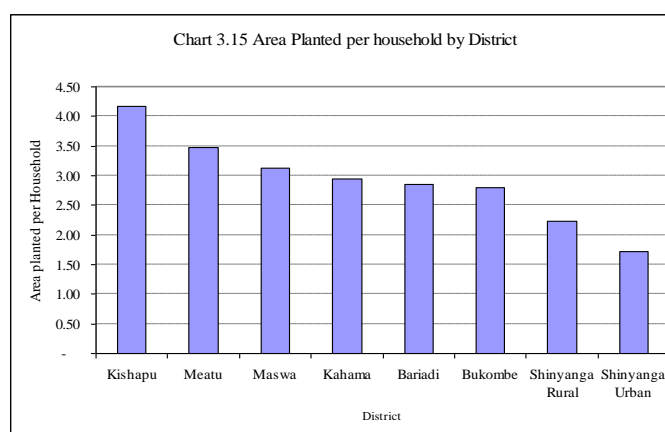


such as Maswa and Shinyanga Rural none of the households were engaged in agricultural production during this season. Specifically, during this season Kahama District had the largest planted area (16,382 ha, 5.14% of the total area planted). During the long rainy season Kahama had the largest planted area (302,458 ha), followed by Bariadi (287,815 ha) while Shinyanga Urban had the smallest planted area (25,361 ha) (Chart 3.14 and Table 3. 4).

**Table 3.4: Number and Area of Crop Growing Households by Season and District**

District	Short Rainy Season		Long Rainy Season		Total area planted (hectare)	Area planted per household
	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)		
Bariadi	249	807	100,687	287,815	288,623	2.86
Maswa	0	0	52,301	163,230	163,230	3.12
Shinyanga Rural	0	0	54,266	120,825	120,825	2.23
Kahama	6,342	16,382	102,214	302,458	318,840	2.96
Bukombe	489	594	65,502	184,456	185,050	2.82
Meatu	200	314	39,963	139,498	139,813	3.49
Shinyanga Urban	88	622	14,979	25,361	25,984	1.69
Kishapu	119	145	48,258	201,739	201,884	4.18
Total	7,487	18,864	478,170	1,425,384	1,444,248	2.98

On the basis of area planted with annual crops per household, the largest area planted with annual crops per household was found in Kishapu (4.18 ha) and Meatu (3.49 ha). On the other hand, the smallest planted area per household was found in Shinyanga Urban (1.69 ha) and Shinyanga Rural (2.23 ha) (Chart 3.15).



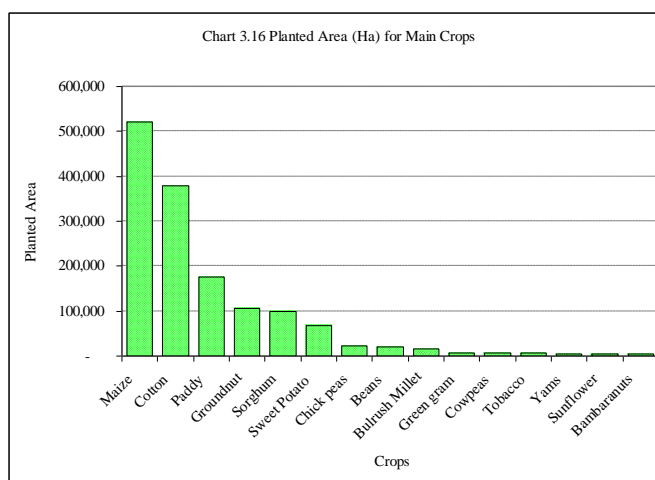
Regarding the total planted area, Kahama (326,153 ha) and Bariadi (290,106 ha) had the largest total planted area while Shinyanga Urban had the smallest planted area (Map 3.08). Also, Kahama had both the largest planted area and percent during the dry season while Bariadi, Meatu and Bukombe had much smaller planted areas (Map 3.09).

### Analysis of the Most Important Crops

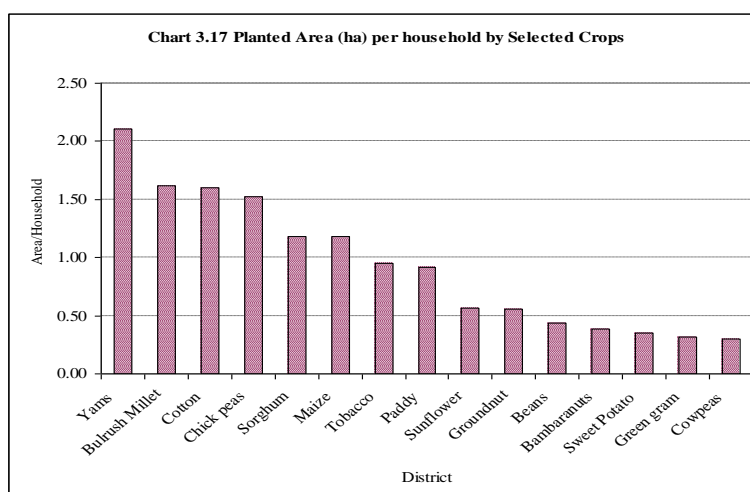
Results on crop production are presented in two different sections. The first section compares the importance of each crop regardless of whether it is annual or permanent. The second section contains a more detailed analysis of production based on crop types.

### 3.3.2 Crop Importance

Based on area planted, maize was the dominant food crop grown in Shinyanga region. The area planted with maize was 521,777 ha which accounted for 36.3% of the total area planted with annual crops in the region. Other annual crops, after maize, in order of importance based on area planted in the region were cotton (378,666 ha, 26.3%), paddy (175,192 ha, 12.2%), groundnut (105,754 ha, 7.3%), sorghum (98,145 ha, 6.8%), sweet potato (66,859 ha, 4.6%), chick peas (22,112 ha, 1.5%), beans (21,075 ha, 1.5%), and bulrush millet (14,862 ha, 1%). Other crops and their respective planted area were green gram (6,907 ha, 0.5%), cow peas (6,345 ha, 0.4%), tobacco (5,999 ha, 0.4%), yams (5,536 ha, 0.4%), sunflower (5,447 ha, 0.4%), and Bambaranuts (4,215 ha, 0.3%). Other annual crops were grown in minor quantities. (Chart 3.16)

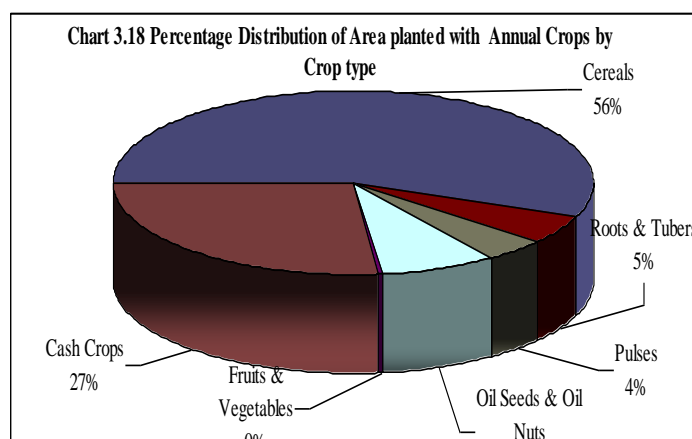


The largest planted area per household was grown to yams (2.11 ha) while the smallest planted area per household was grown to cow peas (0.30 ha), (Chart 3.17).



### 3.3.3 Crop Types

Cereals are the main crops grown in Shinyanga region accounting for 56% (810,787 ha) of the total planted area, followed by cash crops (384,615 ha, 27%), oil seeds and oil nuts (113,139 ha, 8%), roots and tubers (71,696 ha, 5%), and pulses (60,673, 4%). Fruits and vegetables were hardly grown in the region (Chart 3.18).



Generally, for all crops, the area planted during the wet season was much larger compared to the area planted in the dry season. Besides, the largest areas planted in both seasons were grown to cereals and cash crops. Similarly, in both seasons, the smallest area was planted with fruits and vegetables.

### **Area Planted and Yield of Major Cereals**

During the short rainy season, the largest area was planted with maize (6,018 ha) followed by paddy (4,710 ha), sorghum (403 ha), and bulrush millet (267 ha). Also, maize recorded the largest harvests (6,940 ton) while the smallest harvest was obtained from bulrush millet (439 ton). With respect to yield, bulrush millet recorded the highest yield (1.65 ton/ha) while sorghum had the lowest yield (0.52 ton/ha).

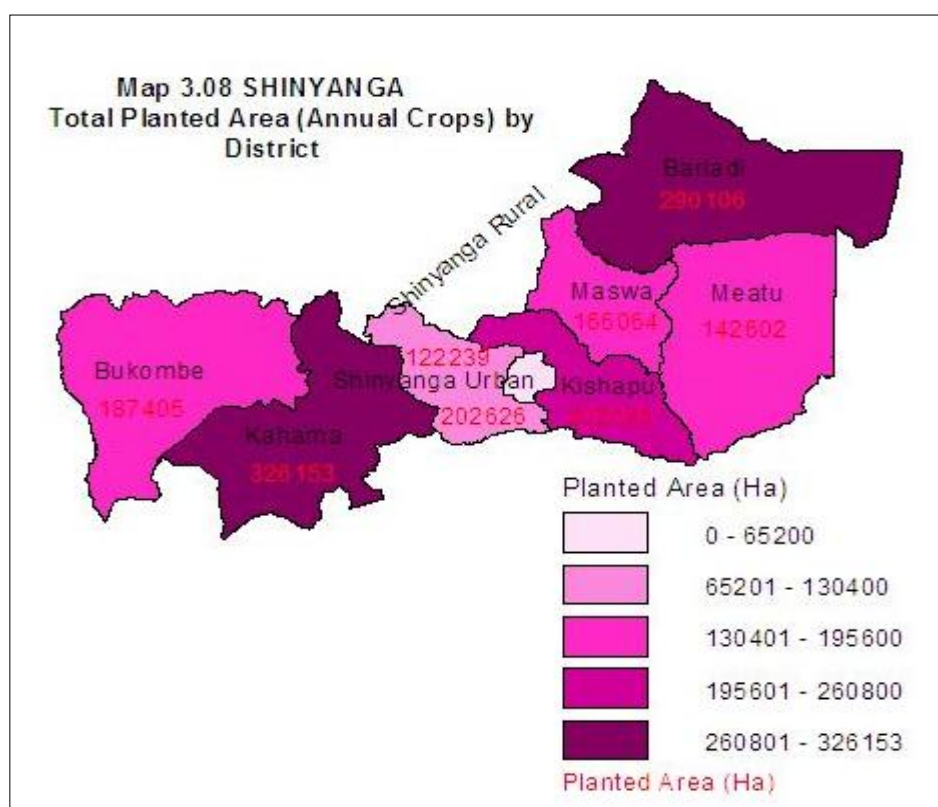
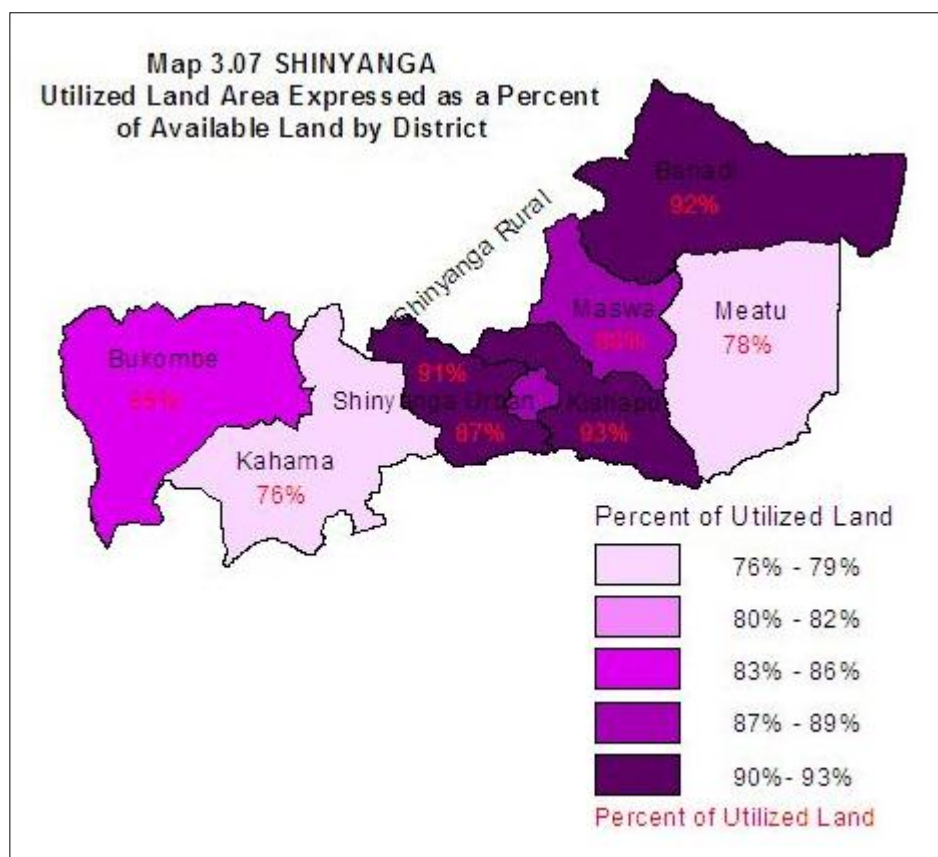
During the wet season, the largest area was planted with maize (515,759 ha) followed by paddy (170,482 ha), sorghum (97,742 ha), bulrush millet (14,595 ha) while finger millet had the smallest planted area (811 ha). The largest harvest was obtained from maize (671,806 ton) while the smallest harvest was obtained from finger millet (667 ton). On the other hand, paddy had the highest yield (1.5 ton/ha) whereas finger millet had the lowest yield (0.8 ton/ha). On average, the average yield for all crops was 1.3 ton/ha compared to 1.2 ton/ha in the dry season (Table 3.5).

### **3.3.4 Cereal Crop Production**

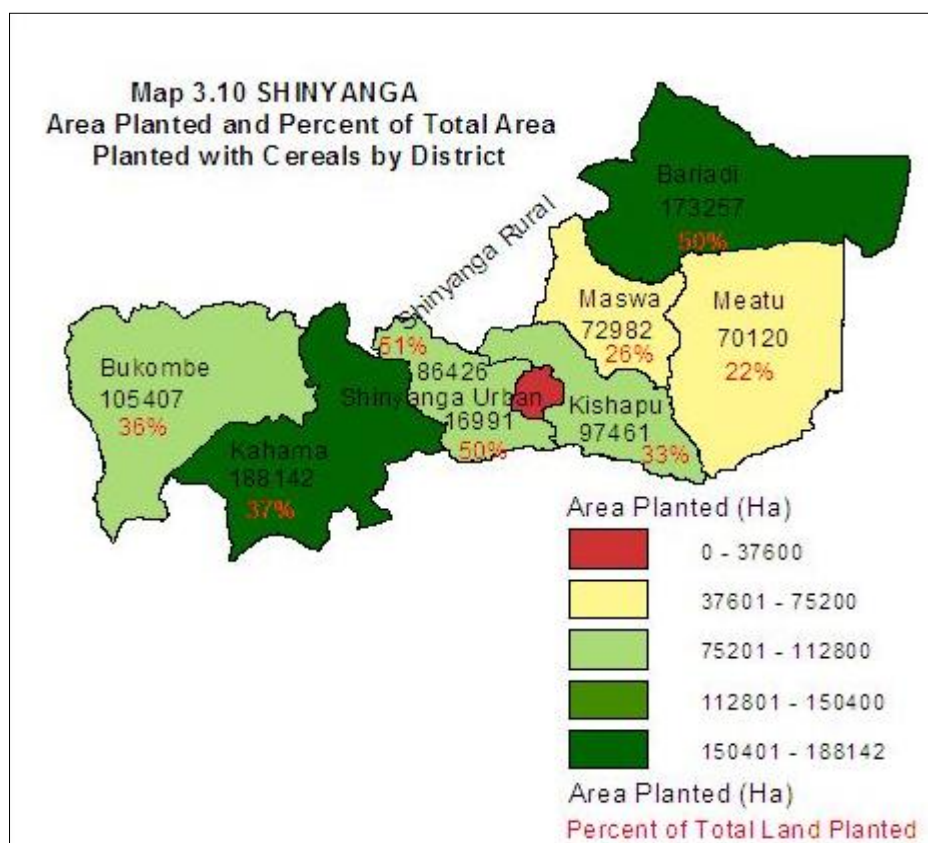
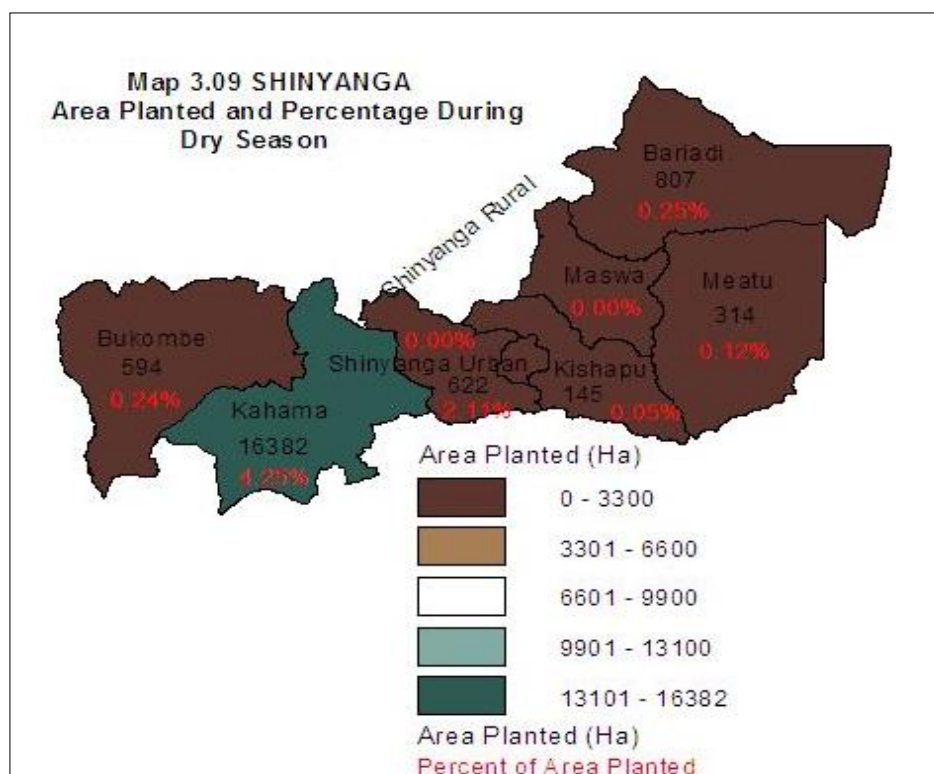
The total area planted with cereals was 799,390 ha with maize accounting for about 65% (515,796 ha) of the total area planted with cereal crops, followed by paddy (170,482 ha, 21%), sorghum (99,558 ha, 12%), bulrush millet (14,595 ha, 2%) and finger millet (811 ha, 0.1%). The highest yield was obtained from paddy (1.48 ton/ha) followed by maize (1.30 ton/ha), sorghum (1.02 tons/ha), bulrush millet (1.01 tons/ha) and finger millet (0.08 tones/ha) (Table 3.5). Kahama had the largest planted area with cereals (188,142 ha) while the smallest planted area was found in Shinyanga Urban (16,991 ha) (Map 3.10)

**Table 3.5: Production and Yield of Major Cereals Crops by Season**

<b>Crop</b>	<b>SHORT RAINY SEASON</b>			<b>LONG RAINY SEASON</b>		
	<b>Actual Planted Area (ha)</b>	<b>Quantity Harvested (tons)</b>	<b>Yield (tons/ha)</b>	<b>Actual Planted Area (ha)</b>	<b>Quantity Harvested (tons)</b>	<b>Yield (tons/ha)</b>
Maize	6,018	6,940	1.15	515,759	671,806	1.30
Paddy	4,710	6,276	1.33	170,482	251,668	1.48
Sorghum	403	211	0.52	97,742	99,558	1.02
Bulrush Millet	267	439	1.65	14,595	14,798	1.01
Finger Millet	.	.	.	811	667	0.82
<b>CEREALS</b>	<b>11,397</b>	<b>13,867</b>		<b>799,390</b>	<b>1,038,497</b>	





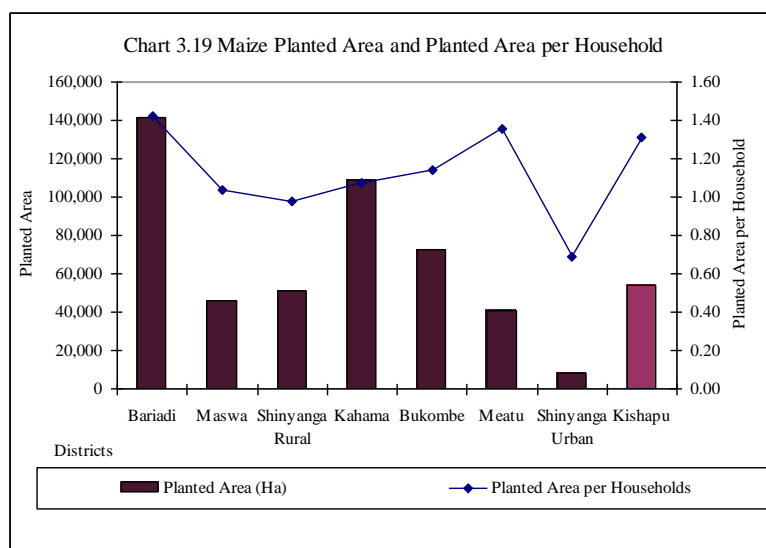




### 3.3.4.1 Maize

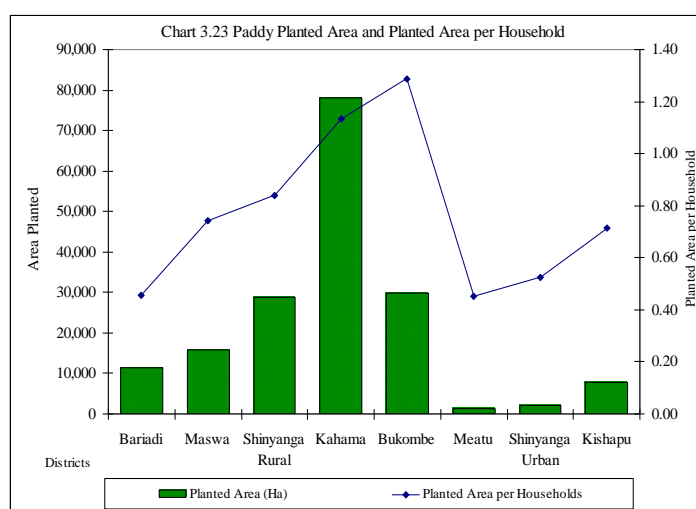
Maize is the major cereal crop in Shinyanga region. There were 443,092 households engaged in maize production with Kahama having the largest number of households (101,528) and the smallest number of households was recorded in Shinyanga Urban (11,948). The total area planted with maize was 521,777 ha of which the largest area planted was recorded in Bariadi (141,383 ha) while Shinyanga Urban had the smallest area (8,192 ha). The highest yield of maize was obtained in Shinyanga Rural (1.79 ton/ha) and Bukombe recorded the lowest Yield (Map 3.11).

The average area planted with maize per household was 1.2 ha. Bariadi District had the largest planted area per maize growing household (1.42 ha) followed by Meatu (1.35 ha), Kishapu (1.31 ha), Shinyanga Urban (0.69 ha), Bukombe (1.14 ha), Kahama (1.07 ha), Maswa (1.04 ha), and Shinyanga Rural (0.98 ha) (Chart 3.19 and Map 3.12).



### 3.3.4.2 Paddy

Paddy was the second most important cereal crop after maize in terms of planted area. A total of 190,419 households were occupied in paddy production. The total cultivated area was 175,192 ha. Kahama had the largest area planted with paddy (78,187 ha) accounting for about 45% (44.6%) of the total area planted with paddy in the region. In contrast, Meatu had 1,222 ha representing about only 1% of the total area grown to paddy.

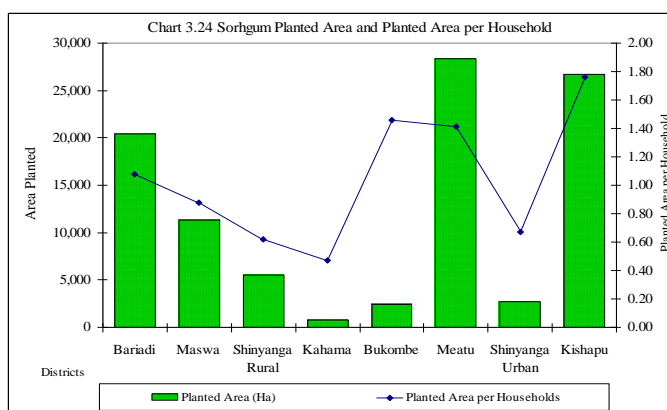


The average area planted with paddy per household was 0.92 ha. Bukombe had the largest planted area per paddy growing household (1.29 ha), followed by Kahama (1.13 ha), Shinyanga Rural (0.84 ha), Maswa (0.74 ha), Kishapu (0.72 ha), Shinyanga Urban (0.53 ha), Bariadi (0.46 ha), and Meatu (0.45 ha) (Chart 3.23).

### 3.3.4.3 Sorghum

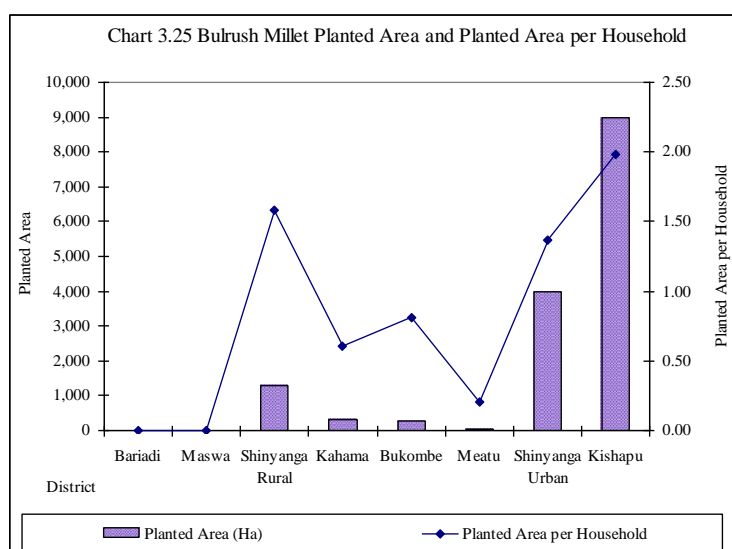
Sorghum was the fourth most important cereal crop in the region in terms of planted area. The number of households that grew sorghum in Shinyanga region during the wet season was 83,253.

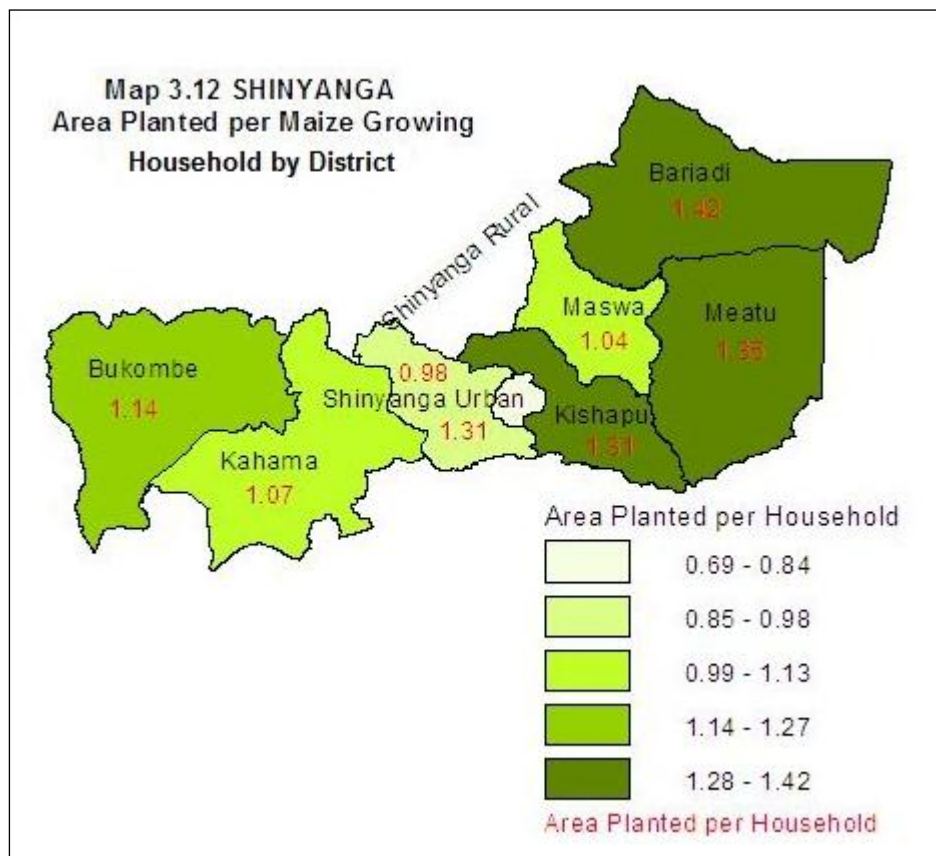
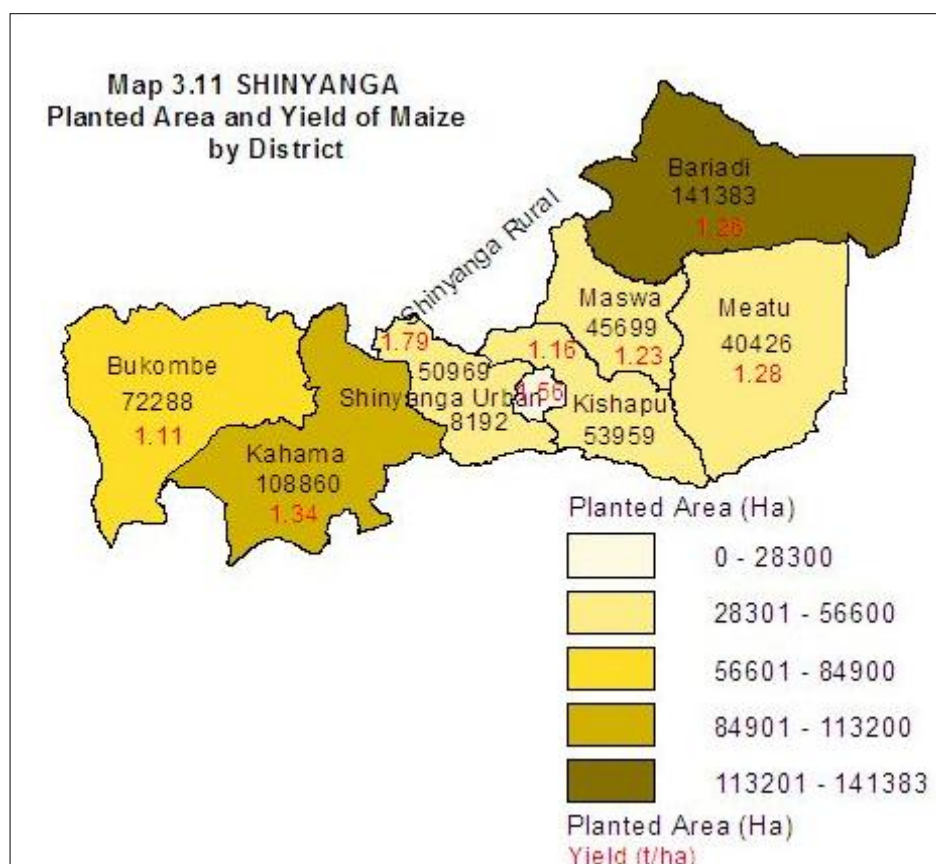
Meatu recorded the largest planted area with sorghum (28,366 ha) followed by Kishapu (26,665 ha), Bariadi (20,382 ha), and Maswa (11,360 ha). Other districts each had less than 6,000 ha planted with sorghum with Shinyanga Urban having the smallest area (2,748 ha). The highest yield of sorghum was reported in Meatu (1.17 ton/ha) and the lowest was recorded in Bukombe (0.33 ton/ha) (Chart 3.24 and Map 3.13). Besides, the largest planted area per household was recorded in Kishapu (1.76 ha) followed by Bukombe (1.46 ha), and Meatu (1.42 ha). Kahama had the smallest planted area per household (0.46 ha) (Map 3.14).

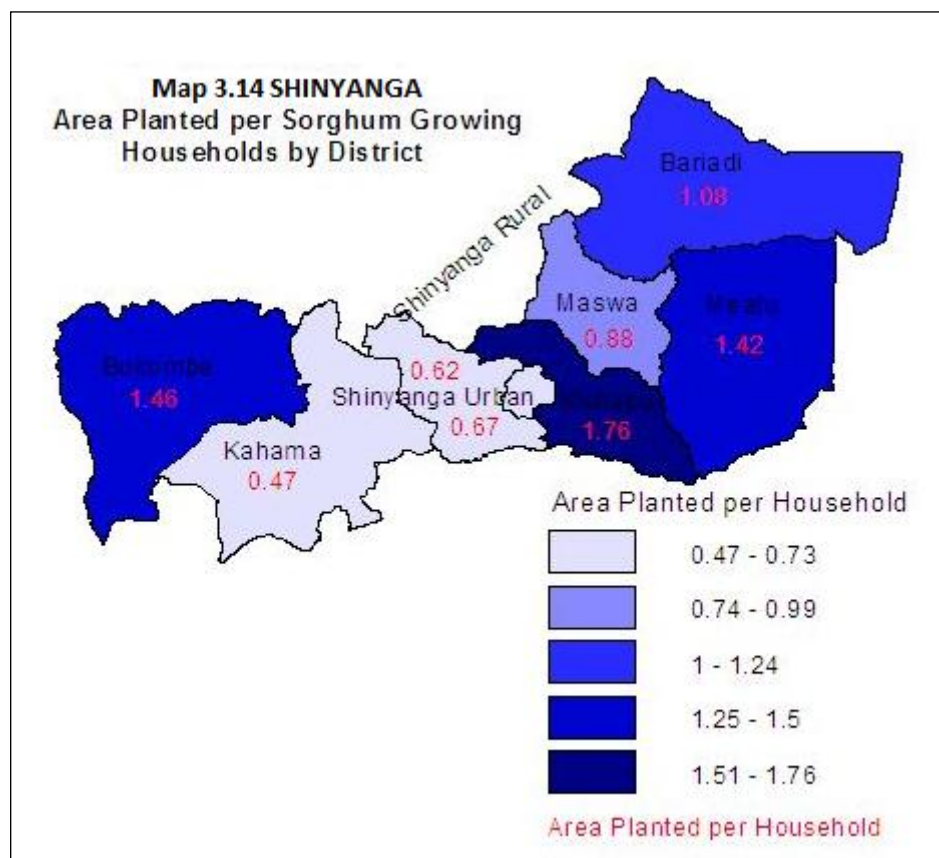
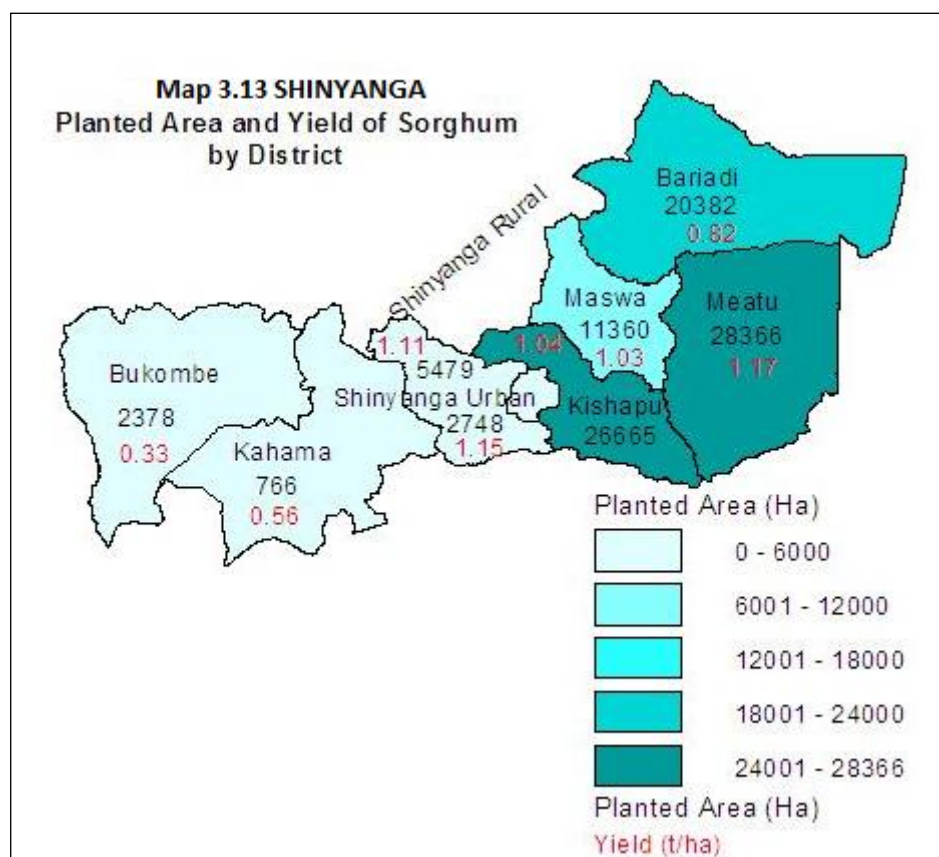


### 3.3.4.4 Other Cereals

A total of 15,673 ha were planted with other types of cereals in the region with bulrush millet accounting for more than 80% of the total area planted. Bulrush millet was most planted in Kishapu District (8,997 ha). Other districts with area planted with bulrush millet were Shinyanga Urban (3,974 ha), Shinyanga Rural (1,277 ha), Kahama (328ha), and Bukombe (264) (Chart 3.25).

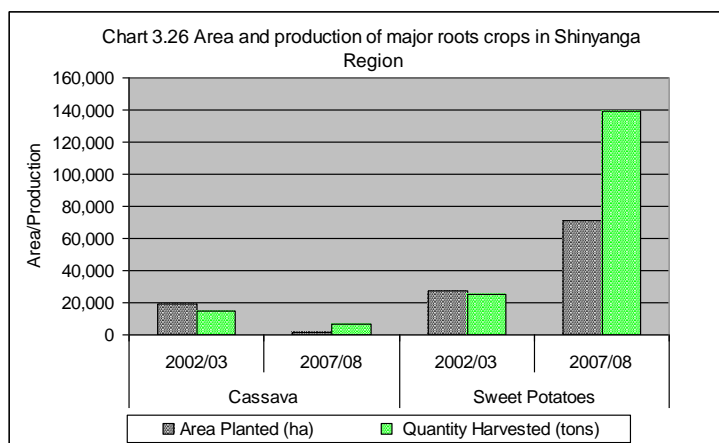






### 3.3.5 Roots and Tuber Crops Production

A total of 88,431 ha were planted with root and tubers in the region. Out of this 87,378 ha (99%) was planted with cassava and sweet Potatoes. As reported in the 2002/03 Agriculture Sample Census, sweet potatoes continued to be the most important roots and tuber crops grown in Shinyanga. According to the 2007/08 Agriculture Sample Census, the



total production of both cassava and sweet potatoes was 160,128 tonnes. Production of sweet potatoes was higher than that of cassava with a total production of 136,899 tonnes representing 85% of the total root and tuber crop production (Chart 3.26 and Table 3.6).

**Table 3.6: Area, Production and Yield of Roots and Tuber Crops by Season**

Crop		Dry Season			Wet Season			Total		
		Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity harvested (tons)	Yield (Kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (Kg/ha)
Cassava	2002/03	0	0	-	19,235	14,599	0.76	19,235	14,599	0.76
	2007/08	0	0	-	18,233	23,229	3.62	18,233	23,229	1.3
Sweet Potatoes	2002/03	0	0	-	27,556	25,059	0.91	27,556	25,059	0.91
	2007/08	1,879	2,158	1.15	67,266	134,740	2.00	69,145	136,899	1.98

**Note:** Cassava is produced in both the long and dry season. However, it was not possible to separate cassava production in the different growing seasons as the growth period spans both seasons and even over a year with some certain varieties. Because of this, cassava has been combined and is reported in the wet Season only.

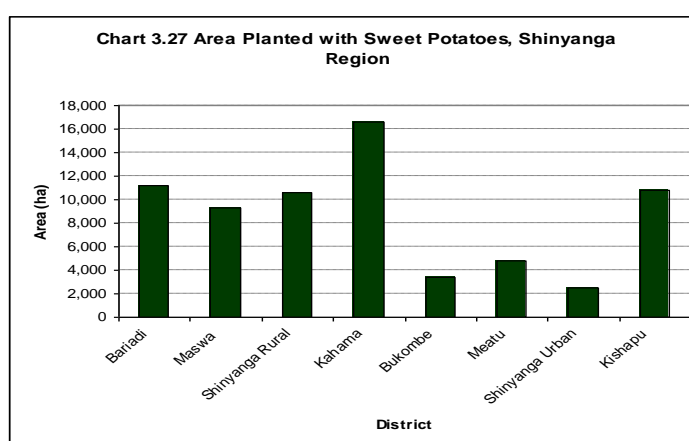
The area planted with sweet potatoes was also larger than that of cassava. As such, it (sweet potatoes) was the most important crop in Shinyanga in terms of planted Area.

### 3.3.5.1 Sweet Potatoes

The number of households growing sweet potatoes in the region was 190,315 representing 39% of the total crop growing households. Also, the total production of sweet potatoes during the census year was 136,899 tonnes from a planted area of 69,145 hectares resulting in a yield of 1.98 t/ha.

Previous censuses and surveys indicate that the area planted with sweet potatoes had increased gradually over the period 2002/03 to 2007/08. The area planted with sweet potatoes accounted for 4.8% of the total area planted with annual crops and vegetables in the census year.

Kahama District had the largest planted area with sweet potatoes (14,797 ha, 22%) followed by Kishapu (10,734 ha, 16%), Bariadi (11,242 ha, 17%), and Shinyanga Rural (10,607 ha, 16%). Other districts, in the region, in total accounted for less than 30% of the area planted with sweet potatoes (Chart 3.27).



The yield of sweet potatoes was higher in Kahama and Shinyanga Urban districts at 3.60 and 3.28 tonnes per ha respectively. This figure is higher than the regional yield average of 2 tonnes per ha. Other districts in the region Bariadi (1.79 ton/ha), Meatu (1.69 ton/ha), Shinyanga Rural (1.57 ton/ha), Maswa (1.51 ton/ha), Bukombe (1.48 ton/ha) and Kishapu (1.27 ton/ha) all recorded yields of sweet potatoes lower than the regional average.



### 3.3.6 Pulse Crops Production

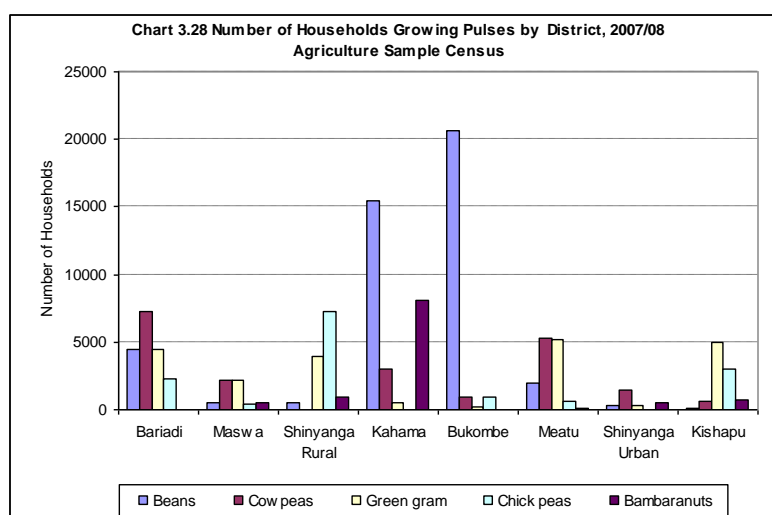
The total area planted with pulses had generally increased between the two censuses up to 60,653 ha from 47,986 ha observed in 2002/03 Agricultural Year. Since the last Census chick peas had continued to dominate the production of pulses in terms of planted area. However, productivity of beans of 1.43 tonnes/ha was higher than that of chick peas (0.52 tonnes/ha) during 2007/08. This resulted in the total production of beans to be higher than that of chick peas though area planted with chick peas was larger than that of beans. Other pulses that were grown in smaller quantities include green gram (6,033 tonnes), Bambaranuts (4,964 tonnes), and cowpeas (4,054 tonnes) (Table 3.7).

**Table 3.7: Area, Production and Yield of Pulses, 2002/03 and 2007/08 Agriculture Sample Censuses**

Crop	Area Planted (ha)		Quantity Harvested (tons)		Yield (tons/ha)	
	2002/03	2007/08	2002/03	2007/08	2002/03	2007/08
Beans	16,397	21,075	5,408	17,367	0.33	1.43
Cowpeas	3,376	6,345	851	4,054	0.25	1.57
Green Gram	2,898	6,907	630	6,033	0.22	0.87
Chick Peas	23,933	22,112	10,315	11,496	0.43	0.52
Bambaranuts	1,382	4,215	1,297	4,964	0.94	1.18
<b>Total PULSES</b>	<b>47,986</b>	<b>60,653</b>	<b>18,501</b>	<b>43,913</b>	<b>0.43</b>	<b>1.11</b>

#### 3.3.6.1 Chick Peas

Chick Peas dominates the production of pulses in the region in terms of a large planted area. However, the largest number of households growing beans was reported in Bukombe (20,693) followed by Kahama (15,414), and Bariadi (4,486). Chick peas are mostly grown in Shinyanga Rural while cow peas are mostly grown in Kahama, Bariadi and Meatu districts. Generally, green gram is grown in small quantities in the region (Chart 3.28).



### 3.3.7 Oil Seed Production

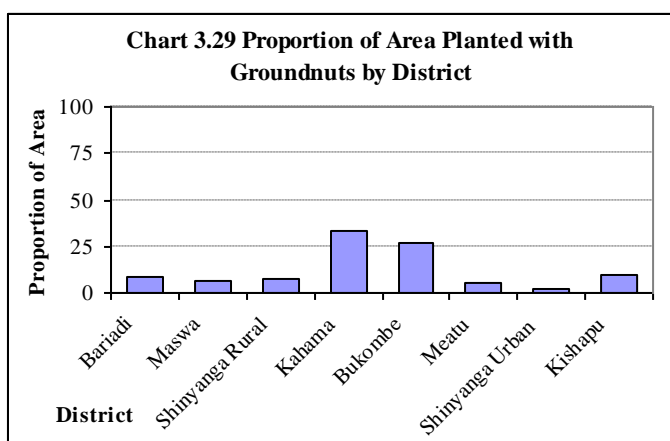
The total production of oilseed crops was 77,000 tonnes planted in an area of 113,139 hectares. Groundnuts was the most important oilseed crop (105,754 ha) accounting for 93% of the total area planted with oil seeds followed by sunflower (5%), and simsim (1%).

The yield of groundnuts was the highest of all oil seed crops (690 kg/ha) followed by soyabeans (650 kg/ha), and castor fung (640 kg/ha). The total production of groundnuts was 72861 tonnes, accounting for 95% of the total production of oil seeds followed by sunflower (4%) and simsim (0.7%).

#### 3.3.7.1 Groundnuts

The number of households growing groundnuts in Shinyanga region was 188,726. The total production of groundnuts in the region was 72,861 tonnes from a planted area of 105,754 hectares resulting in a yield of 0.69 ton/ha.

Kahama District had the highest percent of area planted with groundnuts in the region (35,093 ha, 33% of the total planted area with groundnuts in the region), followed by Bukombe (28,059 ha, 27%) and Kishapu (10,559 ha, 10%). The remaining districts accounted for less than ten percent of the area. Groundnuts are widely grown in the region accounting for more than 93% of the areas planted with oil seeds in Shinyanga Region (Chart 3.29 and Map 3.18 and Map 3.19).

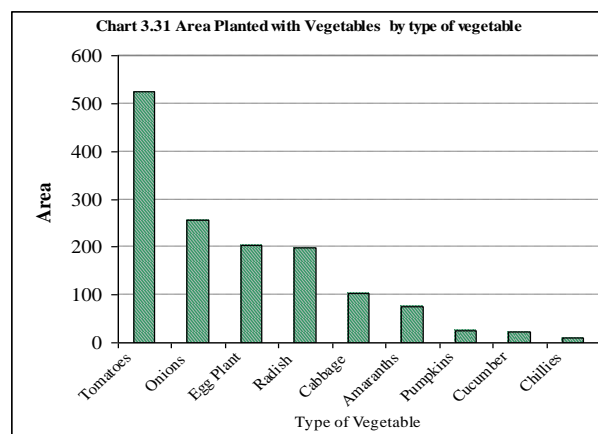




### 3.3.8 Vegetables

The collection of fruit and vegetable production data was difficult due to the small quantities produced per household. Most of the data presented here gives the production of smallholders who grew these crops as cash crops and not for household consumption. Most fruit production is from permanent crops. Reliable historical data for time series analysis of fruit and vegetables was not available.

The total production of vegetables was 3,381 tonnes. The most cultivated vegetable crop was tomatoes with a production of 1,977 tonnes (58% of the total vegetables produced) followed by onions (503t, 15%) and cabbages (461t, 14%). The production of other vegetable crops was relatively small (Chart 3.31, Table 3.8).



**Table 3.8: Area, Production and Yield of Fruit and Vegetables by Season**

Crop	Dry Season			Wet Season			Total		
	Area Planted (ha)	Quantity Harvested (tons)	Yield (kg/ha)	Area Planted (ha)	Quantity harvested (tons)	Yield (Kg/ha)	Area Planted (ha)	Quantity Harvested (tons)	Yield (Kg/ha)
Tomatoes	0	0	0	524	1,977	3,773	524	1,977	3,773
Onions	0	0	0	257	503	1,956	257	503	1,956
Egg Plant	0	0	0	203	83	408	203	83	408
Radish	0	0	0	199	121	609	199	121	609
Cabbage	0	0	0	104	461	4,443	104	461	4,443
Amaranths	0	0	0	74	140	1,880	74	140	1,880
Pumpkins	0	0	0	26	1	55	26	1	55
Cucumber	0	0	0	23	43	1,878	23	43	1,878
Chillies	0	0	0	10	51	5,039	10	51	5,039
<b>Total</b>	<b>0</b>	<b>0</b>		<b>1,421</b>	<b>3,381</b>		<b>1,421</b>	<b>3,381</b>	

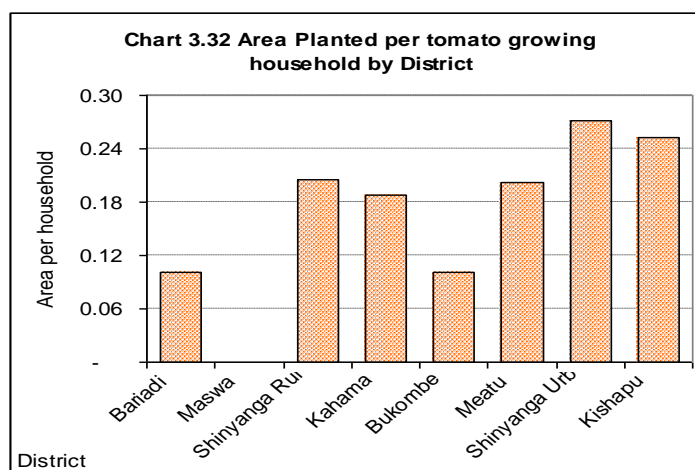
Chillies had the highest yield (5,039 kg/ha) followed by cabbage (4,443kg/ha), tomatoes (3,773kg/ha), and onions (1,956kg/ha). Pumpkins, egg plant and radish had the lowest yields of 55, 408 kg/ha and 609 kg/ha respectively (Table 3.8).

### 3.3.8.1 Tomatoes

The number of households growing tomatoes in the region was 2,717 representing 0.6% of the total crop growing households in the region.

Shinyanga Rural District had the highest percent of planted area of tomatoes (32%) followed by Kahama (31%), Shinyanga Urban (18%), and Kishapu (8%).

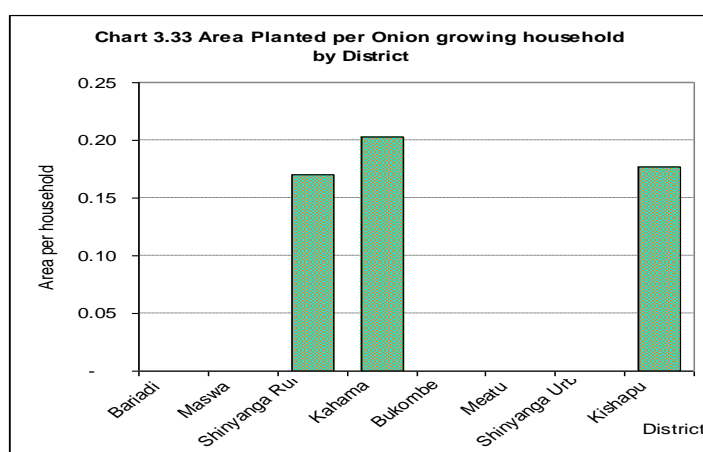
The largest area planted per tomato growing household was found in Shinyanga Urban (0.27 ha) followed by Kishapu (0.25 ha), Shinyanga Rural (0.21 ha) and Meatu (0.20 ha) (Chart 3.32 and Map 3.19 and Map 3.20). The total area planted with tomatoes accounted for 0.2% of the total area planted with annual crops and vegetables.

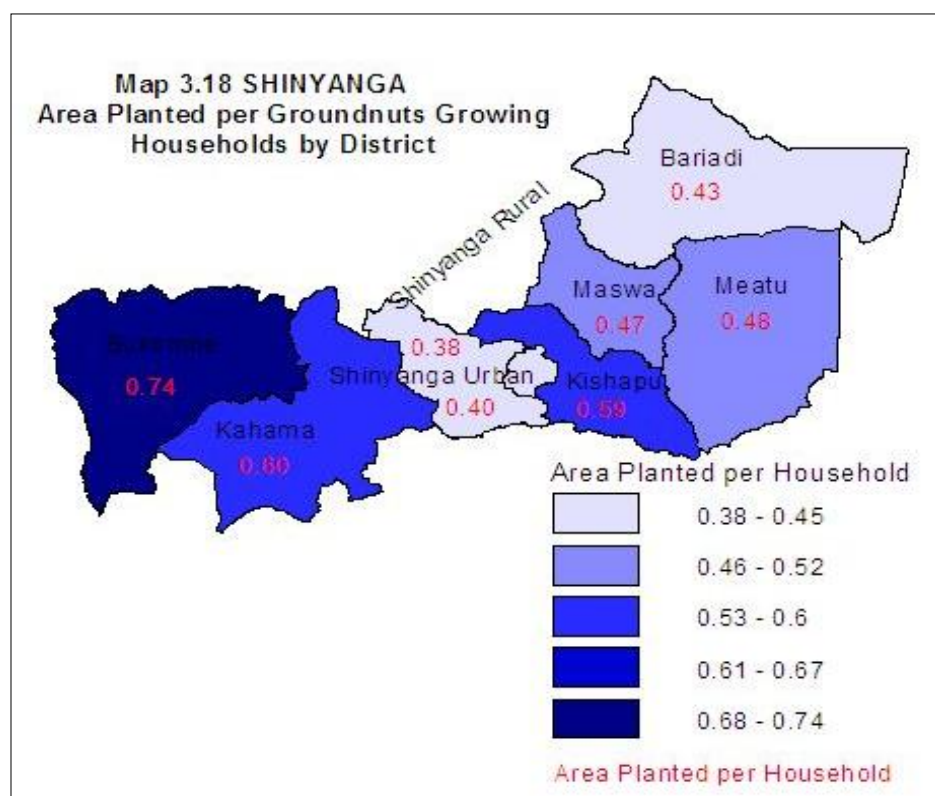
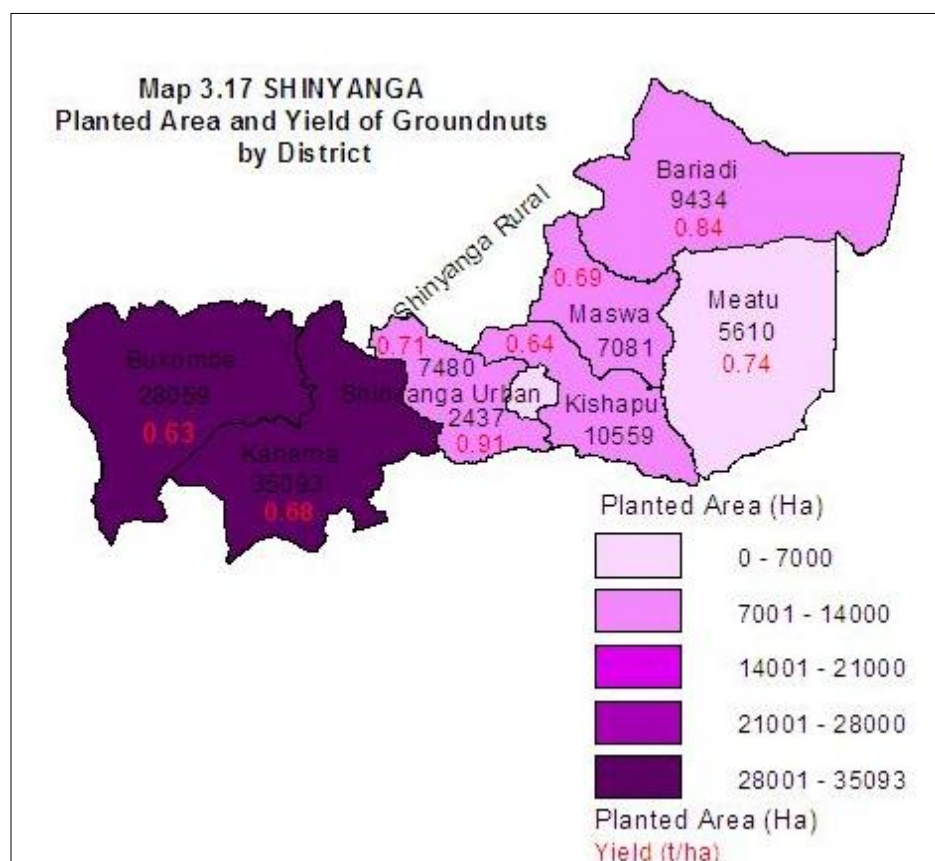


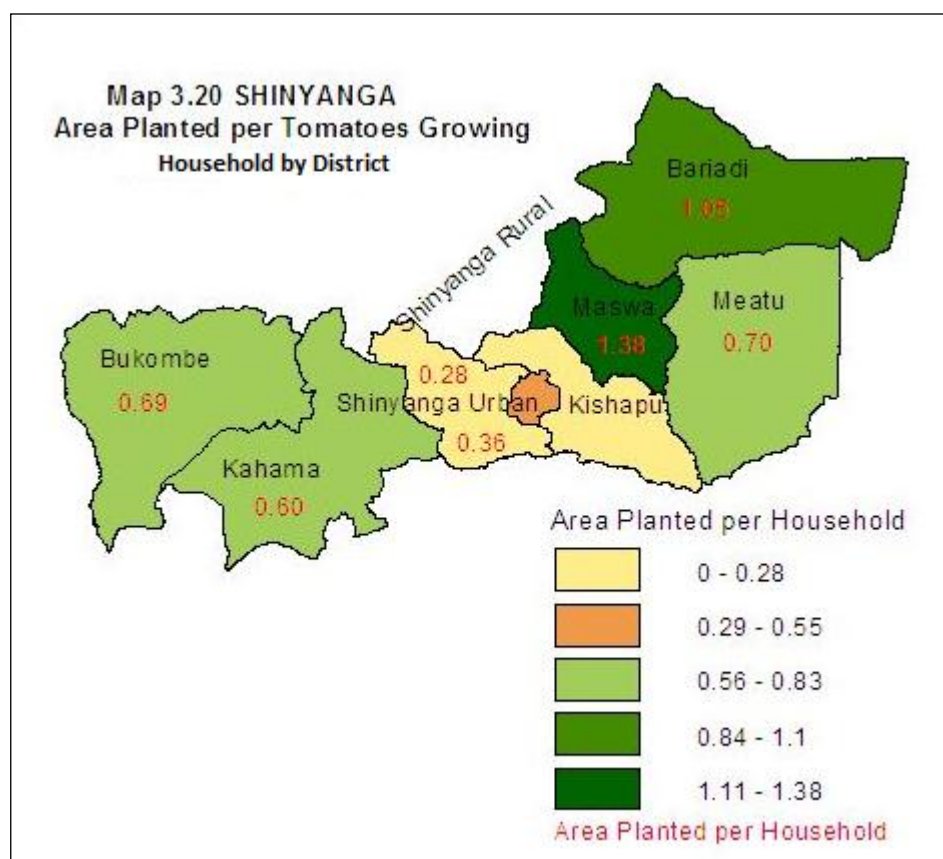
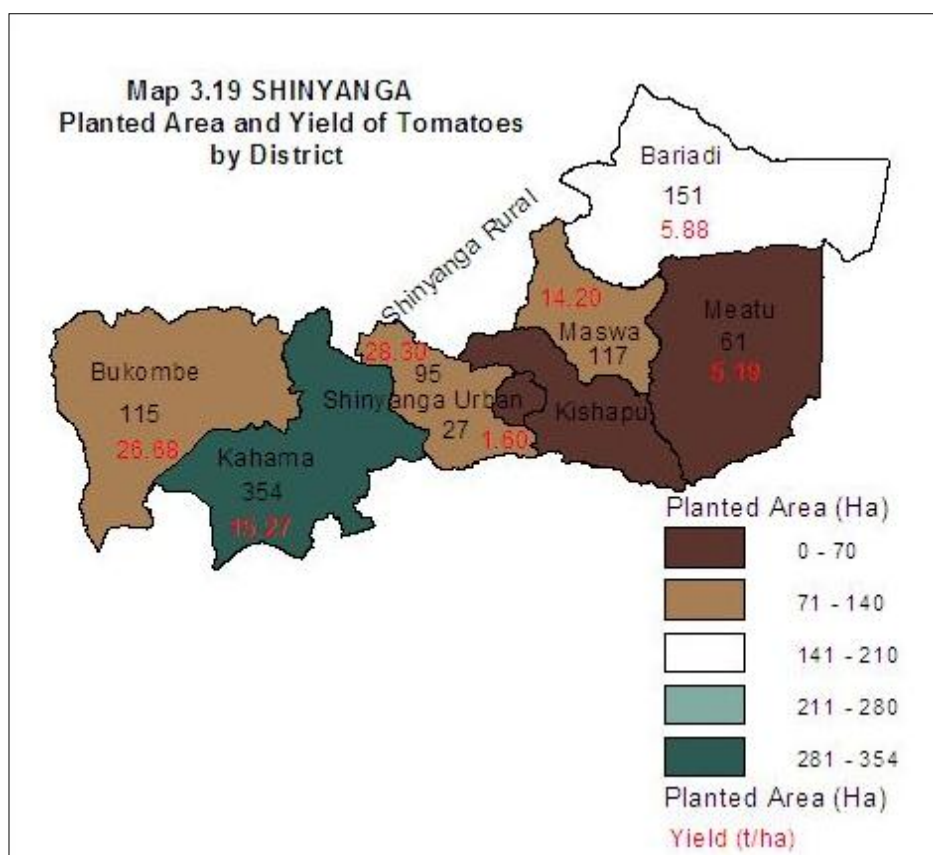
### 3.3.8.2 Onions

The number of households growing onions in the region was 1,472 representing only 0.1% of the total crop growing households in the region.

Shinyanga Rural District had the largest planted area of onion (171 ha, 66% of the total area planted with onion in the region) followed by Kishapu and Kahama. The crop was only grown in these three districts (Chart 3.33). The total area planted with onions accounted for 0.02% of the total area planted with annual crops and vegetables in the region.





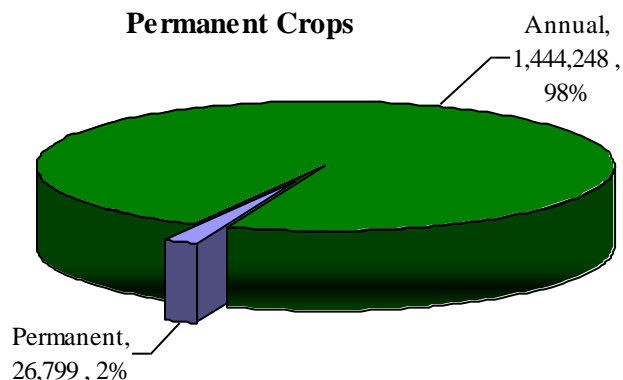


### 3.4 Permanent Crops

Permanent crops (sometimes referred to as perennial crops) are crops that normally take over a year to mature and once mature can be harvested for a number of years. While for most crops, it is easy to determine if they are annual or permanent for crops like cassava and bananas the distinction is not so clear. Cassava has varieties that mature within a year and produces only one harvest, whilst other varieties survive for more than one year and produces several harvests. In this census, cassava was treated as an annual crop. Conversely, bananas normally take less than a year to mature, survive for more than one year and are thus treated as a permanent crop. In this report, the agriculture census results are presented for the most important permanent crops in terms of production, yield and area planted.

The area planted with permanent crops was 26,799 hectares accounting for 2% of the area planted with annual and permanent crops in the region. However, the area planted with annual crops is not the actual physical land area as it includes the area planted more than once on the same land, whilst for the planted area for permanent crops is the same as the physical planted land area. So the percentage physical area planted with permanent crops would be higher than indicated in Chart 3.34.

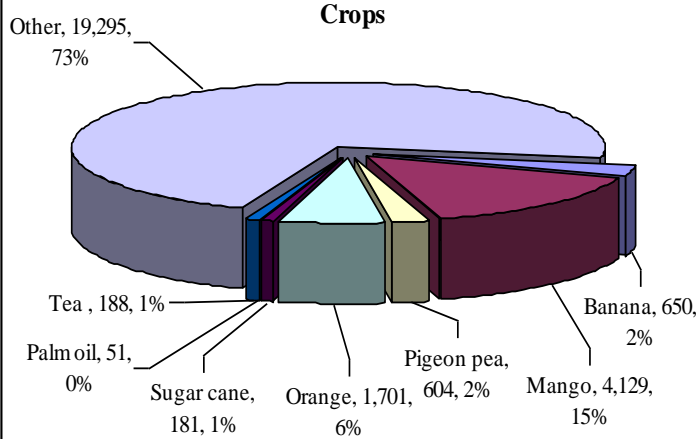
**Chart 3.34 Area Planted for Annual and Permanent Crops**



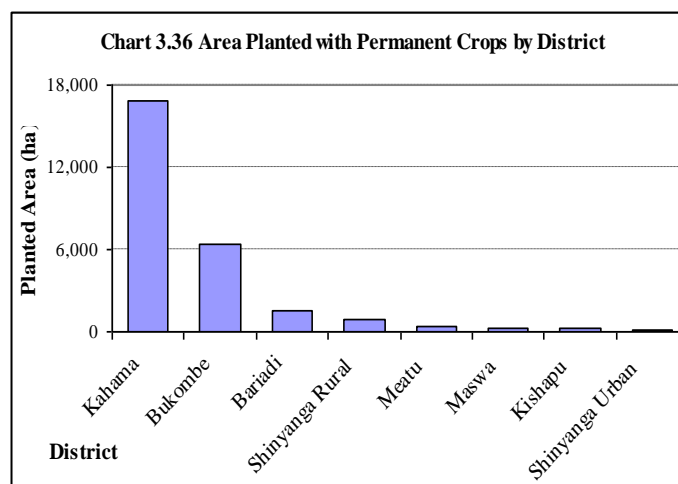
So the percentage physical area planted with permanent crops would be higher than indicated in Chart 3.34.

The most important permanent crop in Shinyanga region is mango with a planted area of 4,129 ha accounting for 15% of the planted area of all permanent crops followed by orange (1,701 ha, 6%). In contrast, banana, pigeon pea, sugarcane, palm oil and tea each had an area of less than 5% of the total area planted with permanent crops (Chart 3.35).

**Chart 3.35 Area Planted with Main Perennial Crops**

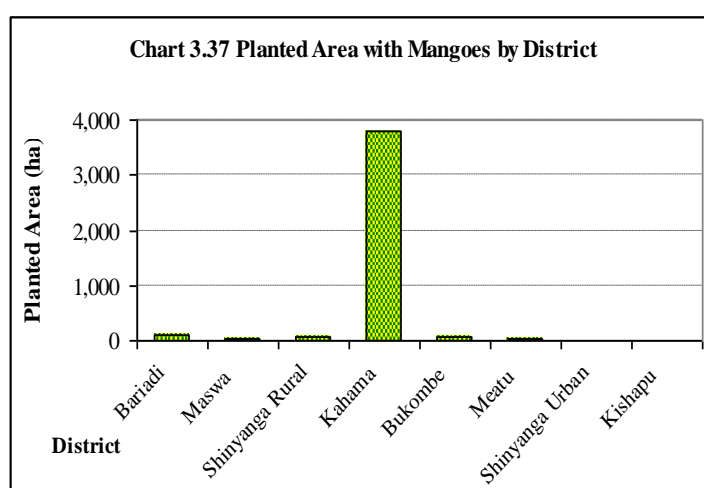


Kahama District had the largest area under smallholder permanent crops (16,914 ha, 63% of the total permanent crop area in the region). This is followed by Bukombe (6,435 ha, 24%). Other districts in the region had relatively low percentages of less than 6% of land planted with permanent crops (Chart 3.36).



### 3.4.1 Mangoes

The total production of mangoes by smallholders was 15,134 tonnes from an area of 4,129 ha and was also the most important permanent crop grown by smallholders in the region. Mango was grown by 18,318 households or 3.8% of the total crop growing households. Kahama had the largest area planted with permanent crops in the region (Chart 3.37 and Map 3.23). The average area planted with mango per household was relatively small at around 0.45 ha per mango growing household.



Banana, pigeon pea, sugarcane, palm oil and tea crops were planted in small quantities and because of their insignificance in terms of area and number of households growing the crops are not analysed for this report

### 3.5 Implements/ Input Use

As has been indicated above, Shinyanga region is dominated by unimodal rainfall pattern, making the contribution of the short rainy season insignificant in the region. For this reason the analysis in this section will be focused on agricultural production done during the long rainy season.

#### 3.5.1 Use of Agricultural Implements

Similar to observation in 2002/03 Agriculture Sample Census, in Shinyanga the main farming implement still dominating smallholder agriculture is the hand hoe as it was used by the majority of (475,449; 98%) of crop growing households. This is followed by those using oxen (248,353 households, 51.2%), and oxen plough (181,357 households, 37.4%). Only 13% of the crop growing households used ox carts whilst those who used tractors represented only 0.8%. The number of households using power tillers was very small accounting for only 0.1% of the total agricultural households (Table 3.9).

**Table 3.9: Number of Agriculture Households that Used Agricultural Equipment/Asset by Type and District for 2007/08 Agriculture Year**

District	Equipment/Asset Name												Total
	Ox cart		Hand Hoe		Oxen		Tractor		Ox-plough		Power tiller		Number of Households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	9,471	9.4	98,444	97.5	64,799	64.2	1,495	1.5	43,615	43.2	0	0.0	100,936
Maswa	9,968	19.0	51,524	98.3	32,364	61.7	0	0.0	21,360	40.7	129	0.2	52,430
Shinyanga R	7,925	14.6	52,789	97.0	36,133	66.4	134	0.2	24,178	44.4	134	0.2	54,401
Kahama	12,437	11.6	105,043	97.7	40,287	37.5	270	0.3	35,826	33.3	0	0.0	107,477
Bukombe	3,748	5.7	65,013	98.5	14,665	22.2	0	0.0	11,080	16.8	0	0.0	65,991
Meatu	9,615	23.7	39,963	98.5	25,139	62.0	1,603	4.0	18,429	45.4	100	0.2	40,564
Shinyanga U	1,406	9.3	14,891	98.3	5,535	36.5	88	0.6	4,349	28.7	0	0.0	15,154
Kishapu	8,579	17.8	47,782	99.0	29,432	61.0	238	0.5	22,521	46.7	0	0.0	48,258
Total	63,149	13.0	475,449	98.0	248,353	51.2	3,829	0.8	181,357	37.4	364	0.1	485,212

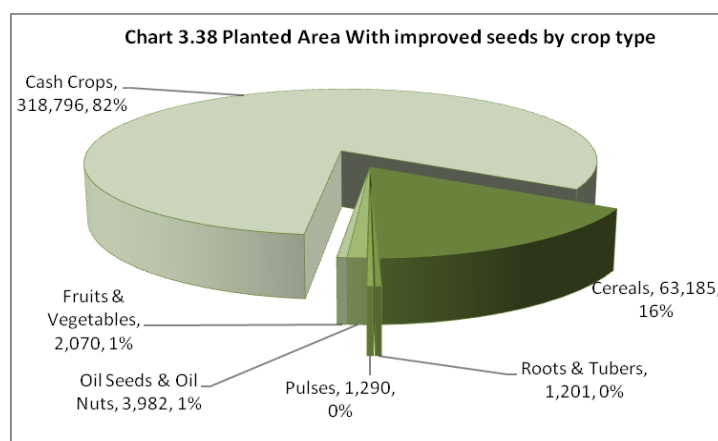
Oxen were widely used in Shinyanga Rural (66%) followed by Bariadi (64%), Maswa and Meatu (62% each), and Bukombe recorded the lowest percent (17%).

Power tillers were rarely used in Shinyanga as only 0.1% of all small holders used them. The districts where the use of power tillers was reported are Shinyanga Rural, Maswa, and Meatu.



### 3.5.2 Improved Seeds Use

The planted area with improved seeds was 390,525 ha which represented 27% of the total area planted with annual crops and vegetables. The figure is more or less reported in the 2002/03 Agriculture Sample Census.

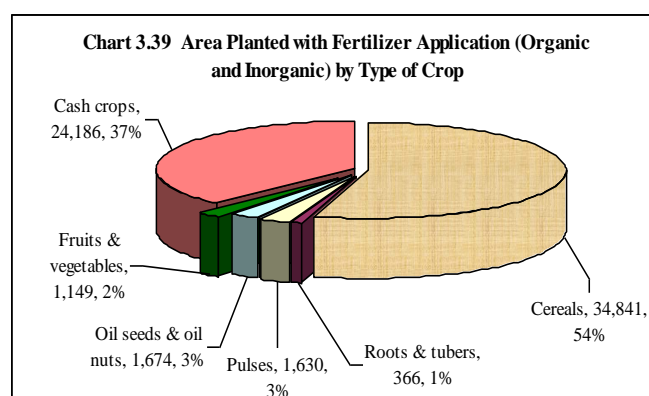


Use of improved seeds was more common in cash crop production (318,796 ha, 82%) followed by roots and tubers (2,070ha, 69%) and cereals (63,185 ha, 8%). In other crops the use of improved seeds was insignificant (Chart 3.38). Among the cash crops, cotton recorded the largest area planted with improved seeds (313,790 ha) accounting for 83.5% of the total area planted with cash crops.

### 3.5.3 Use of Fertilizers

The use of fertilizers on annual crops and vegetables was limited to a total area of only 76,918 ha (5.4%). Of the planted area with fertilizer application, inorganic fertilizers were applied in a small area of 13,070 ha which represented 17% of the total area planted with fertilizer. This was less 63,145 ha (83%) of planted area with application of organic fertilizer (compost and farm yard manure).

The percentage of the area planted with application of with fertilizer was highest for cereals (54%) followed by cash crops (37%). Pulses, oil seeds and oil nuts, fruits and vegetables and roots and tubers accounted for a small planted area with fertilizer application (less than 5 %) (Chart 3.39).



The highest percent of the area planted with fertilizers (all types) was found in Kahama (28,231 ha, 36.7%) followed by Maswa (12,549 ha, 16.3%) while the other remaining districts accounted for less than 15%. Organic fertiliser was mostly used in Kahama (27.7%) (Table 3.10). On the other hand, the highest percent of planted area without fertilizer application was recorded in Bariadi (99%) (Map 24).

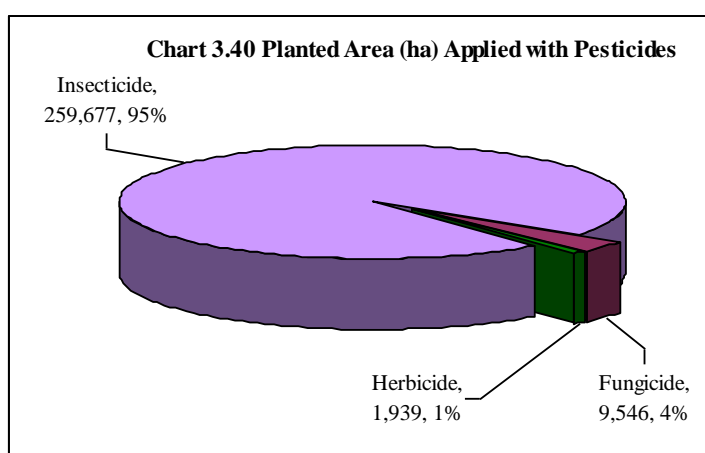


**Table 3.10: Area Planted (ha) Applied with Fertilizer by Type of Fertilizer and District**

District	Organic Fertilizer	%	Inorganic Fertilizer	%	Total	%
Bariadi	7,836	12.3	25	0.2	7,861	10.2
Maswa	12,470	19.5	79	0.6	12,549	16.3
Shinyanga Rural	5,819	9.1	313	2.4	6,132	8.0
Kahama	17,681	27.7	10,550	80.7	28,231	36.7
Bukombe	5,541	8.7	2,029	15.5	7,570	9.8
Meatu	3,908	6.1	-	-	3,908	5.1
Shinyanga Urban	2,376	3.7	76	0.6	2,452	3.2
Kishapu	8,214	12.9	-	-	8,214	10.7
Total	63,845	100	13,070	100	76,916	100

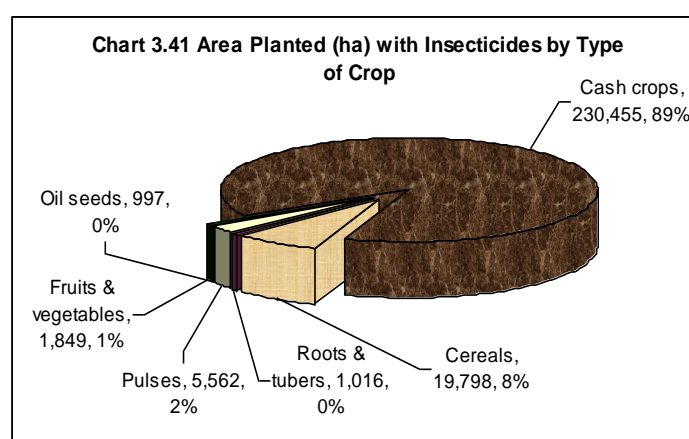
### 3.5.4 Pesticide Use

Pesticides are chemicals used for controlling insects, diseases and weeds. This section analyses the use of pesticides by smallholders in production of annual crops in the region. Pesticides were used in an area planted with annual crops and vegetables (271,162 ha). Insecticides were the most common used pesticide in the region (259,677 ha, 95%) while the area where fungicides and herbicides were applied was insignificant (9,546 ha, 4% and 1,939 ha, 1% respectively) (Chart 3.40).



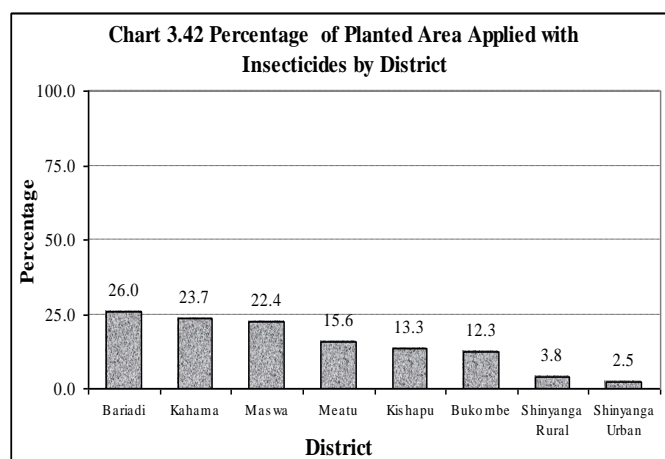
#### 3.5.4.1 Insecticide Use

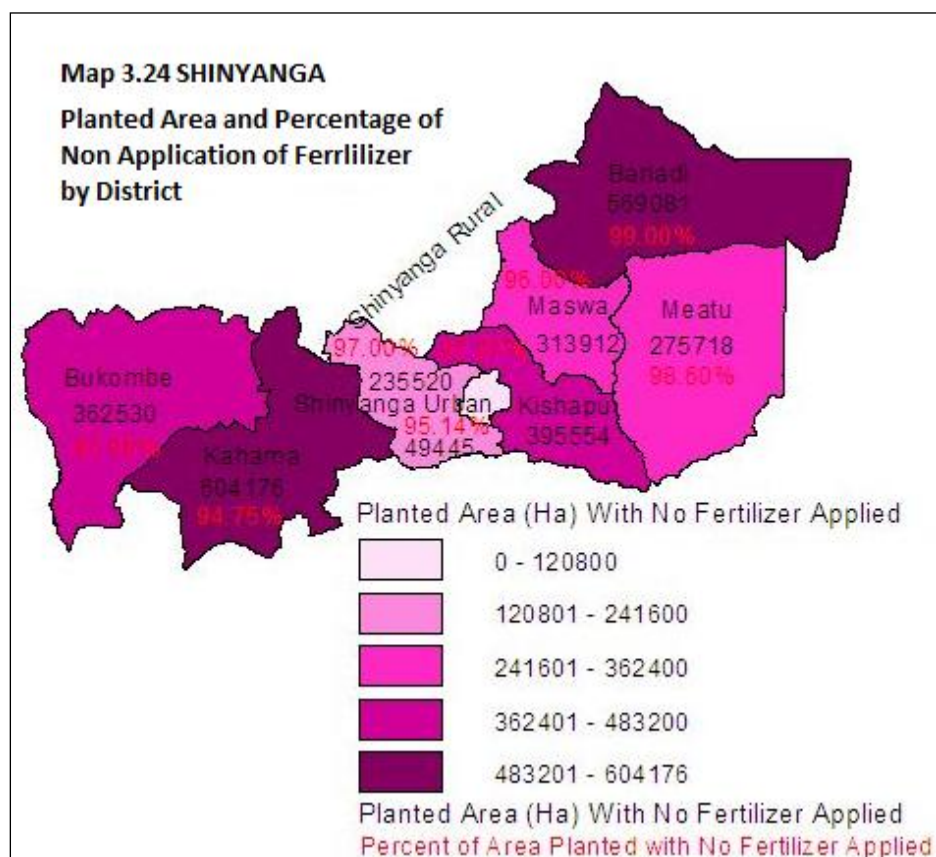
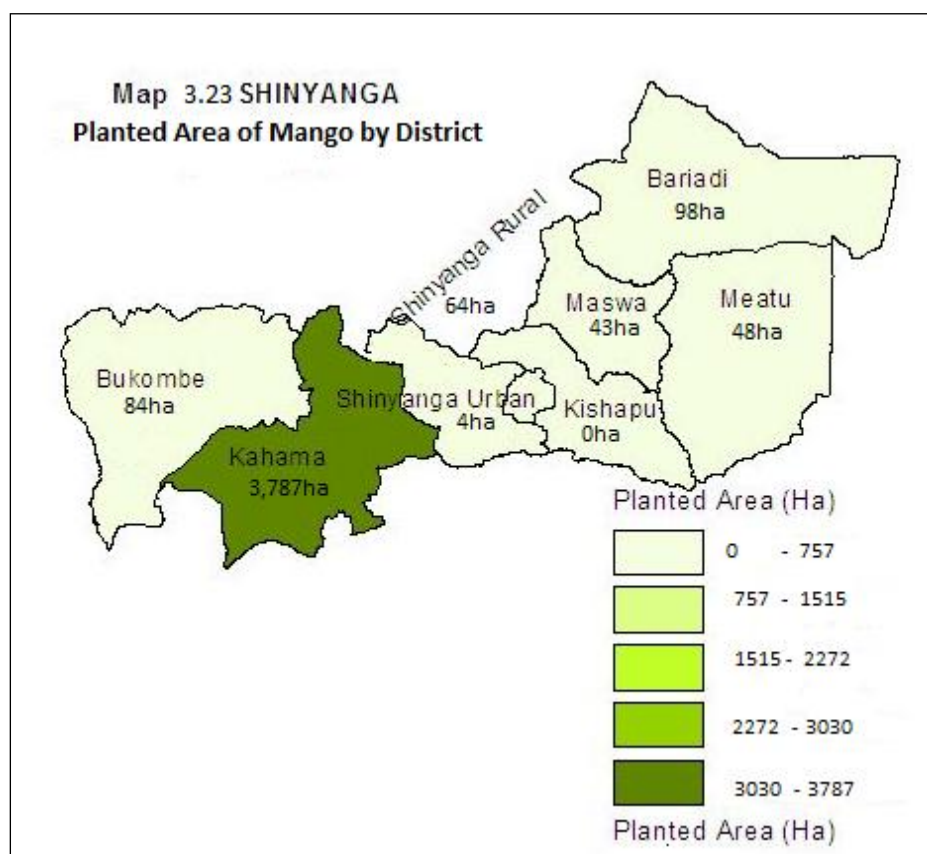
The planted area with application of insecticides was estimated at 259,677 ha which represented 18 percent of the total planted area for annual crops and vegetables. Cash crops had the largest area planted with application of insecticides



(230,455 ha, 89%). Most of the area applied with insecticides for the cash crops was planted with cotton while other crops, namely: cereals, pulses, fruit and vegetables, oil seeds and roots and tuber had less than 10% of the area applied with insecticide (Chart 3.41).

Bariadi had the highest percentage of planted area with insecticides (26%) followed by Kahama (23.7%), and Maswa (22.4%) while Shinyanga Urban recorded the lowest percentage (2.5%) (Chart 3.42).



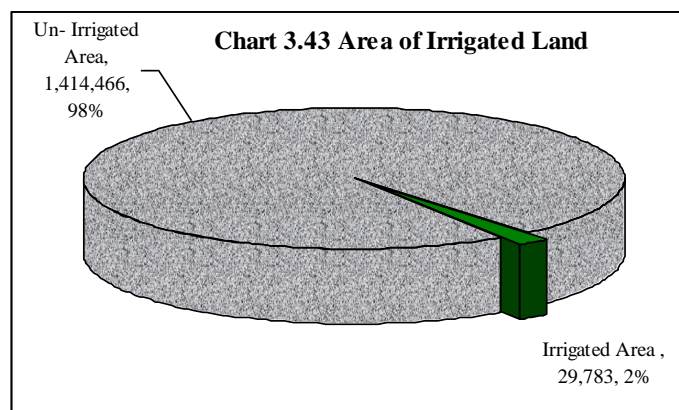


### 3.6 Irrigation

Water is the limiting factor to crop production in the majority of areas in Tanzania and without water most other agricultural practices applied to crops do not result in significant increases in yields. This section deals with the area under irrigation for different crops and the means by which water was extracted from the source and applied to the field.

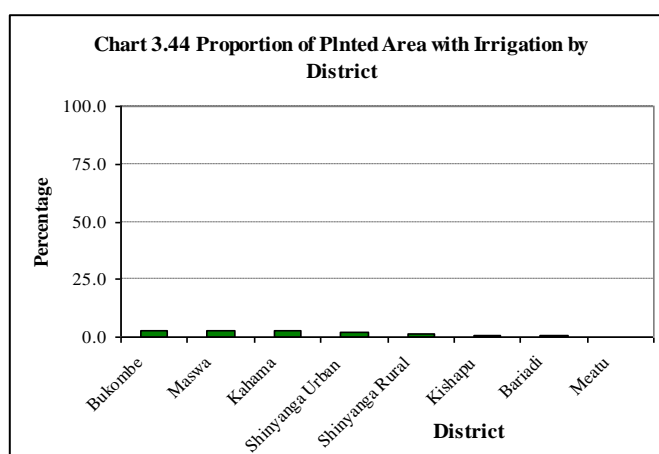
#### 3.6.1 Area Planted with Annual Crops and Under Irrigation

In Shinyanga region, the area planted with annual crops under irrigation was 29,783 ha representing 2.1% of the total area planted with annual crops compared to 10,266 ha in the 2002/03 Agriculture Sample Census (Chart 3.43).



During the short rainy season only households in Kahama District practiced irrigation in an area of 5,505 hectares. Similarly, the District recorded the largest planted area with annual crops under irrigation in the long rainy season the District with the largest planted area with annual crops under irrigation was Kahama (7,682 ha, 32%) followed by Bukombe (5,187 ha, 21%), and Maswa (4,577 ha, 19 %). The other remaining districts had each an irrigated area of less than 10%.

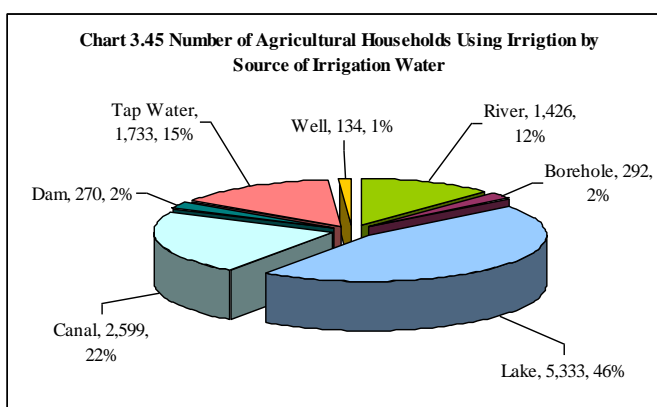
When expressed as a percentage of the total area planted with annual crops in each district during the long rainy season, Bukombe and Maswa districts had the highest percentage of irrigated area (2.8% each), followed by Shinyanga Urban (2.5%). Other districts accounted for less than 2% (Chart 3.44, Map 3.25).



The number of households practising irrigation in Shinyanga region appears to have a slightly increased over the 5 year inter-census period from 8,578 households (2%) in 2002/03 to 13,691 households (3%) in 2007/08 Agriculture Sample Census.

### 3.6.2 Sources of Irrigation Water

There were various sources of irrigation water. The largest number of households obtained water for irrigation from lake (5,333 households, 45.2%) followed by canals (2,599 households, 22%), tap water (1,733 households, 14.7%), and river (1,426 households, 12.1%). Other methods, namely borehole, dam, and well were sources of water for irrigation for less than 10% households (Chart 3.45).

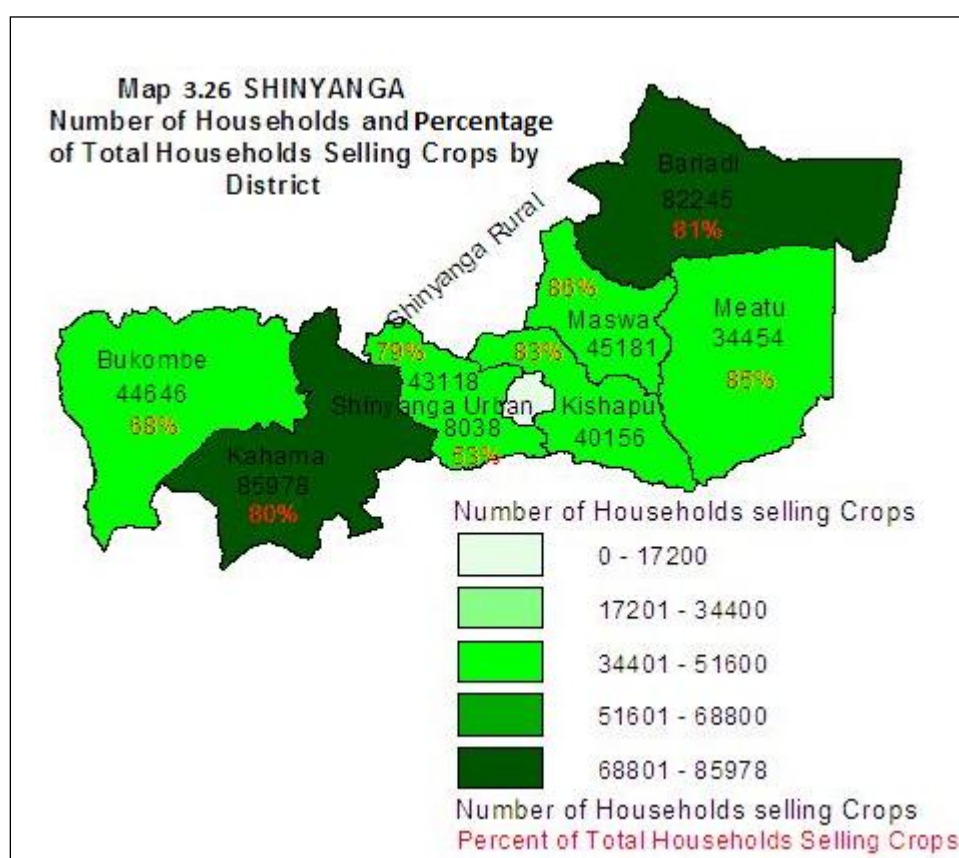
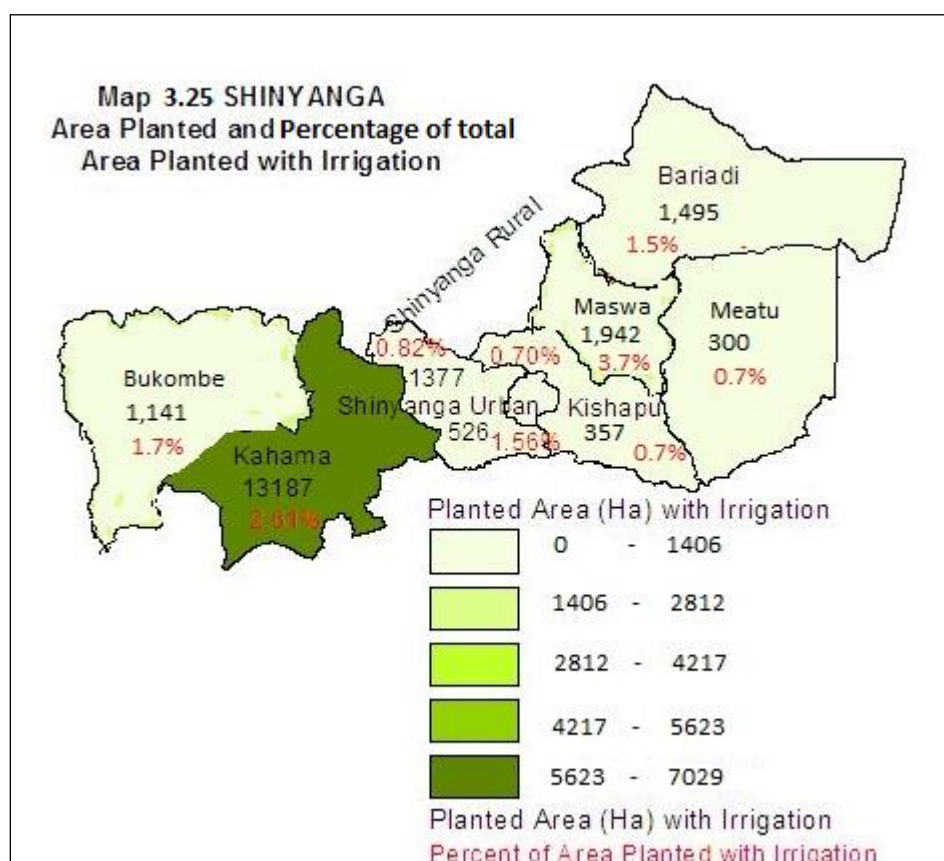


### 3.6.3 Methods of obtaining water for irrigation

Farming households obtained water for irrigation using various methods. The largest number of households used hand buckets to obtain water for irrigation (8,694) followed by gravity (2,233), motor pump (449) and hand pump (412) (Table 3.11).

**Table 3.11: Number of Agriculture Households by Methods Used to Obtain Water and District During 2007/08 Agriculture Year**

District	Main method of Obtaining Water				
	Gravity	Hand bucket	Hand pump	motor pump	Total
Bariadi	0	498	249	0	748
Maswa	1,553	259	0	129	1,942
Shinyanga Rural	134	537	0	0	672
Kahama	0	7,029	0	0	7,029
Bukombe	326	326	0	0	652
Meatu	0	0	0	200	200
Shinyanga Urban	220	44	44	0	307
Kishapu	0	0	119	119	238
<b>Total</b>	<b>2,233</b>	<b>8,694</b>	<b>412</b>	<b>449</b>	<b>11,788</b>





### 3.7 Crop Storage and Marketing

#### 3.7.1 Crop Storage

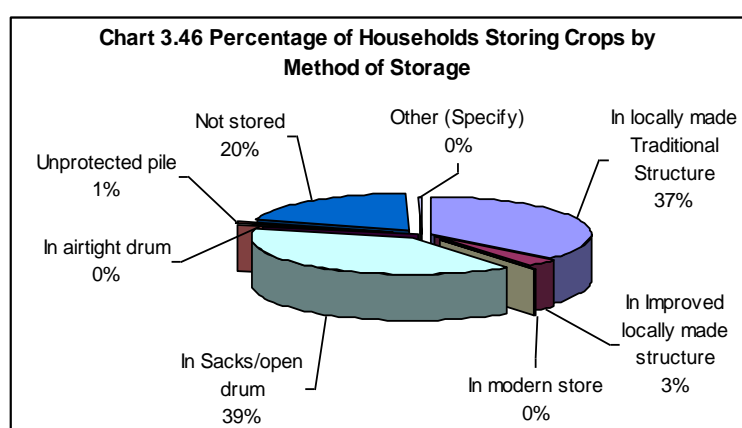
Crop storage means keeping a crop for a certain period of time as food for the household, in order to sell at higher prices or as seed for planting in the following season. The results for Shinyanga region show that there were 472,943 (97.4%) crop growing households that stored various agricultural products in the region in 2007/08 agricultural year. The highest percentage of households storing crops was reported in Bariadi (99.5%) while the remaining districts storing crops, ranged from 97.8% in Shinyanga Rural to 95% in Maswa (Table 3.12).

**Table 3.12: Number of Households Storing Crops by District During 2007/08 Agricultural Year**

District	Households storing crops	%	Households not storing crops	%	Total
Bariadi	100,438	99.5	498	0.5	100,936
Maswa	49,712	95.0	2,589	5.0	52,301
Shinyanga Rural	53,058	97.8	1,209	2.2	54,266
Kahama	105,584	97.3	2,971	2.7	108,555
Bukombe	63,873	96.8	2,118	3.2	65,991
Meatu	38,661	96.3	1,502	3.7	40,163
Shinyanga Urban	14,671	97.4	395	2.6	15,066
Kishapu	46,948	97.0	1,430	3.0	48,377
<b>Total</b>	<b>472,943</b>	<b>97.4</b>	<b>12,713</b>	<b>2.6</b>	<b>485,657</b>

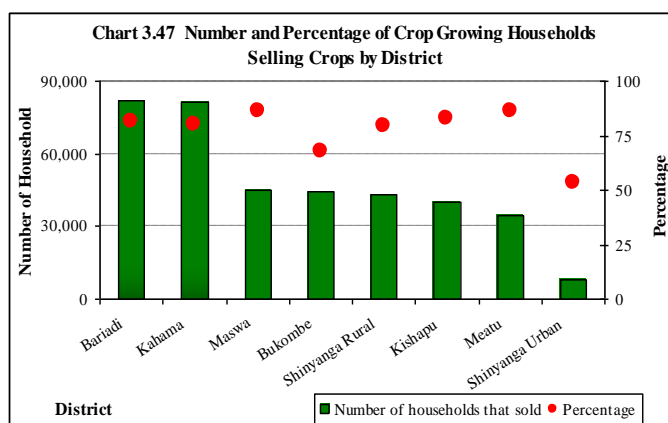
#### 3.7.2 Methods of Storage

Storage in sacks/ open drum was the dominant (39%) storage method in the region, with Kahama district having the highest percentage (36.9%) of households using this method in the region. The second most popular method was locally made traditional structure (37%) while other methods were used by few households (Chart 3.46). The highest percentage of households using locally made traditional structure was recorded in Bariadi (33.4%). In other districts households using this method accounted for less than 20%.



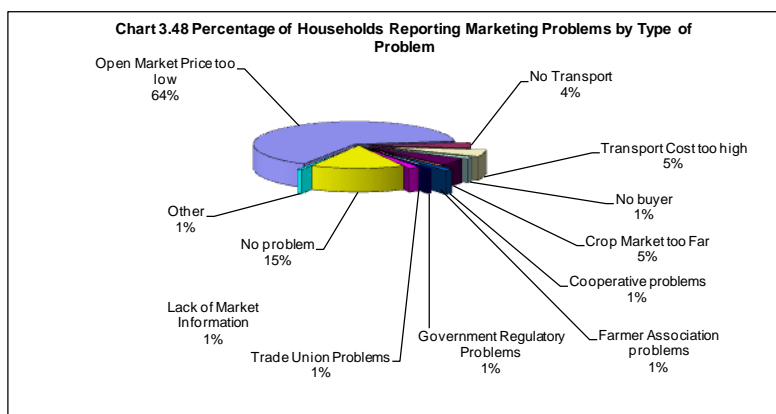
### 3.7.3 Crop Marketing

The number of households that reported selling crops during the long rainy season was 378,823 representing 79% of the total number of crop growing households in the region. The highest percentage of crop growing households selling crops was found in Maswa and Meatu (86% each), followed by Kishapu (83%), Bariadi (81%) and Kahama (80%). The lowest percentage of households selling crops was reported in Shinyanga Urban (54%) (Chart 3.47 and Map 3.26).



#### 3.7.3.1 Main Marketing Problems

Households pointed out various marketing problems. The most important problem was too low open market price (501,657 households, 64%). Apart from low market prices, other problems were high transport costs (5%), crop markets too far (5%). The remaining problems were minor and included, no transport, cooperative problems, lack of market information, no buyers, trade union problems, farmers' association problems and government regulation problems (Chart 3.48).





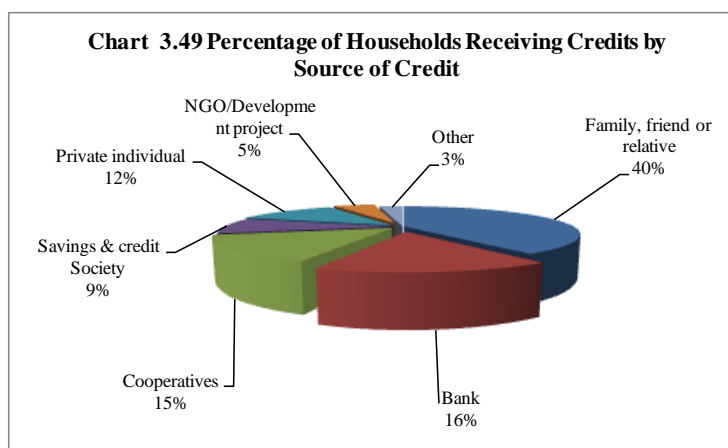
### 3.8 Access to Crop Production Services

#### 3.8.1 Access to Agricultural Credit

The Census results show that in Shinyanga region very few agricultural households (12,977, 2.7%) had access to credits out of which 10,833 (83%) male household members had access to credits while only 2,144 (17%) female household members had access to credits. Except for Bukombe, in all districts both male and female household members accessed agricultural credits.

##### 3.8.1.1 Source of Agricultural Credits

The major agricultural credit provider in Shinyanga region were family friends and relatives (40%), followed by banks (16%), cooperatives (15%), private individuals (12%) and saving and credit society (9%), NGOs and development projects (5%) while other sources accounted for 3% (Chart 3.49).



**Table 3.13: Percentage of Households Receiving Agricultural Credits by Source of Credit and District**

District	Family, friend or relative	Bank	Cooperatives	Savings & credit Society	Private/Individual	NGO/Development Project	Others	Total
Bariadi	60	0	0	10	20	10	0	100
Maswa	60	0	0	20	7	13	0	100
Shinyanga Rural	80	0	0	0	20	0	0	100
Kahama	16	37	32	5	5	0	5	100
Bukombe	14	0	29	14	43	0	0	100
Meatu	33	0	0	33	0	33	0	100
Shinyanga Urban	0	20	0	0	20	20	40	100
Kishapu	89	11	0	0	0	0	0	100
<b>Total</b>	<b>40</b>	<b>16</b>	<b>15</b>	<b>9</b>	<b>12</b>	<b>5</b>	<b>3</b>	<b>100</b>

Regarding the percentage distribution of households receiving credit by main source of credit and district, family and relatives were the main source of credit for agricultural households in Kishapu (89%), Shinyanga Rural (80%) and Bariadi and Maswa (60% each). On the other hand, banks (37%), followed by cooperatives (32%) were the major source of credit in Kahama. Similarly, in Bukombe private individuals (43%) and cooperatives (29%) were important sources of credit.

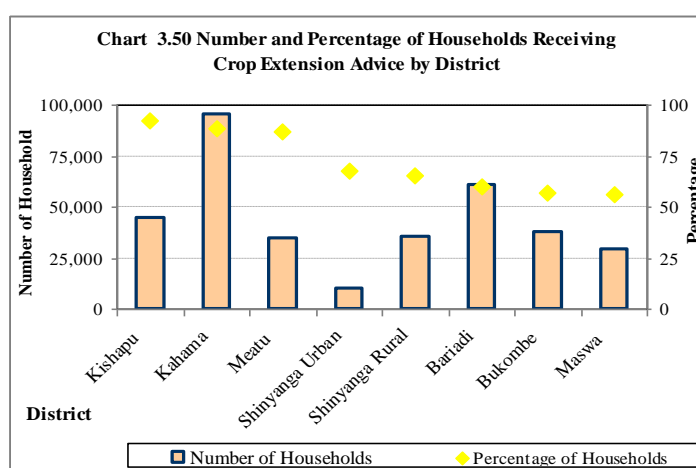
NGO/Development projects were the most important source of credit in Meatu (33%) and Shinyanga urban (20%) (Table 3.13).

### 3.8.1.2 Reasons for Not Using Agricultural Credit

The main reason for not using agricultural credit as a source of finance was little awareness about credit accounting to 51.2% of the agricultural households followed by unavailability of credit (19.2%), “not wanting to go into debt” (11.4%) and interest rate too high (7.9%) while other reasons were given by 11.3% of the households.

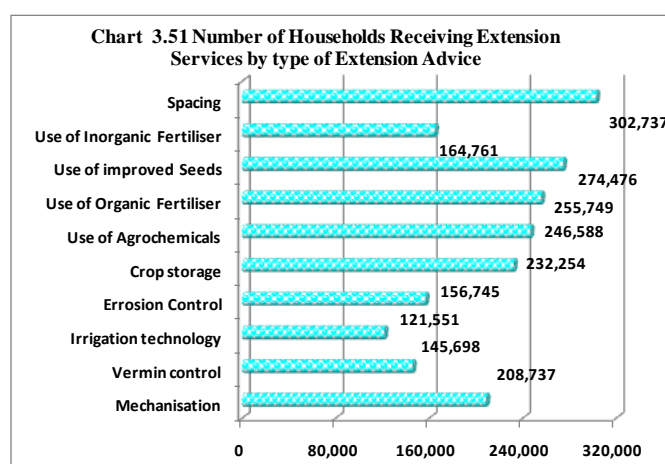
### 3.8.2 Crop Extension

The number of agricultural households that received crop extension was 347,359 (71.7%). Some districts had more access to extension services than others, with Kishapu having a relatively high proportion of households reporting access to crop extension advice (92.2%) followed by Kahama (88.7%) and Meatu (86.8%). The lowest percentage of households receiving crop extension advice was recorded in Maswa (55.8%) (Chart 3.50 and Map 3.27)



#### 3.8.2.1 Type of Crop Extension Messages

Majority of household received extension advice on crop spacing, followed by use of improved seeds, use of organic fertilizers and use of agrochemicals. Other advices were on crop storage, use of inorganic fertilizers, erosion control, irrigation technologies, vermin control and mechanization (Chart 3.51). Most of the households received extension advice from the Government (67.7%) followed by those receiving from radio/television/news paper (9.5%), neighbors (8.8%) and NGO/ development projects (8.4%). Other sources of extension advice were insignificant.



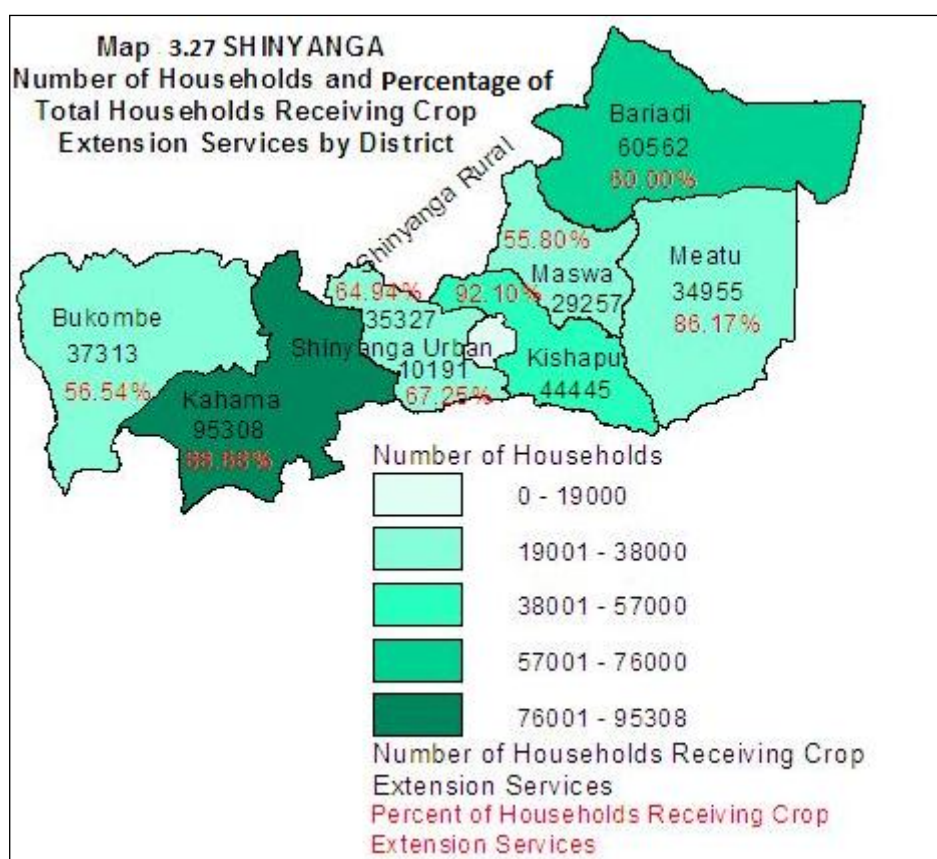
### 3.9 Erosion Control Facilities

Erosion control and water harvesting facilities have dual purposes of reducing erosion and increasing the amount of water available for crop production. Out of 60,335 households reporting erosion problem on their farming land, only 24,782 agricultural households reported to have soil erosion and water harvesting facilities on their farms. This represented 5% of agricultural households in Shinyanga region.

Various types of erosion control and water harvesting structures were used in the region. However, the number of erosion control and water harvesting structures varied by type and district. Most of these structures were comprised of erosion control bunds (366,315) and terraces (301,754) while other structures especially gabions/sandbag was in small number (1,047). Bukombe had the largest number of both erosion control bunds (269,993) and terraces (263,149) while other districts recorded the lowest number of these structures (Table 3.14).

**Table 3.14: Number of Erosion Control/Water Harvesting Structures by Type and District During 2007/08 Agriculture Year**

District	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Others
Bariadi	26,916	1,246	0	0	0	12,461	7,477	498
Maswa	0	4,531	777	0	259	0	6,343	259
Shinyanga Rural	134	11,686	0	0	0	0	0	0
Kahama	5,679	10,817	270	809	0	541	3,245	1,352
Bukombe	263,149	269,993	0	0	1,629	0	815	0
Meatu	4,207	66,004	0	701	2,404	801	1,102	401
Shinyanga Urban	0	132	0	0	0	0	0	0
Kishapu	1,668	1,906	0	0	13,226	119	2,860	2,979
<b>Total</b>	<b>301,754</b>	<b>366,315</b>	<b>1,047</b>	<b>1,511</b>	<b>17,518</b>	<b>13,923</b>	<b>21,841</b>	<b>5,489</b>



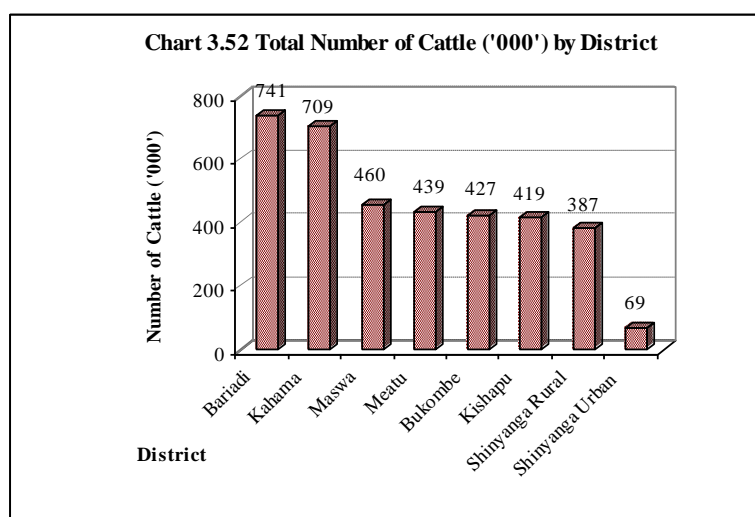
### 3.10 Livestock Results

#### 3.10.1 Cattle Production

The total number of cattle in the region was 3,651,251. Cattle were the dominant livestock type in the region followed by goats, sheep and pigs. The region accounted for 17.3% of the total cattle population on Tanzania Mainland.

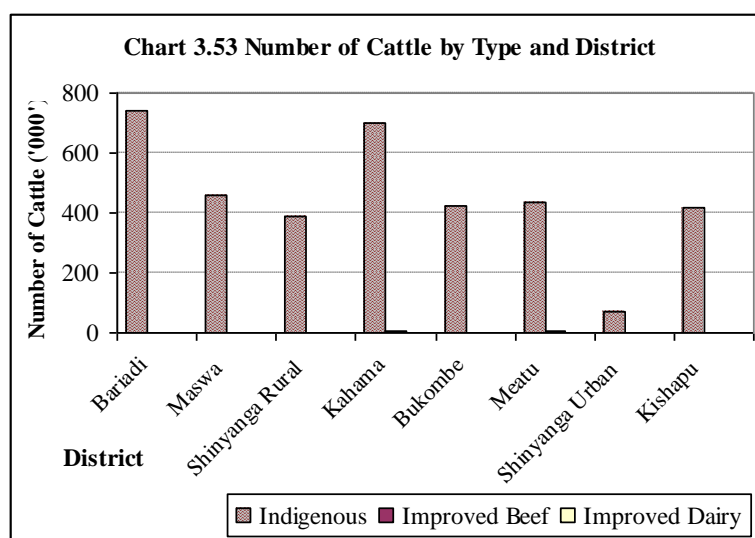
##### 3.10.1.1 Cattle Population

Bariadi had the largest number of cattle (741,197) followed by Kahama (708,629), Maswa (460,350), Meatu (439,190), Bukombe (427,231), and Kishapu (418,834). Other districts each had the cattle population of less than 400,000 with Shinyanga Urban recording the smallest number of cattle (68,568) (Chart 3.52, Map



3.28). Besides, Shinyanga Rural had the highest density of cattle per km<sup>2</sup> of land (2,305 head per km<sup>2</sup>) while Meatu had the lowest density (1,351 km<sup>2</sup>).

Most of the cattle in the region were of indigenous type (3,635,260, 99.6%). In all the districts indigenous cattle accounted for over 97% of all cattle kept while in Bariadi all were of indigenous type (100%). Beef cattle accounted for 0.3% (10,573 cattle) of the cattle population in the region with Kahama having the highest percentage (0.6%) of beef cattle. On the other



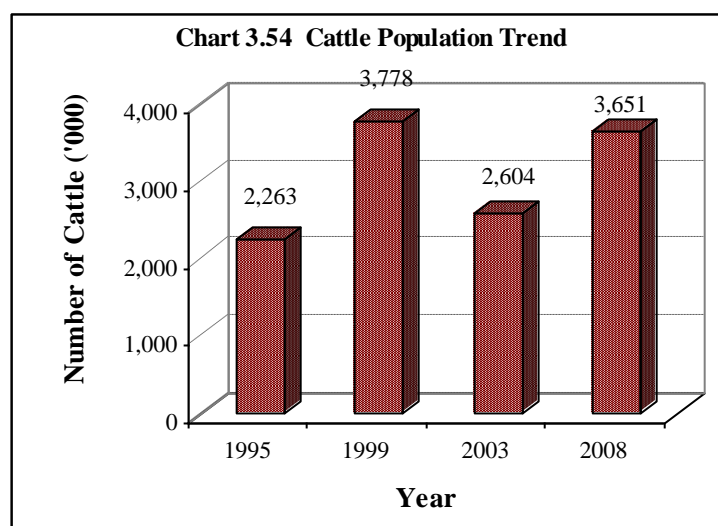
hand, improved dairy cattle represented only 0.1% of the cattle population with Shinyanga Urban recording the highest percentage (0.8%) (Chart 3.53).

### 3.10.1.2 Herd Size.

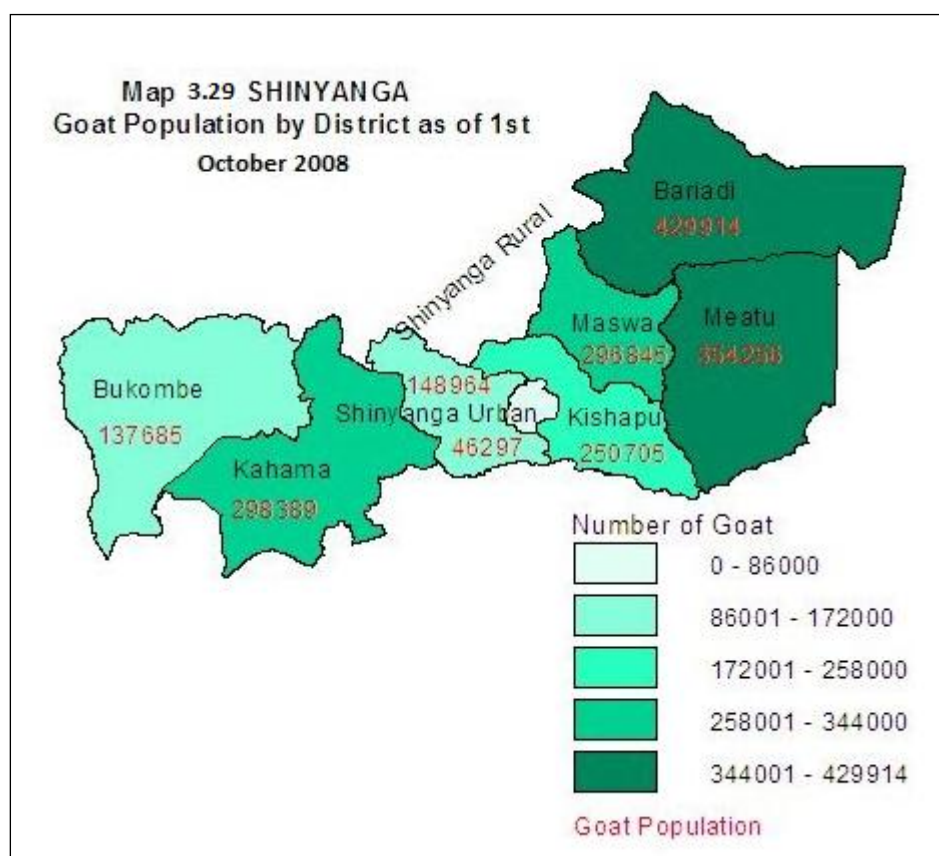
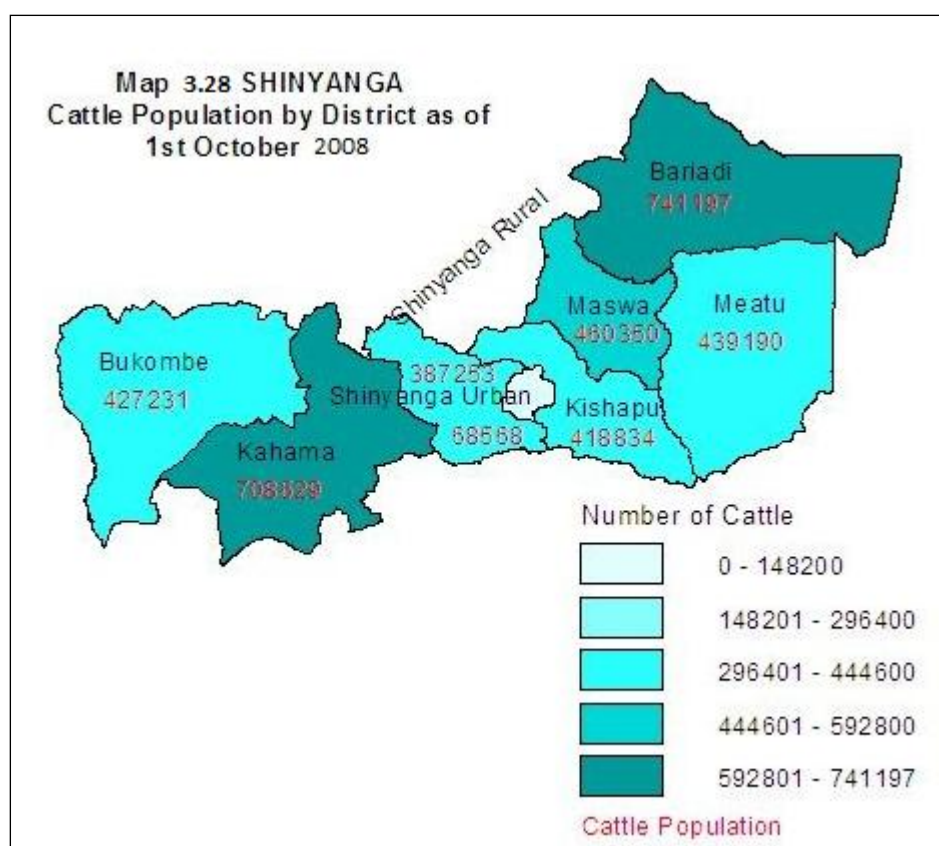
Twenty three percent of the cattle rearing households had herds of size between one and five cattle with an average of 3 cattle per household and kept only 4.7% of all the cattle in the region. Herd sizes of 6-30 accounted for about 52.7% of all the cattle in the region, with an average of 11 cattle per household. Only 12% of the cattle rearing households kept large numbers of cattle ranging from 31 heads and above.

### 3.10.1.3 Cattle Population Trend

The cattle population in Shinyanga increased during the thirteen-year period from 2,262,809 cattle in 1995 to 3,651,251 cattle in 2008. This implies an overall positive average annual growth rate of 3.8%. There was a very sharp increase in number of cattle during the four-year period from 1995 to 1999 at the rate of 13.67% whereby the number increased from 2,262,809 to



3,778,255 cattle. However, the number of cattle decreased from 3,778,255 in 1999 to 2,604,105 in 2003 at the rate of -8.88%. Thereafter, there was an annual increase of 0.07 from 2,604,105 cattle in 2003 to 3,651,251 cattle in 2008 representing a 6.99% increase in number of cattle (Chart 3.54).



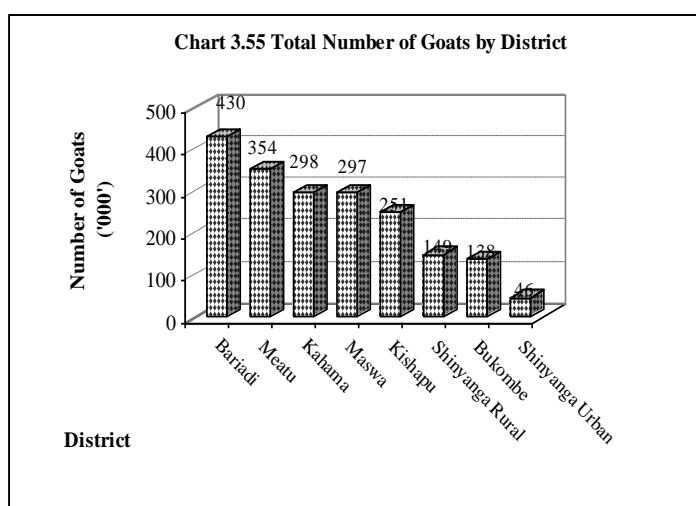


### 3.10.2 Goat Production

Goat rearing was the second most important livestock keeping activity in the region followed by pig and sheep rearing. In terms of total number of goats on the Mainland, Shinyanga region ranked 1<sup>st</sup> out of the 21 regions accounting for 13% of the total number of goats on the Mainland.

#### 3.10.2.1 Goat Population

A total of 1,963,056 goats were kept in 181,605 households (14%) giving an average of 10 goats per goat keeping household. Bariadi had the largest number of goats (429,914, 22%) followed by Meatu (354,256, 18%), Kahama (298,389, 15.2%), Maswa (296,845, 15%), Kishapu (250,705, 12.8%), Shinyanga Rural (148,964, 8%) and Bukombe (137,685, 7%).



Shinyanga Urban had the least number of goats (46,297, 2.4%) (Chart 3.55, Map 3.29). However, Shinyanga Urban had the highest density of goats (1,370 head per km<sup>2</sup>) while Bukombe recorded the lowest density (467 head per km<sup>2</sup>).

#### 3.10.2.2 Goat Herd Size

Seventy eight percent of all goat keeping households had herd sizes of 1-4 goats. Besides, these households kept 45% of all the goats in the region with an average number of two (2) goats per goat keeping household. Ninety three percent of the total goat rearing households had herd size of 1-14 which accounted for 71% of the total goats in the region resulting in an average of 3 goats per goat rearing household. The region had 1,602 households (0.3%) with a herd size of 40 goats or more (84,170 goats in total) averaging 53 goats per goat rearing household. Also, the results show that the regional average number of goats per household in 2008 was 4.

#### 3.10.2.3 Goat Breeds

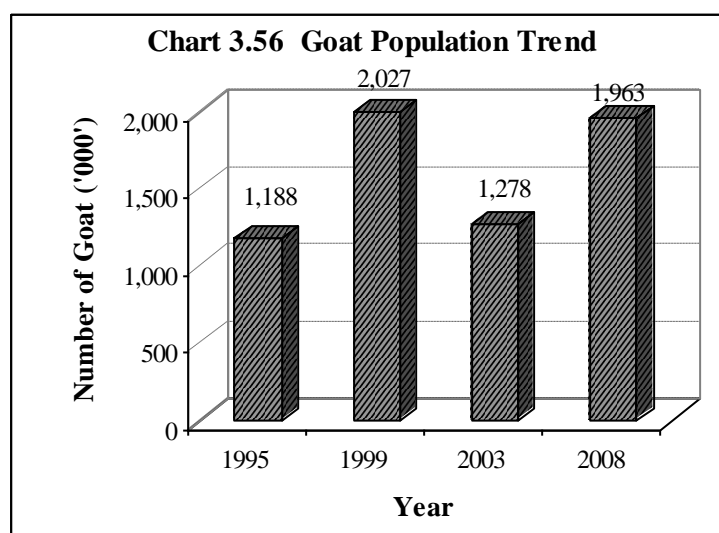
Most of the goats kept in Shinyanga region were of indigenous type accounting for 97.5% of the goat population. In Kahama District only indigenous type of goats was kept. In addition, a large number of indigenous goats were recorded in Bariadi (399,758) while Shinyanga Urban recorded



the least number of indigenous goats (46,902). An insignificant number of improved breeds of goats were raised for meat production. These were found in Bukombe (652) and Shinyanga Urban (395). On the other hand, there were 51,911 dairy goats with 60% of them being kept in Bariadi (30,156 goats).

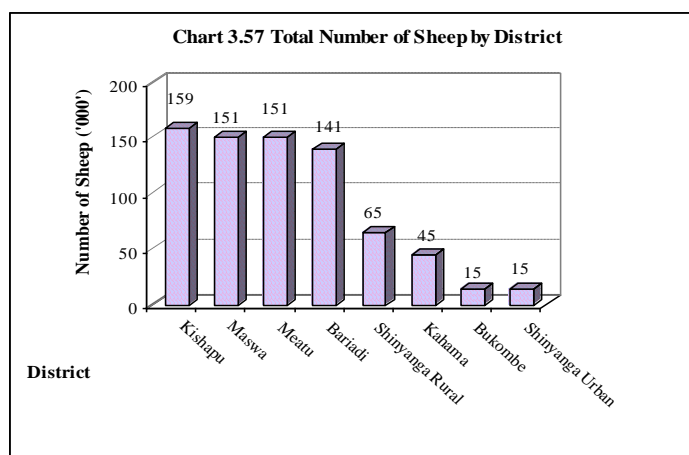
### 3.10.2.4 Goat Population Trend

The overall average annual growth rate of goat population from 1995 to 2008 was 3.94%. The positive trend implies an increase in goat population from 1,187,706 in 1995 to 1,963,056 in 2008. The number of goats increased from 1,187,706 in 1995 at an estimated annual rate of 14.30% to 2,026,845 in 1999. From 1999 to 2003, the goat population decreased at an annual rate of -10.89% and thereafter the goat population increased at the rate of 8.96% from 2003 to 2008 Agriculture Sample Censuses (Chart 3.56).



### 3.10.3 Sheep Production

Sheep rearing was the third most important livestock keeping activity in Shinyanga region after cattle and goats. The region ranked second out of 21 Mainland regions and accounted for 12.9% all sheep on Tanzania Mainland.



#### 3.10.3.1 Sheep Population

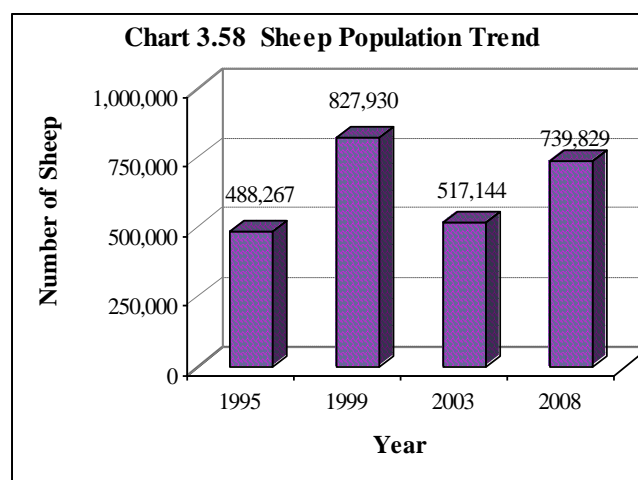
The number of sheep-rearing households was 87,549 (18%) rearing 739,829 sheep, giving an average of 8 heads of sheep per sheep-rearing household. Kishapu had the largest number of sheep (158,954) accounting for 21.5% of the total population of sheep in the region. Other districts with a considerable number of sheep were Maswa (150,818), Meatu (150,637), and Bariadi (140,563). In

contrast, Shinyanga Urban had the least number of sheep (14,671) (Chart 3.57, Map 3.30). Moreover, Kishapu had the highest density of sheep per km<sup>2</sup> (536 head /km<sup>2</sup>) and the lowest density was recorded in Bukombe (50 head/km<sup>2</sup>). All sheep kept in the region were indigenous.

### 3.10.3.2 Sheep Population Trend

The overall annual growth rate of the sheep population for the thirteen year period from 1995 to 2008 is estimated at 3.25%. The population increased at an annual rate of 14.11% from 488,267 in 1995 to 827,930 in 1999. From 1999 to 2003, the sheep population decreased at an annual rate of -11.10% and exhibited an increasing trend from 2003 to 2008

at a rate of 7.42% equivalent to an increase of the population from 517,144 sheep to 739,829 sheep in 2003 and 2008 Agriculture Census respectively (Chart 3.58).



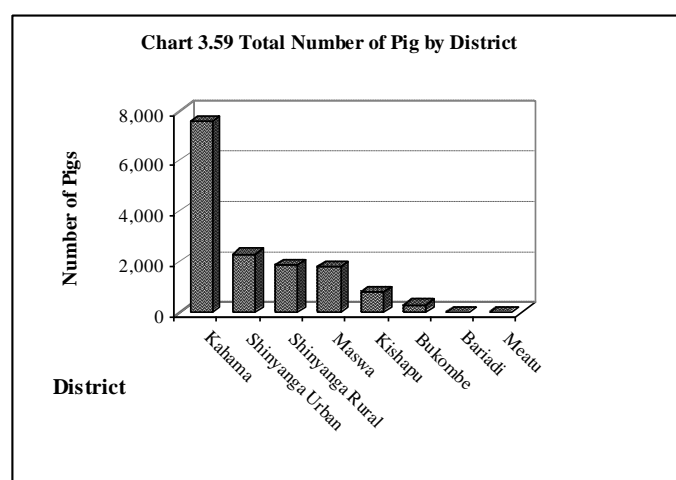
### 3.10.4 Pig Production

Piggery is the least important livestock keeping activity in the region. The region ranks 17 out of 21 Mainland regions accounting for 0.9% of the pig population on the Mainland.

#### 3.10.4.1 Pig Population

The number of pig-rearing agricultural households in Shinyanga region was 3,015 (1.6%) rearing 14,753 pigs. This gives an average of 5 pigs per pig-rearing household.

The district with the largest number of pigs was Kahama (7,572; 51%) followed by Shinyanga Urban (2,328 pigs, 16%), Shinyanga Rural (1,881 pigs, 13%) and Maswa (1,812 pigs, 12%). The number of pigs in the remaining districts accounted for less than 10 percent of the total pigs in the

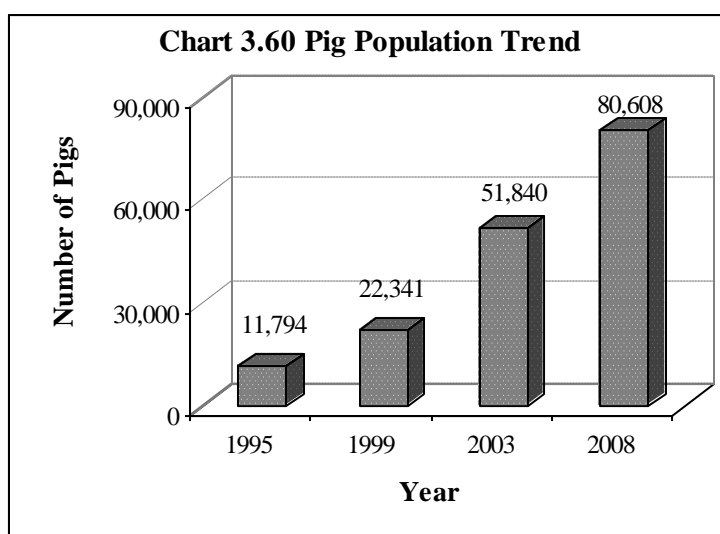


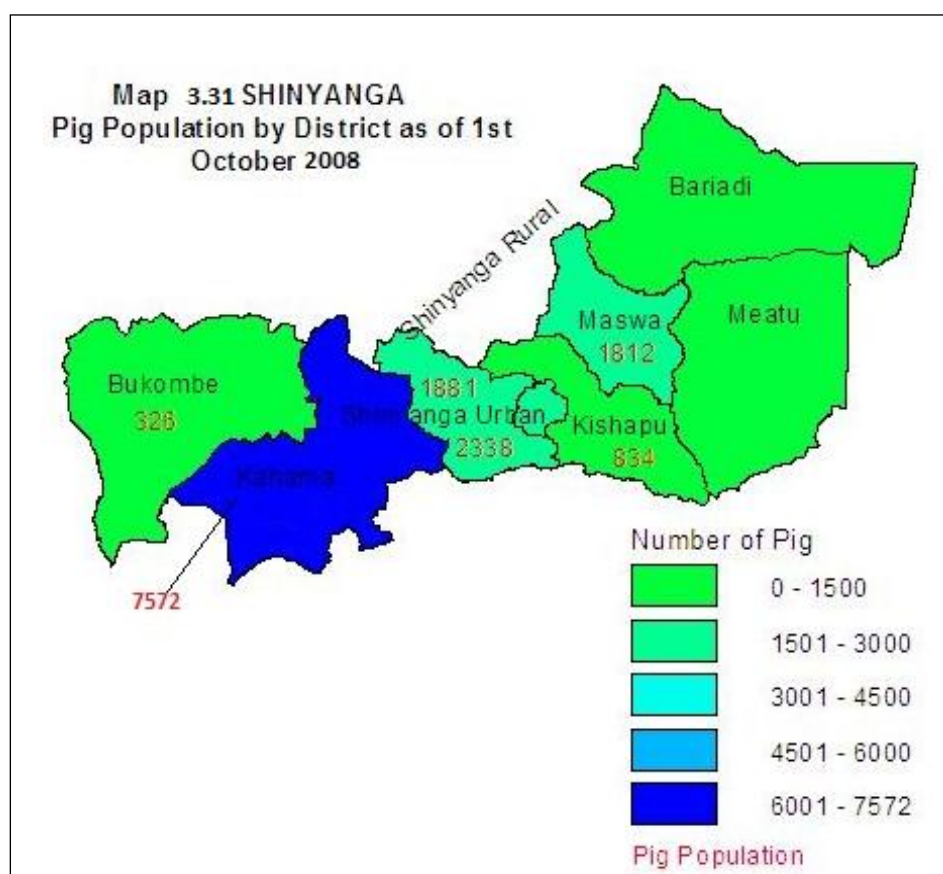
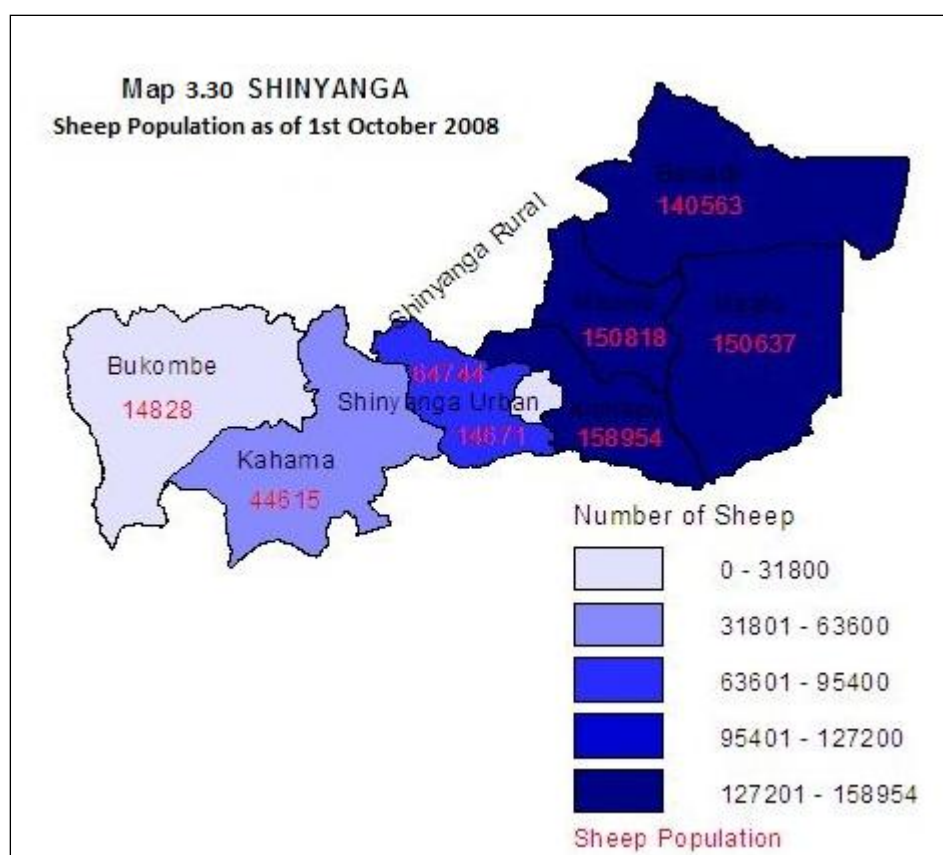
region (Chart 3.59, Map 3.31). The highest density of pigs was found in Shinyanga Urban (69 head/km<sup>2</sup>) while Bukombe recorded the lowest density (1 head/km<sup>2</sup>).

### 3.10.4.2 Pig Population Trend

The overall annual growth rate of the pig population for the thirteen year period from 1995 to 2008 was 15.93%. During this period the population grew from 11,794 pigs to 80,608 pigs. The pig population increased from 11,794 in 1995 to 22,341 in 1999 at the rate of 17.32%. The growth rate increased to 23.42% during the four year period from 1999 to 2003 in which the pig population increased from 22,341 to 51,840 pigs.

Thereafter there was an increase of 9.44% to 80,806 pigs representing an annual growth rate of 0.09 between 2003 and 2008 (Chart 3.60).





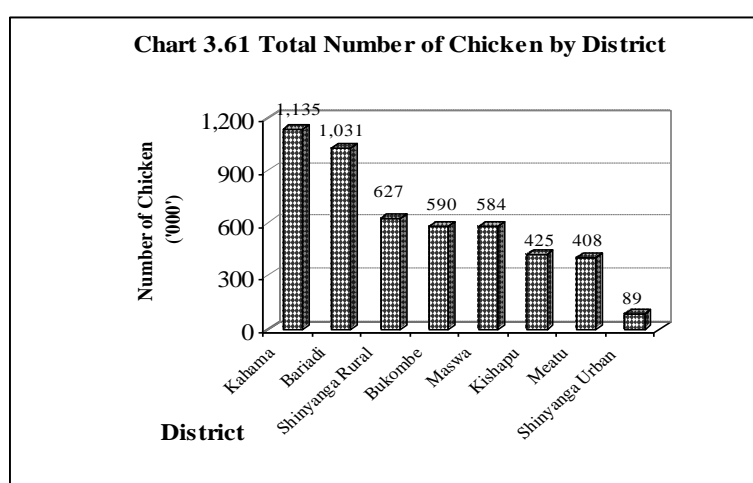
### 3.10.5 Chicken Production

The poultry sector in Shinyanga region was dominated by chicken production. The region represented 11.5% of the chicken population on Tanzania Mainland.

#### 3.10.5.1 Chicken Population

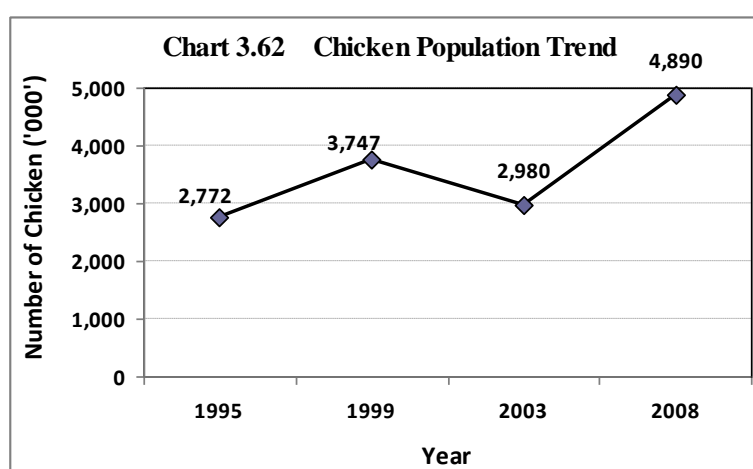
The number of households keeping chicken was 352,511 raising about 4,890,370 chickens. This gives an average of 14 chickens per chicken-rearing household. In terms of the number of chickens in the country, Shinyanga region ranked first out of the 21 Mainland regions.

The District with largest number of chickens was Kahama (1,135,427, 23%) followed by Bariadi (1,030,549, 21%) and Shinyanga Rural (627,154, 13%). Shinyanga Urban District had the smallest number of chicken (89,256, 2%) (Chart 3.61, Map 3.32). In contrast, Shinyanga Rural District had the highest density of chicken (3,733 head per km<sup>2</sup>)



#### 3.10.5.2 Chicken Population Trend

The overall annual population growth rate for chicken during the thirteen year period from 1995 to 2008 was 0.04%. The population increased at a rate of 7.8% from 1995 to 1999 after which it decreased at -5.6% for the four-year period from 1999 to 2003. Thereafter, there was a small increase (10.4%) from 2,979,590 to 4,890,370 chickens between 2003 and 2008 representing an annual growth rate of 0.1% (Chart 3.62).



### 3.10.5.3 Chicken Flock Size

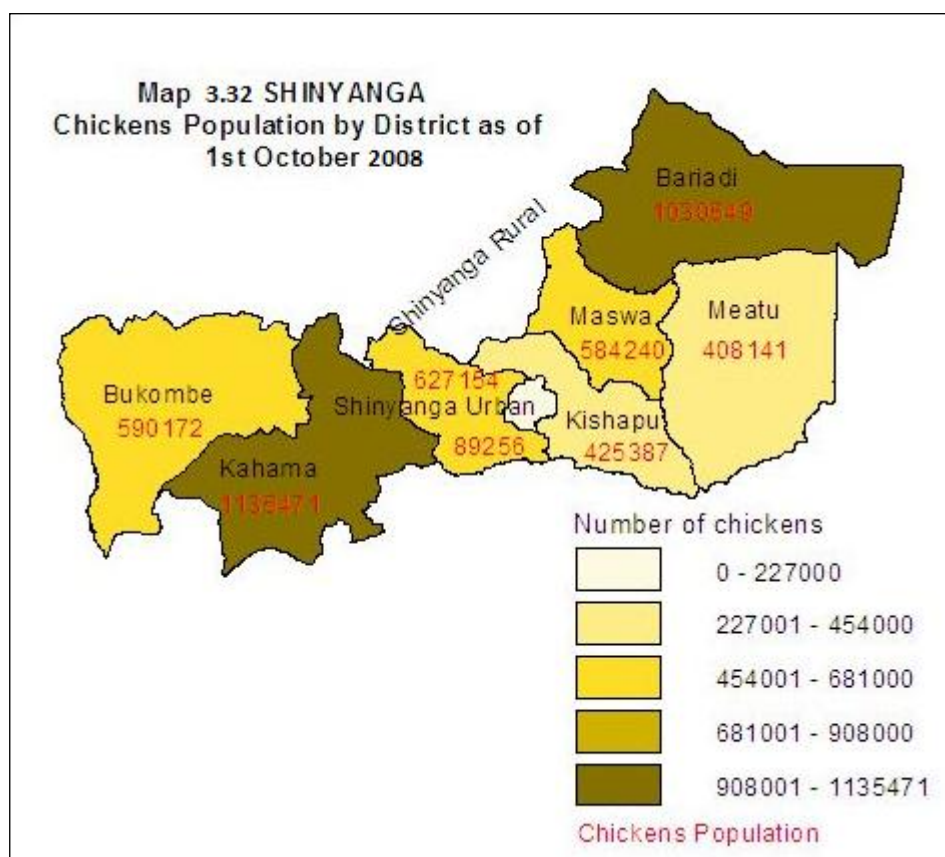
The results indicate that about 93.3% (4,560,765 chicken) of all chicken are kept in flock size of 1-49 chicken, 5.9% (289,308 chickens) are kept in flock size ranging from 50-99 chicken and only 0.8% are kept in the class of 100 chicken and above. When classified by type of chicken the results show that about 98.8% (4,833,471 chickens) are indigenous while the rest were layers (1.1%) and broilers (0.1%).

### 3.10.6 Other Livestock

There were 112,980 ducks, 19,419 donkeys, 126,460 dogs, 8,985 guinea pigs and 601 turkeys raised by rural agricultural households in the region. The biggest number of ducks in the region was found in Kahama District (41,229 ducks, 36%), followed by Bariadi (35,889 ducks, 32%) and Shinyanga Rural (16%). Meatu District had the least number of ducks estimated at 1% of all ducks in the region (901). Turkeys were reported in Meatu District only (601 ducks). Donkeys were mostly reported in Shinyanga Rural (10,074 donkeys, 52%), Meatu (4,307 donkeys, 22%) and Maswa (1,942 donkeys, 10%). The least number of donkeys was found in Shinyanga Urban (44 donkeys, 0.2%). Bariadi had the largest number of dogs (37,135) while Shinyanga Urban recorded the smallest (3,031). Besides, no records of rabbits and horses were made available (Table 3.15).

**Table 3.15: Number of Other Livestock by Type of livestock and District as of 1st October, 2008**

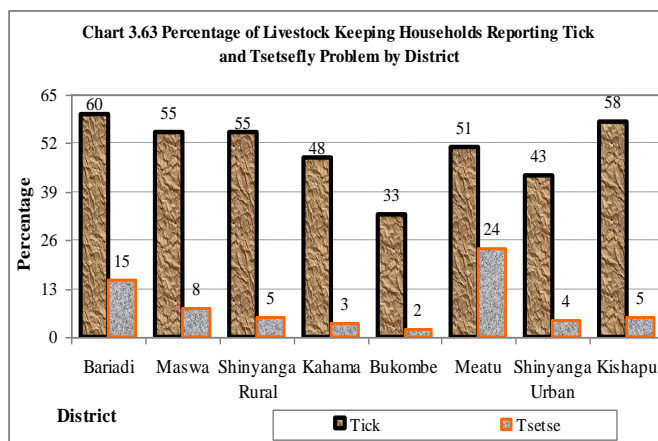
District	Ducks	Guinea pigs	Turkeys	Rabbits	Donkeys	Horses	Dogs
Bariadi	35,889	.	.	.	.	.	37,135
Maswa	9,450	388	.	.	1,942	.	11,781
Shinyanga Rural	18,268	.	.	.	10,074	.	13,970
Kahama	41,229	6,760	.	.	1,622	.	27,577
Bukombe	1,955	1,141	.	.	.	.	4,562
Meatu	901	100	601	.	4,307	.	19,230
Shinyanga Urban	1,713	.	.	.	44	.	3,031
Kishapu	3,575	596	.	.	1,430	.	9,175
Total	112,980	8,985	601	.	19,419	.	126,460



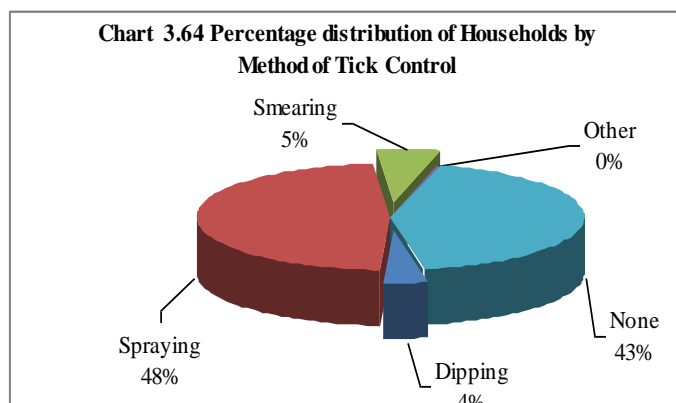
### 3.10.7 Disease and Pest Control

#### 3.10.7.1 Ticks and Tsetse fly

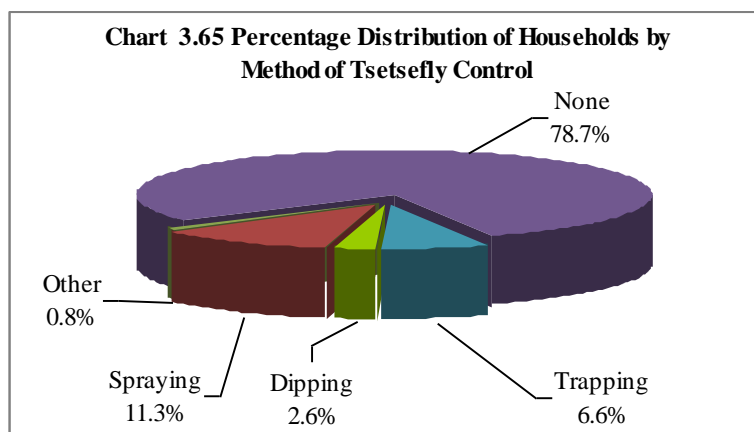
The results indicate that 51% and 8% of the total livestock-keeping households reported to have encountered ticks and tsetse fly problems respectively. The percentage of households encountering tick problem was highest in Bariadi (60%) followed by Kishapu (58%) and Shinyanga Rural and Maswa each with 55 percent, while the percentage were relatively lower in Bukombe (33%) and Shinyanga urban (43%) districts (Map 3.33). As for Tsetse fly, the highest percentage of households reporting the problem was in Meatu (24%) and Bukombe had the lowest (2%) (Chart 3.63).



The most practiced method of tick controlling was spraying (48%) followed by smearing (5%), dipping (4%), and other methods like hand picking (0.4). However, 43% of livestock-keeping households did not use any control method (Chart 3.64).



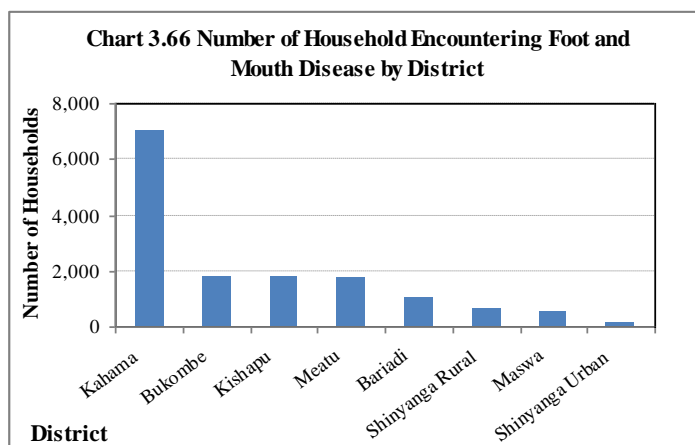
The most common method used to control tsetse flies was spraying (11.3%), trapping (6.6%), dipping (2.6%) and others (0.8%). However, 78.7% of the livestock rearing households did not use any of the three aforementioned methods (Chart 3.65).





### 3.10.7.2 Foot and mouth disease

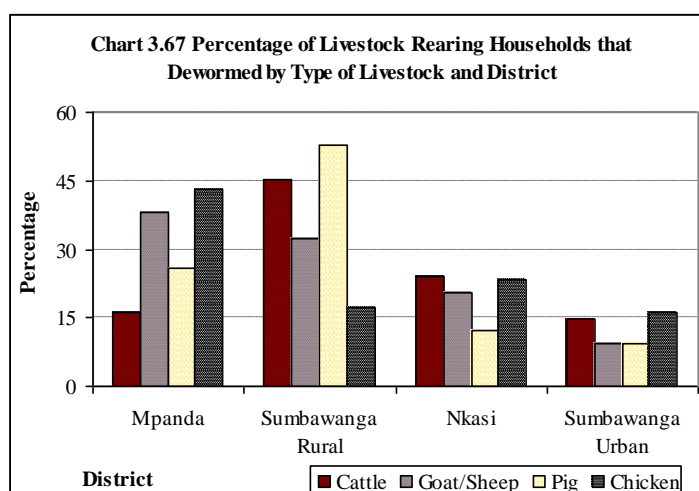
Foot and mouth disease (FMD) was reported by 14,631 households representing 3 percent of total livestock keeping households in the region. The District with the largest number of livestock keeping households reporting FMD was Kahama 7,031 (8%), followed by Meatu (1,703; 5%). In other remaining the problem was reported by an insignificant percent of households (Chart 3.66).



### 3.10.7.3 Deworming

About 39% of livestock keeping households in the region dewormed their livestock. The highest percent of households dewormed cattle (79%), followed by goats and sheep (44%), chicken (26%), and pigs (1%).

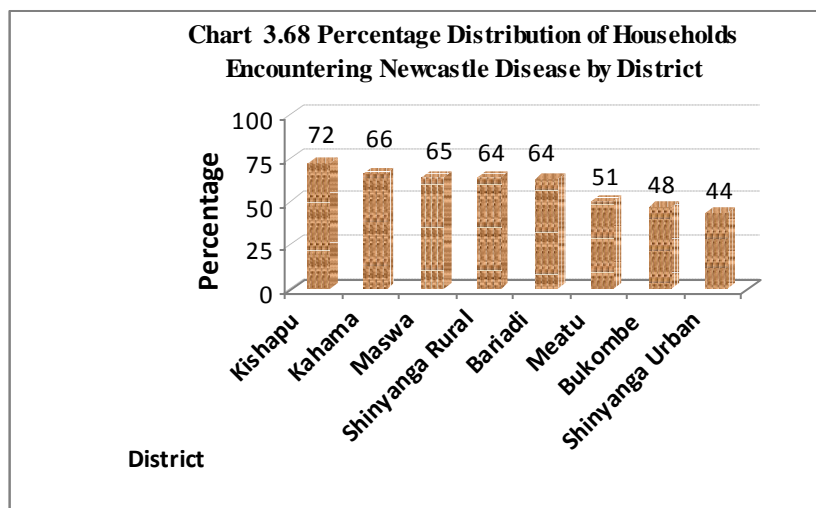
Kishapu (88%) and Meatu (63%) had the highest percentage of households, which dewormed cattle while Bukombe recorded the lowest percent of households reporting deworming cattle. In regard to deworming of goat/sheep, Meatu had the highest percentage (58%) while Kahama district had the lowest percentage. On the other hand, Maswa district had the highest percentage of households that dewormed chicken while the lowest percentage was found in Bukombe. Generally, deworming was most practiced for cattle followed by goat/sheep and chicken, while it was limited for pigs (Chart 3.67).



### 3.10.7.4 Newcastle Disease

Newcastle was a problem encountered by the livestock rearing households. The disease was reported by 257,498 livestock keeping households in Shinyanga region accounting for 62% of livestock keeping households.

The District with highest percentage of households encountering the disease was Kishapu (72%). It was followed by Kahama (66%) and Maswa (65%). In other districts the problem was reported by less than 65% households with the lowest percentage recorded in Shinyanga Urban (47%) (Chart 3.68).



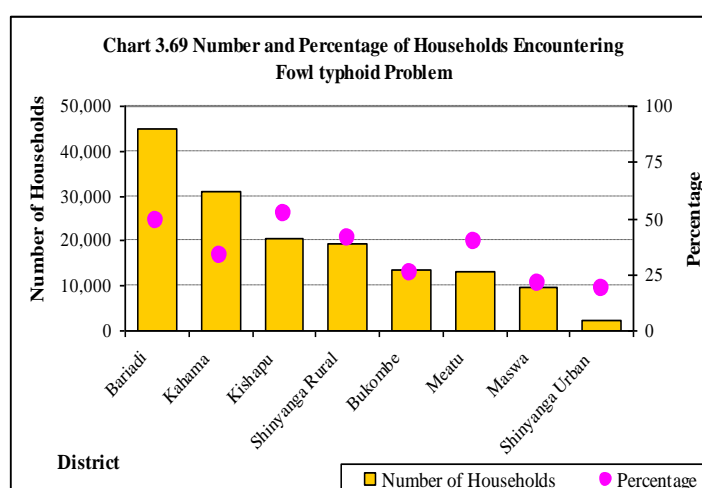
The households reporting the disease used two control methods namely: local herbs (119,802 household, 29%) and vaccination (96,979 households, 23%). However, 48% of the livestock keeping households (201,604) did not use any control methods against the disease.

### 3.10.7.5 Fowl Typhoid

There were 154,928 households equivalent to 37% of total livestock rearing households reporting cases of fowl typhoid in Shinyanga region.

The highest percentage of households reporting incidences of the disease were found in Kishapu (52%) followed by Bariadi (49%) and Shinyanga rural (41%). The lowest percentage was recorded in Shinyanga urban (18%) (Chart 3.69).

Control of fowl typhoid was mainly through local herbs (108,417 households; 26%) and use of vaccination (42,163 households, 10%). Nevertheless, majority (about 64%) households did not take any measures to control the disease.



### 3.11 Animal Contribution to Crop Production

#### 3.11.1 Use of Draft Power

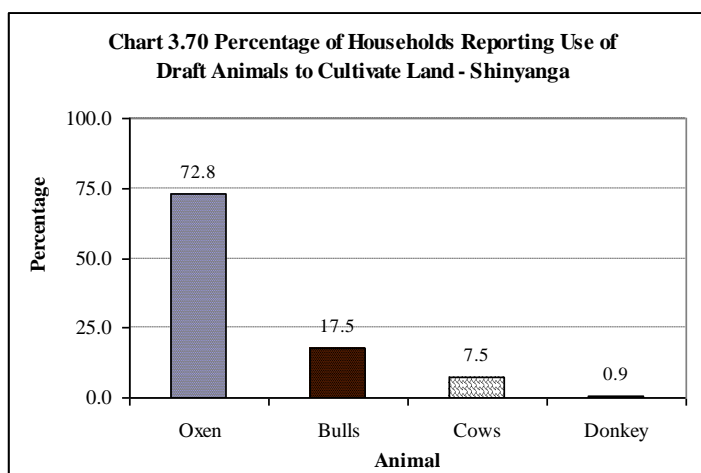
Use of draft animals in Shinyanga was important. About 37% of all agricultural households in the region reported using ox plough for agricultural purposes. This was followed by castrated bulls 36%, cow and uncastrated bulls (23% each). Other animals which were used by less than 20% of the households in the region were ox seed planters, ox carts, pulling ridgers and donkeys.

Bariadi District recorded the largest number of households using ox ploughs (43,615), castrated bulls (41,621), cows (33,147) and uncastrated bulls (31,153). On the other hand, Kahama had largest number of households using ox cart (12,437) followed by ox planter (1,893), and donkey (1,352) (Table 3.16)

**Table 3.16: Number of Households Reporting Use of Draft Animals by Type of Animal and District**

District	Ox Plough	Ox Seed Planter	Ox Cart	Castrated bulls	Uncastrated bulls	Cow	Donkey	Ox Ridger	Total Agricultural Households
Bariadi	43,615	748	9,471	41,621	31,153	33,147	0	249	100,936
Maswa	21,360	647	9,968	21,749	11,392	12,298	388	129	52,430
Shinyanga Rural	24,178	537	7,925	25,387	11,820	14,910	672	0	54,401
Kahama	35,826	1,893	12,437	32,445	20,412	18,111	1,352	270	107,477
Bukombe	11,080	978	3,748	12,872	8,962	8,799	326	489	65,991
Meatu	18,429	300	9,615	17,427	11,017	10,216	1,102	801	40,564
Shinyanga Urban	4,349	307	1,406	3,119	2,943	2,372	44	176	15,154
Kishapu	22,521	357	8,579	19,780	11,916	12,631	1,311	0	48,258
<b>Total</b>	<b>181,357</b>	<b>5,768</b>	<b>63,149</b>	<b>174,399</b>	<b>109,616</b>	<b>112,483</b>	<b>5,194</b>	<b>2,115</b>	<b>485,212</b>
<b>%</b>	<b>37.38</b>	<b>1</b>	<b>13.01</b>	<b>36</b>	<b>22.59</b>	<b>23</b>	<b>1.07</b>	<b>0</b>	

Cultivating land was another way of using draft animals in Shinyanga region. About 72.8% of the total agricultural households used oxen for cultivating land, followed by bulls (17.5%), and cows (7.5%). The use of donkey for land cultivation was insignificant in the region (Chart 3.70).



The highest percentage of households using oxen for cultivating land was recorded in Maswa (87.1%), Shinyanga rural (78.9%), and Kishapu (77.9%) districts. On the other hand a large number of households in Bariadi district used bulls for cultivation (21,433) (Table 3.17).

**Table 3.17: Percentage of Households Used Draft Animals to Cultivate Land by District**

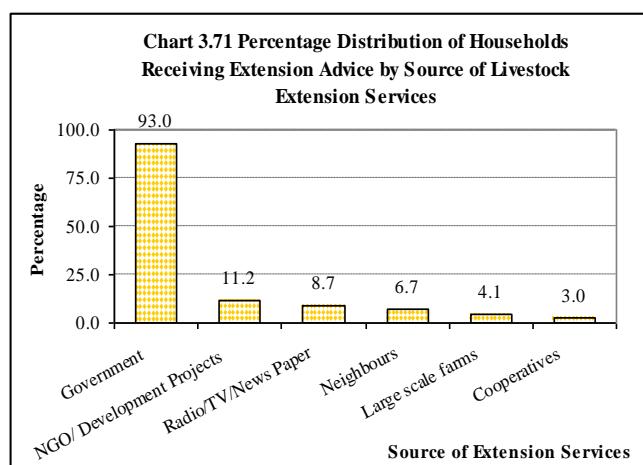
District	Oxen	Bulls	Cows	Donkeys	Total Agricultural Households
Bariadi	64.7	21.4	11.4	1.0	100,936
Maswa	87.1	7.7	4.2	0.7	52,430
Shinyanga Rural	78.9	13.2	6.7	0.6	54,401
Kahama	75.6	18.8	4.6	0.5	107,477
Bukombe	74.4	19.0	5.8	0.8	65,991
Meatu	64.2	20.7	8.2	2.6	40,564
Shinyanga Urban	68.1	28.1	2.7	0.0	15,154
Kishapu	77.9	14.2	6.9	0.3	48,258
Total	72.8	17.5	7.5	0.9	485,212

### 3.12 Fish Farming

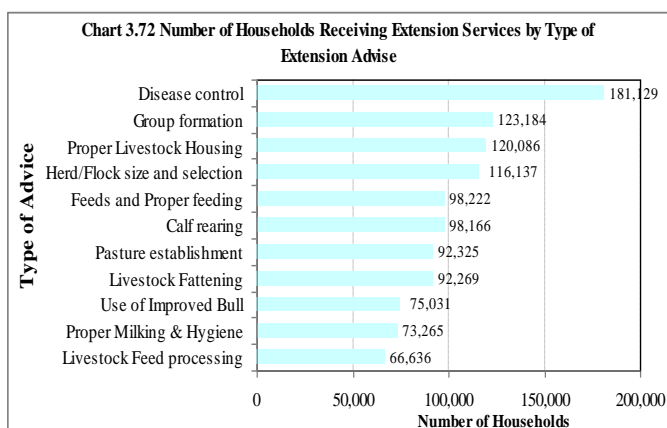
While in 2002/03 Agriculture Census report, 430 households representing 0.1% of agricultural households in Shinyanga region practiced fish farming none was reported in the 2007/08 Agriculture Census

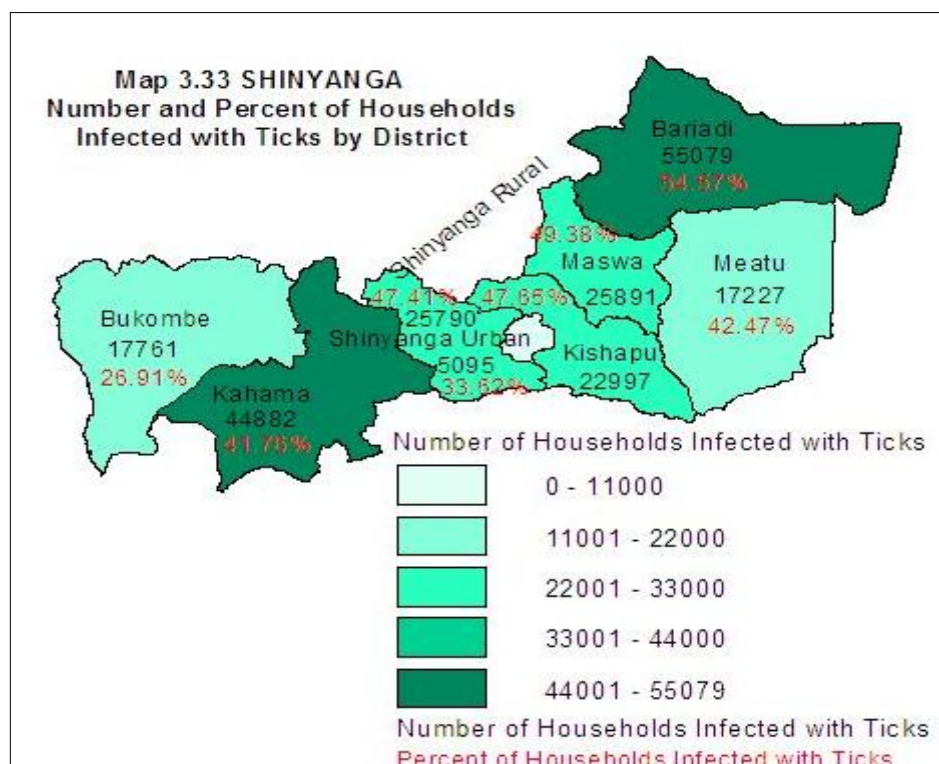
### 3.13 Access to Livestock Extension Services

The total number of households that received livestock advice was 227,076 representing 57% of the total number of livestock-rearing households. The main livestock extension provider was the government (about 93%). The rest of the households received services from NGOs/development projects (11.2%), radio/TV or newspaper (8.7%), neighbors (6.7%), large-scale farmers (4.1%) and cooperatives (3.0%) (Chart 3.71).



Disease control was the highest ranking extension advice given to many households. It was followed by group formation, proper animal housing and selection of herd/flock size. Others aspects on which extension advice<sup>3</sup> was given were feeds and proper feeding processing, calf rearing, pasture establishment, livestock fattening, use of improved bull, proper milking and milk hygiene, and livestock feeds processing (Chart 3.72).



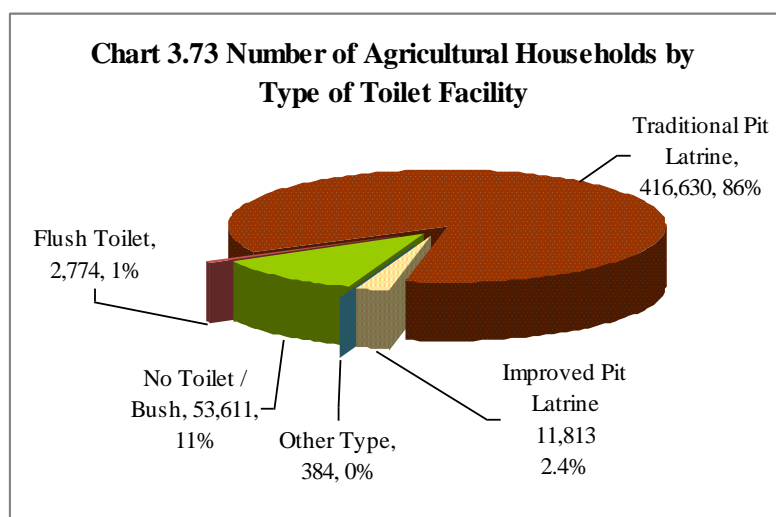


### 3.14 Poverty Indicators

The Agricultural Census collected data on poverty for the purpose of providing a base for tracking progress in poverty reduction strategies undertaken by the government. Specific attention was paid to the following indicators.

#### 3.14.1 Type of Toilets

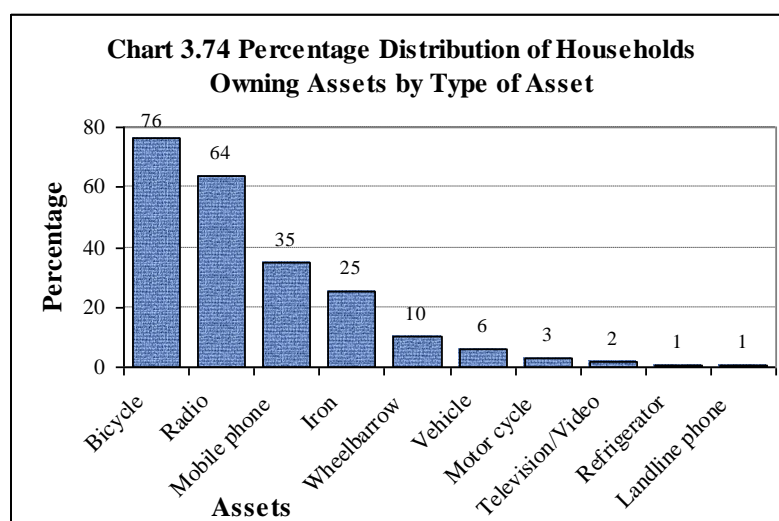
A large number of rural agricultural households used traditional pit latrines (416,630, 85.9%). A total of 11,813 households (2.4%) had improved pit latrine and 2,774 households (0.6%) used flush toilets. However, 53,611 households (11%) had no toilet facilities, a decrease of one percent (1%) compared to 2002/03 Agriculture Census (Chart 3.73).



The distribution of the households with no toilets within the region shows that, Kahama District had the largest number of households without toilets (15,143, 28.2%) while the smallest number of households without toilet facilities was found in Shinyanga Urban (1,977, 3.7%). (Map 3.35) In contrast, when expressed as percentage of total agricultural households at District level, Maswa had the highest percentage of households without toilets (17.0%) while Bukombe had the lowest percentage (4.4%).

#### 3.14.2 Household's Assets

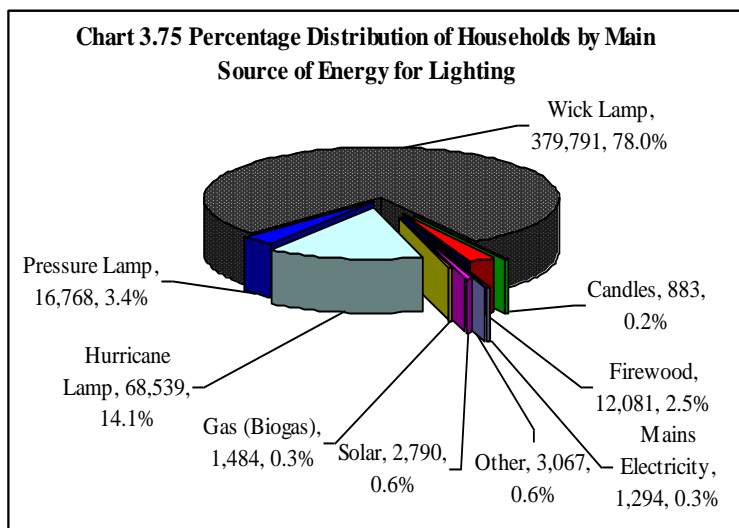
Bicycle was owned by most rural agricultural households in Shinyanga region (369,441) accounting for 76% households in the region. This was followed by those owning radio (310,199, 64%), mobile phones



(170,704, 35%), and iron (122,758, 25%). Other assets were owned by less than 25% Households (Chart 3.74).

### 3.14.3 Sources of Lighting Energy

The main source of lighting energy in Shinyanga is predominantly wick lamp (78.3%) followed by hurricane lamp (14.1%) and the less common used sources of light were pressure lamp (3.5%), fire wood (2.5%), solar and other sources (0.6% each), electricity and gas/biogas (0.3% each), and candles (0.2%) (Chart 3.75).

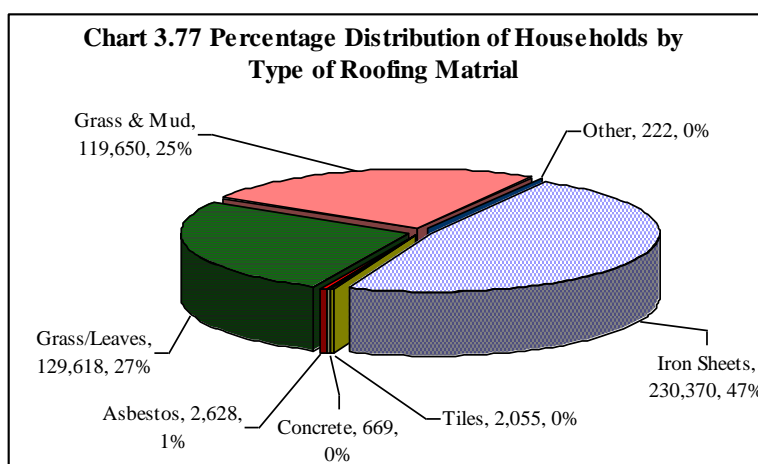
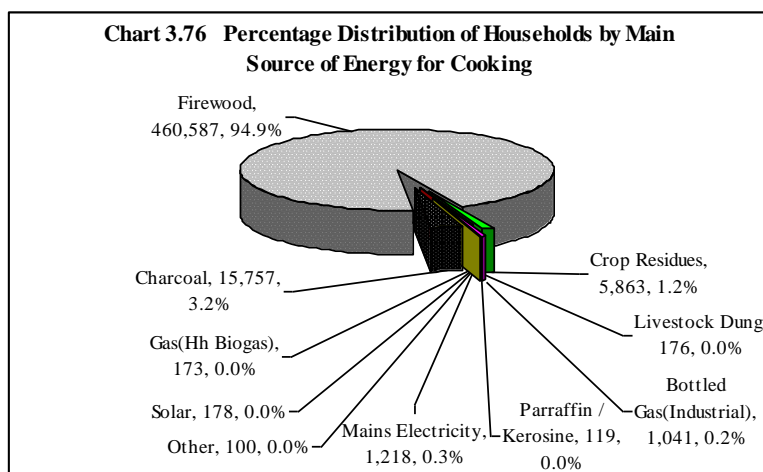


### 3.14.4 Sources of Energy for Cooking.

The most prominent source of energy for cooking was firewood (94.9%) followed by charcoal (3.3%), crop residues (1.2%), mains electricity (0.3%) and gas/industrial (0.2%). Other sources including solar, gas (biogas), paraffin/ kerosene and livestock dung were used to a very limited extent

(Chart 3.76).

The use firewood as the main source of energy for cooking ranged from 91.4% in Shinyanga Rural to 97.8% in Bariadi and Bukombe.

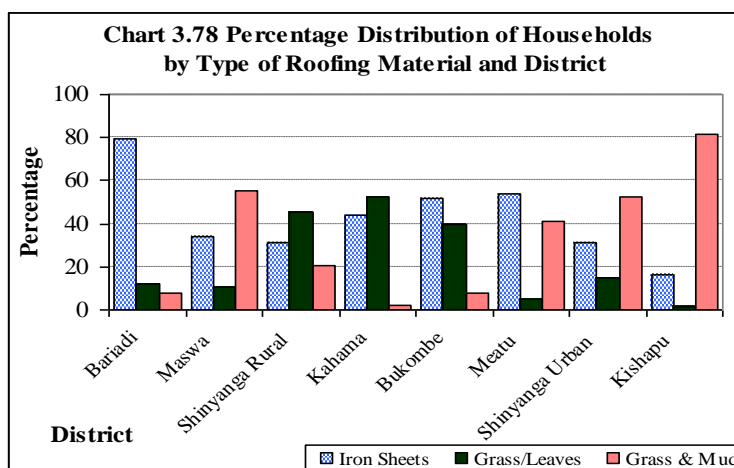




### 3.14.5 Roofing Material

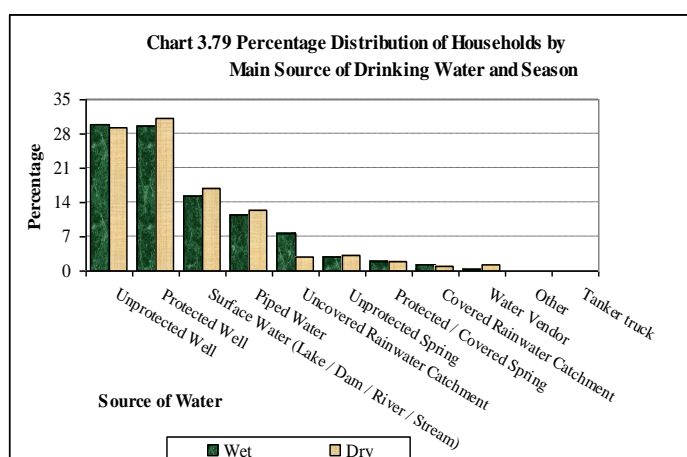
The most common three roofing materials used for the main dwelling were iron sheets accounting for 47.5 percent of households (230,370). This was followed by grass/leaves (26.7%, 129,618 households) and grass and mud (24.7%, 119,650 households). Other material such as concrete, tiles and asbestos each were used by less than 1% of the rural agricultural households in the region (Chart 3.77).

Kahama had the highest percentage of households using leaves or grass for roofing materials (52%) while the lowest percentage was recorded in Kishapu (1%). However, Kishapu had the highest percentage of households using grass and mud as roofing material (81%) while Bariadi had the highest percentage of households using iron sheets roofs for roofing material (80%) (Chart 3.78 and Map 3.36).



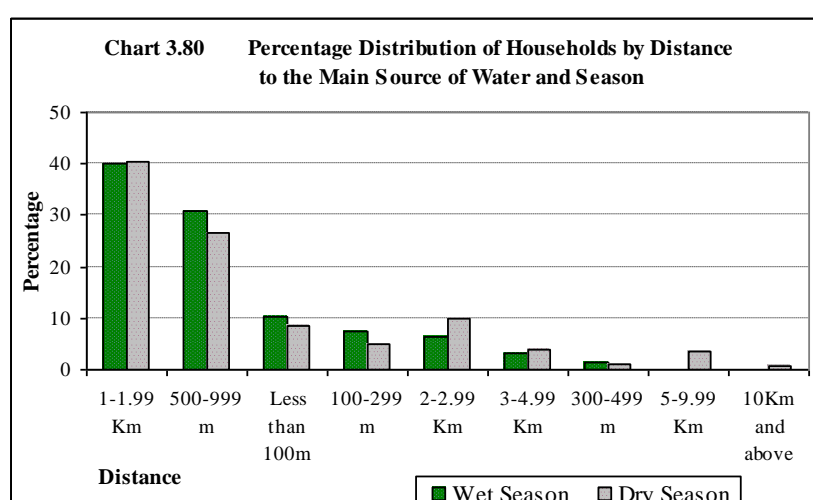
### 3.14.6 Access to Drinking Water

There are various sources of drinking water in Shinyanga region. However, the main source of drinking water for agricultural households during the dry season was protected well (31.2%) and unprotected wells with 29.2%. During the wet season unprotected well was the most common source (29.8%), protected wells (29.5%), other sources were surface water including lake, dam, river and stream (17.0% during the dry season and 15.2% during the wet season), piped water (12.3% during the dry season and 11.5% during the wet season). The remaining sources, which are unprotected spring, protected covered spring, covered rainwater catchments, uncovered rainwater catchments and water vendor were each used by less than 10% of the households in the two seasons (Chart 3.79).



In Bukombe District the highest percentage of households obtained drinking water from piped water (32% in the wet season and 31% in the dry season) while unprotected wells was the main source of drinking water for households in Kahama (56% in the wet season and 57% in the dry season). Furthermore, surface water (lake/dam/river) was the main source of drinking water for in Kishapu (54% in the wet season and 63% in the dry season). Besides, in Bariadi protected wells were the main source of drinking water (59% in the wet season and 63% in the dry season).

There were variations in terms of distance to the main source of drinking water between the dry and wet season respectively. About 50% of the rural agricultural households in Shinyanga region obtained drinking water within a distance of less than one kilometer during the wet season compared to 42% of the households during the dry season. However, 49% of the agricultural households obtained drinking water from a distance of one or more kilometers during the wet season compared to 59%



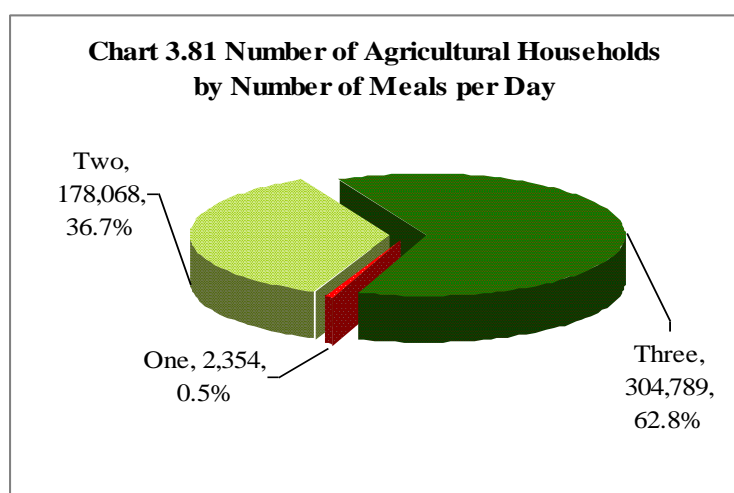
of the households in the dry season. The most common distance to the source of drinking water was between 500 m and 2 km (Chart 3.80).

The percentage of households obtaining drinking water within a distance of less than one kilometer in both seasons had increased from 44% and 32% during the wet and dry season respectively in 2002/03 Agriculture Census to 50% and 42% respectively in 2007/08 Agriculture Census

### 3.14.7 Food Consumption Pattern

#### 3.14.7.1 Number of Meals per Day

The majority of households in Shinyanga region normally had 3 meals per day (62.8%) followed by those who had 2 meals per day (36.7%), and 1 meal per day (0.5%) (Chart 3.81).



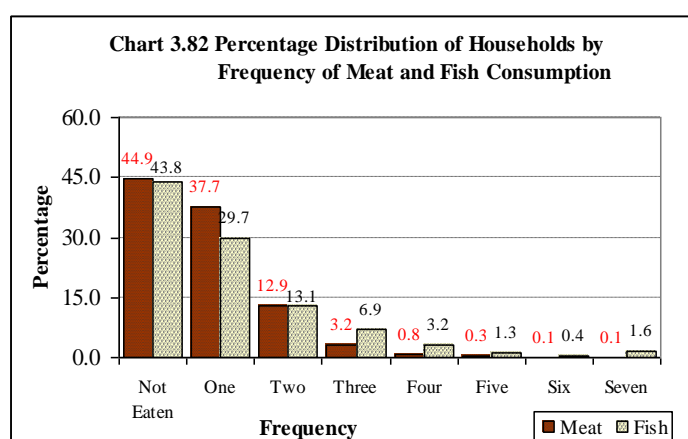
Bukombe District had the highest percent of households eating one meal per day (1.2%) whilst Shinyanga Rural and Maswa had the highest percentage of households eating 3 meals per day (76%) (Table 3.18 and Map 3.37).

**Table 3.18: Number of Agricultural Households Reporting Number of Meals the Household Normally has per Day by District, 2007/08 Agricultural Year**

District	One	%	Two	%	Three	%	Total
Bariadi	249	0.2	59,814	59	40,873	40.5	100,936
Maswa	129	0.2	12,428	24	39,873	76.0	52,430
Shinyanga Rural	269	0.5	12,626	23	41,506	76.3	54,401
Kahama	541	0.5	36,768	34	70,169	65.3	107,477
Bukombe	815	1.2	27,537	42	37,639	57.0	65,991
Meatu	100	0.2	10,216	25	30,247	74.6	40,564
Shinyanga Urban	132	0.9	5,095	34	9,927	65.5	15,154
Kishapu	119	0.2	13,584	28	34,555	71.6	48,258
<b>Total</b>	<b>2,354</b>	<b>0.5</b>	<b>178,068</b>	<b>37</b>	<b>304,789</b>	<b>62.8</b>	<b>485,212</b>

#### 3.14.7.2 Meat Consumption Frequencies

A total of 267,430 households accounting for 55% of agricultural households in the region reported eating meat during the week preceding the census. Majority of these (183,158, 38%) reported eating meat only once. This was followed by those who ate meat twice during the week (13%). Very few



households (4.5%) had meat three or more times during the respective week while about 45% of the agricultural households in Shinyanga region did not eat meat during the week preceding the Census (Chart 3.82 and Map 3.38).

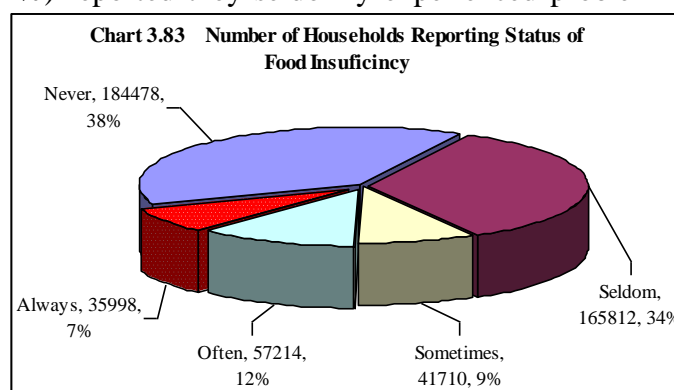
The highest percentage of households who reported eating meat once was recorded in Bukombe (39,878; 56%) while Bariadi had the lowest percentage (29,907; 29.6%).

### 3.14.7.3 Fish Consumption Frequencies

The number of agricultural households that consumed fish during the week preceding the Census was 272,848 (56.2%) with 144,310 households (29.7 % of the total households in the region) consuming fish once during the respective week. This was followed by those who had fish twice a week (13.1%) and three times (6.9%). In general, the percentage of households that consumed fish more than three times during the week in Shinyanga region was small (31,473, 6.4%). About 43.8% OF the agricultural households did not eat fish during the week preceding the Census (Chart 3.82 and Map 3.39).

### 3.14.8 Food Security

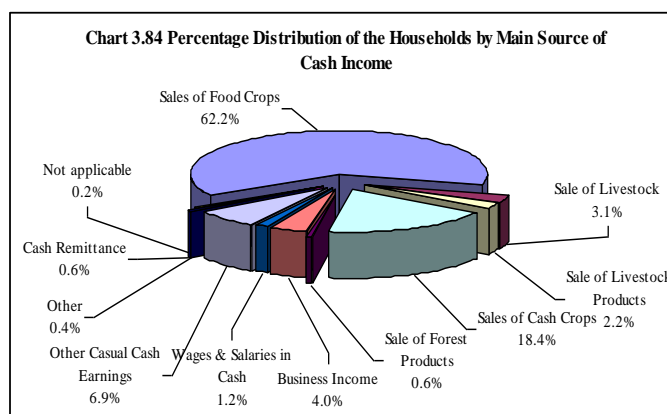
In Shinyanga region 165,812 households (34%) reported they seldomly experienced problem in satisfying household food requirements. However 57,214 (12%) said they often experienced problems while 9% said they sometimes experienced problems and 7% always had problems in satisfying the household food requirements. Moreover, about 38% of the agricultural households said they never experienced any food sufficiency problems (Chart 3. 83).

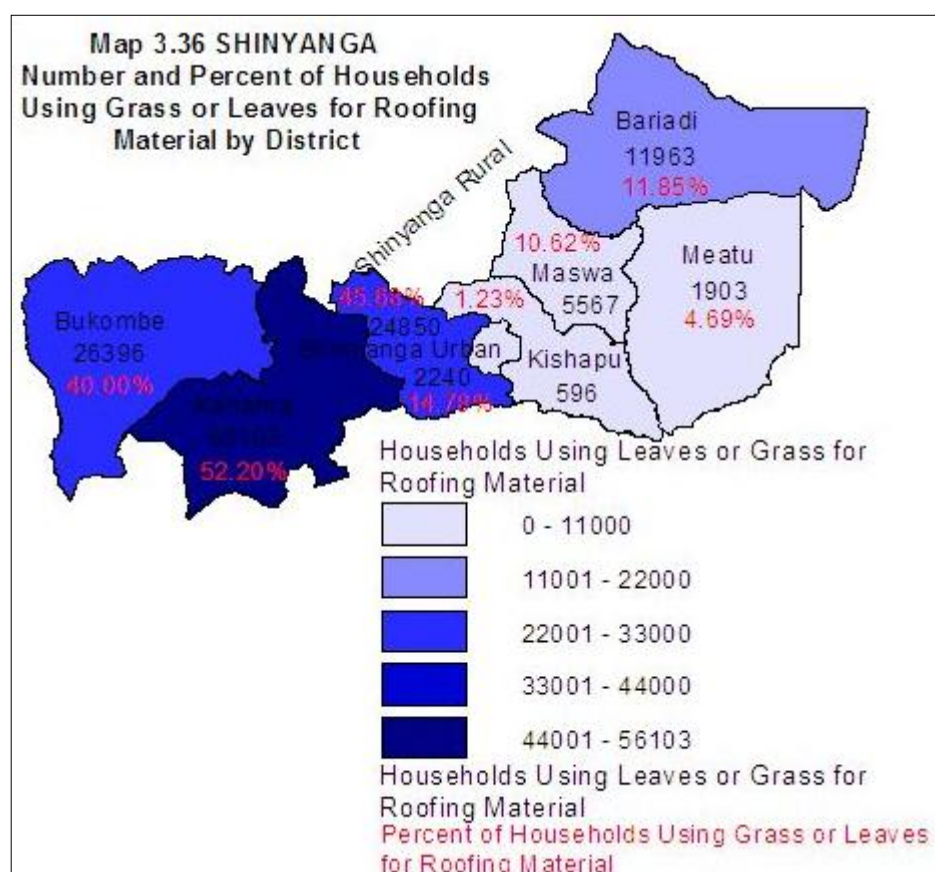
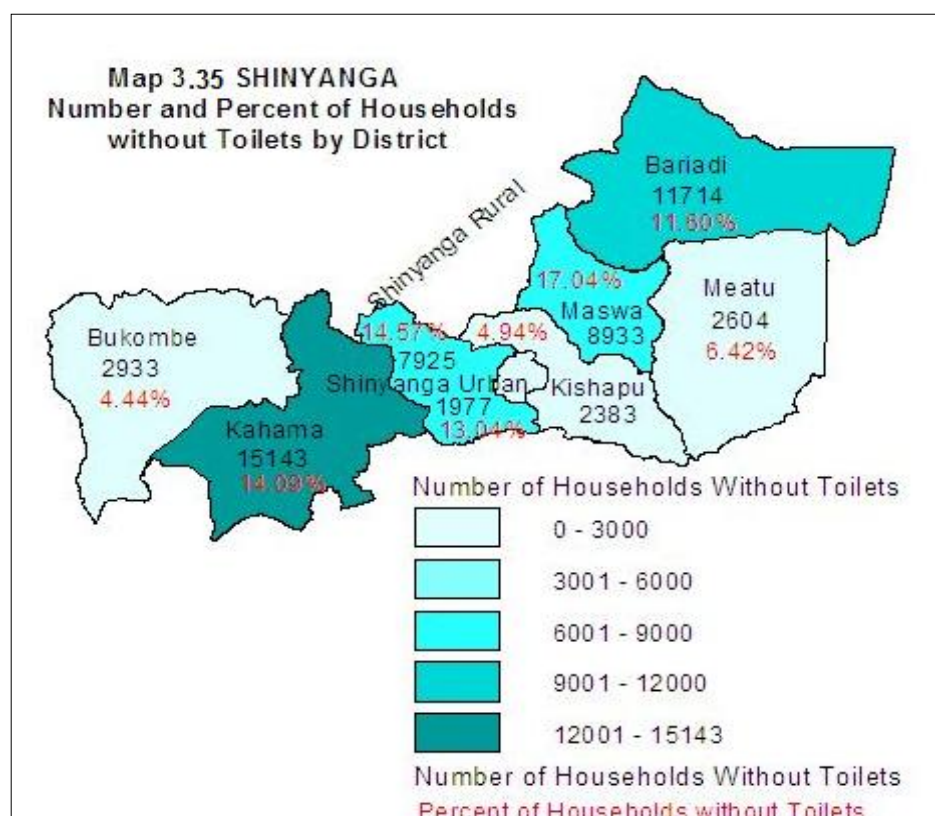


Comparatively, there were higher percentages of households who reported to have never had problems in satisfying food requirements in Bukombe District (72%) than in other districts. Meatu had higher percentage of households who reported that they always had problem of satisfying food requirement (15%).

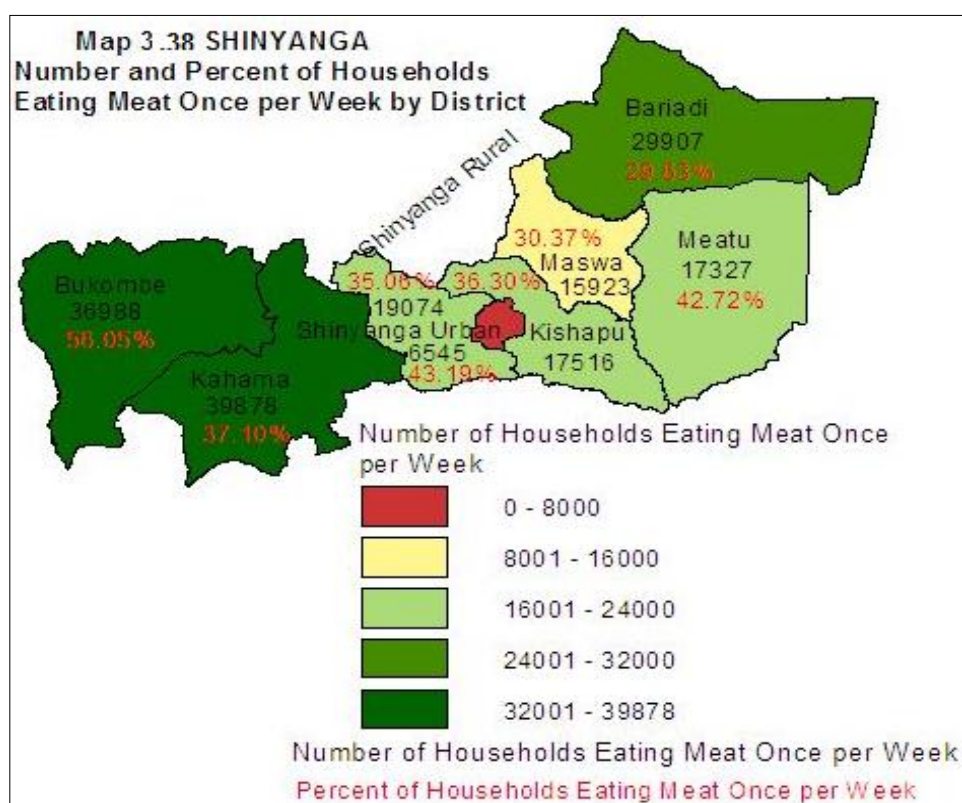
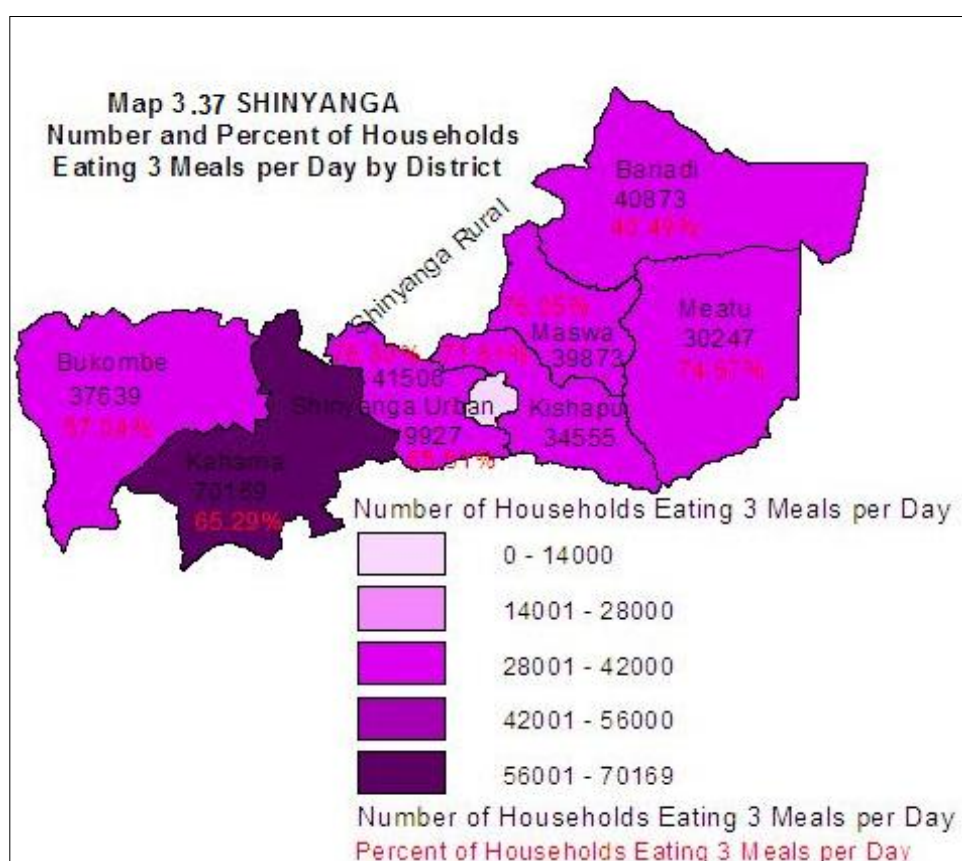
### 3.14.9 Main Source of Cash Income

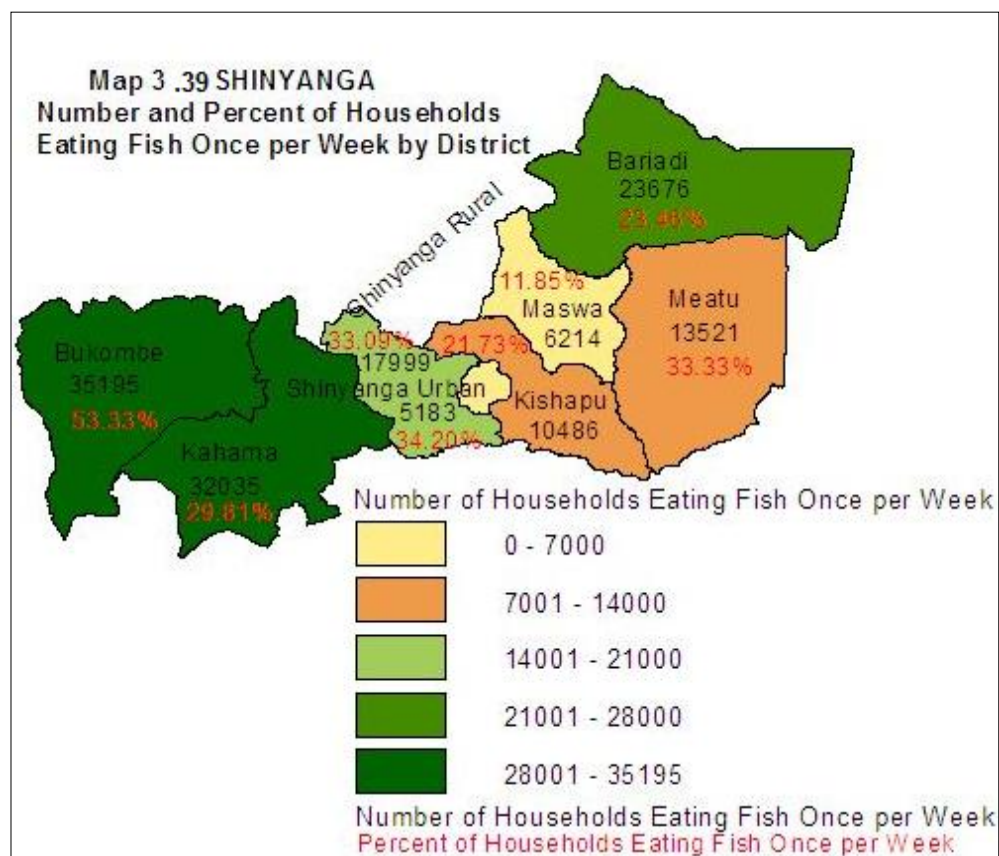
The main source of cash income for the households in Shinyanga region was sale of food crops (62.2%). This was followed by sale of cash crops (18.4%), other casual cash earnings (6.9%), business income (4.0%), sale of livestock (3.1%). Other sources which were reported by households as their main source of cash income but each accounting for less than 3% were wages and salaries, sale of forest products, sale of livestock products, cash remittance and other sources (Chart 3.84).













## 4 SHINYANGA PROFILES

This section presents the status of crops and livestock production, access to services, demography and poverty for each district.

### 4.1 District Profiles

The following district profile highlight the characteristics of each district and compares them in relation to Population, Main crops and livestock, production and productivity, access to services and levels of poverty.

#### 4.1.1 Bariadi

Bariadi district has the larger number of households in the region, second from the top (100,936) and it has one of the highest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop and livestock farming (63% of the agricultural households), followed by crop farming only (37%). There are no agricultural households with livestock only in the district and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Bariadi district is annual crop/seaweed farming (90%). Compared to other districts in the region, Bariadi has relatively low levels of female headed households (15%) and it has second highest average age of the household head (47). With an average household size of 8.4 members per household it is highest for the region. Bariadi has a lowest literacy rate (61%) for agricultural household members and the number of heads of agricultural households who have never attended school was third highest (29%). The literacy rate for the heads of household is also moderate (61%), about the same as the regional proportion (65%).

Compared to other district in the region, Bariadi has third lowest utilized land area per household (3.2 ha) and the average usable land per household is 3.4 ha, which indicate an impeding land pressure. Allocated area is also 93% utilized in the district.

The district is important for maize production in the region with a planted area of 141,383 ha and the planted area per household is 1.4 ha. Paddy production is not very significant in the district when compared to other districts with a planted area of 11,291 hectares and the area planted per household is 0.46 ha. Sorghum production is also important in the district with a planted area of

20,382 hectares and the district ranks third from top in the region in terms of area planted. Other food crops which are significantly produced in the district include Cassava, Sweet potatoes, Beans, Cow peas and Chick Peas. The district has a large planted area of Cotton (87,602 ha), and ranks first in the region in terms of area and production and the average planted area per cotton growing household is 1.35 hectare.

The use of inputs in the region is very small, however district differences exist. Bariadi has the highest planted area (93,071 ha) with improved seed in Shinyanga region. The district has moderate planted area (7,836 ha) with organic fertilizers and it ranks fourth from top when compared to other districts. The district has smallest area, almost none planted with inorganic fertilizers.

Compared to other districts in the region, Bariadi district has the highest level of insecticide use, which records 26% of the total planted area in the district during long rain season. However, looking at the proportions of area under insecticide use in the region, Bariadi ranks first (29%). The use of herbicides were insignificant in the district. Bariadi district has fourth largest area with irrigation compared to other districts with 2,472 ha of irrigated land.

The most common method of crop storage is in sacks/open drum; however the percentage of households not storing crops in the district is 0.5%. The district has the higher number of households selling crops, however for those who sell reported open market price too low as the major marketing problem. The district has fourth largest (2.5%) percentage of the total agricultural households with male household members having the higher percentage, whereas the main sources of credits are family friends/ relatives (60%), private individual (20%), savings and credit society (10%) and NGO/development project (10%). Other sources had less than ten percent.

Bariadi district had a third lowest percentage of households receiving the service (60%) and the main service provider was from the government (62.4%).

The district has the largest number of cattle (741,197) kept in the region and almost all are indigenous breeds. Goat production is highest compared to other districts while sheep has fourth largest number in the region. However rearing of pigs was not recorded in Bariadi District. It has the second highest number of chicken in the region (1,030,549). Higher number of households

report Tsetse and tick problems in Bariadi district and it had the largest number of households deworming livestock. The Incidence of Tick problem is almost commonly spread in all districts in the region with Bariadi recording 60%. Fish farming was not practiced in the district.

Bariadi district has higher proportion of households with no toilet facilities (22%), which is second from highest when compared to other districts and it has higher percent of households owning bicycles, radio and Iron. The main source of energy for lighting in the district is Wick Lamp (78.3%) and very few households reported their main source of lighting being electricity which was 0.49%). Practically a large number of households use firewood for cooking (98%) and very few use charcoal (1%). The district has highest percent of households with iron sheet roofs (80%) in the region. The most common source of drinking water is from protected well and most of the households access source of drinking water within a distance of less than two kilometer. It has very low (0.2%) proportion of households having one meal per day compared to other districts. The district had the highest percent of households that did not eat meat during the week prior to enumeration (60%) and the second lowest percentage of households that did not eat fish (33%); however about twelve and nine percent of households often and always had problems with food satisfaction respectively.

#### **4.1.2 Maswa**

Maswa district has fourth lowest number of agricultural households the region. Most smallholders are involved in crop and livestock farming (59% of agricultural households), followed by crop farming only (41%). There are no agricultural households with livestock only in the district and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Maswa district is annual crop/seaweed farming (91%), followed by employment (4%) and livestock keeping and herding accounted for one percent. Compared to other districts in the region, Maswa has the highest levels of female headed households (23%) and it has one of the highest average age of the household head (49). With an average household size of 6.9 members per household it is moderate for the region, a bit lower than the regional average which is 7.1. Maswa has a comparatively moderate literacy rate (67%) for agricultural household members and the number of heads of agricultural households who have never attended school was (42.7%), above the regional proportion which is 34.6 percent. The literacy rate for the heads of household was 57, below the regional proportion (65%).

Compared to other district in the region, Maswa has third highest utilized land area per household (4.8 ha) higher than the regional average which is 4.0. The total usable land per household is 5.4 ha. Allocated area is also 88% utilized in the district.

Production of maize is moderately to lower compared to other districts in the region with a planted area of 45,699 ha and the planted area per household is 1 ha. Paddy production is also not higher enough when compared to other districts with a total planted area of 15,923 hectares and the area planted per household is 0.7 ha. Sorghum production is also lower in the district with a production of 11,699 tones with a planted area of 11,360 hectares. The district ranks fourth from top in the region in terms of area planted and the area planted per sorghum growing household being 0.9 hectares. Other food crops which are significantly produced in the district include sweet potatoes, beans, cow peas, ground nuts and chick peas. The district has a large planted area with cotton (70,015 ha), and ranks second highest in the region in terms of area and production and the average planted are per cotton growing household is 1.68 hectare a little higher than the regional average which is 1.60 ha.

The use of inputs in the region is very small, however district differences exist. Maswa has the higher planted area with improved seed in Shinyanga region. The district has larger planted area with fertilizers (organic fertilizer) and it ranks second from top when compared to other districts. The district has smaller area planted with inorganic fertilizers.

Compared to other districts in the region, Maswa district has the third highest percent of insecticide use, which is 22.4% of the total planted area in the district, higher than the regional average which is 18.2%. Fungicides was used in the district though not widely, recoding 0.3% of the total planted area in the district. Herbicides was not used in the district. Irrigation was also practiced in the district though not widely applied on 4,577 ha or 2.8% of total planted area.

The most common method of crop storage is in locally made traditional structure (37.4%); however the proportion of households not storing crops in the district is higher than other districts (5%) in the region. The district has the highest number of households selling crops (86%), however most of the households reported "open market price too low" as the major marketing problem.

Although very small, access to credit in the district is mainly to male headed households, which is 73% and the main sources of credits is Family, Friend and Relative.

Maswa district had a lowest percentage of households receiving extension services (55%) and the main service provider was from the government (53.8%).

The district has 12.6% of all cattle kept in the region and is mostly dominated by indigenous breeds. Goat production is third highest compared to other districts while sheep has the highest percentage in the region. However rearing of pigs was in small number. It has the fourth lowest number of chicken in the region (584,240) Lower number of households (8%) report Tsetse problem, while tick problems reported by 55% of livestock rearing households in Maswa district. It had lower proportion of households de-worming livestock. No rural agricultural households practice fish farming in the district.

Maswa district has higher proportion of households with no toilet facilities (16.7%), which is third from highest when compared to other districts and it has higher percent of households owning bicycles, radio mobile phones and Iron. The main source of energy for lighting in the district is Wick Lamp and very few households reported their main source of lighting being electricity which was 0.7% of the agricultural households. Practically a large number of households use firewood for cooking (95%) and very few use charcoal (2%) The district has lower percent of households with grass roofs (10%) and higher percent of households with Mud Roofs (55%) in the region, low percent (33.8% ) of households having iron sheets roofing. The most common source of drinking water is from Protected Well and most households access source of drinking water within a distance of less than two kilometer. It has low (0.2%) proportion of households having one meal per day compared to other districts. The district had higher percent of households that did not eat meat or fish during the week prior to enumeration (58 or 75% respectively); however about nine percent of the households reported that always had problems with food satisfaction.

#### **4.1.3 Shinyanga Urban**

Shinyanga Urban district has the smallest number of households in the region, and the proportion of households involved in smallholder agriculture is 93%, lower than the regional proportion which is

98.8%. Most smallholders are involved in crop farming only, followed by crop and livestock farming. There is a small number of agricultural households with livestock only in the district (1%) and no pastoralists were recorded in the district.

The most important livelihood activity for smallholder households in Shinyanga Urban district is Annual Crop Farming (81%), followed by employment (11%) and livestock keeping and herding (3%). Compared to other districts in the region, Shinyanga Urban has the second higher level of female headed households 21%, above the regional average which is 15%, it has the moderate average age of the household head 46 years, which is the same as regional average 46. The District has an average household size of 5.4 members per household, lower than the regional average which is 7.1 members per household. Shinyanga Urban has a comparatively higher literacy rate (71%) for agricultural household members as compared to the regional rate which is 67%. The number of heads of agricultural households who have never attended school was 33.6%, below regional proportion which is 34.6%. The literacy rate for the heads of household was 67%, higher than the regional proportion which is 65%.

Compared to other district in the region, Shinyanga Urban has lower rate of utilized land area per household (2.0 ha) lower than the regional average which is 4.0. The total usable land per household is 2.2 ha, which indicate an approaching land pressure. Allocated area is also 88% utilized.

Production of maize is lower compared to other districts in the region with a planted area of 8,192 ha and the planted area per household is 0.69 ha. Paddy production is also lower when compared to other districts with a total planted area of 2,076 hectares and the area planted per household is 0.53 ha. Sorghum production is lower with a planted area of 2,748 hectares and the district ranks second lowest in the region in terms of area planted with sorghum. The area planted per sorghum growing household is 0.7 hectares. Other food crops which are significantly produced in the district include Sweet potatoes, Cow peas, Chick peas, Ground nuts and beans. The district has the lowest cotton production in the region with a total of 2,401 hectares planted with cotton.

The use of inputs in the region is very small, however district differences exist. Shinyanga Urban has the lower planted area with improved seed in Shinyanga region which is 16% of the total Planted Area. The district has smaller planted area with fertilizers (organic and inorganic).

Compared to other districts in the region, Shinyanga Urban district has moderate level of insecticide use, which is 2.5% of the total planted area in the district, lower than the regional average which is 18.2%. Fungicides were scarcely used in the district, recoding 0.3% of the total planted area in the district. Herbicides were also scarcely used in the district, recoding 2.8% of the total planted area with herbicides in the Region. Irrigation was also practiced in the district though not widely applied on 526 ha or 2.1% of total planted area.

The most common method of crop storage is in Sacks or open drum and locally made traditional structure. The district has the third lowest number of households selling crops (2.6%), however for those who sell, reported Open Market Price Too Low as the major marketing problem. Although very small, access to credit in the district is mainly to female headed households, which is 80% and the main sources of credits is from other sources .

Shinyanga Urban district had a moderate proportion of households receiving the service (67.6%), lower than the regional average which is 71.7% and the main service provider was from the government.

The district has 1.9% of all cattle kept in the region and is mostly dominated by indigenous breeds. Goat and sheep production is lowest compared to other districts. Very few pigs were reported in rural agricultural households (2,328) in Shinyanga Urban District with an average of 8 pigs per pig rearing household. The District had lower number of chicken (1.8%) in the region. Low number of households (4%) report Tsetse fly problems in Shinyanga Urban district. The District had lower proportion of households (32%) de-worming livestock. No rural agricultural households practice fish farming in the district.

Shinyanga Urban district has lower proportion of households with no toilet facilities (3.7%) as compared to the regional average which is 11%, and it has higher number of households owning bicycles, radio, and Iron. The main source of energy for lighting in the district is Wick Lamp and hurricane lamp, very few households reported their main source of lighting being electricity which was 0.6% of agricultural households. Practically a large number of households use firewood for cooking (94%) and very few use charcoal (2.9%) ,Crop Residues (1%). The district has a small number of households with grass roofs (14.8%) and higher percent of households with Mud Roofs (52.5%) and a small percent (31.3%) of households having iron sheets roofing. The most common source of drinking water is from unprotected and protected well and most households access source

of drinking water within a distance of half a kilometer to less than two kilometer. It has lower (1%) proportion of households having one meal per day compared to other districts. The district had a moderate percent of households that did not eat meat or fish during the week prior to enumeration (32% or 39% respectively); however about fifteen and nine percent of agricultural households often and always had problems with food satisfaction in the district respectively.

#### **4.1.4 Kahama**

Kahama district has fourth highest number of agricultural households in the region. Most smallholders are involved in crop farming only (56% of agricultural households), followed by crop and livestock farming (44%). There are no agricultural households with livestock only in the district and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Kahama district is annual crop/seaweed farming (94%), followed by employment (3%) and livestock keeping and herding accounted for one percent. Compared to other districts in the region, Kahama has the third highest levels of female headed households (16%) and it has one of the second highest average age of the household head (47). With an average household size of 6.8 members per household it is moderate for the region, a bit lower than the regional average which is 7.1. Kahama has a comparatively moderate literacy rate (66%) for agricultural household members and the number of heads of agricultural households who have never attended school was (32%), above the regional proportion which is 30 percent. The literacy rate for the heads of household was 65, which is the same as the regional proportion (65%).

Compared to other district in the region, Kahama has fourth lowest utilized land area per household (3.6 ha) lower than the regional average which is 4.0. The total usable land per household is 4.7 ha. Allocated area is also 77% utilized in the district.

Production of maize is second highest compared to other districts in the region with a planted area of 108,860 ha and the planted area per household is 1.07 ha. Paddy production is highest when compared to other districts with a total planted area of 78,187 hectares and the area planted per household is 1.1 ha. Sorghum production is lowest in the district with a production of 432 tones from a planted area of 766 hectares. and the area planted per sorghum growing household is 0.5 hectares. Other food crops which are significantly produced in the district include cassava, sweet



potatoes, beans, cow peas, ground nuts bambaranuts and sunflower, . The district has a large planted area with cotton (60,006 ha), and ranks fourth highest in the region in terms of area planted and the average planted are per cotton growing household is 0.49 hectare lower than the regional average which is 1.60 ha.

The use of inputs in the region is very small, however district differences exist. Kahama has the second highest planted area with improved seed in Shinyanga region. The district has larger planted area with fertilizers (organic fertilizer) and it ranks first from top when compared to other districts. The district has larger area planted with inorganic fertilizers as compared to other district.

Compared to other districts in the region, Kahama district has the second highest percent of insecticide use, which is 23.7% of the total planted area in the district, higher than the regional average which is 18.2%. Fungicides was used in the district though not widely, recording 0.4% of the total planted area in the district. Herbicides was insignificantly used in the district. Irrigation was also practiced in the district and has largest area irrigated compared to other district 7,682 ha or 2.5% of total planted area.

The most common method of crop storage was in sacks/open drum (37.4%); however the proportion of households not storing crops in the district is little higher than other districts (2.7%) in the region. The district has the fourth highest percent of households selling crops (80%), however most of the households reported "open market price too low" as the major marketing problem.

Although very small, access to credit in the district is mainly to male headed households, which is 95% and the main sources of credits is Family, Friend and Relative.

Kahama district had second highest percentage of households receiving extension services (88.7%) and the main service provider was from the government (60.9%).

The district has 19% of all cattle kept in the region and is mostly dominated by indigenous breeds. Goat production is third highest compared to other districts while sheep has the third lowest percentage in the region. The district had largest number of pigs compared to other district It has

the largest number of chicken in the region (1,135,471 chicken) Lower number of households (3%) report Tsetse problem, while tick problems reported by 48% of livestock rearing households in Kahama district. It had lower proportion of households de-worming livestock. No rural agricultural households practice fish farming in the district.

Kahama district has highest proportion of households with no toilet facilities (28.2%), which is the highest when compared to other districts and it has higher percent of households owning bicycles, radio mobile phones and Iron. The main source of energy for lighting in the district is Wick Lamp and no households reported their main source of lighting being. Practically a large number of households use firewood for cooking (92%) and very few use charcoal (6.8%) The district has higher percent of households with grass roofs (52%) and lower percent of households with Mud Roofs (2%) in the region, relatively low percent (43.7% ) of households having iron sheets roofing. The most common source of drinking water is from unprotected well and most households access source of drinking water within a distance of less than two kilometer. It has higher (0.5%) proportion of households having one meal per day compared to other districts. The district had higher percent of households that did not eat meat or fish during the week prior to enumeration (37 or 45% respectively); however about six percent of the households reported that always had problems with food satisfaction.

#### **4.1.5 Bukombe**

Bukombe district has third largest number of households in the region, and the proportion of households involved in smallholder agriculture is 99%, higher than the regional proportion which is 98.8%. Most smallholders are involved in crop farming only, followed by crop and livestock farming. There are no agricultural households with livestock only in the district and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Bukombe district is Annual Crop Farming, followed by employment. Compared to other districts in the region, Bukombe has lowest levels of female headed households 7%, lower than the regional average, 15%, it has the smallest average age of the household head compared to other district 43, lower than the regional average 46. The District has an average household size of 6.9 members per household, lower than the regional average which is 7.1. Bukombe has a comparatively higher literacy rate (74%) for

agricultural household members as compared to the regional number which is 67%. The number of heads of agricultural households who have never attended school was lower (22.5%), below the regional proportion, 34.6%. The literacy rate for the heads of household was 78, higher than the regional proportion (65%).

Compared to other district in the region, Bukombe has relatively higher rate of utilized land area per household (3.8 ha) lower than the regional average which is 4.0. The total usable land per household is 4.4 ha. Allocated area is also 86% utilized in the district.

Production of maize is higher compared to other districts in the region with a planted area of 72,288 ha and the planted area per household is 1.14ha. Paddy production is also higher when compared to other districts with a total planted area of 29,949 hectares and the area planted per household is 1.29 ha. Sorghum production is lowest in the district with a planted area of 2,378 hectares and the district ranks last but one in the region in terms of area planted with sorghum. The area planted per sorghum growing household is 0.46 hectares. Other food crops which are significantly produced in the district include Cassava, Sweet potatoes, Beans, Cow peas, Ground nuts and Chick Peas. The district has a moderate area planted with Cotton (29,009 ha), and ranks sixth in the region in terms of area. The average planted area per cotton growing household is 1.24 hectare lower than the regional average which is 1.6ha

The use of inputs in the region is very small, however district differences exist. Bukombe has the higher planted area with improved seed in Shinyanga region which is 21.8% of the total Planted Area. The district has smaller planted area with fertilizers (organic fertilizer) and it ranks third from bottom when compared to other districts. The district has minimal area planted with inorganic fertilizers (1.1% of the total area planted in the district).

Compared to other districts in the region, Bukombe district has third lower level of insecticide use, which is 12.3% of the total planted area in the district, lower than the regional average which is 18.2%. Fungicides were scarcely used in the district, recording 1.2% of the total planted area in the district. Herbicides were also scarcely used in the district, recording 0.3% of the total planted area in the district. Irrigation was also practiced in the district though not widely applied on 5,187ha of irrigated land or 2.8% of total planted area.

The most common method of crop storage is in Sacks or open drum. The district has the moderate number of households selling crops (68%), however for those who sell, reported Open Market Price Too Low as the major marketing problem. Although very small, access to credit in the district is all to male headed households, which is 100% and the main sources of credits is private individual and cooperatives.

Bukombe district had low proportion of households receiving the service (56.5%), second from bottom and lower than the regional average which is 71.7% and the main service provider was from the government. The district has 11.7% of all cattle kept in the region and is mostly dominated by indigenous breeds. Goat and sheep production is lowest compared to other districts; among enumerated rural agricultural households for Bukombe District small number of pigs were reported. The District had lower number of chicken (12%) in the region. Low number of households (2%) report Tsetse fly problems in Bukombe district. The District had lower proportion of households (31%) de-worming livestock. No rural agricultural households practice fish farming in the district.

Bukombe district has lower proportion of households with no toilet facilities (4.4%) as compared to the regional average which is 11%, and it has the highest percent of households owning bicycles radio and mobile phones and lowest percent of households owning Iron. The main source of energy for lighting in the district is Wick Lamp and no households reported electricity being their main source of lighting. Practically a large number of households use firewood for cooking (98%) and very few use charcoal (2%). The district has higher percent of households with grass roofs (40%) and lower percent of households with Mud Roofs (7.1%) and, more than half percent (51.9% ) of households having iron sheets roofing. The most common source of drinking water is from piped water and most households access source of drinking water within a distance of half a kilometer to less than two kilometers. It has lower (1.2%) proportion of households having one meal per day compared to other districts. The district had lower percent of households that did not eat meat or fish during the week prior to enumeration (26.7 or 13% respectively); however, three percent of the households reported that always had problems with food satisfaction.

#### 4.1.6 Meatu

Meatu district has second lowest number of households in the region, and the proportion of households involved in smallholder agriculture is 98.5%, lower than the regional proportion which is 98.8%. Most smallholders are involved in crop and livestock farming, followed by crop farming only. There are insignificant number of agricultural households with livestock only in the district and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Meatu district is Annual Crop Farming (99%) and only one percent involved in employment. Compared to other districts in the region, Meatu has the second lowest levels of female headed households 14%, lower than the regional average, 15%, it has the second smallest average age of the household head compared to other district 44, lower than the regional average 46. The District has an average household size of 6.75 members per household, lower than the regional average which is 7.1. Meatu has a comparatively higher literacy rate (75%) for agricultural household members as compared to the regional number which is 67%. The number of heads of agricultural households who have never attended school was lower (25.2%), below the regional proportion, 34.6%. The literacy rate for the heads of household was 74, higher than the regional proportion (65%).

Compared to other district in the region, Meatu has the highest rate of utilized land area per household (6.3 ha) higher than the regional average which is 4.0. The total usable land per household is 7.9 ha. Allocated area is also 80% utilized in the district.

Production of maize is lower compared to other districts in the region with a planted area of 40,426 ha and the planted area per household is 1.35ha. Paddy production is also lower when compared to other districts with a total planted area of 1,227 hectares and the area planted per household is 0.45 ha. Sorghum production is higher in the district with a planted area of 28,366 hectares and the district ranks first from the top in the region in terms of area planted with sorghum. The area planted per sorghum growing household is 1.42 hectares. Other food crops which are significantly produced in the district include, Sweet potatoes, Beans, Cow peas, green gram, sunflower, groundnuts and Chick Peas. The district has a relatively higher area planted with Cotton (53,850 ha), and ranks fifth in the region in terms of area. The average planted area per cotton growing household is 1.91 hectare lower than the regional average which is 1.6ha

The use of inputs in the region is very small, however district differences exist. Meatu has the higher planted area with improved seeds in Shinyanga region which is 34% of the total planted area. The district has smaller planted area with fertilizers (organic fertilizer) and it ranks second from bottom when compared to other districts. Inorganic fertilizers use was not recoded in the district.

Compared to other districts in the region, Meatu district has fourth higher level of insecticide use, which is 15.6% of the total planted area in the district, lower than the regional average which is 18.2%. Fungicides were scarcely used in the district, recording 0.4% of the total planted area in the district. Herbicides were also scarcely used in the district, recording 0.3% of the total planted area in the district. Irrigation was also practiced in the district though not widely applied on 395ha of irrigated land or 0.3% of total planted area.

The most common method of crop storage is in locally made traditional structure. The district has the higher number of households selling crops (86%), however for those who sell, reported Open Market Price Too Low as the major marketing problem. Although very small, access to credit in the district is mainly to female headed households, which is 67% and the main sources of credits is family, friend or relative, savings and credit society and NGO/development project.

Meatu district had higher proportion of households receiving the service (86%), third from the top and higher than the regional average which is 71.7% and the main service provider was from the government. The district has 12% of all cattle kept in the region and is mostly dominated by indigenous breeds. Goat and sheep production is higher compared to other districts; among enumerated rural agricultural households for Meatu District rearing of pigs were not reported. The District had lower number of chicken (8.3%) in the region. Higher number of households (24%) report Tsetse fly problems in Meatu district. The District had moderate proportion of households (34%) de-worming livestock. No rural agricultural households practice fish farming in the district.

Meatu district has lower proportion of households with no toilet facilities (4.9%) as compared to the regional average which is 11%, and it has the highest percent of households owning bicycles radio and mobile phones. The main source of energy for lighting in the district is Wick Lamp and very few households (0.49) reported electricity being their main source of lighting. Practically a

large number of households use firewood for cooking (95%) and very few use charcoal (2.5%). The district has lower percent of households with grass roofs (4.7%) and higher percent of households with Mud Roofs (41%) and, more than half percent (53.6% ) of households having iron sheets roofing. The most common source of drinking water is from protected well and most households access source of drinking water within a distance of half a kilometer to less than three kilometers. It has lower (0.2%) proportion of households having one meal per day compared to other districts. The district had higher percent of households that did not eat meat or fish during the week prior to enumeration (40 or 47% respectively); however, 15 percent of the households reported that always had problems with food satisfaction.

#### **4.1.7 Shinyanga Rural**

Shinyanga Rural district has fourth lowest number of households in the region, and the proportion of households involved in smallholder agriculture is 98.9%, higher than the regional proportion which is 96%. Most smallholders are involved in crop and livestock farming followed by crop farming only, very few agricultural households has livestock only and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in Shinyanga Rural district is Annual Crop Farming, followed by employment and Livestock keeping and herding. Compared to other districts in the region, Shinyanga Rural has the moderate level of female headed households 15%, equal to the regional average, it has the moderate average age of the household head 46, the same as the regional average 46. The District has an average household size of 6.6 members per household, lower than the regional average which is 7.1. Shinyanga Rural has a comparatively lower literacy rate (66%) for agricultural household members as compared to the regional number which is 67%. The number of heads of agricultural households who have never attended school was 39%, above the regional proportion, 34.6%. The literacy rate for the heads of household was 61, lower than the regional proportion.

Compared to other district in the region, Shinyanga Rural has second lowest rate of utilized land area per household (2.8 ha) lower than the regional average which is 4.0. The total usable land per household is 3.1 ha. Allocated area is also 92% utilized.

Production of maize is fifth highest compared to other districts in the region with a planted area of 50,969ha and the planted area per household is 0.98ha. Paddy production is also moderate when compared to other districts with a total planted area of 28,700hectares and the area planted per household is 0.84ha. Sorghum production is lower with a planted area of 5,479hectares and the district ranks fifth in the region in terms of area planted with sorghum. The area planted per sorghum growing household is 0.62hectares. Other food crops which are significantly produced in the district include Cassava, Sweet potatoes, Beans, Chick peas, Ground nuts and Chick Peas. The district has a lower cotton production with a total of 2,542hectares planted with cotton.

The use of inputs in the region is very small, however district differences exist. Shinyanga Rural has the lower planted area with improved seed in Shinyanga region which is 9.6% of the total Planted Area. The district has smaller planted area with fertilizers (organic fertilizers). The district has also very minimal planted area with inorganic fertilizers.

Compared to other districts in the region, Shinyanga Rural district has lower level of insecticide use, which is 1.8% of the total planted area in the district, lower than the regional average which is 18.2%. Fungicides were scarcely used in the district, recoding 1% of the total planted area in the district. Herbicides were also scarcely used in the district, recoding 0.02% of the total planted area in the district. Irrigation was also practiced in the district though not widely applied on 1,377ha of or 1.1% of total planted area.

The most common method of crop storage is in Sacks or open drum and locally made traditional structure. The district has higher number of households selling crops (79%), however for those who sell, reported Open Market Price Too Low as the major marketing problem. Although very small, access to credit in the district is mainly to male headed households, which is 80% and the main sources of credits is family, friend or relative and private individual.

Shinyanga Rural district had higher proportion of households receiving the extension services (65.1%), third from the bottom and lower than the regional average which is 71.7% and the main service provider was from the government. The district has 10.6% of all cattle kept in the region and is mostly dominated by indigenous breeds. Goat and sheep production is lower compared to other districts; among enumerated rural agricultural households for Shinyanga Rural District



rearing of pigs reported in small number. The District had moderate number of chicken (12.8%) in the region. Lower number of households (5%) report Tsetse fly problems in Shinyanga Rural district. The District had higher proportion of households (43%) de-worming livestock. No rural agricultural households practice fish farming in the district.

Shinyanga Rural district has higher proportion of households with no toilet facilities (15%) as compared to the regional average which is 11%, and it has the highest percent of households owning bicycles radio and mobile phones. The main source of energy for lighting in the district is Wick Lamp and no households reported electricity being their main source of lighting. Practically a large number of households use firewood for cooking (91%) and very few use charcoal (5.9%). The district has higher percent of households with grass roofs (48.7%) and moderate percent of households with Mud Roofs (20%) and (30.9% ) of households having iron sheets roofing. The most common source of drinking water is from surface water (Lake/Dam/River/Stream) and most households access source of drinking water within a distance of half a kilometer to less than two kilometers. It has lower (0.5%) proportion of households having one meal per day compared to other districts. The district had higher percent of households that did not eat meat or fish during the week prior to enumeration (43.5 or 51.6% respectively); however, 9 percent of the households reported that always had problems with food satisfaction.

#### **4.1.8 Kishapu**

Kishapu district has second smallest number of agricultural households compared to other districts in the region. The proportion of households involved in smallholder agriculture is 99.4%, above the regional proportion which is 98.8%. Most smallholders are involved in crop and livestock farming, followed by crop farming only. There are no agricultural households with livestock only in the district and no pastoralists were recorded in the district.

The most important livelihood activity for smallholder households in Kishapu district is Annual Crop Farming, followed by employment. Compared to other districts in the region, Kishapu has moderate level of female headed households 16%, above the regional average which is 15%, it has the moderate average age of the household head 47, a little bit above the regional average 46. The District has an average household size of 7 members per household, almost the same as the regional average which is 7.1. Kishapu has a comparatively moderate literacy rate (67%) for agricultural

household members. The number of heads of agricultural households who have never attended school was 41.5%, above the regional proportion which is 34.6%. The literacy rate for the heads of household was 61%, below the regional proportion which is 65%.

Compared to other district in the region, Kishapu has the second highest rate of utilized land per household (5.7 ha) above the regional average which is 4. The total usable land per household is 6.1 ha. Allocated area is also 93% utilized.

Production of maize is fourth highest compared to other districts in the region with a planted area of 53,959ha and the planted area per household is 1.31ha. Paddy production is third lowest when compared to other districts with a total planted area of 7,839hectares and the area planted per household is 0.92ha. Sorghum production is lower with a planted area of 26,665hectares and the district ranks second in the region in terms of area planted with sorghum. The area planted per sorghum growing household is 1.18hectares. Other food crops which are significantly produced in the district include Sweet potatoes, Beans, Chick peas, Ground nuts, simsim, bambaranuts, sunflower and green gram. The district has second highest cotton production with a total of 73,241hectares planted with cotton.

The use of inputs in the region is very small, however district differences exist. Kishapu has the fourth highest planted area with improved seed in Shinyanga region which is 24.1% of the total Planted Area. The district has smaller planted area with fertilizers (organic fertilizers). The district has also very minimal planted area with inorganic fertilizers.

Compared to other districts in the region, Kishapu district has moderate level of insecticide use, which is 13.3% of the total planted area in the district, lower than the regional average which is 18.2%. Fungicides were scarcely used in the district, recoding 1.3% of the total planted area in the district. Herbicides were also scarcely used in the district, recoding 0.2% of the total planted area in the district. Irrigation was also practiced in the district though not widely applied on 2,062ha of or 1% of total planted area.

The most common method of crop storage is in locally made traditional structure followed by storage in Sacks/open drum. The district has higher number of households selling crops (83%),

however for those who sell, reported Open Market Price Too Low as the major marketing problem. Although very small, access to credit in the district is mainly to female headed households, which is 40.3% and the main sources of credits is family, friend or relative and cooperatives.

Kishapu district had higher proportion of households receiving the extension services (92.1%), first from the top higher than the regional average which is 71.7% and the main service provider was from the government.

The district has 11.5% of all cattle kept in the region and is mostly dominated by indigenous breeds. Goat and sheep production is higher compared to other districts; among enumerated rural agricultural households for Kishapu District rearing of pigs reported in small number. The District had smaller number of chicken (8.7%) in the region. Lower number of households (5%) report Tsetse fly problems in Kishapu district. The District had moderate proportion of households (38%) de-worming livestock. No rural agricultural households practice fish farming in the district.

Kishapu district has lower proportion of households with no toilet facilities (4%) as compared to the regional average which is 11%, and it has the highest percent of households owning bicycles radio, iron and mobile phones. The main source of energy for lighting in the district is Wick Lamp and very few households reported electricity being their main source of lighting (0.25%). Practically a large number of households use firewood for cooking (96%) and very few use charcoal (2%). The district has lower percent of households with grass roofs (1.2%) and higher percent of households with Mud Roofs (81.5%) and (16.5% ) of households having iron sheets roofing. The most common source of drinking water is from surface water (Lake/Dam/River/Stream) and most households access source of drinking water within a distance of half a kilometer to less than three kilometers. It has lower (0.5%) proportion of households having one meal per day compared to other districts. The district had higher percent of households that did not eat meat or fish during the week prior to enumeration (47.9 or 61.2% respectively); however, 5 percent of the households reported that always had problems with food satisfaction.

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## Appendix II: TABLES

## TYPE OF AGRICULTURE HOUSEHOLD

2.1: Number of Households by type of Household and District During 2007/08 Agricultural Year

District	Rural Households involved in Agriculture	% of Total Rural Households	Rural households NOT involved in Agriculture	% of Total Rural Households	Total Rural Households	% of Total Households	Number of Urban Households	% of Total Households	Total Number of Households
Bariadi	100,936	99.5	532	0.5	101,468	94.7	5,637	5.3	107,105
Maswa	52,430	98.8	620	1.2	53,050	85.1	9,291	14.9	62,341
Shinyanga Rural	54,401	98.9	605	1.1	55,006	96.9	1,754	3.1	56,760
Kahama	107,477	98.8	1,353	1.2	108,830	85.3	18,707	14.7	127,537
Bukombe	65,991	99.0	652	1.0	66,643	86.0	10,824	14.0	77,467
Meatu	40,564	98.5	612	1.5	41,176	92.8	3,217	7.2	44,393
Shinyanga Urban	15,154	93.4	1,063	6.6	16,217	42.8	21,666	57.2	37,883
Kishapu	48,258	99.4	270	0.6	48,528	97.7	1,162	2.3	49,690
<b>Total</b>	<b>485,212</b>	<b>98.8</b>	<b>5,707</b>	<b>1.2</b>	<b>490,919</b>	<b>87.2</b>	<b>72,257</b>	<b>12.8</b>	<b>563,176</b>

2.2: Number of Agriculture Households by type of Holding by District during 2007/08 Agricultural Year

District	Crops Only		Livestock Only		Pastoralist		Crops & Livestock		Total Number of Households	Total Number of Households Growing Crops	Total Number of Households Rearing Livestock
	Number of households	%	Number of households	%	Number of households	%	Number of households	%			
Bariadi	37,135	37	0	0	0	0	63,802	63	100,936	100,936	63,802
Maswa	21,360	41	0	0	0	0	31,070	59	52,430	52,430	31,070
Shinyanga Rural	20,820	38	134	0	0	0	33,446	61	54,401	54,266	33,581
Kahama	59,891	56	0	0	0	0	47,586	44	107,477	107,477	47,586
Bukombe	39,758	60	0	0	0	0	26,233	40	65,991	65,991	26,233
Meatu	15,925	39	300	1	0	0	24,338	60	40,564	40,263	24,639
Shinyanga Urban	8,082	53	88	1	0	0	6,984	46	15,154	15,066	7,072
Kishapu	21,091	44	0	0	0	0	27,168	56	48,258	48,258	27,168
<b>Total</b>	<b>224,062</b>	<b>46</b>	<b>523</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>260,627</b>	<b>53.7</b>	<b>485,212</b>	<b>484,689</b>	<b>261,150</b>

**2. 3: Number of Agriculture Households by Type and Size of Holding, 2007/08 Agricultural Year**

Size of Holding (ha)	2.1 Type of Agriculture Household									
	Crops only		Livestock only		Pastoralist		Crops and Livestock		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0.01 - 0.50	18,095	82.6	188	0.9	0	0	3,637	16.6	21,920	100
0.51 - 1.00	35,041	74	0	0	0	0	12,607	26	47,648	100
1.01 - 1.50	36,669	63	134	0	0	0	21,702	37	58,505	100
1.51 - 2.00	32,433	63	0	0	0	0	19,329	37	51,761	100
2.01 - 2.50	38,030	49	0	0	0	0	39,081	51	77,111	100
2.51 - 3.00	11,253	39	0	0	0	0	17,796	61	29,050	100
3.01 - 3.50	12,724	43	0	0	0	0	17,174	57	29,898	100
3.51 - 4.00	5,140	32	0	0	0	0	10,723	68	15,863	100
4.01 - 4.50	10,420	31	0	0	0	0	23,289	69	33,710	100
4.51 - 5.00	3,979	35	0	0	0	0	7,446	65	11,426	100
Above 5	20,276	19	200	0	0	0	87,842	81	108,319	100
<b>Total</b>	<b>224,062</b>	<b>46</b>	<b>523</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>260,627</b>	<b>54</b>	<b>485,212</b>	<b>100</b>

**2.4: Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year**

Size of Holding (ha)	2.1 Type of Agriculture Household									
	Crops only		Livestock only		Pastoralist		Crops and Livestock		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0.01 - 0.50	18,095	8	188	36	0	0	3,637	1	21,920	5
0.51 - 1.00	35,041	16	0	0	0	0	12,607	5	47,648	10
1.01 - 1.50	36,669	16	134	26	0	0	21,702	8	58,505	12
1.51 - 2.00	32,433	14	0	0	0	0	19,329	7	51,761	11
2.01 - 2.50	38,030	17	0	0	0	0	39,081	15	77,111	16
2.51 - 3.00	11,253	5	0	0	0	0	17,796	7	29,050	6
3.01 - 3.50	12,724	6	0	0	0	0	17,174	7	29,898	6
3.51 - 4.00	5,140	2	0	0	0	0	10,723	4	15,863	3
4.01 - 4.50	10,420	5	0	0	0	0	23,289	9	33,710	7
4.51 - 5.00	3,979	2	0	0	0	0	7,446	3	11,426	2
Above 5	20,276	9	200	38	0	0	87,842	34	108,319	22
<b>Total</b>	<b>224,062</b>	<b>100</b>	<b>523</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>260,627</b>	<b>100</b>	<b>485,212</b>	<b>100</b>



## HOUSEHOLD DEMOGRAPHICS

### 3.1: Number of Heads of Agricultural Households by Sex of Head and District, 2007/08 Agricultural Year

District	Male		Female		Total
	Number	Percent	Number	Percent	
Bariadi	85,734	85	15,203	15	100,936
Maswa	40,132	77	12,298	23	52,430
Shinyanga Rural	46,207	85	8,194	15	54,401
Kahama	90,308	84	17,169	16	107,477
Bukombe	61,103	93	4,888	7	65,991
Meatu	35,055	86	5,509	14	40,564
Shinyanga Urban	12,036	79	3,119	21	15,154
Kishapu	40,513	84	7,745	16	48,258
<b>Total</b>	<b>411,087</b>	<b>85</b>	<b>74,124</b>	<b>15</b>	<b>485,212</b>

### 3.2: Number of Household Members Classified by District and Sex

District	Male		Female		Total
	Number	Percent	Number	Percent	
Bariadi	422,438	50	418,949	50	841,386
Maswa	181,758	50	181,111	50	362,868
Shinyanga Rural	189,933	53	169,247	47	359,179
Kahama	370,970	51	358,793	49	729,763
Bukombe	234,309	51	220,948	49	455,257
Meatu	140,721	51	133,009	49	273,730
Shinyanga Urban	42,081	52	39,357	48	81,438
Kishapu	174,921	52	162,886	48	337,808
<b>Total</b>	<b>1,757,130</b>	<b>51</b>	<b>1,684,299</b>	<b>49</b>	<b>3,441,428</b>

### 3.3: Number of Agricultural Household Members By Sex and Age Group, 2007/08 Agricultural Year

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
0 - 4	288,860	53	260,118	47	548,979	100
5 - 9	284,931	50	284,053	50	568,983	100
10 - 14	266,461	53	235,562	47	502,022	100
15 - 19	211,395	51	205,428	49	416,823	100
20 - 24	135,457	50	133,385	50	268,842	100
25 - 29	109,599	45	131,745	55	241,343	100
30 - 34	92,690	48	101,777	52	194,467	100
35 - 39	84,747	48	90,247	52	174,993	100
40 - 44	68,407	52	62,127	48	130,534	100
45 - 49	62,986	55	52,337	45	115,323	100
50 - 54	35,185	50	35,670	50	70,855	100
55 - 59	31,395	58	23,106	42	54,501	100
60 - 64	28,219	58	20,448	42	48,667	100
65 - 69	17,875	50	17,665	50	35,540	100
70 - 74	14,930	54	12,887	46	27,818	100
75 - 79	13,071	66	6,690	34	19,761	100
80 - 84	4,017	44	5,136	56	9,153	100
Above 85	6,906	54	5,919	46	12,825	100
<b>Total</b>	<b>1,757,130</b>	<b>51</b>	<b>1,684,299</b>	<b>49</b>	<b>3,441,428</b>	<b>100</b>

### 3.4: Number of Heads of Agricultural Households by Marital Status, sex of head and District, 2007/08 Agricultural Year

District	Married						Not Married					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	81,995	95	4,237	5	86,232	100	498	67	249	33	748	100
Maswa	38,190	93	2,978	7	41,167	100	647	38	1,036	62	1,683	100
Shinyanga	41,237	94	2,686	6	43,924	100	806	46	940	54	1,746	100
Rural												
Kahama	82,466	96	3,786	4	86,252	100	3,245	39	5,138	61	8,383	100
Bukombe	58,985	97	1,629	3	60,614	100	1,304	57	978	43	2,281	100
Meatu	33,653	95	1,703	5	35,356	100	100	50	100	50	200	100
Shinyanga	10,806	92	879	8	11,684	100	395	50	395	50	791	100
Urban												
Kishapu	39,322	95	2,145	5	41,466	100	477	22	1,668	78	2,145	100
<b>Total</b>	<b>386,653</b>	<b>95</b>	<b>20,042</b>	<b>5</b>	<b>406,695</b>	<b>100</b>	<b>7,472</b>	<b>42</b>	<b>10,504</b>	<b>58</b>	<b>17,977</b>	<b>100</b>

Cont. 3.4 Number of Heads of Agricultural Households by Marital Status, sex of head and District, 2007/08 Agricultural Year

District	Living together						Separated					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	249	33	498	67	748	100	498	22	1,745	78	2,243	100
Maswa	0	0	129	100	129	100	388	14	2,460	86	2,848	100
Shinyanga Rural	2,955	88	403	12	3,358	100	672	38	1,075	62	1,746	100
Kahama	270	100	0	0	270	100	2,704	40	4,056	60	6,760	100
Bukombe	0	0	0	0	0	0	489	60	326	40	815	100
Meatu	0	0	0	0	0	0	801	38	1,302	62	2,103	100
Shinyanga Urban	0	0	88	100	88	100	395	47	439	53	835	100
Kishapu	119	50	119	50	238	100	238	13	1,549	87	1,787	100
<b>Total</b>	<b>3,594</b>	<b>74</b>	<b>1,238</b>	<b>26</b>	<b>4,832</b>	<b>100</b>	<b>6,186</b>	<b>32</b>	<b>12,951</b>	<b>68</b>	<b>19,138</b>	<b>100</b>

Cont. 3.4 Number of Heads of Agricultural Households by Marital Status, sex of head and District, 2007/08 Agricultural Year

District	Widowed						Total					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	2,492	23	8,474	77	10,966	100	85,734	85	15,203	15	100,936	100
Maswa	906	14	5,696	86	6,602	100	40,132	77	12,298	23	52,430	100
Shinyanga Rural	537	15	3,089	85	3,627	100	46,207	85	8,194	15	54,401	100
Kahama	1,622	28	4,189	72	5,811	100	90,308	84	17,169	16	107,477	100
Bukombe	326	14	1,955	86	2,281	100	61,103	93	4,888	7	65,991	100
Meatu	501	17	2,404	83	2,905	100	35,055	86	5,509	14	40,564	100
Shinyanga Urban	439	25	1,318	75	1,757	100	12,036	79	3,119	21	15,154	100
Kishapu	357	14	2,264	86	2,621	100	40,513	84	7,745	16	48,258	100
<b>Total</b>	<b>7,182</b>	<b>20</b>	<b>29,389</b>	<b>80</b>	<b>36,570</b>	<b>100</b>	<b>411,087</b>	<b>85</b>	<b>74,124</b>	<b>15</b>	<b>485,212</b>	<b>100</b>

**3.5: Number of Heads of Agricultural Households by Survival of Female Parent, sex of head and District, 2007/08 Agricultural Year**

District	Yes						No					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	32,399	88	4,486	12	36,885	100	53,085	83	10,717	17	63,802	100
Maswa	15,276	81	3,495	19	18,771	100	24,597	74	8,674	26	33,270	100
Shinyanga Rural	22,969	89	2,821	11	25,790	100	23,104	81	5,373	19	28,476	100
Kahama	33,394	85	5,679	15	39,072	100	56,915	83	11,490	17	68,405	100
Bukombe	32,099	95	1,792	5	33,892	100	28,841	90	3,096	10	31,936	100
Meatu	16,326	91	1,603	9	17,928	100	18,729	83	3,806	17	22,535	100
Shinyanga Urban	6,062	84	1,142	16	7,204	100	5,886	75	1,933	25	7,819	100
Kishapu	16,205	87	2,383	13	18,588	100	24,189	82	5,362	18	29,551	100
<b>Total</b>	<b>174,730</b>	<b>88</b>	<b>23,401</b>	<b>12</b>	<b>198,131</b>	<b>100</b>	<b>235,345</b>	<b>82</b>	<b>50,450</b>	<b>18</b>	<b>285,795</b>	<b>100</b>

**Cont. 3.5 Number of Heads of Agricultural Households by Survival of Female Parent, sex of head and District, 2007/08 Agricultural Year**

District	Don't know						Total					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	249	100	0	0	249	100	85,734	85	15,203	15	100,936	100
Maswa	259	67	129	33	388	100	40,132	77	12,298	23	52,430	100
Shinyanga Rural	134	100	0	0	134	100	46,207	85	8,194	15	54,401	100
Kahama	0	0	0	0	0	0	90,308	84	17,169	16	107,477	100
Bukombe	163	100	0	0	163	100	61,103	93	4,888	7	65,991	100
Meatu	0	0	100	100	100	100	35,055	86	5,509	14	40,564	100
Shinyanga Urban	88	67	44	33	132	100	12,036	79	3,119	21	15,154	100
Kishapu	119	100	0	0	119	100	40,513	84	7,745	16	48,258	100
<b>Total</b>	<b>1,012</b>	<b>79</b>	<b>274</b>	<b>21</b>	<b>1,286</b>	<b>100</b>	<b>411,087</b>	<b>85</b>	<b>74,124</b>	<b>15</b>	<b>485,212</b>	<b>100</b>

**3.6: Number of Heads of Agricultural Households by Survival of Male Parent, sex of head and District, 2007/08 Agricultural Year**

District	Yes						No					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	48,848	88	6,729	12	55,577	100	36,885	81	8,474	19	45,359	100
Maswa	22,008	79	5,696	21	27,704	100	17,865	73	6,473	27	24,338	100
Shinyanga Rural	26,327	87	3,761	13	30,088	100	19,880	82	4,433	18	24,312	100
Kahama	48,940	86	7,706	14	56,646	100	41,368	81	9,463	19	50,831	100
Bukombe	40,083	95	1,955	5	42,039	100	21,019	88	2,933	12	23,952	100
Meatu	24,138	89	3,005	11	27,143	100	10,917	81	2,504	19	13,421	100
Shinyanga Urban	7,863	86	1,274	14	9,136	100	4,085	69	1,801	31	5,886	100
Kishapu	22,640	89	2,860	11	25,499	100	17,754	78	4,885	22	22,640	100
<b>Total</b>	<b>240,847</b>	<b>88</b>	<b>32,986</b>	<b>12</b>	<b>273,833</b>	<b>100</b>	<b>169,774</b>	<b>81</b>	<b>40,965</b>	<b>19</b>	<b>210,740</b>	<b>100</b>

**Cont. 3.6 Number of Heads of Agricultural Households by Survival of Male Parent, sex of head and District, 2007/08 Agricultural Year**

District	Don't know						Total					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	0	0	0	0	0	0	85,734	85	15,203	15	100,936	100
Maswa	259	67	129	33	388	100	40,132	77	12,298	23	52,430	100
Shinyanga Rural	0	0	0	0	0	0	46,207	85	8,194	15	54,401	100
Kahama	0	0	0	0	0	0	90,308	84	17,169	16	107,477	100
Bukombe	0	0	0	0	0	0	61,103	93	4,888	7	65,991	100
Meatu	0	0	0	0	0	0	35,055	86	5,509	14	40,564	100
Shinyanga Urban	88	67	44	33	132	100	12,036	79	3,119	21	15,154	100
Kishapu	119	100	0	0	119	100	40,513	84	7,745	16	48,258	100
<b>Total</b>	<b>466</b>	<b>73</b>	<b>173</b>	<b>27</b>	<b>639</b>	<b>100</b>	<b>411,087</b>	<b>85</b>	<b>74,124</b>	<b>15</b>	<b>485,212</b>	<b>100</b>

**3.7: Number of Agriculture Household Members 5 years and above Who Can Read and Write Languages By Type of Language and District, 2007/08 Agricultural Year**

District	Read & Write									
	Swahili		Swahili & English		Any Other Language		Don't Read / Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	392,780	57	26,916	3	0	0	273,899	39	693,595	100
Maswa	191,856	62	16,829	4	518	0	102,401	33	311,603	100
Shinyanga Rural	176,366	59	21,089	6	0	0	103,429	34	300,883	100
Kahama	364,333	58	47,722	6	0	0	210,760	34	622,816	100
Bukombe	270,319	71	11,895	2	326	0	98,579	26	381,119	100
Meatu	154,643	67	19,731	7	0	0	56,589	25	230,963	100
Shinyanga Urban	47,879	67	2,636	2	0	0	20,821	29	71,335	100
Kishapu	177,900	64	8,818	2	477	0	92,942	33	280,136	100
<b>Total</b>	<b>1,776,075</b>	<b>61.4</b>	<b>155,635</b>	<b>4</b>	<b>1,320</b>	<b>0</b>	<b>959,419</b>	<b>33</b>	<b>2,892,450</b>	<b>100</b>

**3.8: Number of Heads of Agricultural Households by Status of writing and reading Languages, sex of head and District, 2007/08 Agricultural Year**

District	Swahili						Swahili & English					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	54,580	93	3,988	7	58,568	100	3,988	84	748	16	4735	100
Maswa	23,432	85	4,272	15	27,704	100	1,942	94	129	6	2,071	100
Shinyanga Rural	27,671	92	2,418	8	30,088	100	2,955	92	269	8	3,224	100
Kahama	53,670	89	6,760	11	60,430	100	9,194	97	270	3	9,465	100
Bukombe	45,623	94	2,933	6	48,556	100	2,444	100	0	0	2,444	100
Meatu	24,038	91	2,404	9	26,442	100	3,506	95	200	5	3,706	100
Shinyanga Urban	8,478	88	1,186	12	9,664	100	439	100	0	0	439	100
Kishapu	24,665	89	3,098	11	27,763	100	1,311	92	119	8	1,430	100
<b>Total</b>	<b>262,156</b>	<b>91</b>	<b>27,059</b>	<b>9</b>	<b>289,215</b>	<b>100</b>	<b>25,778</b>	<b>94</b>	<b>1,736</b>	<b>6</b>	<b>27,514</b>	<b>100</b>

**Cont. 3.8 Number of Heads of Agricultural Households By Status of writing and reading Languages, sex of head and District, 2007/08 Agricultural Year**

District	Any Other Language						Don't Read / Write					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	0	0	0	0	0	0	27,166	72	10,467	28	37,633	100
Maswa	0	0	0	0	0	0	14,758	65	7,897	35	22,655	100
Shinyanga Rural	0	0	0	0	0	0	15,581	74	5,507	26	21,089	100
Kahama	0	0	0	0	0	0	27,445	73	10,138	27	37,583	100
Bukombe	0	0	163	100	163	100	13,035	88	1,792	12	14,828	100
Meatu	0	0	0	0	0	0	7,512	72	2,905	28	10,416	100
Shinyanga Urban	0	0	0	0	0	0	3,119	62	1,933	38	5,051	100
Kishapu	0	0	119	100	119	100	14,537	77	4,409	23	18,946	100
<b>Total</b>	<b>0</b>	<b>0</b>	<b>282</b>	<b>100</b>	<b>282</b>	<b>100</b>	<b>123,153</b>	<b>73</b>	<b>45,048</b>	<b>27</b>	<b>168,201</b>	<b>100</b>

**Cont. 3.8 Number of Heads of Agricultural Households By Status of writing and reading Languages, sex of head and District, 2007/08 Agricultural Year**

District	Total					
	Male	%	Female	%	Total	%
Bariadi	85,734	85	15,203	15	100,936	100
Maswa	40,132	77	12,298	23	52,430	100
Shinyanga Rural	46,207	85	8,194	15	54,401	100
Kahama	90,308	84	17,169	16	107,477	100
Bukombe	61,103	93	4,888	7	65,991	100
Meatu	35,055	86	5,509	14	40,564	100
Shinyanga Urban	12,036	79	3,119	21	15,154	100
Kishapu	40,513	84	7,745	16	48,258	100
<b>Total</b>	<b>411,087</b>	<b>85</b>	<b>74,124</b>	<b>15</b>	<b>485,212</b>	<b>100</b>

**3.9: Number of Agricultural Household Members Five Years and above by Education Status and District, 2007/08 Agricultural Year**

District	School Attendance							
	Attending School		Completed		Never Attended to School		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	224,802	24	229,288	21	239,506	27	693,595	24
Maswa	102,401	11	121,042	11	88,160	10	311,603	11
Shinyanga Rural	102,488	11	102,757	10	95,638	11	300,883	10
Kahama	207,517	22	218,194	20	197,105	23	622,816	22
Bukombe	126,279	13	161,474	15	93,365	11	381,119	13
Meatu	75,318	8	102,661	10	52,983	6	230,963	8
Shinyanga Urban	20,996	2	30,528	3	19,810	2	71,335	2
Kishapu	86,746	9	106,526	10	86,865	10	280,136	10
<b>Total</b>	<b>946,547</b>	<b>100</b>	<b>1,072,470</b>	<b>100</b>	<b>873,433</b>	<b>100</b>	<b>2,892,450</b>	<b>100</b>

**3.10: Number of Heads of Agricultural Households by Education Status, sex of head and District,, 2007/08 Agricultural Year**

District	Attending School						Completed					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	748	100	0	0	748	100	59,316	93	4,735	7	64,051	100
Maswa	259	50	259	50	518	100	25,503	86	4,013	14	29,516	100
Shinyanga Rural	672	100	0	0	672	100	29,954	92	2,552	8	32,506	100
Kahama	811	100	0	0	811	100	61,782	90	6,760	10	68,543	100
Bukombe	1,304	100	0	0	1,304	100	46,927	94	2,933	6	49,860	100
Meatu	300	100	0	0	300	100	27,443	91	2,604	9	30,047	100
Shinyanga Urban	395	75	132	25	527	100	8,434	88	1,098	12	9,532	100
Kishapu	119	100	0	0	119	100	25,023	89	3,098	11	28,121	100
<b>Total</b>	<b>4,608</b>	<b>92</b>	<b>391</b>	<b>8</b>	<b>4,999</b>	<b>100</b>	<b>284,381</b>	<b>91</b>	<b>27,794</b>	<b>9</b>	<b>312,176</b>	<b>100</b>

**Cont. 3.10 Number of Heads of Agricultural Households by Education Status, sex of head and District,, 2007/08 Agricultural Year**

District	Never Attended to School						Total					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Bariadi	25,670	71	10,467	29	36,138	100	85,734	85	15,203	15	100,936	100
Maswa	14,370	64	8,026	36	22,396	100	40,132	77	12,298	23	52,430	100
Shinyanga Rural	15,581	73	5,642	27	21,223	100	46,207	85	8,194	15	54,401	100
Kahama	27,715	73	10,408	27	38,123	100	90,308	84	17,169	16	107,477	100
Bukombe	12,872	87	1,955	13	14,828	100	61,103	93	4,888	7	65,991	100
Meatu	7,311	72	2,905	28	10,216	100	35,055	86	5,509	14	40,564	100
Shinyanga Urban	3,207	63	1,889	37	5,095	100	12,036	79	3,119	21	15,154	100
Kishapu	15,371	77	4,647	23	20,018	100	40,513	84	7,745	16	48,258	100
<b>Total</b>	<b>122,098</b>	<b>73</b>	<b>45,939</b>	<b>27</b>	<b>168,037</b>	<b>100</b>	<b>411,087</b>	<b>85</b>	<b>74,124</b>	<b>15</b>	<b>485,212</b>	<b>100</b>



**3.11: Number of Agricultural Household Members reporting Literacy levels by Sex of Member and District, 2007/08 Agricultural Year**

District	Male						Female						Total					
	Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	221,312	65	119,130	35	340,442	100	198,384	56	154,769	44	353,153	100	419,696	61	273,899	39	693,595	100
Maswa	108,356	70	46,087	30	154,442	100	100,847	64	56,314	36	157,161	100	209,203	67	102,401	33	311,603	100
Shinyanga Rural	108,667	69	49,162	31	157,829	100	88,787	62	54,266	38	143,054	100	197,455	66	103,429	34	300,883	100
Kahama	221,981	71	92,878	29	314,860	100	190,074	62	117,882	38	307,956	100	412,056	66	210,760	34	622,816	100
Bukombe	158,378	79	42,039	21	200,417	100	124,161	69	56,540	31	180,701	100	282,539	74	98,579	26	381,119	100
Meatu	93,146	79	24,839	21	117,985	100	81,228	72	31,750	28	112,977	100	174,374	75	56,589	25	230,963	100
Shinyanga Urban	27,893	75	9,268	25	37,161	100	22,622	66	11,552	34	34,174	100	50,514	71	20,821	29	71,335	100
Kishapu	101,521	70	43,611	30	145,132	100	85,673	63	49,331	37	135,004	100	187,194	67	92,942	33	280,136	100
<b>Total</b>	<b>1,041,255</b>	<b>71</b>	<b>427,014</b>	<b>29</b>	<b>1,468,269</b>	<b>100</b>	<b>891,776</b>	<b>63</b>	<b>532,405</b>	<b>37</b>	<b>1,424,181</b>	<b>100</b>	<b>1,933,031</b>	<b>67</b>	<b>959,419</b>	<b>33</b>	<b>2,892,450</b>	<b>100</b>

**3.12: Number of heads of Agricultural households reporting Literacy levels by Sex of Member and District, 2007/08 Agricultural Year**

District	Male						Female						Total					
	Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	58,568	68	27,166	32	85,734	100	4,735	31	10,467	69	15,203	100	63,303	63	37,633	37	100,936	100
Maswa	25,374	63	14,758	37	40,132	100	4,402	36	7,897	64	12,298	100	29,775	57	22,655	43	52,430	100
Shinyanga Rural	30,626	66	15,581	34	46,207	100	2,686	33	5,507	67	8,194	100	33,312	61	21,089	39	54,401	100
Kahama	62,864	70	27,445	30	90,308	100	7,031	41	10,138	59	17,169	100	69,895	65	37,583	35	107,477	100
Bukombe	48,068	79	13,035	21	61,103	100	3,096	63	1,792	37	4,888	100	51,163	78	14,828	22	65,991	100
Meatu	27,543	79	7,512	21	35,055	100	2,604	47	2,905	53	5,509	100	30,147	74	10,416	26	40,564	100
Shinyanga Urban	8,917	74	3,119	26	12,036	100	1,186	38	1,933	62	3,119	100	10,103	67	5,051	33	15,154	100
Kishapu	25,976	64	14,537	36	40,513	100	3,336	43	4,409	57	7,745	100	29,312	61	18,946	39	48,258	100
<b>Total</b>	<b>287,935</b>	<b>70</b>	<b>123,153</b>	<b>30</b>	<b>411,087</b>	<b>100</b>	<b>29,076</b>	<b>39</b>	<b>45,048</b>	<b>61</b>	<b>74,124</b>	<b>100</b>	<b>317,011</b>	<b>65</b>	<b>168,201</b>	<b>35</b>	<b>485,212</b>	<b>100</b>

**3.13: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year**

District	Education Level											
	Under Standard One		Standard One		Standard Two		Standard Three		Standard Four		Standard Five	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	249	0	3,240	1	3,738	2	2,243	1	15,950	7	3,988	2
Maswa	0	0	1,295	1	1,683	1	1,942	2	6,861	6	1,424	1
Shinyanga Rural	0	0	1,343	1	2,015	2	2,149	2	6,045	6	3,089	3
Kahama	0	0	1,082	0	2,704	1	4,597	2	15,548	7	6,488	3
Bukombe	163	0	978	1	1,629	1	3,096	2	10,102	6	4,074	3
Meatu	100	0	300	0	501	0	601	1	4,607	4	1,803	2
Shinyanga Urban	44	0	176	1	439	1	527	2	2,152	7	966	3
Kishapu	0	0	2,264	2	2,026	2	2,145	2	6,434	6	2,383	2
<b>Total</b>	<b>556</b>	<b>0.1</b>	<b>10,677</b>	<b>1</b>	<b>14,735</b>	<b>1.4</b>	<b>17,300</b>	<b>1.6</b>	<b>67,701</b>	<b>6.3</b>	<b>24,215</b>	<b>2</b>

**cont 3.13 : Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year**

District	Education Level											
	Standard Six		Standard Seven		Standard Eight		Training After Primary Education		Pre Form One		Form One	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	3,988	2	187,418	82	2,243	1	498	0	249	0	0	0
Maswa	906	1	102,271	84	388	0	129	0	259	0	259	0
Shinyanga Rural	1,209	1	81,937	80	537	1	134	0	0	0	0	0
Kahama	3,515	2	169,386	78	2,704	1	541	0	0	0	541	0
Bukombe	2,607	2	134,915	84	0	0	326	0	0	0	978	1
Meatu	701	1	89,040	87	401	0	300	0	300	0	200	0
Shinyanga Urban	1,010	3	24,203	79	88	0	44	0	0	0	44	0
Kishapu	1,668	2	86,746	81	119	0	0	0	0	0	834	1
<b>Total</b>	<b>15,605</b>	<b>1.5</b>	<b>875,916</b>	<b>81.7</b>	<b>6,480</b>	<b>0.6</b>	<b>1,973</b>	<b>0.2</b>	<b>809</b>	<b>0.1</b>	<b>2,856</b>	<b>0.3</b>

**cont 3.13: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year**

District	Education Level											
	Form Two		Form Three		Form Four		Form Five		Form Six		Training After Secondary Education	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	748	0	748	0	2,741	1	0	0	0	0	0	0
Maswa	518	0	129	0	1,812	1	0	0	0	0	0	0
Shinyanga Rural	134	0	403	0	2,149	2	0	0	134	0	269	0
Kahama	1,893	1	270	0	4,867	2	0	0	270	0	811	0
Bukombe	652	0	163	0	1,141	1	0	0	0	0	163	0
Meatu	401	0	300	0	2,304	2	0	0	0	0	100	0
Shinyanga Urban	351	1	44	0	132	0	0	0	0	0	44	0
Kishapu	238	0	357	0	953	1	0	0	0	0	0	0
<b>Total</b>	<b>4,935</b>	<b>0.5</b>	<b>2,415</b>	<b>0.2</b>	<b>16,100</b>	<b>1.5</b>	<b>0</b>	<b>0</b>	<b>405</b>	<b>0.0</b>	<b>1,387</b>	<b>0.1</b>

**cont 3.13: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year**

District	Education Level							
	University & Other Tertiary Education		Adult Education		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	0	0	498	0	748	0	229,288	100
Maswa	0	0	777	1	388	0	121,042	100
Shinyanga Rural	0	0	672	1	537	1	102,757	100
Kahama	0	0	1,622	1	1,352	1	218,194	100
Bukombe	0	0	163	0	326	0	161,474	100
Meatu	0	0	701	1	0	0	102,661	100
Shinyanga Urban	0	0	44	0	220	1	30,528	100
Kishapu	238	0	119	0	0	0	106,526	100
<b>Total</b>	<b>238</b>	<b>0.0</b>	<b>4,596</b>	<b>0.4</b>	<b>3,571</b>	<b>0.3</b>	<b>1,072,470</b>	<b>100</b>

**3.14: Number of Agricultural Household Members By Level of involvement in Farming Activity and District, 2007/08 Agricultural Year**

District	Involvement in Farming									
	Works Full-time on Farm		Works Part-time on Farm		Rarely Works on Farm		Never Works on Farm		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	336,455	49	19,440	3	109,410	16	228,291	33	693,595	100
Maswa	161,821	52	8,933	3	52,430	17	88,419	28	311,603	100
Shinyanga Rural	149,367	50	5,642	2	47,013	16	98,862	33	300,883	100
Kahama	335,273	54	19,604	3	140,332	23	127,606	20	622,816	100
Bukombe	208,890	55	5,540	1	69,739	18	96,950	25	381,119	100
Meatu	125,798	54	11,618	5	31,650	14	61,897	27	230,963	100
Shinyanga Urban	34,042	48	6,896	10	13,178	18	17,219	24	71,335	100
Kishapu	154,426	55	1,906	1	34,079	12	89,725	32	280,136	100
<b>Total</b>	<b>1,506,073</b>	<b>52</b>	<b>79,579</b>	<b>3</b>	<b>497,830</b>	<b>17</b>	<b>808,968</b>	<b>28</b>	<b>2,892,450</b>	<b>100</b>

**3.15: Number of Agricultural Household Members By Main Activity and District , 2007/08 Agricultural Year**

District	Main Activity							
	Crop/Seaweed Farming		Livestock Keeping / Herding		Livestock Pastoralist		Fishing	
	Number	%	Number	%	Number	%	Number	%
Bariadi	350,411	50.5	5,234	0.8	498	0.1	498	0.1
Maswa	160,397	51.5	2,848	0.9	0	0.0	388	0.1
Shinyanga Rural	155,680	51.7	2,552	0.8	269	0.1	269	0.1
Kahama	333,513	53.5	2,704	0.4	1,622	0.3	1,622	0.3
Bukombe	209,216	54.9	1,304	0.3	163	0.0	163	0.0
Meatu	125,397	54.3	2,905	1.3	401	0.2	200	0.1
Shinyanga Urban	33,910	47.5	2,021	2.8	88	0.1	88	0.1
Kishapu	153,950	55.0	1,311	0.5	0	0.0	1,192	0.4
<b>Total</b>	<b>1,522,475</b>	<b>52.6</b>	<b>20,877</b>	<b>0.7</b>	<b>3,041</b>	<b>0.1</b>	<b>4,421</b>	<b>0.2</b>

**Cont..3.15: Number of Agricultural Household Members By Main Activity and District , 2007/08  
Agricultural Year**

District	Main Activity							
	Government / Parastatal		Private - NGO / Mission / etc		Self Employed (Non Farming) with Employees		Self Employed (Non Farming) without Employees	
	Number	%	Number	%	Number	%	Number	%
Bariadi	748	0.1	1,495	0.2	997	0.1	1,495	0.2
Maswa	906	0.3	388	0.1	906	0.3	129	0.0
Shinyanga Rural	806	0.3	672	0.2	672	0.2	134	0.0
Kahama	2,434	0.4	811	0.1	1,893	0.3	270	0.0
Bukombe	489	0.1	489	0.1	815	0.2	0	0.0
Meatu	501	0.2	501	0.2	601	0.3	0	0.0
Shinyanga Urban	571	0.8	1,054	1.5	2,636	3.7	395	0.6
Kishapu	477	0.2	238	0.1	119	0.0	0	0.0
<b>Total</b>	<b>6,931</b>	<b>0.2</b>	<b>5,649</b>	<b>0.2</b>	<b>8,638</b>	<b>0.3</b>	<b>2,425</b>	<b>0.1</b>

**Cont..3.15: Number of Agricultural Household Members By Main Activity and District , 2007/08  
Agricultural Year**

District	Main Activity							
	Unpaid Family Helper (Non Agriculture)		Not Working & Available		Not Working & Unavailable		Housemaker / Housewife	
	Number	%	Number	%	Number	%	Number	%
Bariadi	1,745	0.3	997	0.1	748	0.1	3,489	0.5
Maswa	777	0.2	259	0.1	388	0.1	3,495	1.1
Shinyanga Rural	134	0.0	134	0.0	134	0.0	3,627	1.2
Kahama	811	0.1	0	0.0	1,082	0.2	270	0.0
Bukombe	326	0.1	326	0.1	326	0.1	978	0.3
Meatu	100	0.0	401	0.2	401	0.2	701	0.3
Shinyanga Urban	571	0.8	351	0.5	307	0.4	1,933	2.7
Kishapu	715	0.3	0	0.0	477	0.2	238	0.1
<b>Total</b>	<b>5,179</b>	<b>0.2</b>	<b>2,468</b>	<b>0.1</b>	<b>3,863</b>	<b>0.1</b>	<b>14,731</b>	<b>0.5</b>

**Cont.3.15: Number of Agricultural Household Members By Main Activity and District , 2007/08  
Agricultural Year**

District	Main Activity							
	Student		Unable to Work / Too Old / Retired / Sick / Disabled		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	214,583	30.9	110,656	16.0	0	0.0	693,595	100.0
Maswa	98,776	31.7	41,685	13.4	259	0.1	311,603	100.0
Shinyanga Rural	99,668	33.1	35,461	11.8	672	0.2	300,883	100.0
Kahama	195,482	31.4	80,299	12.9	0	0.0	622,816	100.0
Bukombe	122,206	32.1	43,994	11.5	326	0.1	381,119	100.0
Meatu	74,717	32.4	24,038	10.4	100	0.0	230,963	100.0
Shinyanga Urban	19,327	27.1	8,082	11.3	0	0.0	71,335	100.0
Kishapu	86,150	30.8	35,270	12.6	0	0.0	280,136	100.0
<b>Total</b>	<b>910,909</b>	<b>31.5</b>	<b>379,486</b>	<b>13.1</b>	<b>1,357</b>	<b>0.0</b>	<b>2,892,450</b>	<b>100.0</b>

**LAND ACCESS/OWNERSHIP**

**4.1: Number of Farming households by type of land Ownership/Tenure and District for the 2007/08 Agricultural Year**

District	Land ownership/tenure (Hectare)							Total number of households
	Households with Leased / Certificate of Ownership	Households with area owned under Customary Law	Households with area Bought from Others	Households with area rented from Others	Households with area Borrowed from Others	Households with area Share - cropped from Others	Households with area under Other forms of Tenure	
Bariadi	748	88,226	14,206	26,169	12,711	748	498	100,936
Maswa	1,295	36,377	10,745	12,816	6,473	0	259	52,430
Shinyanga Rural	3,895	40,968	11,417	10,746	4,567	269	1,343	54,401
Kahama	4,327	79,624	29,475	25,960	10,546	270	1,622	107,477
Bukombe	1,304	47,579	20,856	10,591	4,725	978	1,141	65,991
Meatu	1,603	27,243	9,715	10,016	3,706	200	100	40,564
Shinyanga Urban	1,581	11,948	1,537	2,416	1,010	88	439	15,154
Kishapu	477	37,296	8,579	7,983	7,149	357	238	48,258
<b>Total</b>	<b>15,228</b>	<b>369,261</b>	<b>106,532</b>	<b>106,697</b>	<b>50,887</b>	<b>2,910</b>	<b>5,641</b>	<b>485,212</b>
<b>%</b>	<b>3</b>	<b>76</b>	<b>22</b>	<b>22</b>	<b>10</b>	<b>1</b>	<b>1</b>	<b>100</b>

**4.2: Area of land (ha) by Ownership/Tenure and District for the 2007/08 Agricultural Year**

District	Land Ownership/Tenure							Total area
	Area leased / Certificate of Ownership	Area owned under Customary Law	Area Bought	Area rented	Area Borrowed	Area Share - cropped	Area under Other forms of Tenure	
Bariadi	2,724	271,046	32,768	29,741	11,150	807	1,110	349,345
Maswa	3,459	205,651	50,635	16,248	9,316	.	210	285,519
Shinyanga Rural	4,677	106,411	35,443	12,875	4,187	2,937	1,441	167,972
Kahama	12,563	342,094	104,444	27,808	11,523	219	6,459	505,110
Bukombe	4,321	153,903	107,419	15,568	7,454	3,595	2,804	295,065
Meatu	4,501	246,257	49,369	16,554	6,893	1,176	405	325,156
Shinyanga Urban	1,147	26,600	2,623	1,823	636	13	960	33,802
Kishapu	4,438	219,245	40,716	18,054	13,073	482	603	296,612
<b>Total</b>	<b>37,830</b>	<b>1,571,207</b>	<b>423,417</b>	<b>138,671</b>	<b>64,233</b>	<b>9,230</b>	<b>13,992</b>	<b>2,258,580</b>

**4.3: Number of Agriculture Households by Whether All Land Available to the Household Was Used during 2007/08 Agricultural Year and District**

District	Was all Land Available to the Hh Used During 2007/08?				
	Yes	%	No	%	Total
Bariadi	84,737	84	16,200	16	100,936
Maswa	39,743	76	12,687	24	52,430
Shinyanga Rural	39,894	73	14,507	27	54,401
Kahama	64,078	60	43,399	40	107,477
Bukombe	39,106	59	26,885	41	65,991
Meatu	28,144	69	12,420	31	40,564
Shinyanga Urban	12,036	79	3,119	21	15,154
Kishapu	34,198	71	14,060	29	48,258
<b>Total</b>	<b>341,935</b>	<b>70</b>	<b>143,276</b>	<b>30</b>	<b>485,212</b>

**4.4: Number of Agriculture Households by Whether they Consider Having Sufficient Land for the Household and District during 2007/08 Agricultural Year**

District	Do you Consider that you have sufficient land for the Hh?				
	Yes	%	No	%	Total
Bariadi	15,701	16	85,235	84	100,936
Maswa	15,923	30	36,507	70	52,430
Shinyanga Rural	11,686	21	42,715	79	54,401
Kahama	40,290	37	67,187	63	107,477
Bukombe	18,575	28	47,416	72	65,991
Meatu	6,711	17	33,853	83	40,564
Shinyanga Urban	5,183	34	9,971	66	15,154
Kishapu	13,822	29	34,436	71	48,258
<b>Total</b>	<b>127,892</b>	<b>26</b>	<b>357,320</b>	<b>74</b>	<b>485,212</b>

**4.5 : Number of Agriculture Households By Whether Female Members of the Household Own or Have Customary Right to Land By District during 2007/08 Agricultural Year**

District	Do any Female Members of the Hh own or have customary right to Land				
	Yes	%	No	%	Total
Bariadi	14,206	14	86,731	86	100,936
Maswa	17,477	33	34,953	67	52,430
Shinyanga Rural	10,209	19	44,192	81	54,401
Kahama	15,682	15	91,795	85	107,477
Bukombe	3,748	6	62,243	94	65,991
Meatu	5,308	13	35,255	87	40,564
Shinyanga Urban	3,075	20	12,079	80	15,154
Kishapu	7,030	15	41,228	85	48,258
<b>Total</b>	<b>76,734</b>	<b>16</b>	<b>408,477</b>	<b>84</b>	<b>485,212</b>



**4.6 LAND USE: Number of Agriculture Households by Type of Land Use and District for the 2007/08 Agricultural Year**

District	Type of land use												
	Household s under Temporary Mono Crops	Household s under Temporary Mixed Crops	Household s under Permanent Mono Crops	Household s under Permanent Mixed Crops	Household s under Permanent / Annual Mix	Household s under Pasture	Household s under Fallow	Household s under Natural Bush	Household s under Planted Trees	Household s Rented to Others	Household s Unusable	Households of Uncultivate d Usable Land	Total number of household s
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number
Bariadi	94,706	28,910	1,495	249	748	15,203	4,735	3,240	1,246	4,985	3,988	6,231	100,936
Maswa	50,229	16,700	518	0	647	11,392	4,402	2,330	388	3,107	1,942	4,660	52,430
Shinyang a Rural	51,714	26,865	537	134	1,209	4,970	4,970	806	269	1,343	1,746	2,418	54,401
Kahama	99,905	46,916	9,327	2,163	6,624	7,706	22,441	5,679	3,245	6,895	5,408	21,092	107,477
Bukombe	59,962	33,403	1,792	326	2,444	6,355	14,665	3,096	652	3,422	2,118	3,911	65,991
Meatu	31,950	20,332	100	0	401	13,221	6,610	1,603	401	1,703	3,405	3,506	40,564
Shinyang a Urban	13,573	6,545	88	0	220	1,142	1,230	264	132	791	351	1,537	15,154
Kishapu	40,632	25,499	119	0	357	10,843	5,005	1,549	119	2,621	834	1,668	48,258
<b>Total</b>	<b>442,673</b>	<b>205,170</b>	<b>13,977</b>	<b>2,873</b>	<b>12,650</b>	<b>70,832</b>	<b>64,057</b>	<b>18,566</b>	<b>6,451</b>	<b>24,866</b>	<b>19,793</b>	<b>45,023</b>	<b>485,212</b>

**4.7 LAND USE: Area of Land (ha) by land use and District for the 2007/08 Agricultural Year**

District	Land use area												
	Area under Temporary Mono Crops	Area under Temporary Mixed Crops	Area under Permanent Mono Crops	Area under Permanent Mixed Crops	Area under Permanent / Annual Mix	Area under Pasture	Area under Fallow	Area under Natural Bush	Area under Planted Trees	Area Rented to Others	Area Unusable	Area of Uncultivated Usable Land	Total area (ha)
Bariadi	243,212	46,894	832	202	328	24,973	8,829	3,077	1,009	5,096	2,144	12,749	349,345
Maswa	128,571	37,493	5,346	.	1,468	65,475	13,719	6,840	708	10,889	2,621	12,390	285,519
Shinyanga Rural	93,825	28,414	272	109	1,006	26,593	7,015	2,882	381	2,828	1,876	2,771	167,972
Kahama	250,668	75,486	7,804	493	10,071	26,273	34,921	19,214	2,080	12,617	5,228	60,255	505,110
Bukombe	129,676	57,729	2,243	1,781	7,586	41,032	25,117	8,279	2,243	9,912	2,309	7,158	295,065
Meatu	101,110	41,492	20	.	1,135	104,101	20,173	5,140	497	6,103	6,285	39,100	325,156
Shinyanga Urban	17,646	7,416	53	.	662	2,187	1,294	569	80	1,512	169	2,214	33,802
Kishapu	143,627	58,999	145	.	3,811	59,590	11,313	6,633	579	8,587	1,447	1,881	296,612
<b>Total</b>	<b>1,108,335</b>	<b>353,922</b>	<b>16,716</b>	<b>2,584</b>	<b>26,068</b>	<b>350,225</b>	<b>122,381</b>	<b>52,634</b>	<b>7,576</b>	<b>57,542</b>	<b>22,079</b>	<b>138,517</b>	<b>2,258,580</b>

**ANNUAL CROP AND VEGETABLE PRODUCTION**

**5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08**

District	Maize				Paddy				Sorghum			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	99,192	141,080	177,539.97	1.26	24,673	11,291	20,162.12	1.79	18,941	20,382	16,700.37	0.82
Maswa	44,015	45,699	56,098.71	1.23	21,490	15,923	22,242.68	1.40	12,946	11,360	11,698.78	1.03
Shinyanga Rural	51,983	50,969	91,277.79	1.79	34,252	28,700	48,693.53	1.70	8,865	5,479	6,065.89	1.11
Kahama	95,186	103,672	140,120.13	1.35	64,359	73,543	105,321.91	1.43	1,082	493	310.44	0.63
Bukombe	62,732	72,123	80,130.22	1.11	23,138	29,883	36,456.71	1.22	1,629	2,378	787.98	0.33
Meatu	29,747	40,345	51,405.31	1.27	2,704	1,227	1,800.23	1.47	19,931	28,326	33,260.52	1.17
Shinyanga Urban	11,816	8,032	12,395.12	1.54	3,953	2,076	3,188.15	1.54	4,041	2,659	3,107.68	1.17
Kishapu	40,990	53,839	62,838.43	1.17	10,962	7,839	13,802.33	1.76	15,133	26,665	27,626.83	1.04
<b>Total</b>	<b>435,661</b>	<b>515,759</b>	<b>671,805.68</b>	<b>1.30</b>	<b>185,532</b>	<b>170,482</b>	<b>251,667.65</b>	<b>1.48</b>	<b>82,569</b>	<b>97,742</b>	<b>99,558.49</b>	<b>1.02</b>

**Cont. 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08**

District	Bulrush Millet				Finger Millet				Wheat			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	0	.	.	.	498	202	246.24	1.22	.	.	.	.
Maswa	0	.	.	.	0	.	.	.	.	.	.	.
Shinyanga Rural	806	1,278	570.87	0.45	0	.	.	.	.	.	.	.
Kahama	541	328	151.43	0.46	0	.	.	.	.	.	.	.
Bukombe	326	264	32.59	0.12	978	528	355.21	0.67	.	.	.	.
Meatu	100	20	9.01	0.44	100	81	65.10	0.80	.	.	.	.
Shinyanga Urban	2,855	3,708	4,119.85	1.11	0	.	.	.	.	.	.	.
Kishapu	4,528	8,997	9,914.51	1.10	0	.	.	.	.	.	.	.
<b>Total</b>	<b>9,156</b>	<b>14,595</b>	<b>14,798.26</b>	<b>1.01</b>	<b>1,576</b>	<b>811</b>	<b>666.55</b>	<b>0.82</b>	<b>.</b>	<b>.</b>	<b>.</b>	<b>.</b>

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Barley				Yam				Cassava			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	.	.	.	.	498	151	122	0.81	1,246	736	1,252	1.70
Maswa	.	.	.	.	1,424	288	346	1.20	388	127	202	1.58
Shinyanga Rural	.	.	.	.	0	.	.	.	2,283	800	1,467	1.83
Kahama	.	.	.	.	0	.	.	.	21,089	10,555	13,920	1.32
Bukombe	.	.	.	.	0	.	.	.	6,681	5,941	6,128	1.03
Meatu	.	.	.	.	701	126	207	1.65	100	39	40	1.02
Shinyanga Urban	.	.	.	.	0	.	.	.	132	35	220	6.35
Kishapu	.	.	.	.	0	.	.	.	.	.	.	.
<b>Total</b>	.	.	.	.	2,624	565	676	1.20	<b>31,919</b>	<b>18,233</b>	<b>23,229</b>	<b>1.27</b>

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08**

District	Sweet Potato				Irish potatoes				Cocoyam			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	41371	11242	20125	1.79	0	.	.	.	0	.	.	.
Maswa	26409	9269	14022	1.51	0	.	.	.	0	.	.	.
Shinyanga Rural	30491	10607	16624	1.57	0	.	.	.	0	.	.	.
Kahama	33261	14797	48522	3.28	0	.	.	.	0	.	.	.
Bukombe	6192	3414	5043	1.48	163	132	42	0.32	0	.	.	.
Meatu	14523	4771	8053	1.69	300	51	170	3.36	0	.	.	.
Shinyanga Urban	6984	2432	8747	3.60	0	.	.	.	0	.	.	.
Kishapu	28359	10734	13605	1.27	0	.	.	.	119	24	15	1
<b>Total</b>	<b>187591</b>	<b>67266</b>	<b>134741</b>	<b>2.00</b>	<b>463</b>	<b>183</b>	<b>213</b>	<b>1.16</b>	<b>119</b>	<b>24</b>	<b>15</b>	<b>1</b>

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Coco Yam				Mung Bean				Beans			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	0	.	.	.	.	.	.	.	4,486	1,110	1,176.84	1.06
Maswa	0	.	.	.	.	.	.	.	518	204	33.66	0.16
Shinyanga Rural	0	.	.	.	.	.	.	.	537	286	248.50	0.87
Kahama	0	.	.	.	.	.	.	.	15,414	5,527	7,038.93	1.27
Bukombe	0	.	.	.	.	.	.	.	20,693	12,168	7,639.97	0.63
Meatu	0	.	.	.	20	25	1	.	2,003	389	377.59	0.97
Shinyanga Urban	0	.	.	.	.	.	.	.	264	71	86.97	1.22
Kishapu	119	24	15.49	0.64	.	.	.	.	119	48	17.87	0.37
Total	119	24	15.49	0.64	20	25	1	.	44,034	19,803	16,620.34	0.84

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Cowpeas				Green gram				Chick peas			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	7,228	2,195	1,335.10	0.61	4,486	868	699.58	0.81	2,243	1,312	879.02	0.67
Maswa	2,201	786	795.38	1.01	2,201	917	1,299.75	1.42	388	131	64.73	0.49
Shinyanga Rural	0	.	.	.	3,895	990	956.38	0.97	7,253	10,659	7,851.98	0.74
Kahama	2,975	821	474.85	0.58	541	55	137.37	2.51	0	.	.	.
Bukombe	978	198	64.36	0.33	163	66	.00	-	978	3,892	1,196.80	0.31
Meatu	5,308	1,273	845.53	0.66	5,208	1,626	1,681.84	1.03	601	152	77.12	0.51
Shinyanga Urban	1,493	758	307.65	0.41	264	124	98.70	0.79	44	9	11.42	1.28
Kishapu	596	191	115.58	0.61	5,005	2,261	1,159.15	0.51	2,979	5,958	1,415.10	0.24
Total	20,778	6,222	3,938.46	0.63	21,762	6,907	6,032.77	0.87	14,486	22,112	11,496.17	0.52

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Bambaranuts				Field Peas				Sunflower			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	0	.	.	.	.	.	.	.	748	215	115	0.53
Maswa	518	262	367.66	1.40	.	.	.	.	647	223	215	0.97
Shinyanga Rural	940	299	307.60	1.03	.	.	.	.	1,075	1,033	484	0.47
Kahama	8,112	3,202	4,005.40	1.25	.	.	.	.	2,975	1,478	548	0.37
Bukombe	0	.	.	.	.	.	.	.	652	363	184	0.51
Meatu	100	10	7.11	0.70	.	.	.	.	1,803	1,004	508	0.51
Shinyanga Urban	483	200	130.50	0.65	.	.	.	.	835	382	402	1.05
Kishapu	715	241	145.49	0.60	.	.	.	.	477	398	475	1.19
Total	10,869	4,215	4,963.76	1.18	.	.	.	.	9,210	5,096	2,930	0.58

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Simsim				Groundnut				Soya Beans			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	249	76	50	0.7	22,181	9,434	7,971	0.8	0	.	.	.
Maswa	259	157	47	0.3	15,146	7,081	4,894	0.7	0	.	.	.
Shinyanga Rural	0	.	.	.	19,477	7,480	5,303	0.7	0	.	.	.
Kahama	541	274	173	0.6	56,517	34,589	23,717	0.7	0	.	.	.
Bukombe	163	132	49	0.4	37,965	27,993	17,591	0.6	163	264	171	0.64961
Meatu	100	61	10	0.2	11,618	5,610	4,126	0.7	0	.	.	.
Shinyanga Urban	44	9	3	0.3	5,974	2,384	2,229	0.9	0	.	.	.
Kishapu	1,549	745	204	0.3	17,754	10,559	6,727	0.6	0	.	.	.
Total	2,905	1,453	535	0.4	186,633	105,130	72,559	0.7	163	264	171	0.64961

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Castor Fung				Okra				Radish			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	249	202	137	0.68	.	.	.	.	.	.	.	.
Maswa	0	.	.	.	.	.	.	.	.	.	.	.
Shinyanga Rural	0	.	.	.	.	.	.	.	.	.	.	.
Kahama	0	.	.	.	.	.	.	.	.	.	.	.
Bukombe	0	.	.	.	.	.	.	.	.	.	.	.
Meatu	100	20	6	0.30	.	.	.	.	.	.	.	.
Shinyanga Urban	0	.	.	.	.	.	.	.	.	.	.	.
Kishapu	0	.	.	.	.	.	.	.	.	.	.	.
Total	349	222	143	0.64	.	.	.	.	.	.	.	.

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Turmeric				Bitter Aubergine				Kothmir			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	.	.	.	.	.	.	.	.	.	.	.	.
Maswa	.	.	.	.	.	.	.	.	.	.	.	.
Shinyanga Rural	.	.	.	.	.	.	.	.	.	.	.	.
Kahama	.	.	.	.	.	.	.	.	.	.	.	.
Bukombe	.	.	.	.	.	.	.	.	.	.	.	.
Meatu	.	.	.	.	.	.	.	.	.	.	.	.
Shinyanga Urban	.	.	.	.	.	.	.	.	.	.	.	.
Kishapu	.	.	.	.	.	.	.	.	.	.	.	.
Total	.	.	.	.	.	.	.	.	.	.	.	.

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Onion				Ginger				Zukkin			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	0	.	.	.	249	50	135	3	.	.	.	.
Maswa	388	79	285	4	0	.	.	.	.	.	.	.
Shinyanga Rural	0	.	.	.	0	.	.	.	.	.	.	.
Kahama	539	177	251	1	0	.	.	.	.	.	.	.
Bukombe	163	16	39	2	163	33	2	0	.	.	.	.
Meatu	0	.	.	.	0	.	.	.	.	.	.	.
Shinyanga Urban	0	.	.	.	0	.	.	.	.	.	.	.
Kishapu	0	.	.	.	0	.	.	.	.	.	.	.
Total	1,090	273	575	2	412	83	137	2	.	.	.	.

**Cont.Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Star Fruit				Cabbage				Tomatoes			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	.	.	.	.	249	25	149.54	5.93	997	151	889.74	5.88
Maswa	.	.	.	.	129	13	258.91	19.76	777	117	1,659.64	14.20
Shinyanga Rural	.	.	.	.	0	.	.	.	537	95	2,693.17	28.30
Kahama	.	.	.	.	675	81	1,406.07	17.26	1,485	354	5,412.83	15.27
Bukombe	.	.	.	.	0	.	.	.	652	115	3,079.58	26.68
Meatu	.	.	.	.	0	.	.	.	0	.	.	.
Shinyanga Urban	.	.	.	.	0	.	.	.	88	27	42.61	1.60
Kishapu	.	.	.	.	.	.	.	.	.	.	.	.
Total	.	.	.	.	1,054	120	1,814.52	15.15	4,535	860	13,777.57	16.02



**Cont.: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON****Agricultural Year 2007/08**

District	Spinach				Chillies				Amaranths			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	0	.	.	.	249	25	42.37	1.68	.	.	.	.
Maswa	0	.	.	.	129	16	51.78	3.29	388	35	582.56	16.8
Shinyanga Rural	0	.	.	.	0	.	.	.	.	.	.	.
Kahama	134	14	13.43	0.99	0	.	.	.	539	177	871.69	4.9
Bukombe	0	.	.	.	0	.	.	.	.	.	.	.
Meatu	0	.	.	.	0	.	.	.	0	.	.	.
Shinyanga Urban	0	.	.	.	0	.	.	.	0	.	.	.
Kishapu	.	.	.	.	.	.	.	.	.	.	.	.
Total	134	14	13.43	0.99	379	41	94.15	2.30	927	212	1,454.25	6.9

**Cont. 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON**  
**Agricultural Year 2007/08**

District	Pumpkins				Cucumber				Carrot			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	.	.	.	.	.	.	.	.	.	.	.	.
Maswa	129	8	44.02	5.25	.	.	.	.	.	.	.	.
Shinyanga Rural	.	.	.	.	.	.	.	.	.	.	.	.
Kahama	270	109	1,892.91	17.29	270	55	547.32	10.00	.	.	.	.
Bukombe	.	.	.	.	.	.	.	.	.	.	.	.
Meatu	200	91	205.32	2.25	0	.	.	.	.	.	.	.
Shinyanga Urban	176	28	107.31	3.77	44	4	2.20	0.49	.	.	.	.
Kishapu	.	.	.	.	.	.	.	.	.	.	.	.
Total	776	238	2,249.56	9.47	314	59	549.52	9.28	.	.	.	.

**Cont. 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Cotton				Egg Plant				Water Mellon			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	64,549	87,098	81,141	0.93								
Maswa	41,685	70,015	60,816	0.87	129	4	251.54	59.99	0	.	.	.
Shinyanga Rural	3,089	2,542	2,277	0.90								
Kahama	37,588	57,549	48,747	0.85	0	.	.	.	675	301	1,735.36	5.77
Bukombe	23,301	28,943	22,231	0.77								
Meatu	28,244	53,850	41,032	0.76	0	.	.	.	0	.	.	.
Shinyanga Urban	1,625	2,401	2,924	1.22	0	.	.	.	0	.	.	.
Kishapu	32,887	73,241	44,952	0.61								
Total	232,969	375,639	304,119	0.81	129	4	251.54	59.99	675	301	1,735.36	5.77

**Cont. Table 5.1: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON  
Agricultural Year 2007/08**

District	Tobacco				Pyrethrum				Jute			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Bariadi	498	404	437.14	1.08	.	.	.	.	.	.	.	.
Maswa	259	537	351.48	0.65	.	.	.	.	.	.	.	.
Shinyanga Rural	0	.	.	.	.	.	.	.	.	.	.	.
Kahama	4,597	3,283	3,995.13	1.22	.	.	.	.	.	.	.	.
Bukombe	815	1,319	1,468.10	1.11	.	.	.	.	.	.	.	.
Meatu	100	405	150.24	0.37	.	.	.	.	.	.	.	.
Shinyanga Urban	0	.	.	.	.	.	.	.	.	.	.	.
Kishapu	0	.	.	.	.	.	.	.	.	.	.	.
Total	6,269	5,949	6,402.08	1.08	.	.	.	.	.	.	.	.

**5.2: Number of Crop Growing Households and Area Planted (ha) by Season and District, 2007/08  
Agricultural Year**

District	Short Rainy Season		Long Rainy Season		Total area planted (hectare)	% Area planted in short rainy season
	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)		
Bariadi	249	807	100,687	287,815	288,623	0.28
Maswa	0	0	52,301	163,230	163,230	-
Shinyanga Rural	0	0	54,266	120,825	120,825	-
Kahama	6,342	16,382	102,214	302,458	318,840	5.14
Bukombe	489	594	65,502	184,456	185,050	0.32
Meatu	200	314	39,963	139,498	139,813	0.22
Shinyanga Urban	88	622	14,979	25,361	25,984	2.40
Kishapu	119	145	48,258	201,739	201,884	0.07
Total	7,487	18,864	478,170	1,425,384	1,444,248	1.31

**5.3: Number of crop growing Households Planting Crops by Season and District, 2007/08  
Agricultural Year**

District	Short Rainy Season		Long Rainy Season		Total Number of Crop Growing households
	Number of households Growing Crops	Number of households NOT Growing Crops	Number of households Growing Crops	Number of households NOT Growing Crops	
Bariadi	249	100,687	100,687	249	100,936
Maswa	0	52,430	52,301	129	52,430
Shinyanga Rural	0	54,401	54,266	134	54,401
Kahama	6,342	101,136	102,214	5,263	107,477
Bukombe	489	65,502	65,502	489	65,991
Meatu	200	40,363	39,963	601	40,564
Shinyanga Urban	88	15,066	14,979	176	15,154
Kishapu	119	48,139	48,258	0	48,258
Total	7,487	477,725	478,170	7,042	485,212

**5.4: Number of Agriculture Households by Area Planted (ha) and crop for the Agricultural Year 2007/08 Short and Long Season-SHINYANGA REGION**

Crop	SHORT RAINY SEASON		LONG RAINY SEASON		SHORT & LONG SEASON	
	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)
Maize	7,431	6,018	435,661	515,759	443,092	521,777
Paddy	4,887	4,710	185,532	170,482	190,419	175,192
Sorghum	685	403	82,569	97,742	83,253	98,145
Bulrush Millet	44	267	9,156	14,595	9,200	14,862
Finger Millet	0	0	1,576	811	1,576	811
<b>CEREALS</b>	<b>13,047</b>	<b>11,397</b>	<b>714,494</b>	<b>799,390</b>	<b>727,541</b>	<b>810,787</b>
Cassava	0	0	2,921	1,780	2,921	1,780
Sweet Potato	2,724	1,879	187,591	67,266	190,315	69,145
Irish potatoes	0	0	463	183	463	183
Yams	0	0	2,624	565	2,624	565
Coco Yam	0	0	119	24	119	24
<b>ROOTS &amp; TUBERS</b>	<b>2,724</b>	<b>1,879</b>	<b>193,718</b>	<b>69,818</b>	<b>196,442</b>	<b>71,696</b>
Mung Bean	0	0	100	20	100	20
Beans	3,831	1,272	44,034	19,803	47,865	21,075
Cowpeas	539	123	20,778	6,222	21,317	6,345
Green gram	0	0	21,762	6,907	21,762	6,907
Chick peas	0	0	14,486	22,112	14,486	22,112
Bambaranuts	0	0	10,869	4,215	10,869	4,215
<b>PULSES</b>	<b>4,370</b>	<b>1,394</b>	<b>112,030</b>	<b>59,279</b>	<b>116,400</b>	<b>60,673</b>
Sunflower	433	351	9,210	5,096	9,643	5,447
Simsim	0	0	2,905	1,453	2,905	1,453
Groundnut	2,093	623	186,633	105,130	188,726	105,754
Soya Beans	0	0	163	264	163	264
Castor Fung	0	0	349	222	349	222
<b>OIL SEEDS &amp; OIL NUTS</b>	<b>2,526</b>	<b>974</b>	<b>199,260</b>	<b>112,165</b>	<b>201,786</b>	<b>113,139</b>
Okra	100	20	1,255	738	1,355	758
Turmeric	0	0	413	175	413	175
Bitteer Aubergine	0	0	270	27	270	27
Onion	100	41	1,090	273	1,191	313
Ginger	0	0	412	83	412	83
Cabbage	0	0	1,054	120	1,054	120
Tomatoes	100	61	4,535	860	4,635	921
Spinach	200	30	134	14	335	44
Chillies	0	0	379	41	379	41
Amaranths	100	20	927	212	1,028	232
Pumpkins	100	20	776	238	876	258
Cucumber	0	0	314	59	314	59
Egg Plant	0	0	129	4	129	4
Water Mellon	0	0	675	301	675	301
<b>FRUITS &amp; VEGETABLES</b>	<b>701</b>	<b>193</b>	<b>12,365</b>	<b>3,145</b>	<b>13,066</b>	<b>3,337</b>
Cotton	2,977	3,027	232,969	375,639	235,946	378,666
Tobacco	0	0	6,269	5,949	6,269	5,949
<b>CASH CROPS</b>	<b>2,977</b>	<b>3,027</b>	<b>239,238</b>	<b>381,588</b>	<b>242,215</b>	<b>384,615</b>
Total	26,344	18,864	1,471,105	1,425,384	1,497,450	1,444,248

**5.5: Area planted (ha) and Quantity Harvested by Season and Crop for the 2007/08 Agricultural Year-  
SHINYANGA REGION**

Crop	SHORT RAINY SEASON			LONG RAINY SEASON			SHORT & LONG RAINY SEASON		
	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Maize	6,018	6,940	1.15	515,759	671,806	1.30	521,777	678,746	1.30
Paddy	4,710	6,276	1.33	170,482	251,668	1.48	175,192	257,944	1.47
Sorghum	403	211	0.52	97,742	99,558	1.02	98,145	99,770	1.02
Bulrush Millet	267	439	1.65	14,595	14,798	1.01	14,862	15,238	1.03
Finger Millet	0	0	0.00	811	667	0.82	811	667	0.82
<b>CEREALS</b>	<b>11,397</b>	<b>13,867</b>	<b>1.22</b>	<b>799,390</b>	<b>1,038,497</b>	<b>1.30</b>	<b>810,787</b>	<b>1,052,363</b>	<b>1.30</b>
Cassava	0	0	0.00	1,780	6,434	3.62	1,780	6,434	3.62
Sweet Potato	1,879	2,158	1.15	67,266	134,741	2.00	69,145	136,899	1.98
Irish potatoes	0	0	0.00	183	213	1.16	183	213	1.16
Yams	0	0	0.00	565	676	1.20	565	676	1.20
Coco Yam	0	0	0.00	24	15	0.64	24	15	0.64
<b>ROOTS &amp; TUBERS</b>	<b>1,879</b>	<b>2,158</b>	<b>1.15</b>	<b>69,818</b>	<b>142,078</b>	<b>2.03</b>	<b>71,696</b>	<b>144,237</b>	<b>2.01</b>
Mung Bean	0	0	0.00	20	25	1.24	20	25	1.24
Beans	1,272	746	0.59	19,803	16,620	0.84	21,075	17,367	0.82
Cowpeas	123	115	0.94	6,222	3,938	0.63	6,345	4,054	0.64
Green gram	0	0	0.00	6,907	6,033	0.87	6,907	6,033	0.87
Chick peas	0	0	0.00	22,112	11,496	0.52	22,112	11,496	0.52
Bambaranuts	0	0	0.00	4,215	4,964	1.18	4,215	4,964	1.18
<b>PULSES</b>	<b>1,394</b>	<b>862</b>	<b>0.62</b>	<b>59,279</b>	<b>43,077</b>	<b>0.73</b>	<b>60,673</b>	<b>43,938</b>	<b>0.72</b>
Sunflower	351	359	1.02	5,096	2,930	0.58	5,447	3,290	0.60
Simsim	0	0	0.00	1,453	535	0.37	1,453	535	0.37
Groundnut	623	302	0.48	105,130	72,559	0.69	105,754	72,861	0.69
Soya Beans	0	0	0.00	264	171	0.65	264	171	0.65
Castor Fung	0	0	0.00	222	143	0.64	222	143	0.64
<b>OIL SEEDS &amp; OIL NUTS</b>	<b>974</b>	<b>661</b>	<b>0.68</b>	<b>112,165</b>	<b>76,339</b>	<b>0.68</b>	<b>113,139</b>	<b>77,000</b>	<b>0.68</b>
Okra	20	50	2.47	738	631	0.86	758	681	0.90
Turmeric	0	0	0.00	175	245	1.40	175	245	1.40
Bitteer Aubergine	0	0	0.00	27	270	9.88	27	270	9.88
Onion	41	284	7.00	273	575	2.11	313	859	2.74
Ginger	0	0	0.00	83	137	1.64	83	137	1.64
Cabbage	0	0	0.00	120	1,815	15.15	120	1,815	15.15
Tomatoes	61	315	5.19	860	13,778	16.02	921	14,093	15.31
Spinach	30	45	1.48	14	13	0.99	44	59	1.33
Chillies	0	0	0.00	41	94	2.30	41	94	2.30
Amaranths	20	10	0.49	212	1,454	6.86	232	1,464	6.30
Pumpkins	20	50	2.47	238	2,250	9.47	258	2,300	8.92
Cucumber	0	0	0.00	59	550	9.28	59	550	9.28
Egg Plant	0	0	0.00	4	252	59.99	4	252	59.99
Water Mellon	0	0	0.00	301	1,735	5.77	301	1,735	5.77
<b>FRUITS &amp; VEGETABLES</b>	<b>193</b>	<b>755</b>	<b>3.92</b>	<b>3,145</b>	<b>23,799</b>	<b>7.57</b>	<b>3,337</b>	<b>24,553</b>	<b>7.36</b>
Cotton	3,027	2,958	0.98	375,639	304,119	0.81	378,666	307,077	0.81
Tobacco	0	0	0.00	5,949	6,402	1.08	5,949	6,402	1.08
<b>CASH CROPS</b>	<b>3,027</b>	<b>2,958</b>	<b>0.98</b>	<b>381,588</b>	<b>310,521</b>	<b>0.81</b>	<b>384,615</b>	<b>313,479</b>	<b>0.82</b>
<b>Total</b>	<b>18,864</b>	<b>21,260</b>	<b>1.13</b>	<b>1,425,384</b>	<b>1,634,311</b>	<b>1.15</b>	<b>1,444,248</b>	<b>1,655,571</b>	<b>1.15</b>

## **CROP STORAGE AND MARKETING**

**5.6: Number of Households Storing Crops during 2007/08 by Season and District**

District	SHORT RAINY SEASON					LONG RAINY SEASON					SHORT & LONG SEASON				
	Number of households storing crops	%	Number of households not storing crops	%	Total	Number of households storing crops	%	Number of households not storing crops	%	Total	Number of households storing crops	%	Number of households not storing crops	%	Total
Bariadi	249	100	0	0	249	100,189	99.5	498	0	100,687	100,438	99.5	498	0	100,936
Maswa	0	0	0	0	0	49,712	95.0	2,589	5	52,301	49,712	95.0	2,589	5	52,301
Shinyanga Rural	0	0	0	0	0	53,058	97.8	1,209	2	54,266	53,058	97.8	1,209	2	54,266
Kahama	6,342	100	0	0	6,342	99,243	97.1	2,971	3	102,214	105,584	97.3	2,971	3	108,555
Bukombe	326	67	163	33	489	63,547	97.0	1,955	3	65,502	63,873	96.8	2,118	3	65,991
Meatu	200	100	0	0	200	38,460	96.2	1,502	4	39,963	38,661	96.3	1,502	4	40,163
Shinyanga Urban	44	50	44	50	88	14,627	97.7	351	2	14,979	14,671	97.4	395	3	15,066
Kishapu	119	100	0	0	119	46,828	97.0	1,430	3	48,258	46,948	97.0	1,430	3	48,377
<b>Total</b>	<b>7,280</b>	<b>97</b>	<b>207</b>	<b>3</b>	<b>7,487</b>	<b>465,663</b>	<b>97.4</b>	<b>12,506</b>	<b>3</b>	<b>478,170</b>	<b>472,943</b>	<b>97.4</b>	<b>12,713</b>	<b>3</b>	<b>485,657</b>

**5.7: Number of Crop Producing households reporting Selling agricultural produce during 2007/08 by District and Season**

SHORT RAINY SEASON						LONG RAINY SEASON				
District	Number of households that sold	%	Number of households that did not sell	%	Total number of households	Number of households that sold	%	Number of households that did not sell	%	Total number of households
Bariadi	249	100	0	0	249	81,995	81	18,692	19	100,687
Maswa	0	0	0	0	0	45,181	86	7,120	14	52,301
Shinyanga Rural	0	0	0	0	0	43,118	79	11,149	21	54,266
Kahama	4,316	68	2,025	32	6,342	81,662	80	20,552	20	102,214
Bukombe	326	67	163	33	489	44,320	68	21,182	32	65,502
Meatu	100	50	100	50	200	34,354	86	5,609	14	39,963
Shinyanga Urban	0	0	88	100	88	8,038	54	6,940	46	14,979
Kishapu	0	0	119	100	119	40,156	83	8,103	17	48,258
<b>Total</b>	<b>4,991</b>	<b>67</b>	<b>2,496</b>	<b>33</b>	<b>7,487</b>	<b>378,823</b>	<b>79</b>	<b>99,346</b>	<b>21</b>	<b>478,170</b>

**5.8: Number of households storing Crops by Method of Storage and Crop Type Long Rainy Season**

Crop	In locally made traditional structure		In Improved locally made structure		In modern store		In Sacks/open drum		In airtight drum		Unprotected pile		Not stored		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Maize	216,216	49.6	19,271	4.4	568	0.1	186,018	42.7	454	0.1	3,069	0.7	10,066	2.3	0	0.0	435,661	100
Paddy	58,844	31.7	6,274	3.4	270	0.1	107,449	57.9	585	0.3	1,468	0.8	10,468	5.6	173	0.1	185,532	100
Sorghum	58,957	71.4	560	0.7	100	0.1	19,519	23.6	132	0.2	613	0.7	2,588	3.1	100	0.1	82,569	100
Bulrush Millet	3,709	40.5	44	0.5	0	0.0	4,485	49.0	0	0.0	477	5.2	442	4.8	0	0.0	9,156	100
Finger Millet	100	6.4	0	0.0	0	0.0	815	51.7	0	0.0	0	0.0	661	42.0	0	0.0	1,576	100
<b>CEREALS</b>	<b>337,827</b>	<b>47.3</b>	<b>26,149</b>	<b>3.7</b>	<b>938</b>	<b>0.1</b>	<b>318,285</b>	<b>44.5</b>	<b>1,171</b>	<b>0.2</b>	<b>5,626</b>	<b>0.8</b>	<b>24,225</b>	<b>3.4</b>	<b>274</b>	<b>0.0</b>	<b>714,494</b>	<b>100</b>
Cassava	270	9.3	0	0.0	0	0.0	1,678	57.4	0	0.0	0	0.0	972	33.3	0	0.0	2,921	100
Sweet Potato	87,571	46.7	2,274	1.2	539	0.3	72,589	38.7	270	0.1	2,474	1.3	19,295	10.3	2,578	1.4	187,591	100
Irish potatoes	100	21.6	0	0.0	0	0.0	263	56.8	0	0.0	0	0.0	100	21.6	0	0.0	463	100
Yams	2,294	87.4	0	0.0	0	0.0	200	7.6	0	0.0	0	0.0	129	4.9	0	0.0	2,624	100
Coco Yam	119	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	119	100
<b>ROOTS &amp; TUBERS</b>	<b>90,355</b>	<b>46.6</b>	<b>2,274</b>	<b>1.2</b>	<b>539</b>	<b>0.3</b>	<b>74,730</b>	<b>38.6</b>	<b>270</b>	<b>0.1</b>	<b>2,474</b>	<b>1.3</b>	<b>20,497</b>	<b>10.6</b>	<b>2,578</b>	<b>1.3</b>	<b>193,718</b>	<b>100</b>
Mung Bean	0	0.0	0	0.0	0	0.0	100	100.0	0	0.0	0	0.0	0	0.0	0	0.0	100	100
Beans	8,701	19.8	544	1.2	0	0.0	32,239	73.2	0	0.0	0	0.0	2,550	5.8	0	0.0	44,034	100
Cowpeas	12,367	59.5	728	3.5	129	0.6	6,562	31.6	259	1.2	0	0.0	733	3.5	0	0.0	20,778	100
Green gram	7,269	33.4	384	1.8	0	0.0	7,509	34.5	129	0.6	234	1.1	6,237	28.7	0	0.0	21,762	100
Chick peas	6,060	41.8	0	0.0	0	0.0	6,453	44.5	0	0.0	0	0.0	1,974	13.6	0	0.0	14,486	100
Bambaranuts	1,562	14.4	134	1.2	270	2.5	8,141	74.9	44	0.4	0	0.0	717	6.6	0	0.0	10,869	100
<b>PULSES</b>	<b>35,958</b>	<b>32.1</b>	<b>1,790</b>	<b>1.6</b>	<b>400</b>	<b>0.4</b>	<b>61,004</b>	<b>54.5</b>	<b>432</b>	<b>0.4</b>	<b>234</b>	<b>0.2</b>	<b>12,212</b>	<b>10.9</b>	<b>0</b>	<b>0.0</b>	<b>112,030</b>	<b>100</b>
Sunflower	1,095	11.9	44	0.5	0	0.0	3,347	36.3	0	0.0	0	0.0	4,724	51.3	0	0.0	9,210	100
Simsim	751	25.8	0	0.0	0	0.0	1,743	60.0	0	0.0	0	0.0	293	10.1	119	4.1	2,905	100
Groundnut	63,569	34.1	8,942	4.8	270	0.1	102,214	54.8	314	0.2	1,393	0.7	9,767	5.2	163	0.1	186,633	100
Soya Beans	163	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	163	100
Castor Fung	349	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	349	100
<b>OIL SEEDS &amp; OIL NUTS</b>	<b>65,927</b>	<b>33.1</b>	<b>8,986</b>	<b>4.5</b>	<b>270</b>	<b>0.1</b>	<b>107,304</b>	<b>53.9</b>	<b>314</b>	<b>0.2</b>	<b>1,393</b>	<b>0.7</b>	<b>14,784</b>	<b>7.4</b>	<b>282</b>	<b>0.1</b>	<b>199,260</b>	<b>100</b>



**cont.. 5.8: Number of households storing Crops by Method of Storage and Crop Type Long Rainy Season -Shinyanga Region**

Crop	In locally made traditional structure		In Improved locally made structure		In modern store		In Sacks/open drum		In airtight drum		Unprotected pile		Not stored		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Okra	129	10.3	0	0.0	0	0.0	562	44.8	0	0.0	0	0.0	564	44.9	0	0.0	1,255	100
Turmeric	44	10.6	0	0.0	0	0.0	234	56.8	0	0.0	0	0.0	134	32.5	0	0.0	413	100
Bitter Aubergine	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	270	100.0	0	0.0	270	100
Onion	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,090	100.0	0	0.0	1,090	100
Ginger	249	60.5	0	0.0	0	0.0	163	39.5	0	0.0	0	0.0	0	0.0	0	0.0	412	100
Cabbage	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,054	100.0	0	0.0	1,054	100
Tomatoes	932	20.5	0	0.0	0	0.0	264	5.8	0	0.0	0	0.0	3,340	73.6	0	0.0	4,535	100
Spinach	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	134	100.0	0	0.0	134	100
Chillies	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	379	100.0	0	0.0	379	100
Amaranths	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	927	100.0	0	0.0	927	100
Pumpkins	188	24.2	0	0.0	100	12.9	0	0.0	0	0.0	0	0.0	488	62.9	0	0.0	776	100
Cucumber	0	0.0	0	0.0	0	0.0	44	14.0	0	0.0	0	0.0	270	86.0	0	0.0	314	100
Egg Plant	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	129	100.0	0	0.0	129	100
Water Mellon	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	675	100.0	0	0.0	675	100
<b>FRUITS &amp; VEGETABLES</b>	<b>1,542</b>	<b>12.5</b>	<b>0</b>	<b>0.0</b>	<b>100</b>	<b>0.8</b>	<b>1,267</b>	<b>10.2</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>9,455</b>	<b>76.5</b>	<b>0</b>	<b>0.0</b>	<b>12,365</b>	<b>100</b>
Cotton	6,574	2.8	7,691	3.3	230	0.1	3,934	1.7	129	0.1	8,055	3.5	206,355	88.6	0	0.0	232,969	100
Tobacco	129	2.1	0	0.0	129	2.1	412	6.6	0	0.0	0	0.0	5,598	89.3	0	0.0	6,269	100
<b>CASH CROPS</b>	<b>6,704</b>	<b>2.8</b>	<b>7,691</b>	<b>3.2</b>	<b>359</b>	<b>0.2</b>	<b>4,346</b>	<b>1.8</b>	<b>129</b>	<b>0.1</b>	<b>8,055</b>	<b>3.4</b>	<b>211,954</b>	<b>88.6</b>	<b>0</b>	<b>0.0</b>	<b>239,238</b>	<b>100</b>
<b>Total</b>	<b>538,313</b>	<b>36.6</b>	<b>46,891</b>	<b>3.2</b>	<b>2,607</b>	<b>0.2</b>	<b>566,936</b>	<b>38.5</b>	<b>2,317</b>	<b>0.2</b>	<b>17,783</b>	<b>1.2</b>	<b>293,126</b>	<b>19.9</b>	<b>3,133</b>	<b>0.2</b>	<b>1,471,105</b>	<b>100</b>

**5.9: Number of Households Reporting Marketing Problems for Agricultural products by Crop - SHINYANGA REGION**

Crop	Open Market Price too low	No Transport	Transport Cost too high	No buyer	Crop Market too Far	Farmer Association problems	Cooperative problems	Trade Union Problems	Government Regulatory Problems	Lack of Market Information	No problem	Other	Not Applicable
Maize	105,909	10,696	9,201	1,211	11,530	2,755	838	523	2,236	2,505	35,349	400	252,508
Paddy	61,973	6,893	11,142	1,078	8,892	647	779	269	805	1,818	13,823	249	77,165
Sorghum	12,321	944	467	2,121	2,579	249	129	129	354	1,839	6,009	1,202	54,226
Bulrush Millet	1,916	0	44	0	0	0	0	0	238	0	536	0	6,422
Finger Millet	1,313	163	0	0	0	0	0	0	0	0	0	0	100
<b>CEREALS</b>	<b>183,431</b>	<b>18,697</b>	<b>20,853</b>	<b>4,409</b>	<b>23,001</b>	<b>3,652</b>	<b>1,746</b>	<b>921</b>	<b>3,633</b>	<b>6,162</b>	<b>55,717</b>	<b>1,851</b>	<b>390,421</b>
Cassava	405	0	405	0	0	0	0	0	0	0	270	0	1,841
Sweet Potato	36,338	4,493	4,606	2,592	3,456	379	100	0	662	1,716	11,646	1,752	119,851
Irish potatoes	100	0	0	0	0	0	0	0	0	0	0	0	363
Yams	479	0	0	0	0	0	0	0	0	0	359	0	1,786
Coco Yam	0	0	0	0	0	0	0	0	0	0	0	0	119
<b>ROOTS &amp; TUBERS</b>	<b>37,322</b>	<b>4,493</b>	<b>5,010</b>	<b>2,592</b>	<b>3,456</b>	<b>379</b>	<b>100</b>	<b>0</b>	<b>662</b>	<b>1,716</b>	<b>12,276</b>	<b>1,752</b>	<b>123,960</b>
Mung Bean	0	0	0	0	0	0	0	0	0	0	0	0	100
Beans	13,991	282	512	405	384	0	249	0	433	0	2,929	270	24,578
Cowpeas	3,268	450	0	520	358	0	0	0	100	100	826	0	15,157
Green gram	5,152	100	408	0	1,726	0	388	100	0	129	4,929	0	8,828
Chick peas	6,420	641	1,040	134	383	134	100	0	0	384	747	0	4,503
Bambaranuts	1,341	0	0	270	269	0	0	0	0	119	314	0	8,555
<b>PULSES</b>	<b>30,172</b>	<b>1,473</b>	<b>1,960</b>	<b>1,329</b>	<b>3,120</b>	<b>134</b>	<b>738</b>	<b>100</b>	<b>534</b>	<b>732</b>	<b>9,746</b>	<b>270</b>	<b>61,721</b>
Sunflower	4,395	119	505	100	100	0	379	0	134	88	923	100	2,366
Simsim	509	0	0	0	119	0	0	0	0	119	1,353	0	805
Groundnut	53,118	2,603	3,094	1,127	5,422	134	779	0	642	956	15,247	520	102,991
Soya Beans	0	0	0	0	0	0	0	0	0	0	0	0	163
Castor Fung	0	0	249	0	0	0	0	0	0	0	0	0	100
<b>OIL SEEDS &amp; OIL NUTS</b>	<b>58,022</b>	<b>2,722</b>	<b>3,848</b>	<b>1,227</b>	<b>5,641</b>	<b>134</b>	<b>1,157</b>	<b>0</b>	<b>777</b>	<b>1,163</b>	<b>17,524</b>	<b>620</b>	<b>106,425</b>

**cont.. 5.9: Number of Households Reporting Marketing Problems for Agricultural Products by Crop - SHINYANGA REGION**

Crop	Open Market Price too low	No Transport	Transport Cost too high	No buyer	Crop Market too Far	Farmer Association problems	Cooperativ e problems	Trade Union Problems	Governme nt Regulatory Problems	Lack of Market Information	No problem	Other	Not Applicabl e
Okra	564	0	0	0	0	0	0	0	0	0	129	0	562
Turmeric	134	0	0	0	0	0	0	0	0	0	0	0	278
Bitteer Aubergine	0	0	270	0	0	0	0	0	0	0	0	0	0
Onion	432	0	659	0	0	0	0	0	0	0	0	0	0
Ginger	249	0	0	0	0	0	0	0	0	0	0	0	163
Cabbage	654	0	129	0	0	0	0	0	0	270	0	0	0
Tomatoes	1,904	269	1,059	0	0	0	0	0	0	384	292	0	628
Spinach	134	0	0	0	0	0	0	0	0	0	0	0	0
Chillies	249	0	129	0	0	0	0	0	0	0	0	0	0
Amaranths	539	0	259	0	129	0	0	0	0	0	0	0	0
Pumpkins	88	0	270	129	188	0	0	0	0	0	0	0	100
Cucumber	270	0	0	0	0	0	0	0	0	0	0	0	44
Egg Plant	0	0	129	0	0	0	0	0	0	0	0	0	0
Water Mellon	134	0	270	0	270	0	0	0	0	0	0	0	0
<b>FRUITS &amp; VEGETABLES</b>	<b>5,352</b>	<b>269</b>	<b>3,176</b>	<b>129</b>	<b>588</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>654</b>	<b>422</b>	<b>0</b>	<b>1,775</b>
Cotton	182,918	2,804	3,357	349	749	848	5,634	4,138	129	2,090	19,663	1,138	9,153
Tobacco	4,440	0	0	0	270	0	0	0	129	270	726	0	433
<b>CASH CROPS</b>	<b>187,358</b>	<b>2,804</b>	<b>3,357</b>	<b>349</b>	<b>1,019</b>	<b>848</b>	<b>5,634</b>	<b>4,138</b>	<b>259</b>	<b>2,360</b>	<b>20,389</b>	<b>1,138</b>	<b>9,586</b>
<b>Total</b>	<b>501,657</b>	<b>30,458</b>	<b>38,205</b>	<b>10,037</b>	<b>36,825</b>	<b>5,147</b>	<b>9,375</b>	<b>5,159</b>	<b>5,864</b>	<b>12,787</b>	<b>116,073</b>	<b>5,630</b>	<b>693,888</b>

**INPUT USE LONG RAIN SEASON**

**5.10: Number of Households and Planted Area by Fungicide Use and District - Long Rainy Season**

District	Fungicide Use						% of Planted area using Fungicide
	Number of Households using Fungicide	Planted Area Applied with Fungicide	Number of Households NOT using Fungicide	Planted Area NOT Applied with Fungicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	2,243	1,066	98,444	286,750	100,687	287,815	0.4
Maswa	518	524	51,783	162,706	52,301	163,230	0.3
Shinyanga Rural	940	1,258	53,326	119,568	54,266	120,825	1.0
Kahama	1,621	1,299	100,593	301,159	102,214	302,458	0.4
Bukombe	1,629	2,210	63,873	182,246	65,502	184,456	1.2
Meatu	701	537	39,262	138,961	39,963	139,498	0.4
Shinyanga Urban	88	83	14,891	25,278	14,979	25,361	0.3
Kishapu	834	2,569	47,424	199,170	48,258	201,739	1.3
<b>Total</b>	<b>8,574</b>	<b>9,546</b>	<b>469,596</b>	<b>1,415,839</b>	<b>478,170</b>	<b>1,425,384</b>	<b>0.7</b>

**5.11: Number of Households and Planted Area by Fungicide Use and District - Long Rainy Season**

District	Insecticide Use						% of Planted area using Insecticides
	Number of Households using Insecticides	Planted Area Applied with Insecticides	Number of Households NOT using Insecticides	Planted Area Without Insecticides	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	54,082	74,957	46,605	212,858	100,687	287,815	26.0
Maswa	21,878	36,567	30,422	126,664	52,301	163,230	22.4
Shinyanga Rural	3,224	4,650	51,043	116,176	54,266	120,825	3.8
Kahama	42,317	71,664	59,896	230,794	102,214	302,458	23.7
Bukombe	17,272	22,652	48,230	161,805	65,502	184,456	12.3
Meatu	11,218	21,800	28,745	117,698	39,963	139,498	15.6
Shinyanga Urban	1,010	630	13,968	24,731	14,979	25,361	2.5
Kishapu	8,818	26,757	39,441	174,982	48,258	201,739	13.3
<b>Total</b>	<b>159,819</b>	<b>259,677</b>	<b>318,351</b>	<b>1,165,707</b>	<b>478,170</b>	<b>1,425,384</b>	<b>18.2</b>

**5.12: Number of Households and Planted Area by Herbicide Use and District - Long Rainy Season**

District	Herbicide Use						% of Planted area using Herbicide
	Number of Households using Herbicide	Planted Area Applied with Herbicide	Number of Households NOT using Herbicides	Planted Area NOT Applied with Herbicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	249	76	100,438	287,740	100,687	287,815	0.0
Maswa	0	0	52,301	163,230	52,301	163,230	0.0
Shinyanga Rural	269	20	53,998	120,805	54,266	120,825	0.0
Kahama	811	356	101,402	302,102	102,214	302,458	0.1
Bukombe	652	594	64,850	183,863	65,502	184,456	0.3
Meatu	300	405	39,662	139,093	39,963	139,498	0.3
Shinyanga Urban	88	53	14,891	25,308	14,979	25,361	0.2
Kishapu	119	434	48,139	201,305	48,258	201,739	0.2
<b>Total</b>	<b>2,488</b>	<b>1,939</b>	<b>475,681</b>	<b>1,423,446</b>	<b>478,170</b>	<b>1,425,384</b>	<b>0.1</b>

**5.13: Number of Households and Planted Area by Organic Fertilizer Use and District - LONG RAINY SEASON**

District	Organic Fertilizer Use						% of Planted area using Organic Fertilizer
	Number of Households using Organic Fertilizer	Planted Area Applied with Organic Fertilizer	Number of Households NOT using Organic Fertilizer	Planted Area NOT Applied with Organic Fertilizer	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	5,732	7,836	94,955	279,980	100,687	287,815	2.7
Maswa	7,250	12,470	45,051	150,760	52,301	163,230	7.6
Shinyanga Rural	5,373	5,819	48,894	115,007	54,266	120,825	4.8
Kahama	20,143	17,681	82,070	284,777	102,214	302,458	5.8
Bukombe	3,422	5,541	62,080	178,915	65,502	184,456	3.0
Meatu	2,604	3,908	37,359	135,590	39,963	139,498	2.8
Shinyanga Urban	3,075	2,376	11,904	22,985	14,979	25,361	9.4
Kishapu	3,575	8,214	44,684	193,525	48,258	201,739	4.1
<b>Total</b>	<b>51,173</b>	<b>63,845</b>	<b>426,996</b>	<b>1,361,539</b>	<b>478,170</b>	<b>1,425,384</b>	<b>4.5</b>

#### 5.14: Number of Households and Planted Area by Inorganic Fertilizer Use and District - LONG RAINY SEASON

District	Inorganic Fertilizer Fertilizer Use						% of Planted area using Inorganic Fertilizer
	Number of Households using Inorganic Fertilizer	Planted Area Applied with Inorganic Fertilizer	Number of Households NOT using Inorganic Fertilizer	Planted Area NOT Applied with Inorganic Fertilizer	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	249	25	100,438	287,790	100,687	287,815	0.0
Maswa	259	79	52,042	163,152	52,301	163,230	0.0
Shinyanga Rural	269	313	53,998	120,513	54,266	120,825	0.3
Kahama	10,410	10,550	91,804	291,908	102,214	302,458	3.5
Bukombe	1,955	2,029	63,547	182,428	65,502	184,456	1.1
Meatu	0	0	39,963	139,498	39,963	139,498	0.0
Shinyanga Urban	132	76	14,847	25,286	14,979	25,361	0.3
Kishapu	0	0	48,258	201,739	48,258	201,739	0.0
Total	13,274	13,070	464,896	1,412,314	478,170	1,425,384	0.9

#### 5.15: Number of Households and Planted Area by Improved Seed Use and District - Long Rainy Season

District	Improved Seed						% of area planted using improved seed
	Number of Households using Improved Seed	Planted Area Improved Seed Used	Number of Households NOT using Improved Seeds	Planted Area Improved Seed not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	63,303	93,071	37,384	194,744	100,687	287,815	32.3
Maswa	40,261	68,150	12,040	95,080	52,301	163,230	41.8
Shinyanga Rural	9,940	11,621	44,327	109,205	54,266	120,825	9.6
Kahama	52,187	77,230	50,027	225,228	102,214	302,458	25.5
Bukombe	25,745	40,179	39,758	144,278	65,502	184,456	21.8
Meatu	24,539	47,431	15,424	92,068	39,963	139,498	34.0
Shinyanga Urban	3,690	4,146	11,289	21,216	14,979	25,361	16.3
Kishapu	23,831	48,698	24,427	153,041	48,258	201,739	24.1
Total	243,495	390,525	234,675	1,034,860	478,170	1,425,384	27.4

**5.16: Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - LONG Rainy Season**

District	Local Seed						% of area planted using Local seed
	Number of Households using Local Seed	Planted Area Local Seed Used	Number of Households NOT using Local Seeds	Planted Area Local Seed not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	97,946	192,537	2,741	95,505	100,687	287,815	67
Maswa	49,323	92,276	2,978	71,052	52,301	163,230	57
Shinyanga Rural	51,983	106,263	2,283	14,766	54,266	120,825	88
Kahama	99,513	220,288	2,701	82,170	102,214	302,458	73
Bukombe	60,777	142,815	4,725	41,641	65,502	184,456	77
Meatu	39,262	91,203	701	48,295	39,963	139,498	65
Shinyanga Urban	14,232	17,272	747	8,103	14,979	25,361	68
Kishapu	47,305	138,942	953	62,797	48,258	201,739	69
<b>Total</b>	<b>460,340</b>	<b>1,001,597</b>	<b>17,829</b>	<b>424,330</b>	<b>478,170</b>	<b>1,425,927</b>	<b>70</b>

**5.17: Number of Households and Planted Area by Irrigation Use and District -LONG RAINY SEASON**

District	Irrigation use						% of area planted under irrigation in long rainy season
	Number of Households using Irrigation	Planted Area with Irrigation	Number of Households NOT using Irrigation	Planted Area with no Irrigation	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Bariadi	1,994	2,472	98,693	285,343	100,687	287,815	0.9
Maswa	4,143	4,577	48,158	158,653	52,301	163,230	2.8
Shinyanga Rural	2,015	1,377	52,252	119,449	54,266	120,825	1.1
Kahama	9,731	7,682	92,482	294,776	102,214	302,458	2.5
Bukombe	3,748	5,187	61,755	179,270	65,502	184,456	2.8
Meatu	401	395	39,562	139,103	39,963	139,498	0.3
Shinyanga Urban	527	526	14,451	24,836	14,979	25,361	2.1
Kishapu	477	2,062	47,782	199,677	48,258	201,739	1.0
<b>Total</b>	<b>23,035</b>	<b>24,278</b>	<b>455,135</b>	<b>1,401,107</b>	<b>478,170</b>	<b>1,425,384</b>	<b>1.7</b>



**5.18: Area & Number of Households by Insecticide use by Crop during 2007/08 Agricultural Year - LONG RAINY SEASON -Shinyanga Region**

Crop	Insecticide use							% of Planted area using Insecticide
	Number of Households using Insecticide	Planted Area Applied with Insecticide	Cost of Insecticide	Number of Households NOT using Insecticide	Planted Area Without Insecticide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	14,071	18,790	178,987,279	423,804	496,969	437,875	515,759	3.6
Paddy	832	570	7,559,511	184,949	169,912	185,781	170,482	0.3
Sorghum	420	236	225,354	82,249	97,506	82,669	97,742	0.2
Bulrush Millet	0	0	0	9,156	14,595	9,156	14,595	0.0
Finger Millet	498	202	4,984,515	1,078	609	1,576	811	24.9
<b>CEREALS</b>		<b>19,798</b>	<b>191,756,660</b>		<b>779,592</b>		<b>799,390</b>	<b>2.5</b>
Cassava	0	0	0	2,921	1,780	2,921	1,780	0.0
Sweet Potato	1,478	1,016	23,150,471	186,384	66,250	<b>187,861</b>	<b>67,266</b>	<b>1.5</b>
Irish potatoes	0	0	0	463	183	463	183	0.0
Yams	0	0	0	2,624	565	2,624	565	0.0
Coco Yam	0	0	0	119	24	119	24	0.0
<b>ROOTS &amp; TUBERS</b>		<b>1,016</b>	<b>23,150,471</b>		<b>68,802</b>		<b>69,818</b>	<b>1.5</b>
Mung Bean	0	0	0	100	20	100	20	0.0
Beans	470	322	4,245,915	43,564	19,481	<b>44,034</b>	<b>19,803</b>	<b>1.6</b>
Cowpeas	230	178	538,607	20,549	6,044	20,778	6,222	2.9
Green gram	709	238	45,665,621	21,053	6,669	21,762	6,907	3.4
Chick peas	2,427	4,825	49,698,020	12,308	17,287	14,735	22,112	21.8
Bambaranuts	0	0	0	10,869	4,215	10,869	4,215	0.0
<b>PULSES</b>		<b>5,562</b>	<b>100,148,163</b>		<b>53,716</b>		<b>59,279</b>	<b>9.4</b>
Sunflower	100	81	200,315	9,110	5,015	9,210	5,096	1.6
Simsim	119	72	1,000,912	2,786	1,381	2,905	1,453	5.0
Groundnut	1,305	843	19,329,504	185,372	104,287	<b>186,677</b>	<b>105,130</b>	<b>0.8</b>
Soya Beans	0	0	0	163	264	163	264	0.0
Castor Fung	0	0	0	349	222	349	222	0.0
<b>OIL SEEDS &amp; OIL NUTS</b>		<b>997</b>	<b>20,530,730</b>		<b>111,168</b>		<b>112,165</b>	<b>0.9</b>
Okra	520	156	793,790	735	582	1,255	738	21.1
Turmeric	0	0	0	413	175	413	175	0.0
Bitteer Aubergine	270	27	2,163,328	0	0	270	27	100.0
Onion	1,090	266	3,983,953	134	7	1,225	273	97.5
Ginger	0	0	0	412	83	412	83	0.0
Cabbage	1,054	113	2,518,661	134	7	1,188	120	94.3
Tomatoes	3,820	731	21,355,190	984	129	4,804	860	85.0
Spinach	134	2	67,161	134	12	269	14	12.5
Chillies	379	41	1,505,043	0	0	379	41	100.0
Amaranths	259	26	323,643	669	186	927	212	12.4
Pumpkins	314	127	290,594	462	110	776	238	53.6
Cucumber	270	55	540,832	44	4	314	59	92.5
Egg Plant	129	4	258,914	0	0	129	4	100.0
Water Mellon	675	301	5,000,927	0	0	675	301	100.0
<b>FRUITS &amp; VEGETABLES</b>		<b>1,849</b>	<b>38,802,037</b>		<b>1,296</b>		<b>3,145</b>	<b>58.8</b>
Cotton	142,582	225,645	4,227,873,543	99,905	149,995	242,487	375,639	60.1
<b>Tobacco</b>	<b>5,565</b>	<b>4,811</b>	<b>85,233,411</b>	<b>705</b>	<b>1,138</b>	<b>6,269</b>	<b>5,949</b>	<b>80.9</b>
<b>CASH CROPS</b>		<b>230,455</b>	<b>4,313,106,954</b>		<b>151,133</b>		<b>381,588</b>	<b>60.4</b>
<b>Total</b>		<b>259,677</b>	<b>4,687,495,015</b>		<b>1,165,707</b>		<b>1,425,384</b>	<b>18.2</b>

**5.19: Planted Area & Number of Households by Fungicide use by Crop during 2007/08 Agricultural Year - LONG RAINY SEASON - Shinyanga Region**

Crop	Fungicide use							% of Planted area using Fungicide
	Number of Households using Fungicide	Planted Area Applied with Fungicide	Cost of Fungicide	Number of Households NOT using Fungicide	Planted Area Without Fungicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	1,875	2,481	34,670,123	434,223	513,278	436,098	515,759	0.5
Paddy	379	33	1,812,400	185,532	170,450	185,911	170,482	0.0
Sorghum	498	360	1,200,777	82,200	97,382	82,698	97,742	0.4
Bulrush Millet	144	47	100,157	9,056	14,548	9,200	14,595	0.3
Finger Millet	0	0	0	1,576	811	1,576	811	0.0
<b>CEREALS</b>		<b>2,920</b>	<b>37,783,458</b>		<b>796,470</b>		<b>799,390</b>	<b>0.4</b>
Cassava	0	0	0	2,921	1,780	2,921	1,780	0.0
Sweet Potato	263	120	0	187,372	67,146	<b>187,635</b>	<b>67,266</b>	<b>0.2</b>
Irish potatoes	0	0	0	463	183	463	183	0.0
Yams	100	4	150,236	2,523	561	2,624	565	0.7
Coco Yam	0	0	0	119	24	119	24	0.0
<b>ROOTS &amp; TUBERS</b>		<b>124</b>	<b>150,236</b>		<b>69,693</b>		<b>69,818</b>	<b>0.2</b>
Mung Bean	0	0	0	100	20	100	20	0.0
Beans	336	278	4,562,664	43,827	19,525	<b>44,164</b>	<b>19,803</b>	<b>1.4</b>
Cowpeas	44	1	0	20,778	6,221	20,822	6,222	0.0
Green gram	0	0	0	21,762	6,907	21,762	6,907	0.0
Chick peas	134	20	0	14,486	22,092	14,621	22,112	0.1
Bambaranuts	0	0	0	10,869	4,215	10,869	4,215	0.0
<b>PULSES</b>		<b>299</b>	<b>4,562,664</b>		<b>58,980</b>		<b>59,279</b>	<b>0.5</b>
Sunflower	0	0	0	9,210	5,096	9,210	5,096	0.0
Simsim	0	0	0	2,905	1,453	2,905	1,453	0.0
Groundnut	426	432	3,380,053	186,207	104,698	<b>186,633</b>	<b>105,130</b>	<b>0.4</b>
Soya Beans	0	0	0	163	264	163	264	0.0
Castor Fung	0	0	0	349	222	349	222	0.0
<b>OIL SEEDS &amp; OIL NUTS</b>		<b>432</b>	<b>3,380,053</b>		<b>111,733</b>		<b>112,165</b>	<b>0.4</b>
Okra	270	55	811,248	984	683	1,255	738	7.4
Turmeric	0	0	0	413	175	413	175	0.0
Bitteer Aubergine	0	0	0	270	27	270	27	0.0
Onion	568	180	2,935,948	523	92	1,090	273	66.2
Ginger	0	0	0	412	83	412	83	0.0
Cabbage	270	55	811,248	783	65	1,054	120	45.7
Tomatoes	2,854	591	26,457,617	1,681	269	4,535	860	68.7
Spinach	0	0	0	134	14	134	14	0.0
Chillies	0	0	0	379	41	379	41	0.0
Amaranths	270	109	0	657	103	927	212	51.6
Pumpkins	314	100	527,104	732	138	1,046	238	42.1
Cucumber	270	55	811,248	44	4	314	59	92.5
Egg Plant	0	0	0	129	4	129	4	0.0
Water Mellon	405	273	3,039,968	270	27	675	301	90.9
<b>FRUITS &amp; VEGETABLES</b>		<b>1,418</b>	<b>35,394,382</b>		<b>1,727</b>		<b>3,145</b>	<b>45.1</b>
Cotton	3,006	4,352	58,995,930	230,651	371,287	233,657	375,639	1.2
Tobacco	0	0	0	6,269	5,949	6,269	5,949	0.0
<b>CASH CROPS</b>		<b>4,352</b>	<b>58,995,930</b>		<b>377,236</b>		<b>381,588</b>	<b>1.1</b>
<b>Total</b>		<b>9,546</b>	<b>140,266,723</b>		<b>1,415,839</b>		<b>1,425,384</b>	<b>0.7</b>

**5.20: Planted Area & Number of Households by Herbicide Use by Crop - LONG RAINY SEASON - Shinyanga Region**

Crop	Herbicide use							% of area planted using Herbicide LONG rainy season
	Number of Households using Herbicide	Planted Area with Herbicide	Cost of Herbicide	Number of Households NOT using Herbicide	Planted Area with no Herbicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	759	692	1,515,021	435,335	515,068	436,095	515,759	0.1
Paddy	0	0	0	185,532	170,482	185,532	170,482	0.0
Sorghum	0	0	0	82,569	97,742	82,569	97,742	0.0
Bulrush Millet	270	27	0	9,156	14,568	9,426	14,595	0.2
Finger Millet	0	0	0	1,576	811	1,576	811	0.0
<b>CEREALS</b>		<b>719</b>	<b>1,515,021</b>		<b>798,671</b>		<b>799,390</b>	<b>0.1</b>
Cassava	0	0	0	2,921	1,780	2,921	1,780	0.0
Sweet Potato	134	7	0	187,591	67,259	187,725	67,266	0.0
Irish potatoes	0	0	0	463	183	463	183	0.0
Yams	0	0	0	2,624	565	2,624	565	0.0
Coco Yam	0	0	0	119	24	119	24	0.0
<b>ROOTS &amp; TUBERS</b>		<b>7</b>	<b>0</b>		<b>69,811</b>		<b>69,818</b>	<b>0.0</b>
Mung Bean	0	0	0	100	20	100	20	0.0
Beans	44	18	527,104	43,990	19,785	44,034	19,803	0.1
Cowpeas	0	0	0	20,778	6,222	20,778	6,222	0.0
Green gram	0	0	0	21,762	6,907	21,762	6,907	0.0
Chick peas	0	0	0	14,486	22,112	14,486	22,112	0.0
Bambaranuts	0	0	0	10,869	4,215	10,869	4,215	0.0
<b>PULSES</b>		<b>18</b>	<b>527,104</b>		<b>59,261</b>		<b>59,279</b>	<b>0.0</b>
Sunflower	0	0	0	9,210	5,096	9,210	5,096	0.0
Simsim	0	0	0	2,905	1,453	2,905	1,453	0.0
Groundnut	163	66	0	186,633	105,064	186,796	105,130	0.1
Soya Beans	0	0	0	163	264	163	264	0.0
Castor Fung	0	0	0	349	222	349	222	0.0
<b>OIL SEEDS &amp; OIL NUTS</b>		<b>66</b>	<b>0</b>		<b>112,099</b>		<b>112,165</b>	<b>0.1</b>
Okra	0	0	0	1,255	738	1,255	738	0.0
Turmeric	0	0	0	413	175	413	175	0.0
Bitteer Aubergine	0	0	0	270	27	270	27	0.0
Onion	0	0	0	1,090	273	1,090	273	0.0
Ginger	0	0	0	412	83	412	83	0.0
Cabbage	249	25	1,246,129	805	95	1,054	120	21.1
Tomatoes	384	39	2,589,358	4,152	821	4,535	860	4.5
Spinach	0	0	0	134	14	134	14	0.0
Chillies	249	25	1,246,129	129	16	379	41	61.6
Amaranths	0	0	0	927	212	927	212	0.0
Pumpkins	44	18	527,104	732	220	776	238	7.5
Cucumber	0	0	0	314	59	314	59	0.0
Egg Plant	0	0	0	129	4	129	4	0.0
Water Mellon	0	0	0	675	301	675	301	0.0
<b>FRUITS &amp; VEGETABLES</b>		<b>107</b>	<b>5,608,720</b>		<b>3,038</b>		<b>3,145</b>	<b>3.4</b>
Cotton	734	1,022	12,545,565	232,398	374,618	233,132	375,639	0.3
<b>Tobacco</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,269</b>	<b>5,949</b>	<b>257,862</b>	<b>5,949</b>	<b>0.0</b>
<b>CASH CROPS</b>		<b>1,022</b>	<b>12,545,565</b>		<b>380,567</b>		<b>381,588</b>	<b>0.3</b>
<b>Total</b>		<b>1,939</b>	<b>20,196,411</b>		<b>1,423,446</b>		<b>1,425,384</b>	<b>0.1</b>

**5.21: Planted Area & Number of Households by Organic Fertilizer Use by Crop during 2007/08 Agricultural Year - LONG RAINY SEASON - Shinyanga Region**

Crop	Organic Fertilizer							% of area planted using Organic Fertilizer
	Number of Households using Organic Fertilizer	Planted Area Organic Fertilizer Used	Cost of Organic Fertilizer	Number of Households NOT using Organic Fertilizer	Planted Area Organic Fertilizer not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	37,810	31,873	1,247,937,809	409,478	483,887	447,288	515,759	6.18
Paddy	695	436	12,827,027	184,837	170,047	185,532	170,482	0.26
Sorghum	2,811	2,435	70,854,828	79,845	95,307	82,656	97,742	2.49
Bulrush Millet	88	98	219,627	9,156	14,498	9,244	14,595	0.67
Finger Millet	0	0	0	1,576	811	1,576	811	0.00
<b>CEREALS</b>		<b>34,841</b>	<b>1,331,839,291</b>		<b>764,549</b>		<b>799,390</b>	<b>4.36</b>
Cassava	0	0	0	2,921	1,780	2,921	1,780	0.00
Sweet Potato	1,245	366	14,481,988	186,390	66,900	187,635	67,266	0.54
Irish potatoes	0	0	0	463	183	463	183	0.00
Yams	0	0	0	2,624	565	2,624	565	0.00
Coco Yam	0	0	0	119	24	119	24	0.00
<b>ROOTS &amp; TUBERS</b>		<b>366</b>	<b>14,481,988</b>		<b>69,452</b>		<b>69,818</b>	<b>0.52</b>
Mung Bean	0	0	0	100	20	100	20	0.00
Beans	878	184	35,901,516	43,406	19,618	44,283	19,803	0.93
Cow peas	520	53	31,602,315	20,508	6,169	21,027	6,222	0.85
Green gram	820	249	993,638	21,213	6,657	22,033	6,907	3.61
Chick peas	656	1,139	134,323	13,964	20,973	14,621	22,112	5.15
Bambaranuts	44	4	65,888	10,869	4,210	10,913	4,215	0.11
<b>PULSES</b>		<b>1,630</b>	<b>68,697,680</b>		<b>57,649</b>	<b>112,977</b>	<b>59,279</b>	<b>2.75</b>
Sunflower	88	27	395,328	9,122	5,069	9,210	5,096	0.52
Simsim	0	0	0	2,905	1,453	2,905	1,453	0.00
Groundnut	4,337	1,647	88,046,587	183,886	103,483	188,223	105,130	1.57
Soya Beans	0	0	0	163	264	163	264	0.00
Castor Fung	0	0	0	349	222	349	222	0.00
<b>OIL SEEDS &amp; OIL NUTS</b>		<b>1,674</b>	<b>88,441,915</b>		<b>110,491</b>		<b>112,165</b>	<b>1.49</b>
Okra	0	0	0	1,255	738	1,255	738	0.00
Turmeric	0	0	0	413	175	413	175	0.00
Bitter Aubergine	0	0	0	270	27	270	27	0.00
Onion	961	205	9,024,772	400	68	1,361	273	75.11
Ginger	0	0	0	412	83	412	83	0.00
Cabbage	513	52	2,916,252	541	68			
Tomatoes	2,400	422	45,006,607	2,179	438	4,579	860	49.10
Spinach	134	14	268,646	0	0	134	14	100.00
Chillies	379	41	2,880,629	0	0	379	41	100.00
Amaranth	523	48	1,713,700	405	164	927	212	22.72
Pumpkins	217	35	846,368	559	202	776	238	14.76
Cucumber	270	55	2,704,160	44	4	314	59	92.49
Egg Plant	129	4	155,349	0	0	129	4	100.00
Water Mellon	405	273	6,751,550	270	27	675	301	90.90
<b>FRUITS &amp; VEGETABLES</b>		<b>1,149</b>	<b>72,268,034</b>		<b>1,996</b>		<b>3,025</b>	<b>37.99</b>
Cotton	15,941	24,186	579,955,011	221,809	351,454	237,750	375,639	6.44
Tobacco	0	0	0	6,269	5,949	6,269	5,949	0.00
<b>CASH CROPS</b>		<b>24,186</b>	<b>579,955,011</b>		<b>357,403</b>		<b>381,588</b>	<b>6.34</b>
<b>Total</b>		<b>63,845</b>	<b>2,155,683,920</b>		<b>1,361,539</b>		<b>1,425,265</b>	<b>4.5</b>

**5.22: Planted Area & Number of Households by Inorganic Fertilizer Use by Crop during 2007/08 Agricultural Year - LONG RAINY SEASON - Shinyanga Region**

Crop	Inorganic Fertilizer							% of area planted using Inorganic Fertilizer
	Number of Households using Inorganic Fertilizer	Planted Area Inorganic Fertilizer Used	Cost of Inorganic Fertilizer	Number of Households NOT using Inorganic Fertilizer	Planted Area Inorganic Fertilizer not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	9,576	8,018	592,080,989	427,886	507,742	437,462	515,759	1.55
Paddy	270	109	7,571,649	185,262	170,373	185,532	170,482	0.06
Sorghum	0	0	0	82,569	97,742	82,569	97,742	0.00
Bulrush Millet	0	0	0	9,156	14,595	9,156	14,595	0.00
Finger Millet	0	0	0	1,576	811	1,576	811	0.00
<b>CEREALS</b>		<b>8,127</b>	<b>599,652,638</b>		<b>791,263</b>		<b>799,390</b>	<b>1.02</b>
Cassava	0	0	0	2,921	1,780	2,921	1,780	0.00
Sweet Potato	0	0	0	187,591	67,266	187,591	67,266	0.00
Irish potatoes	0	0	0	463	183	463	183	0.00
Yams	0	0	0	2,624	565	2,624	565	0.00
Coco Yam	0	0	0	119	24	119	24	0.00
<b>ROOTS &amp; TUBERS</b>		<b>0</b>	<b>0</b>		<b>69,818</b>		<b>69,818</b>	<b>0.00</b>
Mung Bean	0	0	0	100	20	100	20	0.00
Beans	0	0	0	44,034	19,803	44,034	19,803	0.00
Cow peas	0	0	0	20,778	6,222	20,778	6,222	0.00
Green gram	0	0	0	21,762	6,907	21,762	6,907	0.00
Chick peas	0	0	0	14,486	22,112	14,486	22,112	0.00
Bambaranuts	0	0	0	10,869	4,215	10,869	4,215	0.00
<b>PULSES</b>		<b>0</b>	<b>0</b>		<b>59,279</b>	<b>112,030</b>	<b>59,279</b>	<b>0.00</b>
Sunflower	0	0	0	9,210	5,096	9,210	5,096	0.00
Simsim	0	0	0	2,905	1,453	2,905	1,453	0.00
Groundnut	0	0	0	186,633	105,130	186,633	105,130	0.00
Soya Beans	0	0	0	163	264	163	264	0.00
Castor Fung	0	0	0	349	222	349	222	0.00
<b>OIL SEEDS &amp; OIL NUTS</b>		<b>0</b>	<b>0</b>		<b>112,165</b>		<b>112,165</b>	<b>0.00</b>
Okra	270	55	216,333	984	683	1,255	738	7.42
Turmeric	0	0	0	413	175	413	175	0.00
Bitter Aubergine	270	27	2,704,160	0	0	270	27	100.00
Onion	0	0	0	1,090	273	1,090	273	0.00
Ginger	0	0	0	412	83	412	83	0.00
Cabbage	541	68	1,297,997	513	52			
Tomatoes	1,408	202	25,599,851	3,127	658	4,535	860	23.46
Spinach	0	0	0	134	14	134	14	0.00
Chillies	0	0	0	379	41	379	41	0.00
Amaranths	405	164	943,801	523	48	927	212	77.28
Pumpkins	270	109	135,208	505	128	776	238	46.09
Cucumber	0	0	0	314	59	314	59	0.00
Egg Plant	0	0	0	129	4	129	4	0.00
Water Mellon	270	27	1,081,664	405	273	675	301	9.10
<b>FRUITS &amp; VEGETABLES</b>		<b>652</b>	<b>31,979,014</b>		<b>2,492</b>		<b>3,025</b>	<b>21.57</b>
Cotton	44	18	0	232,969	375,622	233,013	375,639	0.00
Tobacco	5,086	4,273	1,439,323,604	1,183	1,676	6,269	5,949	71.82
<b>CASH CROPS</b>		<b>4,291</b>	<b>1,439,323,604</b>		<b>377,298</b>		<b>381,588</b>	<b>1.12</b>
<b>Total</b>		<b>13,070</b>	<b>2,070,955,257</b>		<b>1,412,314</b>		<b>1,425,265</b>	<b>0.9</b>

**5.23: Planted Area & Number of Households by Improved Seeds Use by Crop during 2007/08 Agricultural Year - LONG RAINY SEASON - Shinyanga Region**

Crop	Improved Seed							% of area planted using improved seed
	Number of Households using Improved Seed	Planted Area Improved Seed Used	Cost of Improved Seeds	Number of Households NOT using Improved Seeds	Planted Area Improved Seed not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	56,711	56,183	1,348,336,137	378,950	459,577	435,661	515,759	10.89
Paddy	4,976	4,443	80,991,898	180,556	166,039	185,532	170,482	2.61
Sorghum	2,587	2,340	17,634,767	79,982	95,402	82,569	97,742	2.39
Bulrush Millet	44	18	122,991	9,112	14,578	9,156	14,595	0.12
Finger Millet	498	202	1,246,129	1,078	609	1,576	811	24.89
<b>CEREALS</b>		<b>63,185</b>	<b>1,448,331,922</b>		<b>736,205</b>		<b>799,390</b>	<b>7.90</b>
Cassava	270	109	2,704,160	2,650	1,670	2,921	1,780	6.15
Sweet Potato	3,010	1,079	40,197,716	184,581	66,187	187,591	67,266	1.60
Irish potatoes	0	0	0	463	183	463	183	0.00
Yams	129	13	3,883,715	2,494	552	2,624	565	2.32
Coco Yam	0	0	0	119	24	119	24	0.00
<b>ROOTS &amp; TUBERS</b>		<b>1,201</b>	<b>46,785,591</b>		<b>68,616</b>		<b>69,818</b>	<b>1.72</b>
Mung Bean	0	0	0	100	20	100	20	0.00
Beans	1,209	847	10,386,565	42,825	18,956	44,034	19,803	4.28
Cow peas	249	404	747,677	20,529	5,818	20,778	6,222	6.49
Green gram	44	2	175,701	21,718	6,904	21,762	6,907	0.03
Chick peas	0	0	0	14,486	22,112	14,486	22,112	0.00
Bambaranuts	88	38	527,104	10,781	4,177	10,869	4,215	0.90
<b>PULSES</b>		<b>1,290</b>	<b>11,837,048</b>		<b>57,988</b>	<b>112,030</b>	<b>59,279</b>	<b>2.18</b>
Sunflower	1,778	1,417	14,545,755	7,432	3,678	9,210	5,096	27.81
Simsim	293	80	542,377	2,612	1,373	2,905	1,453	5.51
Groundnut	4,292	2,484	152,267,622	182,341	102,646	186,633	105,130	2.36
Soya Beans	0	0	0	163	264	163	264	0.00
Castor Fung	0	0	0	349	222	349	222	0.00
<b>OIL SEEDS &amp; OIL</b>		<b>3,982</b>	<b>167,355,754</b>		<b>108,183</b>		<b>112,165</b>	<b>3.55</b>
Okra	649	260	4,417,220	606	477	1,255	738	35.31
Turmeric	0	0	0	413	175	413	175	0.00
Bitter Aubergine	270	27	1,892,912	0	0	270	27	100.00
Onion	1,090	273	9,009,286	0	0	1,090	273	100.00
Ginger	0	0	0	412	83	412	83	0.00
Cabbage	1,054	120	2,084,938	0	0			
Tomatoes	3,411	654	14,632,013	1,125	206	4,535	860	76.07
Spinach	134	14	67,161	0	0	134	14	100.00
Chillies	379	41	438,567	0	0	379	41	100.00
Amaranths	927	212	1,191,213	0	0	927	212	100.00
Pumpkins	270	109	270,416	505	128	776	238	46.09
Cucumber	270	55	270,416	44	4	314	59	92.49
Egg Plant	129	4	323,643	0	0	129	4	100.00
Water Mellon	675	301	6,824,022	0	0	675	301	100.00
<b>FRUITS &amp;</b>		<b>2,070</b>	<b>41,421,810</b>		<b>1,075</b>		<b>3,025</b>	<b>68.44</b>
Cotton	198,791	313,790	3,079,248,333	34,178	61,850	232,969	375,639	83.53
Tobacco	5,910	5,006	67,940,774	359	943	6,269	5,949	84.15
<b>CASH CROPS</b>		<b>318,796</b>	<b>3,147,189,107</b>		<b>62,792</b>		<b>381,588</b>	<b>83.54</b>
<b>Total</b>		<b>390,525</b>	<b>4,862,921,231</b>		<b>1,034,860</b>		<b>1,425,265</b>	<b>27.4</b>

**5.24: Planted Area & Number of Households by Local Seeds Use by Crop during 2007/08 Agricultural Year - LONG RAINY SEASON - Shinyanga Region**

Crop	Local Seeds							% of area planted using Local Seeds
	Number of Households using Local Seeds	Planted Area Local Seeds Used	Cost of Local Seeds	Number of Households NOT using Local Seeds	Planted Area Local Seeds not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	379,378	443,809	4,691,095,941	56,284	72,394	435,661	516,204	86.0
Paddy	180,556	163,997	3,298,472,149	4,976	6,485	185,532	170,482	96.2
Sorghum	79,982	92,361	469,644,256	2,587	5,381	82,569	97,742	94.5
Bulrush Millet	9,112	13,418	78,486,636	44	1,177	9,156	14,595	91.9
Finger Millet	1,078	609	3,985,327	498	202	1,576	811	75.1
<b>CEREALS</b>		<b>714,195</b>	<b>8,541,684,308</b>		<b>85,639</b>		<b>799,834</b>	<b>89.3</b>
Cassava	2,650	1,670	40,686,381	270	109	2,921	1,780	93.8
Sw eet Potato	184,581	64,293	3,144,441,458	3,010	2,973	187,591	67,266	95.6
Irish potatoes	463	183	2,607,519	0	0	463	183	100.0
Yams	2,494	454	44,928,298	129	111	2,624	565	80.3
Coco Yam	119	24	119,156	0	0	119	24	100.0
<b>ROOTS &amp; TUBERS</b>		<b>66,624</b>	<b>3,232,782,812</b>		<b>3,193</b>		<b>69,818</b>	<b>95.4</b>
Mung Bean	100	3	600,944	0	18	100	20	12.5
Beans	42,825	18,275	507,954,301	1,209	1,528	44,034	19,803	92.3
Cow peas	20,529	5,167	135,596,463	249	1,055	20,778	6,222	83.0
Green gram	21,718	6,615	115,094,312	44	292	21,762	6,907	95.8
Chick peas	14,486	22,030	291,155,998	0	82	14,486	22,112	99.6
Bambaranuts	10,781	4,145	99,138,337	88	69	10,869	4,215	98.4
<b>PULSES</b>		<b>56,235</b>	<b>1,149,540,354</b>		<b>3,044</b>	<b>112,030</b>	<b>59,279</b>	<b>94.9</b>
Sunflow er	7,432	3,528	49,409,904	1,778	1,568	9,210	5,096	69.2
Simsim	2,612	1,347	17,927,544	293	106	2,905	1,453	92.7
Groundnut	182,341	100,079	3,091,786,406	4,292	5,051	186,633	105,130	95.2
Soya Beans	163	264	488,822	0	0	163	264	100.0
Castor Fung	349	222	1,695,669	0	0	349	222	100.0
<b>OIL SEEDS &amp; OIL NUTS</b>		<b>105,440</b>	<b>3,161,308,347</b>		<b>6,725</b>		<b>112,165</b>	<b>94.0</b>
Okra	606	477	4,921,165	649	260	1,255	738	64.7
Turmeric	413	175	3,094,884	0	0	413	175	100.0
Bitteer Aubergine	0	0	0	270	27	270	27	0.0
Onion	0	0	0	1,090	273	1,090	273	0.0
Ginger	412	83	439,015	0	0	412	83	0.0
Cabbage	0	0	0	1,054	120			
Tomatoes	1,125	184	25,215,093	3,411	676	4,535	860	21.4
Spinach	0	0	0	134	14	134	14	0.0
Chillies	0	0	0	379	41	379	41	0.0
Amaranths	0	0	0	927	212	927	212	0.0
Pumpkins	505	124	922,974	270	114	776	238	52.0
Cucumber	44	4	4,393	270	55	314	59	7.5
Egg Plant	0	0	0	129	4	129	4	0.0
Water Mellon	0	0	0	675	301	675	301	0.0
<b>FRUITS &amp; VEGETABLES</b>		<b>1,048</b>	<b>34,597,524</b>		<b>2,097</b>		<b>3,025</b>	<b>34.6</b>
Cotton	34,307	57,112	828,476,197	198,662	318,626	232,969	375,738	15.2
Tobacco	359	943	34,959,619	5,910	5,006	6,269	5,949	15.8
<b>CASH CROPS</b>		<b>58,054</b>	<b>863,435,816</b>		<b>323,632</b>		<b>381,687</b>	<b>15.2</b>
<b>Total</b>		<b>1,001,597</b>	<b>16,983,349,162</b>		<b>424,330</b>		<b>1,425,807</b>	<b>70.2</b>

**5.25: Planted Area & Number of Households by Irrigation Use by Crop during 2007/08 Agricultural Year - LONG RAINY SEASON - Shinyanga Region**

Crop	Irrigation use						% of Planted area using Irrigation
	Number of Households using Irrigation	Planted Area Irrigated	Number of Households NOT using Irrigation	Planted Area Without Irrigation	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	11,060	10,104	424,601	505,655	435,661	515,759	2.0
Paddy	2,480	1,911	183,052	168,571	185,532	170,482	0.0
Sorghum	909	738	81,659	97,004	82,569	97,742	0.0
Bulrush Millet	0	0	9,156	14,595	9,156	14,595	0.0
Finger Millet	0	0	1,576	811	1,576	811	0.0
<b>CEREALS</b>		<b>12,754</b>		<b>786,636</b>		<b>799,390</b>	<b>1.6</b>
Cassava	0	0	2,921	1,780	2,921	1,780	0.0
Sweet Potato	100	20	187,491	67,246	187,591	67,266	0.0
Irish potatoes	0	0	463	183	463	183	0.0
Yams	0	0	2,624	565	2,624	565	0.0
Coco Yam	0	0	119	24	119	24	0.0
<b>ROOTS &amp; TUBERS</b>		<b>20</b>		<b>69,797</b>		<b>69,818</b>	<b>0.0</b>
Mung Bean	0	0	100	20	100	20	0.0
Beans	1,208	680	42,826	19,123	44,034	19,803	0.0
Cowpeas	249	101	20,529	6,121	20,778	6,222	0.0
Green gram	270	7	21,492	6,900	21,762	6,907	0.0
Chick peas	163	330	14,323	21,783	14,486	22,112	0.0
Bambaranuts	0	0	10,869	4,215	10,869	4,215	0.0
<b>PULSES</b>		<b>1,117</b>		<b>58,162</b>		<b>59,279</b>	<b>0.0</b>
Sunflower	0	0	9,210	5,096	9,210	5,096	0.0
Simsim	0	0	2,905	1,453	2,905	1,453	0.0
Groundnut	1,488	377	185,145	104,753	186,633	105,130	0.0
Soya Beans	0	0	163	264	163	264	0.0
Castor Fung	0	0	349	222	349	222	0.0
<b>OIL SEEDS &amp; OIL NUTS</b>		<b>377</b>		<b>111,787</b>		<b>112,165</b>	<b>0.0</b>
Okra	270	55	984	683	1,255	738	0.0
Turmeric	0	0	413	175	413	175	0.0
Bitteer Aubergine	270	27	0	0	270	27	0.0
Onion	961	205	129	68	1,090	273	0.0
Ginger	0	0	412	83	412	83	0.0
Cabbage	1,054	120	0	0	1,054	120	0.0
Tomatoes	4,198	714	337	146	4,535	860	0.0
Spinach	134	14	0	0	134	14	0.0
Chillies	379	41	0	0	379	41	0.0
Amaranths	927	212	0	0	927	212	0.0
Pumpkins	444	131	332	106	776	238	0.0
Cucumber	270	55	44	4	314	59	0.0
Egg Plant	129	4	0	0	129	4	0.0
Water Mellon	675	301	0	0	675	301	0.0
<b>FRUITS &amp; VEGETABLES</b>		<b>1,878</b>		<b>1,267</b>		<b>3,145</b>	<b>0.0</b>
Cotton	4,611	7,073	228,358	368,567	232,969	375,639	1.9
Tobacco	2,056	1,058	4,213	4,891	6,269	5,949	0.0
<b>CASH CROPS</b>		<b>8,131</b>		<b>373,457</b>		<b>381,588</b>	<b>2.1</b>
<b>Total</b>		<b>24,278</b>		<b>1,401,107</b>		<b>1,425,384</b>	<b>1.7</b>



**PERMANENT CROPS**

### 5.26: Number of Households Planting Permanent Crops by District , 2007/08 Agricultural Year

District	Have Crops/Fruit Trees		Does Not Have Crops/Fruit Trees		Total	
	Number	%	Number	%	Number	%
Bariadi	2991	3	97,946	97	100,936	100
Maswa	777	1	51,653	99	52,430	100
Shinyanga Rural	2821	5	51,580	95	54,401	100
Kahama	35151	33	72,327	67	107,477	100
Bukombe	7169	11	58,822	89	65,991	100
Meatu	701	2	39,863	98	40,564	100
Shinyanga Urban	307	2	14,847	98	15,154	100
Kishapu	238	0	48,020	100	48,258	100
<b>Total</b>	<b>50155</b>	<b>10</b>	<b>435,057</b>	<b>90</b>	<b>485,212</b>	<b>100</b>

### 5.27: Planted Area and Area Harvested by Type of Planting and District

District	Area of Permanent Monocrop (ha)		Area of Permanent Mixed Crop (ha)		Total Area Planted Mono + Mixed (ha)		Area Harvested (ha)
	Number of households	Area	Number of households	Area	Number of households	Area	
Kahama	23,252	13,702	17,577	3,213	35,151	16,914	1,489
Bukombe	5,866	4,908	1,792	1,526	7,169	6,435	127
Bariadi	2,492	1,374	498	196	2,991	1,570	954
Shinyanga Rural	2,149	659	1,075	297	2,821	956	12,580
Meatu	501	177	300	155	701	332	5,595
Maswa	647	229	129	59	777	288	164
Kishapu	119	23	119	188	238	211	88
Shinyanga Urban	307	87	88	5	307	92	211
<b>Total</b>	<b>35,334</b>	<b>21,160</b>	<b>21,579</b>	<b>5,639</b>	<b>50,155</b>	<b>26,799</b>	<b>21,207</b>

### 5.28 Area Planted, Area Harvested, Quantity Harvested, and Yield by Type of Permanent Crop - Total

Crop	Area Planted	Area Harvested	Quantity Harvested	Yield
Banana	650	623	1,275	2.0
Mango	4,129	2,082	15,134	7.3
Pigeon pea	604	604	276	0.5
Orange	1,701	1,025	3,945	3.8
Sugar cane	181	168	2,057	12.2
Palm oil	51	5	10	2.0
Tea	188	188	42	0.2
Other	19,295	16,511	22,821	1.4

**5.29: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District**

District	Pigeon pea								Orange							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Bariadi	748	319	498	196	1,246	515	515	218	249	98	0	0	249	98	98	249
Masw a	0	0	0	0	0	0	0	0	0	0	129	49	129	49	0	19
Shinyanga Rural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kahama	0	0	0	0	0	0	0	0	3,784	860	5,949	552	8,111	1,412	902	3,619
Bukombe	0	0	0	0	0	0	0	0	163	64	326	39	326	103	0	42
Meatu	300	69	100	20	401	89	89	58	0	0	100	39	100	39	25	15
Shinyanga Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kishapu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1,048</b>	<b>388</b>	<b>599</b>	<b>216</b>	<b>1,647</b>	<b>604</b>	<b>604</b>	<b>276</b>	<b>4,196</b>	<b>1,022</b>	<b>6,505</b>	<b>679</b>	<b>8,915</b>	<b>1,701</b>	<b>1,025</b>	<b>3,945</b>

**Cont 5.29: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District**

District	Banana								Mango							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Bariadi	249	25	0	.	249	25	25	0	249	98	0	.	249	98	98	0
Masw a	0	0	0	0	0	0	0	0	259	38	129	4	388	43	25	85
Shinyanga Rural	134	26	134	3	134	30	30	0	269	30	134	34	403	64	64	35
Kahama	1,757	390	1,082	27	2,568	418	391	1,136	6,488	2,238	13,521	1,550	16,764	3,787	1,878	14,997
Bukombe	163	64	326	97	326	161	161	73	326	80	163	4	326	84	16	17
Meatu	0	0	0	0	0	0	0	0	100	39	100	8	100	48	.	0
Shinyanga Urban	44	17	0	.	44	17	17	66	88	0	88	4	88	4	1	0
Kishapu									0	0	0	0	0	0	0	0
<b>Total</b>	<b>2,347</b>	<b>523</b>	<b>1,542</b>	<b>127</b>	<b>3,321</b>	<b>650</b>	<b>623</b>	<b>1,275</b>	<b>7,779</b>	<b>2,524</b>	<b>14,136</b>	<b>1,604</b>	<b>18,318</b>	<b>4,129</b>	<b>2,082</b>	<b>15,134</b>

**Cont. 5.29: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District**

District	Sugar Cane								Palm Oil							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Bariadi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Maswa	129	13	0	.	129	13	.	716	129	13	0	.	129	13	5	10
Shinyanga Rural	134	26	134	5	134	31	31	9	0	0	0	0	0	0	0	0
Kahama	270	53	0	.	270	53	53	1,314	0	.	270	38	270	38	.	0
Bukombe	163	26	0	.	163	26	26	0	0	0	0	0	0	0	0	0
Meatu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shinyanga Urban	44	35	0	.	44	35	35	0	0	0	0	0	0	0	0	0
Kishapu	119	23	0	.	119	23	23	18	0	0	0	0	0	0	0	0
<b>Total</b>	<b>860</b>	<b>176</b>	<b>134</b>	<b>5</b>	<b>860</b>	<b>181</b>	<b>168</b>	<b>2,057</b>	<b>129</b>	<b>13</b>	<b>270</b>	<b>37.82</b>	<b>400</b>	<b>51</b>	<b>5</b>	<b>10</b>

**Cont. 5.29: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District**

District	Tea								Other							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Bariadi	0	0	0	0	0	0	0	0	1,745	834	0	.	1,745	834	753	1,252
Maswa	0	0	0	0	0	0	0	0	777	166	129	5	906	171	96	818
Shinyanga Rural	0	0	0	0	0	0	0	0	1,881	576	806	255	2,418	831	829	1,433
Kahama	0	0	0	0	0	0	0	0	22,977	10,160	13,521	1,046	32,441	11,207	9,356	12,260
Bukombe	0	0	0	0	0	0	0	0	5,703	4,674	1,955	1,386	7,332	6,060	5,392	6,031
Meatu	0	0	0	0	0	0	0	0	300	69	401	88	501	157	50	806
Shinyanga Urban	0	0	0	0	0	0	0	0	176	35	44	1	176	36	35	220
Kishapu	0	.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>33,557</b>	<b>16,514</b>	<b>16,856</b>	<b>2,781</b>	<b>45,518</b>	<b>19,295</b>	<b>16,511</b>	<b>22,821</b>

## **ACCESS TO EQUIPMENTS**

**6.1: Number of Agriculture Households that used Agricultural Equipment/Asset by type and District for 2007/08 Agricultural Year**

District	Equipment/Asset Name											
	Sword		Hand Hoe		Hand Sprayer		Grater, Chipper, Oil Press and Oil Mill		Oxplough		Oxplanter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	93,709	25.1	98,444	26.3	15,203	4.1	1,994	0.5	43,615	11.7	748	0.2
Maswa	47,511	25.4	51,524	27.5	7,897	4.2	777	0.4	21,360	11.4	647	0.3
Shinyanga Rural	48,625	25.0	52,789	27.2	5,239	2.7	403	0.2	24,178	12.4	537	0.3
Kahama	91,523	26.3	105,043	30.2	23,254	6.7	1,622	0.5	35,826	10.3	1,893	0.5
Bukombe	56,378	31.0	65,013	35.8	10,591	5.8	652	0.4	11,080	6.1	978	0.5
Meatu	37,158	23.0	39,963	24.7	12,620	7.8	701	0.4	18,429	11.4	300	0.2
Shinyanga Urban	13,661	30.5	14,891	33.3	703	1.6	88	0.2	4,349	9.7	307	0.7
Kishapu	45,160	25.0	47,782	26.5	8,103	4.5	1,072	0.6	22,521	12.5	357	0.2
<b>Total</b>	<b>433,724</b>	<b>25.9</b>	<b>475,449</b>	<b>28.4</b>	<b>83,609</b>	<b>5.0</b>	<b>7,309</b>	<b>0.4</b>	<b>181,357</b>	<b>10.8</b>	<b>5,768</b>	<b>0.3</b>

**Cont. 6.1.: Number of Agriculture Households that used Agricultural Equipment/Asset by type and District for 2007/08 Agricultural Year**

District	Equipment/Asset Name											
	Ox cart		Trekta		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	9,471	2.53	498	0.1	249	0.1	3,489	0.9	41,621	11.1	31,153	8.3
Maswa	9,968	5.32	0	0.0	0	0.0	1,683	0.9	21,749	11.6	11,392	6.1
Shinyanga Rural	7,925	4.1	134	0.1	269	0.1	1,209	0.6	25,387	13.1	11,820	6.1
Kahama	12,437	3.6	0	0.0	811	0.2	2,434	0.7	32,445	9.3	20,412	5.9
Bukombe	3,748	2.1	163	0.1	163	0.1	1,141	0.6	12,872	7.1	8,962	4.9
Meatu	9,615	5.9	501	0.3	300	0.2	1,202	0.7	17,427	10.8	11,017	6.8
Shinyanga Urban	1,406	3.1	44	0.1	44	0.1	615	1.4	3,119	7.0	2,943	6.6
Kishapu	8,579	4.7	477	0.3	357	0.2	477	0.3	19,780	10.9	11,916	6.6
<b>Total</b>	<b>63,149</b>	<b>3.8</b>	<b>1,817</b>	<b>0.1</b>	<b>2,194</b>	<b>0.1</b>	<b>12,249</b>	<b>0.7</b>	<b>174,399</b>	<b>10.4</b>	<b>109,616</b>	<b>6.6</b>

**Cont. 6.1: Number of Agriculture Households that used Agricultural Equipment/Asset by type and District for 2007/08 Agricultural Year**

District	Equipment/Asset Name									
	Cow		Donkey		Thrasher		Power tiller		Rigder	
	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	33,147	8.9	0	0.0	0	0.0	249	0.1	249	0.1
Maswa	12,298	6.6	388	0.2	0	0.0	0	0.0	129	0.1
Shinyanga Rural	14,910	7.7	672	0.3	134	0.1	134	0.1	0	0.0
Kahama	18,111	5.2	1,352	0.4	0	0.0	0	0.0	270	0.1
Bukombe	8,799	4.8	326	0.2	163	0.1	326	0.2	489	0.3
Meatu	10,216	6.3	1,102	0.7	100	0.1	200	0.1	801	0.5
Shinyanga Urban	2,372	5.3	44	0.1	0	0.0	0	0.0	176	0.4
Kishapu	12,631	7.0	1,311	0.7	0	0.0	119	0.1	0	0.0
<b>Total</b>	<b>112,483</b>	<b>6.7</b>	<b>5,194</b>	<b>0.3</b>	<b>397</b>	<b>0.0</b>	<b>1,029</b>	<b>0.1</b>	<b>2,115</b>	<b>0.1</b>

**6.2: Number of Agricultural Equipment/Asset owned by type and District for 2007/08 Agricultural Year**

District	Equipment/Asset Name											
	Sword		Hand Hoe		Hand Sprayer		Grater, Chipper, Oil Press na Oil Mill		Oxplough		Oxplanter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	124,364	11.0	407,733	36.2	16,449	1.5	2,492	0.2	54,082	4.8	748	0.1
Maswa	73,143	11.9	201,306	32.8	11,392	1.9	4,013	0.7	35,989	5.9	647	0.1
Shinyanga Rural	77,504	13.2	219,618	37.4	6,447	1.1	806	0.1	33,446	5.7	672	0.1
Kahama	143,980	12.5	498,454	43.4	26,229	2.3	2,704	0.2	50,833	4.4	2,704	0.2
Bukombe	110,800	15.7	343,316	48.5	12,872	1.8	815	0.1	14,013	2.0	4,725	0.7
Meatu	62,098	10.9	179,983	31.5	17,728	3.1	3,105	0.5	27,243	4.8	2,203	0.4
Shinyanga Urban	23,324	18.1	56,708	44.1	835	0.6	132	0.1	5,139	4.0	1,581	1.2
Kishapu	68,634	12.6	179,687	33.0	11,320	2.1	2,145	0.4	30,027	5.5	357	0.1
<b>Total</b>	<b>683,847</b>	<b>12.6</b>	<b>2,086,806</b>	<b>38.4</b>	<b>103,272</b>	<b>1.9</b>	<b>16,212</b>	<b>0.3</b>	<b>250,773</b>	<b>4.6</b>	<b>13,638</b>	<b>0.3</b>

**Cont. 6. 2: Number of Agricultural Equipment/Asset owned by type and District for 2007/08 agricultural year**

District	Equipment/Asset Name											
	Ox cart		Trekta		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	17,197	1.53	498	0.0	249	0.0	21,433	1.9	180,938	16.1	92,961	8.2
Maswa	11,651	1.90	.	.	.	.	13,593	2.2	116,511	19.0	33,270	5.4
Shinyanga Rural	8,865	1.5	134	0.0	3,224	0.5	3,761	0.6	116,861	19.9	32,506	5.5
Kahama	19,198	1.7	.	.	13,791	1.2	15,955	1.4	153,983	13.4	67,454	5.9
Bukombe	4,888	0.7	3,585	0.5	3,259	0.5	6,844	1.0	68,598	9.7	29,492	4.2
Meatu	14,723	2.6	2,404	0.4	2,203	0.4	7,011	1.2	100,858	17.7	45,672	8.0
Shinyanga Urban	1,450	1.1	44	0.0	966	0.8	2,328	1.8	13,880	10.8	8,829	6.9
Kishapu	9,294	1.7	477	0.1	357	0.1	2,860	0.5	108,790	20.0	38,011	7.0
<b>Total</b>	<b>87,266</b>	<b>1.6</b>	<b>7,142</b>	<b>0.1</b>	<b>24,050</b>	<b>0.4</b>	<b>73,784</b>	<b>1.4</b>	<b>860,420</b>	<b>15.8</b>	<b>348,195</b>	<b>6.4</b>

**Cont. 6.2: Number of Agricultural Equipment/Asset owned by type and District for 2007/08 agricultural year**

District	Equipment/Asset Name									
	Cow		Donkey		Thrasher		Power tiller		Rigder	
	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	206,110	18.3	0	0.0	0	0.0	249	0.0	1,495	0.1
Maswa	110,298	18.0	1,683	0.3	0	0.0	0	0.0	259	0.0
Shinyanga Rural	75,221	12.8	2,821	0.5	2,955	0.5	2,955	0.5	.	.
Kahama	143,545	12.5	4,056	0.4	0	0.0	0	0.0	5,949	0.5
Bukombe	96,950	13.7	1,792	0.3	326	0.0	5,214	0.7	489	0.1
Meatu	94,148	16.5	4,808	0.8	2,003	0.4	2,203	0.4	2,804	0.5
Shinyanga Urban	10,366	8.1	307	0.2	0	0.0	0	0.0	2,723	2.1
Kishapu	86,865	16.0	5,124	0.9	0	0.0	119	0.0	0	.
<b>Total</b>	<b>823,502</b>	<b>15.2</b>	<b>20,591</b>	<b>0.4</b>	<b>5,284</b>	<b>0.1</b>	<b>10,741</b>	<b>0.2</b>	<b>13,720</b>	<b>0.3</b>

**6.3: Number of Agricultural Households that Used Tractors/Draft animals to cultivate Land By Type and District for 2007/08 Agricultural Year**

District	Oxen		Bulls		Cows		Donkeys		Tractor		Power Tiller	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	64,799	64.7	21,433	21.4	11,464	11.4	997	1.0	1,495	1.5	0	0.0
Maswa	32,364	87.1	2,848	7.7	1,553	4.2	259	0.7	0	0.0	129	0.3
Shinyanga Rural	36,133	78.9	6,045	13.2	3,089	6.7	269	0.6	134	0.3	134	0.3
Kahama	40,287	75.6	10,002	18.8	2,428	4.6	270	0.5	270	0.5	0	0.0
Bukombe	14,665	74.4	3,748	19.0	1,141	5.8	163	0.8	0	0.0	0	0.0
Meatu	25,139	64.2	8,113	20.7	3,205	8.2	1,002	2.6	1,603	4.1	100	0.3
Shinyanga Urban	5,535	68.1	2,284	28.1	220	2.7	0	0.0	88	1.1	0	0.0
Kishapu	29,432	77.9	5,362	14.2	2,621	6.9	119	0.3	238	0.6	0	0.0
<b>Total</b>	<b>248,353</b>	<b>72.8</b>	<b>59,834</b>	<b>17.5</b>	<b>25,722</b>	<b>7.5</b>	<b>3,079</b>	<b>0.9</b>	<b>213,829</b>	<b>1.1</b>	<b>364</b>	<b>0.1</b>

**6.4: Number of Tractors/Draft animals Owned by Type and District for 2007/08 Agricultural Year**

District	Oxen		Bulls		Cows		Donkeys		Tractor		Power Tiller	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	184,427	45.09	58,817	14.38	164,240	40.16	1,495	0.37	.	.	.	.
Maswa	109,262	54.84	18,253	9.16	67,965	34.11	1,683	0.84	259	0.13	1,812	0.91
Shinyanga Rural	110,010	56.56	24,850	12.78	57,893	29.77	1,343	0.69	403	0.21	.	.
Kahama	137,488	46.70	38,521	13.08	116,507	39.57	1,893	0.64	.	.	.	.
Bukombe	57,844	37.69	22,486	14.65	72,672	47.35	489	0.32	.	.	.	.
Meatu	93,747	44.09	30,348	14.27	77,221	36.32	4,707	2.21	601	0.28	6,009	2.83
Shinyanga Urban	11,816	45.44	6,721	25.84	7,467	28.72	.	.	.	.	.	.
Kishapu	106,287	51.71	27,406	13.33	68,157	33.16	3,456	1.68	238	0.12	.	.
<b>Total</b>	<b>810,882</b>	<b>47.85</b>	<b>227,401</b>	<b>13.42</b>	<b>632,122</b>	<b>37.30</b>	<b>15,066</b>	<b>0.89</b>	<b>1,501</b>	<b>0.09</b>	<b>7,822</b>	<b>0.46</b>



## **IRRIGATION AND EROSION CONTROL**

**6.5: Number of Agriculture Households reporting use of Irrigation during 2007/08 Agricultural Year by District**

District	Households practicing irrigation		Households not practicing irrigation		Total Number of Households	
	Number	%	Number	%	Number	%
Bariadi	1,495	1	99,441	99	100,936	100
Maswa	1,942	4	50,488	96	52,430	100
Shinyanga Rural	1,075	2	53,326	98	54,401	100
Kahama	7,029	7	100,448	93	107,477	100
Bukombe	1,141	2	64,850	98	65,991	100
Meatu	300	1	40,263	99	40,564	100
Shinyanga Urban	351	2	14,803	98	15,154	100
Kishapu	357	1	47,901	99	48,258	100
<b>Total</b>	<b>13,691</b>	<b>3</b>	<b>471,521</b>	<b>97</b>	<b>485,212</b>	<b>100</b>

**6.6: Number of Agriculture Households using irrigation by Source of Irrigation Water by District during the 2007/08 Agricultural Year**

District	Main Source of Irrigation Water							
	River	Borehole	Lake	Canal	Dam	Tap Water	Well	Total
Bariadi	249	0	249	249	0	0	0	748
Maswa	647	129	0	0	0	1,165	0	1,942
Shinyanga Rural	134	0	0	269	0	134	134	672
Kahama	0	0	4,595	1,893	270	270	0	7,029
Bukombe	0	163	326	0	0	163	0	652
Meatu	100	0	0	100	0	0	0	200
Shinyanga Urban	176	0	44	88	0	0	0	307
Kishapu	119	0	119	0	0	0	0	238
<b>Total</b>	<b>1,426</b>	<b>292</b>	<b>5,333</b>	<b>2,599</b>	<b>270</b>	<b>1,733</b>	<b>134</b>	<b>11,788</b>

**6.7: Number of Agriculture Households by Methods Used to Obtain Water and District During 2007/08 Agricultural Year**

District	Main method of Obtaining Water				
	Gravity	Hand bucket	Hand pump	motor pump	Total
Bariadi	0	498	249	0	748
Maswa	1,553	259	0	129	1,942
Shinyanga Rural	134	537	0	0	672
Kahama	0	7,029	0	0	7,029
Bukombe	326	326	0	0	652
Meatu	0	0	0	200	200
Shinyanga Urban	220	44	44	0	307
Kishapu	0	0	119	119	238
<b>Total</b>	<b>2,233</b>	<b>8,694</b>	<b>412</b>	<b>449</b>	<b>11,788</b>

**6.8: Number of Households with Soil Erosion Problem on their Land By District**

District	Have any erosion problem on their farming land		Do not have any erosion problem on their farming land		Total	
	Number	%	Number	%	Number	%
Bariadi	11,215	11.1	89,721	88.9	100,936	100.00
Maswa	6,343	12.1	46,087	87.9	52,430	100.00
Shinyanga Rural	6,313	11.6	48,088	88.4	54,401	100.00
Kahama	20,416	19.0	87,062	81.0	107,477	100.00
Bukombe	3,422	5.2	62,569	94.8	65,991	100.00
Meatu	6,210	15.3	34,354	84.7	40,564	100.00
Shinyanga Urban	220	1.4	14,935	98.6	15,154	100.00
Kishapu	6,196	12.8	42,062	87.2	48,258	100.00
<b>Total</b>	<b>60,335</b>	<b>12.4</b>	<b>424,877</b>	<b>87.6</b>	<b>485,212</b>	<b>100.00</b>

**6.9: Number of Households with Erosion Control/Water Harvesting Facilities on their Land By District**

District	Presence of Erosion Control/Water Harvesting Facilities					
	Have any erosion control/water harvesting facilities		Do not have any erosion control/water harvesting facilities		Total	
	Number	%	Number	%	Number	%
Bariadi	4,486	4	96,450	96	100,936	100
Maswa	4,013	8	48,417	92	52,430	100
Shinyanga Rural	940	2	53,461	98	54,401	100
Kahama	7,165	7	100,312	93	107,477	100
Bukombe	2,770	4	63,221	96	65,991	100
Meatu	2,504	6	38,060	94	40,564	100
Shinyanga Urban	44	0	15,110	100	15,154	100
Kishapu	2,860	6	45,398	94	48,258	100
<b>Total</b>	<b>24,782</b>	<b>5</b>	<b>460,429</b>	<b>95</b>	<b>485,212</b>	<b>100</b>

**6.10: Number of Erosion Control/Water Harvesting Structures by Type and District as of 2007/08 Agricultural Year**

District	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Others
Bariadi	26,916	1,246	0	0	0	12,461	7,477	498
Maswa	0	4,531	777	0	259	0	6,343	259
Shinyanga Rural	134	11,686	0	0	0	0	0	0
Kahama	5,679	10,817	270	809	0	541	3,245	1,352
Bukombe	263,149	269,993	0	0	1,629	0	815	0
Meatu	4,207	66,004	0	701	2,404	801	1,102	401
Shinyanga Urban	0	132	0	0	0	0	0	0
Kishapu	1,668	1,906	0	0	13,226	119	2,860	2,979
<b>Total</b>	<b>301,754</b>	<b>366,315</b>	<b>1,047</b>	<b>1,511</b>	<b>17,518</b>	<b>13,923</b>	<b>21,841</b>	<b>5,489</b>

**AGRICULTURE CREDITS**

**7.1: Number of Agriculture Households receiving Credit by District During the 2007/08 Agricultural Year**

District	Households Receiving Credit					
	borrowed money for agriculture		Did not borrow money for agriculture		Total	
	Number	%	Number	%	Number	%
Bariadi	2,492	2.5	98,444	97.5	100,936	100
Maswa	1,942	3.7	50,488	96.3	52,430	100
Shinyanga Rural	672	1.2	53,729	98.8	54,401	100
Kahama	5,138	4.8	102,339	95.2	107,477	100
Bukombe	1,141	1.7	64,850	98.3	65,991	100
Meatu	300	0.7	40,263	99.3	40,564	100
Shinyanga Urban	220	1.4	14,935	98.6	15,154	100
Kishapu	1,072	2.2	47,186	97.8	48,258	100
<b>Total</b>	<b>12,977</b>	<b>2.7</b>	<b>472,235</b>	<b>97.3</b>	<b>485,212</b>	<b>100</b>

**7.2: Number of Credits by sex of the household Member receiving credit from source B and District During the 2007/08 Agricultural Year**

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Bariadi	2,243	90	249	10	2,492	100
Maswa	1,424	73	518	27	1,942	100
Shinyanga Rural	537	80	134	20	672	100
Kahama	4,867	95	270	5	5,138	100
Bukombe	1,141	100	0	0	1,141	100
Meatu	100	33	200	67	300	100
Shinyanga Urban	44	20	176	80	220	100
Kishapu	477	44	596	56	1,072	100
<b>Total</b>	<b>10,833</b>	<b>83</b>	<b>2,144</b>	<b>17</b>	<b>12,977</b>	<b>100</b>

**7.3: Number of Households receiving Credits by Main Source of credit and District During the 2007/08 Agricultural Year**

District	Family, friend or relative		Bank		Cooperative		Savings & credit Soc		Private individual		NGO/Development project		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	1,495	60.0	0	0.0	0	0.0	249	10.0	498	20.0	249	10.0	0	0.0	2,492	80
Maswa	1,165	60.0	0	0.0	0	0.0	388	20.0	129	6.7	259	13.3	0	0.0	1,942	100
Shinyanga Rural	537	80.0	0	0.0	0	0.0	0	0.0	134	20.0	0	0.0	0	0.0	672	100
Kahama	811	15.8	1,893	36.8	1,622	31.6	270	5.3	270	5.3	0	0.0	270	5.3	5,138	100
Bukombe	163	14.3	0	0.0	326	28.6	163	14.3	489	42.9	0	0.0	0	0.0	1,141	100
Meatu	100	33.3	0	0.0	0	0.0	100	33.3	0	0.0	100	33.3	0	0.0	300	100
Shinyanga Urban	0	0.0	44	20.0	0	0.0	0	0.0	44	20.0	44	20.0	88	40.0	220	100
Kishapu	953	88.9	119	11.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,072	100
<b>Total</b>	<b>5,225</b>	<b>40.3</b>	<b>2,056</b>	<b>15.8</b>	<b>1,948</b>	<b>15.0</b>	<b>1,171</b>	<b>9.0</b>	<b>1,565</b>	<b>12.1</b>	<b>652</b>	<b>5.0</b>	<b>358</b>	<b>2.8</b>	<b>12,977</b>	<b>100</b>

**7.4: Number of Households Reporting the Main reasons for Not Using Credit by District During the 2007/08 Agricultural Year**

District	Not needed		Not available		Did not want to go into debt		Interest rate/cost too high		Did not know how to get credit	
	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	6,978	7.1	23,178	23.5	11,963	12.2	4,486	4.6	32,150	32.7
Maswa	3,625	7.2	6,084	12.1	6,861	13.6	6,602	13.1	11,651	23.1
Shinyanga Rural	1,075	2.0	19,208	35.8	2,955	5.5	2,418	4.5	13,567	25.3
Kahama	7,706	7.5	21,092	20.6	14,737	14.4	2,704	2.6	32,574	31.8
Bukombe	3,259	5.0	9,125	14.1	6,029	9.3	16,457	25.4	17,272	26.6
Meatu	1,402	3.5	3,205	8.0	901	2.2	2,704	6.7	14,823	36.8
Shinyanga Urban	1,669	11.2	1,493	10.0	2,196	14.7	922	6.2	3,997	26.8
Kishapu	3,694	7.8	7,149	15.2	8,222	17.4	1,072	2.3	11,916	25.3
<b>Total</b>	<b>29,408</b>	<b>6.2</b>	<b>90,536</b>	<b>19.2</b>	<b>53,864</b>	<b>11.4</b>	<b>37,366</b>	<b>7.9</b>	<b>137,949</b>	<b>29.2</b>

**Cont. 7.4: Number of Households Reporting the Main reasons for Not Using Credit by District During the 2007/08 Agriculture Year**

District	Difficult bureaucratic procedure		Credit granted too late		Other (specify)		Dont know about credit		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	249	0.3	498	0.5	997	1.0	17,944	18.2	98,444	100
Maswa	2,460	4.9	129	0.3	1,036	2.1	12,040	23.8	50,488	100
Shinyanga Rural	134	0.3	537	1.0	134	0.3	13,701	25.5	53,729	100
Kahama	4,327	4.2	811	0.8	270	0.3	18,118	17.7	102,339	100
Bukombe	1,304	2.0	489	0.8	0	0.0	10,917	16.8	64,850	100
Meatu	3,205	8.0	501	1.2	100	0.2	13,421	33.3	40,263	100
Shinyanga Urban	395	2.6	132	0.9	44	0.3	4,085	27.4	14,935	100
Kishapu	1,192	2.5	238	0.5	119	0.3	13,584	28.8	47,186	100
<b>Total</b>	<b>13,265</b>	<b>2.8</b>	<b>3,336</b>	<b>0.7</b>	<b>2,701</b>	<b>0.6</b>	<b>103,810</b>	<b>22.0</b>	<b>472,235</b>	<b>100</b>

**7.5: Number of Households receiving Credits by Main Source of credit B and District During the 2007/08 Agricultural Year**

District	Family, friend or relative		Bank		Cooperative		Savings & credit Soc		Trader/trade store		Private individual		NGO/Development project		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	0	0.0	498	50.0	0	0.0	249	25.0	249	25.0	0	0.0	0	0.0	0	0.0	997	100
Maswa	259	25.0	129	12.5	0	0.0	647	62.5	0	0.0	0	0.0	0	0.0	0	0.0	1,036	100
Shinyanga Rural	134	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	134	100
Kahama	541	16.7	541	16.7	1,622	50.0	0	0.0	0	0.0	0	0.0	270	8.3	270	8.3	3,245	100
Bukombe	0	0.0	0	0.0	0	0.0	0	0.0	163	100.0	0	0.0	0	0.0	0	0.0	163	100
Meatu	100	33.3	0	0.0	0	0.0	0	0.0	100	33.3	100	33.3	0	0.0	0	0.0	300	100
Shinyanga Urban	44	33.3	0	0.0	44	33.3	44	33.3	0	0.0	0	0.0	0	0.0	0	0.0	132	100
Kishapu	715	85.7	119	14.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	834	100
<b>Total</b>	<b>1,793</b>	<b>26.2</b>	<b>1,288</b>	<b>18.8</b>	<b>1,666</b>	<b>24.4</b>	<b>940</b>	<b>13.7</b>	<b>512</b>	<b>7.5</b>	<b>100</b>	<b>1.5</b>	<b>270</b>	<b>4.0</b>	<b>270</b>	<b>4.0</b>	<b>6,841</b>	<b>100</b>

**7.6 AGRICULTURE CREDIT: Number of Households receiving Credits by Main Source of credit C and District During the 2007/08 Agricultural Year**

District	Family, friend or relative		Bank		Savings & credit Soc		Trader/trade store		Private individual		NGO/Development project		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	0	0.0	748	60.0	498	40.0	0	0.0	0	0.0	0	0.0	1,246	100
Maswa	388	37.5	259	25.0	259	25.0	0	0.0	0	0.0	129	12.5	1,036	100
Shinyanga Rural	134	50.0	134	50.0	0	0.0	0	0.0	0	0.0	0	0.0	269	100
Kahama	0	0.0	270	8.3	270	8.3	270	8.3	0	0.0	2,434	75.0	3,245	100
Bukombe	163	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	163	100
Meatu	100	20.0	200	40.0	100	20.0	0	0.0	0	0.0	100	20.0	501	100
Shinyanga Urban	44	50.0	0	0.0	44	50.0	0	0.0	0	0.0	0	0.0	88	100
Kishapu	596	71.4	119	14.3	0	0.0	0	0.0	119	14.3	0	0.0	834	100
<b>Total</b>	<b>1,425</b>	<b>19.3</b>	<b>1,731</b>	<b>23.4</b>	<b>1,172</b>	<b>15.9</b>	<b>270</b>	<b>3.7</b>	<b>119</b>	<b>1.6</b>	<b>2,663</b>	<b>36.1</b>	<b>7,381</b>	<b>100</b>



**7.7: Provision of credit A by sex and District During the 2007/08 Agricultural Year**

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Bariadi	2,243	90	249	10	2,492	100
Maswa	1,424	73	518	27	1,942	100
Shinyanga Rural	537	80	134	20	672	100
Kahama	4,867	95	270	5	5,138	100
Bukombe	1,141	100	0	0	1,141	100
Meatu	100	33	200	67	300	100
Shinyanga Urban	44	20	176	80	220	100
Kishapu	477	44	596	56	1,072	100
<b>Total</b>	<b>10,833</b>	<b>83</b>	<b>2,144</b>	<b>17</b>	<b>12,977</b>	<b>100</b>

**7.8: Provision of credit B by sex and District During the 2007/08 Agricultural Year**

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Bariadi	748	75	249	25	997	100
Maswa	647	63	388	38	1,036	100
Shinyanga Rural	0	0	134	100	134	100
Kahama	3,245	100	0	0	3,245	100
Bukombe	0	0	163	100	163	100
Meatu	300	100	0	0	300	100
Shinyanga Urban	0	0	88	100	88	100
Kishapu	119	14	715	86	834	100
<b>Total</b>	<b>5,060</b>	<b>74</b>	<b>1,738</b>	<b>26</b>	<b>6,797</b>	<b>100</b>

**7.9 : Provision of credit C by sex and District During the 2007/08 Agricultural Year**

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Bariadi	748	75	249	25	997	100
Maswa	647	63	388	38	1,036	100
Shinyanga Rural	134	100	0	0	134	100
Kahama	3,245	100	0	0	3,245	100
Bukombe	163	50	163	50	326	100
Meatu	300	100	0	0	300	100
Shinyanga Urban	0	0	88	100	88	100
Kishapu	477	57	357	43	834	100
<b>Total</b>	<b>5,714</b>	<b>82</b>	<b>1,246</b>	<b>18</b>	<b>6,960</b>	<b>100</b>

**CROP EXTENSION SERVICES**

### 8.1 : Number of Agriculture Households that received Crop Advice During the 2007/08 Agricultural Year

District	Households that received Crop Advices		Households that did NOT receive Crop advices		Crop Growing Households
	Number	%	Number	%	
Bariadi	60,562	60.0	40,375	40.0	100,936
Maswa	29,257	55.8	23,173	44.2	52,430
Shinyanga Rural	35,327	65.1	18,940	34.9	54,266
Kahama	95,308	88.7	12,169	11.3	107,477
Bukombe	37,313	56.5	28,678	43.5	65,991
Meatu	34,955	86.8	5,308	13.2	40,263
Shinyanga Urban	10,191	67.6	4,876	32.4	15,066
Kishapu	44,445	92.1	3,813	7.9	48,258
<b>Total</b>	<b>347,359</b>	<b>71.7</b>	<b>137,330</b>	<b>28.3</b>	<b>484,689</b>

### 8.2: Number of Agriculture Households Participated in Out Grower Agreement During the 2007/08 Agricultural Year

District	Number of Households Participated in Out Grower Agreement		Number of Households NOT Participated in Out Grower Agreement		Total Number of Households	
	Number	%	Number	%	Number	%
Bariadi	7,228	7.2	93,709	92.8	100,936	100
Maswa	1,165	2.2	51,265	97.8	52,430	100
Shinyanga Rural	403	0.7	53,998	99.3	54,401	100
Kahama	12,710	11.8	94,768	88.2	107,477	100
Bukombe	978	1.5	65,013	98.5	65,991	100
Meatu	701	1.7	39,863	98.3	40,564	100
Shinyanga Urban	1,537	10.1	13,617	89.9	15,154	100
Kishapu	3,098	6.4	45,160	93.6	48,258	100
<b>Total</b>	<b>27,819</b>	<b>5.7</b>	<b>457,392</b>	<b>94.3</b>	<b>485,212</b>	<b>100</b>

### 8.3: Number of Agriculture Households Participated in Contract Production Agreement During the 2007/08

District	Number of Hholds Participated in Production Agreement		Number of Hholds NOT Participated in Production Agreement		Total Number of Households	
	Number	%	Number	%	Number	%
Bariadi	249	0.2	100,687	99.8	100,936	100
Maswa	388	0.7	52,042	99.3	52,430	100
Shinyanga Rural	1,075	2.0	53,326	98.0	54,401	100
Kahama	8,653	8.1	98,824	91.9	107,477	100
Bukombe	0	0.0	65,991	100.0	65,991	100
Meatu	701	1.7	39,863	98.3	40,564	100
Shinyanga Urban	220	1.4	14,935	98.6	15,154	100
Kishapu	357	0.7	47,901	99.3	48,258	100
<b>Total</b>	<b>11,644</b>	<b>2.4</b>	<b>473,568</b>	<b>97.6</b>	<b>485,212</b>	<b>100</b>

**8.4: Number of Agriculture Households By Source of Extension Messages By District During the 2007/08 Agricultural Year**

District	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total Households that received advices
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	56,574	62.4	6,231	6.9	2,243	2.5	4,735	5.2	6,231	6.9	13,957	15.4	748	0.8	90,718
Maswa	22,784	53.8	8,285	19.6	777	1.8	1,165	2.8	4,790	11.3	4,143	9.8	388	0.9	42,332
Shinyanga Rural	34,252	75.4	6,045	13.3	269	0.6	672	1.5	1,478	3.3	2,015	4.4	672	1.5	45,401
Kahama	90,307	60.9	9,869	6.7	2,837	1.9	4,730	3.2	21,761	14.7	16,089	10.8	2,704	1.8	148,296
Bukombe	33,729	79.6	1,466	3.5	0	0.0	163	0.4	3,585	8.5	2,770	6.5	652	1.5	42,365
Meatu	33,453	76.8	4,908	11.3	601	1.4	1,002	2.3	2,304	5.3	701	1.6	601	1.4	43,568
Shinyanga Urban	9,795	80.8	1,142	9.4	44	0.4	220	1.8	395	3.3	307	2.5	220	1.8	12,123
Kishapu	43,849	80.2	2,145	3.9	477	0.9	715	1.3	5,243	9.6	2,026	3.7	238	0.4	54,693
<b>Total</b>	<b>324,744</b>	<b>67.7</b>	<b>40,091</b>	<b>8.4</b>	<b>7,247</b>	<b>1.5</b>	<b>13,401</b>	<b>2.8</b>	<b>45,785</b>	<b>9.5</b>	<b>42,007</b>	<b>8.8</b>	<b>6,222</b>	<b>1.3</b>	<b>479,497</b>

**8.5: Number of households receiving extension advice on Spacing by district during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne wsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	41,870	89.8	1,495	3.2	498	1.1	1,246	2.7	249	0.5	1,246	2.7	0	0.0	46,605
Maswa	19,807	77.3	2,330	9.1	0	0.0	129	0.5	777	3.0	2,460	9.6	129	0.5	25,633
Shinyanga Rural	29,014	94.3	806	2.6	0	0.0	0	0.0	269	0.9	672	2.2	0	0.0	30,760
Kahama	75,167	86.7	1,893	2.2	541	0.6	811	0.9	6,083	7.0	1,893	2.2	270	0.3	86,659
Bukombe	30,796	95.5	163	0.5	0	0.0	0	0.0	489	1.5	652	2.0	163	0.5	32,262
Meatu	28,945	93.2	1,302	4.2	200	0.6	200	0.6	200	0.6	200	0.6	0	0.0	31,049
Shinyanga Urban	9,488	95.2	88	0.9	0	0.0	88	0.9	44	0.4	220	2.2	44	0.4	9,971
Kishapu	37,653	94.6	119	0.3	0	0.0	119	0.3	1,430	3.6	477	1.2	0	0.0	39,798
Total	272,740	90.1	8,196	2.7	1,240	0.4	2,594	0.9	9,541	3.2	7,819	2.6	607	0.2	302,737

**8.6: Number of households receiving extension advice on Use of Agrochemicals by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne w sPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	39,627	90.9	1,246	2.9	0	0.0	498	1.1	249	0.6	1,994	4.6	0	0.0	43,615
Masw a	16,700	74.1	2,071	9.2	129	0.6	388	1.7	906	4.0	2,201	9.8	129	0.6	22,526
Shinyanga Rural	17,328	94.2	1,075	5.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	18,402
Kahama	60,022	85.2	1,893	2.7	0	0.0	1,082	1.5	5,272	7.5	1,893	2.7	270	0.4	70,432
Bukombe	21,508	95.0	978	4.3	0	0.0	0	0.0	163	0.7	0	0.0	0	0.0	22,649
Meatu	26,942	91.5	1,703	5.8	100	0.3	300	1.0	200	0.7	0	0.0	200	0.7	29,446
Shinyanga Urban	4,744	95.6	176	3.5	0	0.0	44	0.9	0	0.0	0	0.0	0	0.0	4,964
Kishapu	32,172	93.1	357	1.0	238	0.7	0	0.0	1,430	4.1	357	1.0	0	0.0	34,555
Total	219,043	88.8	9,498	3.9	468	0.2	2,313	0.9	8,221	3.3	6,445	2.6	600	0.2	246,588

**8.7: Number of households receiving extension advice on Erosion Control by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne wsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	13,957	81.2	498	2.9	249	1.4	997	5.8	748	4.3	748	4.3	0	0.0	17,197
Masw a	10,227	82.3	1,295	10.4	0	0.0	259	2.1	129	1.0	518	4.2	0	0.0	12,428
Shinyanga Rural	14,104	92.1	806	5.3	0	0.0	269	1.8	0	0.0	134	0.9	0	0.0	15,313
Kahama	36,230	83.5	1,082	2.5	270	0.6	270	0.6	3,109	7.2	1,082	2.5	1,352	3.1	43,396
Bukombe	14,828	96.8	0	0.0	0	0.0	0	0.0	0	0.0	326	2.1	163	1.1	15,316
Meatu	15,124	89.3	1,102	6.5	100	0.6	100	0.6	300	1.8	100	0.6	100	0.6	16,927
Shinyanga Urban	3,646	91.2	264	6.6	0	0.0	44	1.1	0	0.0	0	0.0	44	1.1	3,997
Kishapu	30,266	94.1	119	0.4	0	0.0	0	0.0	1,549	4.8	0	0.0	238	0.7	32,172
Total	138,381	88.3	5,165	3.3	620	0.4	1,939	1.2	5,836	3.7	2,908	1.9	1,897	1.2	156,745

**8.8: Number of households receiving extension advice on Organic Fertilizer use by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne w sPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	31,652	88.2	1,495	4.2	0	0.0	748	2.1	249	0.7	1,246	3.5	498	1.4	35,889
Masw a	16,571	79.5	2,330	11.2	0	0.0	518	2.5	777	3.7	388	1.9	259	1.2	20,843
Shinyanga Rural	25,387	90.9	1,075	3.8	0	0.0	0	0.0	537	1.9	940	3.4	0	0.0	27,939
Kahama	59,617	81.5	2,163	3.0	1,352	1.8	2,163	3.0	4,595	6.3	2,704	3.7	541	0.7	73,136
Bukombe	23,138	94.0	326	1.3	0	0.0	163	0.7	163	0.7	652	2.6	163	0.7	24,604
Meatu	23,637	92.5	1,703	6.7	0	0.0	0	0.0	200	0.8	0	0.0	0	0.0	25,540
Shinyanga Urban	7,160	93.7	395	5.2	0	0.0	88	1.1	0	0.0	0	0.0	0	0.0	7,643
Kishapu	37,772	94.1	477	1.2	119	0.3	119	0.3	1,311	3.3	357	0.9	0	0.0	40,156

**8.9: Number of households receiving extension advice on use of Inorganic Fertilizer by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne wsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	22,430	88.2	1,246	4.9	249	1.0	0	0.0	0	0.0	1,246	4.9	249	1.0	25,421
Maswa	8,933	71.1	1,036	8.2	0	0.0	259	2.1	1,812	14.4	518	4.1	0	0.0	12,557
Shinyanga Rural	11,552	92.5	537	4.3	0	0.0	269	2.2	134	1.1	0	0.0	0	0.0	12,492
Kahama	45,288	82.3	4,867	8.8	405	0.7	1,080	2.0	2,027	3.7	1,082	2.0	270	0.5	55,020
Bukombe	16,131	92.5	326	1.9	0	0.0	0	0.0	489	2.8	489	2.8	0	0.0	17,435
Meatu	13,822	94.5	300	2.1	0	0.0	0	0.0	300	2.1	100	0.7	100	0.7	14,623
Shinyanga Urban	2,899	85.7	351	10.4	0	0.0	132	3.9	0	0.0	0	0.0	0	0.0	3,382
Kishapu	21,686	91.0	119	0.5	0	0.0	119	0.5	1,906	8.0	0	0.0	0	0.0	23,831
Total	142,741	86.6	8,783	5.3	654	0.4	1,858	1.1	6,670	4.0	3,435	2.1	620	0.4	164,761

**8.10: Number of households receiving extension advice on Use of Improved Seeds by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne wsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	35,639	81.3	1,994	4.5	498	1.1	1,246	2.8	2,243	5.1	2,243	5.1	0	0.0	43,864
Maswa	12,687	63.6	4,402	22.1	518	2.6	388	1.9	777	3.9	1,165	5.8	0	0.0	19,936
Shinyanga Rural	24,312	92.3	1,478	5.6	134	0.5	269	1.0	0	0.0	134	0.5	0	0.0	26,327
Kahama	70,298	87.2	2,163	2.7	270	0.3	405	0.5	4,731	5.9	2,163	2.7	541	0.7	80,572
Bukombe	27,537	93.9	489	1.7	0	0.0	0	0.0	652	2.2	652	2.2	0	0.0	29,329
Meatu	27,243	92.5	1,502	5.1	100	0.3	100	0.3	401	1.4	100	0.3	0	0.0	29,446
Shinyanga Urban	5,974	90.1	264	4.0	44	0.7	132	2.0	220	3.3	0	0.0	0	0.0	6,633
Kishapu	36,223	94.4	596	1.6	0	0.0	119	0.3	1,311	3.4	119	0.3	0	0.0	38,368
Total	239,913	87.4	12,887	4.7	1,565	0.6	2,659	1.0	10,334	3.8	6,577	2.4	541	0.2	274,476

**8.11: Number of households receiving extension advice on Use of Mechanisation and Labor Saving Technology by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne wsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	27,166	86.5	1,495	4.8	0	0.0	0	0.0	1,745	5.6	997	3.2	0	0.0	31,402
Maswa	11,522	65.4	2,071	11.8	129	0.7	518	2.9	906	5.1	2,201	12.5	259	1.5	17,606
Shinyanga Rural	17,328	89.6	1,881	9.7	0	0.0	134	0.7	0	0.0	0	0.0	0	0.0	19,342
Kahama	46,778	79.7	1,352	2.3	270	0.5	541	0.9	3,376	5.8	5,813	9.9	541	0.9	58,671
Bukombe	17,923	98.2	0	0.0	0	0.0	0	0.0	326	1.8	0	0.0	0	0.0	18,249
Meatu	20,132	88.2	1,502	6.6	0	0.0	401	1.8	601	2.6	200	0.9	0	0.0	22,836
Shinyanga Urban	4,788	89.3	439	8.2	0	0.0	44	0.8	88	1.6	0	0.0	0	0.0	5,359
Kishapu	33,245	94.3	238	0.7	0	0.0	119	0.3	1,430	4.1	238	0.7	0	0.0	35,270
Total	178,881	85.7	8,979	4.3	400	0.2	1,757	0.8	8,471	4.1	9,449	4.5	800	0.4	208,737

**8.12: Number of households receiving extension advice on Irrigation Technology by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne w sPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	15,701	73.3	1,495	7.0	249	1.2	748	3.5	1,495	7.0	1,745	8.1	0	0.0	21,433
Maswa	8,156	62.4	1,812	13.9	0	0.0	518	4.0	1,812	13.9	777	5.9	0	0.0	13,075
Shinyanga Rural	6,850	86.4	537	6.8	0	0.0	134	1.7	269	3.4	0	0.0	134	1.7	7,925
Kahama	24,065	70.1	2,704	7.9	134	0.4	541	1.6	4,998	14.6	1,893	5.5	0	0.0	34,336
Bukombe	10,754	90.4	163	1.4	0	0.0	0	0.0	489	4.1	489	4.1	0	0.0	11,895
Meatu	10,316	90.4	501	4.4	0	0.0	0	0.0	601	5.3	0	0.0	0	0.0	11,418
Shinyanga Urban	2,855	91.5	220	7.0	0	0.0	0	0.0	0	0.0	44	1.4	0	0.0	3,119
Kishapu	16,086	87.7	357	1.9	0	0.0	0	0.0	1,787	9.7	119	0.6	0	0.0	18,350
Total	94,784	78.0	7,790	6.4	384	0.3	1,941	1.6	11,452	9.4	5,066	4.2	134	0.1	121,551

**8.13: Number of households receiving extension advice on Crop storage by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne wsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	22,430	88.2	1,246	4.9	249	1.0	0	0.0	0	0.0	1,246	4.9	249	1.0	25,421
Maswa	8,933	71.1	1,036	8.2	0	0.0	259	2.1	1,812	14.4	518	4.1	0	0.0	12,557
Shinyanga Rural	11,552	92.5	537	4.3	0	0.0	269	2.2	134	1.1	0	0.0	0	0.0	12,492
Kahama	45,288	82.3	4,867	8.8	405	0.7	1,080	2.0	2,027	3.7	1,082	2.0	270	0.5	55,020
Bukombe	16,131	92.5	326	1.9	0	0.0	0	0.0	489	2.8	489	2.8	0	0.0	17,435
Meatu	13,822	94.5	300	2.1	0	0.0	0	0.0	300	2.1	100	0.7	100	0.7	14,623
Shinyanga Urban	2,899	85.7	351	10.4	0	0.0	132	3.9	0	0.0	0	0.0	0	0.0	3,382
Kishapu	21,686	91.0	119	0.5	0	0.0	119	0.5	1,906	8.0	0	0.0	0	0.0	23,831
Total	142,741	86.6	8,783	5.3	654	0.4	1,858	1.1	6,670	4.0	3,435	2.1	620	0.4	164,761



**8.14: Number of households receiving extension advice on Vermin control by District during the 2007/08 Agricultural Year**

District	Source of Crop Extension														Total Number of Househol ds
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Ne w sPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	12,711	60.7	997	4.8	748	3.6	249	1.2	1,246	6.0	4,985	23.8	0	0.0	20,935
Masw a	10,615	80.4	1,036	7.8	0	0.0	388	2.9	259	2.0	906	6.9	0	0.0	13,205
Shinyanga Rural	11,552	86.9	1,209	9.1	0	0.0	0	0.0	269	2.0	269	2.0	0	0.0	13,298
Kahama	28,797	73.5	541	1.4	541	1.4	270	0.7	4,457	11.4	4,597	11.7	0	0.0	39,203
Bukombe	9,776	87.0	326	2.9	0	0.0	0	0.0	326	2.9	815	7.2	0	0.0	11,243
Meatu	12,820	90.1	701	4.9	0	0.0	100	0.7	401	2.8	100	0.7	100	0.7	14,222
Shinyanga Urban	3,426	84.8	395	9.8	0	0.0	44	1.1	88	2.2	44	1.1	44	1.1	4,041
Kishapu	27,287	92.3	596	2.0	0	0.0	119	0.4	1,072	3.6	477	1.6	0	0.0	29,551
Total	116,984	80.3	5,800	4.0	1,289	0.9	1,171	0.8	8,118	5.6	12,192	8.4	144	0.1	145,698

**CATTLE PRODUCTION**

**9. 1: Total Number of Households Rearing Cattle by District during 2007/08 Agricultural Year**

DISTRICT	Households rearing cattle		Households not rearing cattle		Total Agriculture households	Total Number of Households Rearing Livestock
	Number	%	Number	%		
Bariadi	54,830	54.3	46,107	45.7	100,936	87,478
Maswa	25,244	48.1	27,186	51.9	52,430	44,533
Shinyanga Rural	28,611	52.6	25,790	47.4	54,401	46,476
Kahama	40,555	37.7	66,922	62.3	107,477	88,279
Bukombe	17,109	25.9	48,882	74.1	65,991	52,141
Meatu	21,634	53.3	18,930	46.7	40,564	32,351
Shinyanga Urban	5,535	36.5	9,620	63.5	15,154	10,454
Kishapu	24,070	49.9	24,189	50.1	48,258	37,058
<b>Total</b>	<b>217,587</b>	<b>44.8</b>	<b>267,625</b>	<b>55.2</b>	<b>485,212</b>	<b>398,770</b>

**9.2: Total Number of Cattle by Type and District, 2007/08 Agricultural Year -**

Cattle Types	Indigeneous	Improved Beef	Improved Dairy	Total Cattle	%
Castrated Bulls (Oxen)	947,849	477	2,157	950,483	17
Uncastrated Bulls	388,966	1,333	163	390,461	16
Cows	1,006,672	1,809	2,044	1,010,524	24
Steers	85,576	0	0	85,576	3
Heifers	565,170	5,780	879	571,829	13
Male Calves	303,826	904	44	304,774	13
Female Calves	337,201	270	132	337,604	14
<b>Total</b>	<b>3,635,260</b>	<b>10,573</b>	<b>5,419</b>	<b>3,651,251</b>	<b>100</b>

**9.3: Number of Cattle by Type and District as of 1st October 2008**

District	Indigenous			Improved Beef			Improved Dairy			Total		
	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%
Bariadi	54,830	741,197	100.0	0	0	0.0	0	0	0.0	54,830	741,197	100
Maswa	25,244	459,961	99.9	129	259	0.1	129	129	0.0	25,503	460,350	100
Shinyanga Rural	28,476	386,313	99.8	134	672	0.2	269	269	0.1	28,879	387,253	100
Kahama	40,285	702,680	99.2	541	4,056	0.6	1,082	1,893	0.3	41,907	708,629	100
Bukombe	17,109	425,438	99.6	326	652	0.2	326	1,141	0.3	17,761	427,231	100
Meatu	21,634	434,282	98.9	200	4,207	1.0	200	701	0.2	22,035	439,190	100
Shinyanga Urban	5,227	67,865	99.0	88	132	0.2	307	571	0.8	5,622	68,568	100
Kishapu	24,070	417,523	99.7	119	596	0.1	238	715	0.2	24,427	418,834	100
Total	216,875	3635260	99.6	1,538	10,573	0.3	2,552	5,419	0.1	220,964	3,651,251	100

**9.4: Total Number of indigenous Cattle by Category of cattle and District as of 1st October 2008**

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Bariadi	196,390	20	91,964	16	212,839	21	11,215	3	98,693	13	62,556	13	67,540	14	741,197	100
Maswa	122,984	22	38,578	16	137,225	20	6,084	2	83,629	14	35,342	13	36,119	13	459,961	100
Shinyanga Rural	131,771	25	44,730	16	89,593	18	8,597	2	43,655	13	36,267	13	31,700	13	386,313	100
Kahama	163,177	21	67,724	16	205,581	18	10,544	3	129,250	15	59,753	14	66,650	13	702,680	100
Bukombe	76,908	20	40,735	18	111,940	21	32,262	3	96,461	11	31,122	14	36,010	13	425,438	100
Meatu	114,380	21	47,374	15	122,192	19	8,714	4	52,983	12	36,157	14	52,482	15	434,282	100
Shinyanga Urban	17,482	19	10,674	17	19,108	20	1,010	3	7,950	13	5,095	13	6,545	15	67,865	100
Kishapu	124,756	22	47,186	15	108,194	20	7,149	2	52,548	12	37,534	15	40,156	14	417,523	100
Total	947,849	21	388,966	16	1,006,672	20	85,576	3	565,170	13	303,826	14	337,201	14	3,635,260	100

**9.5: Total Number of improved Beef Cattle by Category of cattle and District 1st October 2008**

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Bariadi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Maswa	.	.00	.	.0	.	.0	.	.0	259	100.0	.	.0	.	.0	259	100
Shinyanga Rural	.	.00	.	.0	672	100.0	.	.0	.	.0	.	.0	.	.0	672	100
Kahama	.	.00	1,082	16.7	811	33.3	.	.0	1,352	16.7	541	16.7	270	16.7	4,056	100
Bukombe	.	.00	.	.0	326	33.3	.	.0	163	33.3	163	33.3	.	.0	652	100
Meatu	.	.00	.	.0	.	.0	.	.0	4,006	50.0	200	50.0	.	.0	4,207	100
Shinyanga Urban	.	.00	132	100.0	.	.0	.	.0	.	.0	.	.0	.	.0	132	100
Kishapu	477	50.00	119	50.0	.	.0	.	.0	.	.0	.	.0	.	.0	596	100
<b>Total</b>	<b>477</b>	<b>4.11</b>	<b>1,333</b>	<b>16.45</b>	<b>1,809</b>	<b>28.88</b>	.	.0	<b>5,780</b>	<b>22.85</b>	<b>904</b>	<b>18.39</b>	<b>270</b>	<b>9.3</b>	<b>10,573</b>	<b>100</b>

**9.6: Total Number of improved Dairy Cattle by Category of cattle and District 1st October 2008**

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Bariadi	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Maswa	.	.00	.	.0	129	100.0	.	.0	.	.0	.	.0	.	.0	129	100
Shinyanga Rural	.	.00	.	.0	269	100.0	.	.0	.	.0	.	.0	.	.0	269	100
Kahama	541	50.00	.	.0	1,082	25.0	.	.0	270	25.0	.	.0	.	.0	1,893	100
Bukombe	978	66.67	163	33.3	.	.0	.	.0	.	.0	.	.0	.	.0	1,141	100
Meatu	401	50.00	.	.0	300	50.0	.	.0	.	.0	.	.0	.	.0	701	100
Shinyanga Urban	.	.00	.	.0	264	40.0	.	.0	132	30.0	44	10.0	132	20.0	571	100
Kishapu	238	50.00	.	.0	.	.0	.	.0	477	50.0	.	.0	.	.0	715	100

**9.7: Total Number Households rearing Cattle and Method of Cattle Identification by District during, 2007/08 Agricultural Year**

District	Branding		Cattle Clan		Ear notching		Colour		Earings		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	46,854	85.5	2,492	4.5	1,495	2.7	1,994	3.6	0	.0	1,994	3.6	54,830	100
Maswa	20,325	80.1	1,424	5.6	906	3.6	2,201	8.7	259	1.0	259	1.0	25,374	100
Shinyanga Rural	21,089	73.7	2,283	8.0	403	1.4	3,895	13.6	134	.5	806	2.8	28,611	100
Kahama	32,713	80.7	2,704	6.7	541	1.3	4,056	10.0	270	.7	270	.7	40,555	100
Bukombe	12,872	75.2	326	1.9	652	3.8	1,955	11.4	0	.0	1,304	7.6	17,109	100
Meatu	17,127	79.2	2,304	10.6	200	.9	901	4.2	100	.5	1,002	4.6	21,634	100
Shinyanga Urban	3,822	69.0	220	4.0	395	7.1	703	12.7	88	1.6	307	5.6	5,535	100
Kishapu	21,210	88.1	834	3.5	715	3.0	834	3.5	0	.0	477	2.0	24,070	100
<b>Total</b>	<b>176,012</b>	<b>80.8</b>	<b>12,587</b>	<b>5.8</b>	<b>5,308</b>	<b>2.4</b>	<b>16,540</b>	<b>7.6</b>	<b>852</b>	<b>.4</b>	<b>6,418</b>	<b>2.9</b>	<b>217,716</b>	<b>100</b>

**9.8: Number of Milked Cows by Category of Cattle, Season and District, During the 2007/08 Agricultural Year**

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Bariadi	498	116,638	117,136	76,512	126,607	203,119
Maswa	259	83,759	84,018	259	51,783	52,042
Shinyanga Rural	269	50,371	50,640	134	40,834	40,968
Kahama	1,891	129,093	130,984	270	133,018	133,289
Bukombe	.	67,620	67,620	.	49,371	49,371
Meatu	.	81,328	81,328	.	51,381	51,381
Shinyanga Urban	307	12,694	13,002	307	11,508	11,816
<b>Kishapu</b>	<b>238</b>	<b>71,017</b>	<b>71,255</b>	<b>35,866</b>	<b>57,076</b>	<b>92,942</b>
<b>Total</b>	<b>3,463</b>	<b>612,520</b>	<b>615,983</b>	<b>113,349</b>	<b>521,578</b>	<b>634,927</b>

**9.9: Average milk production per cow per day, by Category of Cow, Season and District, During the 2007/08 Agricultural Year**

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
	Mean (ltr)	Mean (lts)	Mean (lts)	Mean (lts)	Mean (lts)	Mean (lts)
Bariadi	.	2	2	1	1	1
Maswa	2	2	2	1	1	1
Shinyanga Rural	7	3	3	2	2	2
Kahama	1	2	2	2	1	1
Bukombe	.	2	2	.	1	1
Meatu	.	2	2	.	1	1
Shinyanga Urban	11	2	3	9	1	2
<b>Kishapu</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Total</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>

**9.10: Average number of days for cows on milked, by category of Cattle, Season and District, During the 2007/08 Agricultural Year**

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
	Mean	Mean	Mean	Mean	Mean	Mean
Bariadi	240	205	205	230	194	194
Maswa	106	170	169	12	146	144
Shinyanga Rural	46	118	116	51	118	116
Kahama	212	208	208	48	206	202
Bukombe	.	142	142	.	128	128
Meatu	.	139	139	.	102	102
Shinyanga Urban	218	163	167	198	142	145
<b>Kishapu</b>	<b>90</b>	<b>138</b>	<b>137</b>	<b>245</b>	<b>105</b>	<b>107</b>
<b>Total</b>	<b>179</b>	<b>174</b>	<b>174</b>	<b>146</b>	<b>162</b>	<b>162</b>

**9.11: Average Cattle Milk price (Tshs/litre) per season by category of cow and District, During the 2007/08 Agricultural Year**

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
	Mean	Mean	Mean	Mean	Mean	Mean
Bariadi	134	321	317	261	327	324
Maswa	169	284	281	400	328	329
Shinyanga Rural	300	347	346	600	413	415
Kahama	443	316	320	600	351	355
Bukombe	1	319	313	.	428	428
Meatu	.	388	388	303	457	454
Shinyanga Urban	433	372	377	540	467	472
Kishapu	267	343	341	250	383	382
Total	279	327	326	358	367	367

**9.12: Average Cattle Milk price (Tshs/litre) per season by category of cow and District, During the 2007/08 Agricultural Year**

District	Number of milked cows		Average milk production per cow per day (lts)		Average number of days cows milked		Average price per litre per season (Tshs)	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
Bariadi	117,136	203,119	2	1	205	194	317	324
Maswa	84,018	52,042	2	1	169	144	281	329
Shinyanga Rural	50,640	40,968	3	2	116	116	346	415
Kahama	130,984	133,289	2	1	208	202	320	355
Bukombe	67,620	49,371	2	1	142	128	313	428
Meatu	81,328	51,381	2	1	139	102	388	454
Shinyanga Urban	13,002	11,816	3	2	167	145	377	472
Kishapu	71,255	92,942	2	1	137	107	341	382
Total	615,983	634,927	2	1	174	162	326	367



**GOAT PRODUCTION**

**9.13: Number of Agriculture Households Rearing Goats by District during the 2007/08 Agricultural Year**

District	Raising goats		Not raising goats		Total	Total livestock keeping households
	No of households	%	No of households	%		
Bariadi	44,861	20	56,076	80	100,936	87,478
Maswa	23,302	60	29,128	40	52,430	44,533
Shinyanga Rural	19,477	46	34,924	54	54,401	46,476
Kahama	31,365	26	76,112	74	107,477	88,279
Bukombe	19,064	11	46,927	89	65,991	52,141
Meatu	18,229	7	22,335	93	40,564	32,351
Shinyanga Urban	5,051	20	10,103	80	15,154	10,454
Kishapu	20,257	9	28,002	91	48,258	37,058
Total	181,605	14	303,607	86	485,212	398,770

**9.14: Number of Households rearing Goat, Head of Goat and Average Head per Household by Herd size During the 2007/08 Agricultural Year**

Flock Size	Goat Rearing Households	%	Head of Goat	Average Number of Goat Per Household
1 - 4	424,311	78	875,561	2
5 - 9	82,523	15	519,169	6
10 - 14	18,655	3	208,424	11
15 - 19	7,481	1	122,393	16
20 - 24	2,683	0	55,258	21
25 - 29	1,596	0	41,806	26
30 - 39	1,758	0	56,275	32
40+	1,602	0	84,170	53
<b>Total</b>	<b>540,609</b>	<b>100</b>	<b>1,963,056</b>	<b>4</b>

**9.15: Number of Goats by Type and District as of 1st October 2008**

District	Indigenous			Improved for Meat			Improved Dairy			Total	
	Number of households	Number of Goats	%	Number of households	Number of Goats	%	Number of households	Number of Goats	%	Number of households	Number of Goats
Bariadi	44,861	399,758	93.0	0	0	0.0	1,246	30,156	7.0	46,107	429,914
Maswa	23,302	290,761	98.0	0	0	0.0	777	6,084	2.0	24,079	296,845
Shinyanga Rural	19,342	147,755	99.2	0	0	0.0	269	1,209	0.8	19,611	148,964
Kahama	31,365	298,389	100.0	0	0	0.0	0	0	0.0	31,365	298,389
Bukombe	19,064	137,033	99.5	163	652	0.5	0	0	0.0	19,227	137,685
Meatu	18,229	346,945	97.9	0	0	0.0	401	7,311	2.1	18,629	354,256
Shinyanga Urban	5,007	45,902	99.1	88	395	0.9	0	0	0.0	5,095	46,297
Kishapu	20,257	243,555	97.1	0	0	0.0	119	7,149	2.9	20,376	250,705
Total	181,427	1,910,098	97	251	1,047	0	2,811	51,911	3	184,489	1,963,056

**9.16: Total Number of Goat by Type as of 1st October 2008**

Goat Structure	Indigeneous		Improved Beef		Improved Dairy		Total	
	Number of Households	Number of Goats	Number of Households	Number of Goats	Number of Households	Number of Goats	Number of Goats	
Billy Goat	132,019	337,463	0	0	1,356	16,865	354,328	18
Castrated Goat	39,316	116,231	44	88	129	129	116,449	6
She Goat	172,486	968,134	88	307	1,749	17,527	985,968	50
Male Kid	97,612	235,000	163	326	623	1,783	237,109	12
She Kid	97,880	253,270	163	326	892	15,606	269,202	14
<b>Total</b>	<b>539,314</b>	<b>1,910,098</b>	<b>458</b>	<b>1,047</b>	<b>4,748</b>	<b>51,911</b>	<b>1,963,056</b>	<b>100</b>

**9.17: Total Number of Indigenous Goat by Flock Structure and District as of 1st October 2008**

District	Goat Flock Structure											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Bariadi	71,029	18	15,950	4	216,826	54	43,365	11	52,587	13	399,758	100
Maswa	47,640	16	15,794	5	152,501	52	36,119	12	38,708	13	290,761	100
Shinyanga Rural	28,879	20	6,850	5	77,907	53	18,805	13	15,313	10	147,755	100
Kahama	39,751	13	20,684	7	153,315	51	40,833	14	43,806	15	298,389	100
Bukombe	26,233	19	7,821	6	68,924	50	15,968	12	18,086	13	137,033	100
Meatu	66,805	19	30,949	9	161,053	46	42,567	12	45,572	13	346,945	100
Shinyanga Urban	8,390	18	3,646	8	22,622	49	5,051	11	6,193	13	45,902	100
Kishapu	48,735	20	14,537	6	114,986	47	32,291	13	33,006	14	243,555	100
<b>Total</b>	<b>337,463</b>	<b>18</b>	<b>116,231</b>	<b>6</b>	<b>968,134</b>	<b>51</b>	<b>235,000</b>	<b>12</b>	<b>253,270</b>	<b>13</b>	<b>1,910,098</b>	<b>100</b>

**9.18: Total Number of Improved Goat for Meat by Flock Structure and District as of 1st October 2008**

District	Goat Flock Structure											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Bariadi	0	0	0	0	0	0	0	0	0	0	0	0
Maswa	0	0	0	0	0	0	0	0	0	0	0	0
Shinyanga Rural	0	0	0	0	0	0	0	0	0	0	0	0
Kahama	0	0	0	0	0	0	0	0	0	0	0	0
Bukombe	0	0	0	0	0	0	326	50	326	50	652	100
Meatu	0	0	0	0	0	0	0	0	0	0	0	0
Shinyanga Urban	0	0	88	22	307	78	0	0	0	0	395	100
Kishapu	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>8</b>	<b>307</b>	<b>29</b>	<b>326</b>	<b>31</b>	<b>326</b>	<b>31</b>	<b>1,047</b>	<b>100</b>

**9.20: Total Number of Improved Diary Goat by Flock Structure and District as of October 2008**

District	Goat Flock Structure											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Bariadi	9,969	33	0	0	5,234	17	0	0	14,954	50	30,156	100
Maswa	518	9	129	2	4,272	70	647	11	518	9	6,084	100
Shinyanga Rural	269	22	0	.	672	56	134	11	134	11	1,209	100
Kahama	0	0	0	0	0	0	0	0	0	0	0	0
Bukombe	0	0	0	0	0	0	0	0	0	0	0	0
Meatu	6,110	84	0	0	200	3	1,002	14	0	0	7,311	100
Shinyanga Urban	0	0	0	0	0	0	0	0	0	0	0	0
Kishapu	0	0	0	0	7,149	100	0	0	0	0	7,149	100
<b>Total</b>	<b>16,865</b>	<b>32</b>	<b>129</b>	<b>0</b>	<b>17,527</b>	<b>34</b>	<b>1,783</b>	<b>3</b>	<b>15,606</b>	<b>30</b>	<b>51,911</b>	<b>100</b>

**9.21: Total Number of Indigenous Goat by Category and District as of 1st October 2008**

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Bariadi	71,029	17.8	15,950	4.0	216,826	54.2	43,365	10.8	52,587	13.2	399,758	100
Maswa	47,640	16.4	15,794	5.4	152,501	52.4	36,119	12.4	38,708	13.3	290,761	100
Shinyanga Rural	28,879	19.5	6,850	4.6	77,907	52.7	18,805	12.7	15,313	10.4	147,755	100
Kahama	39,751	13.3	20,684	6.9	153,315	51.4	40,833	13.7	43,806	14.7	298,389	100
Bukombe	26,233	19.1	7,821	5.7	68,924	50.3	15,968	11.7	18,086	13.2	137,033	100
Meatu	66,805	19.3	30,949	8.9	161,053	46.4	42,567	12.3	45,572	13.1	346,945	100
Shinyanga Urban	8,390	18.3	3,646	7.9	22,622	49.3	5,051	11.0	6,193	13.5	45,902	100
Kishapu	48,735	20.0	14,537	6.0	114,986	47.2	32,291	13.3	33,006	13.6	243,555	100
<b>Total</b>	<b>337,463</b>	<b>17.7</b>	<b>116,231</b>	<b>6.1</b>	<b>968,134</b>	<b>50.7</b>	<b>235,000</b>	<b>12.3</b>	<b>253,270</b>	<b>13.3</b>	<b>1910098</b>	<b>100</b>

**9.23: Number of Improved Goats for Meat by Category and District as of 1st October 2008**

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Bariadi	.	.	.	.	.	.	.	.	.	.	.	.
Maswa	.	.	.	.	.	.	.	.	.	.	.	.
Shinyanga Rural	.	.	.	.	.	.	.	.	.	.	.	.
Kahama	.	.	.	.	.	.	.	.	.	.	.	.
Bukombe	.	.	.	.	.	.	326	50.00	326	50.00	652	100.00
Meatu	.	.	.	.	.	.	.	.	.	.	.	.
Shinyanga Urban	.	.	88	22.22	307	77.78	.	.	.	.	395	100.00
Kishapu	.	.	.	.	.	.	.	.	.	.	.	.
Total	.	.	88	8.39	307	29.36	326	31.12	326	31.12	1,047	100.00

**9.24: Number of Improved Dairy Goats by Category and District as of 1st October 2008**

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	9,969	33	.	.	5,234	17	.	.	14,954	50	30,156	100
Maswa	518	9	129	2.1	4,272	70	647	11	518	9	6,084	100
Shinyanga Rural	269	22	.	.	672	56	134	11	134	11	1,209	100
Kahama	.	.	.	.	.	.	.	.	.	.	.	.
Bukombe	.	.	.	.	.	.	.	.	.	.	.	.
Meatu	6,110	84	.	.	200	2.7	1,002	14	.	.	7,311	100
Shinyanga Urban	.	.	.	.	.	.	.	.	.	.	.	.
Kishapu	.	.	.	.	7,149	100	.	.	.	.	7,149	100
Total	16,865	32	129	.25	17,527	34	1,783	3	15,606	30	51,911	100

**9.26: Milk Production from Goat By Season and District, During the 2007/08 Agricultural Year**

District	Number of Milked goat		Average milk production per goat per day		Average number of days goats are milked		Average price per litre per season		
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Total
	Sum	Sum	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Bariadi	.	.	.	.	.	.	100	1000	550
Maswa	259	129	1.8	.	90	90	.	100	100
Shinyanga Rural	269	269	1.5	1.0	60	45	.	1000	1000
Kahama	.	.	.	.	.	.	.	.	.
Bukombe	.	.	.	.	.	.	.	.	.
Meatu	.	.	.	.	.	.	1100	.	1100
Shinyanga Urban	.	.	.	.	.	.	.	100	100
Kishapu	.	.	.	.	.	.	.	.	.
Total	528	398	2	1	80	67	387	720	591

## **SHEEP PRODUCTION**



**9.27: Number of Households Rearing Sheep by District during the 2007/08 Agricultural Year**

District	Number of households raising or managing sheep	%	Number of households not raising or managing sheep	%	Number of agriculture households	Total livestock keeping households
Bariadi	19,689	19.5	81,248	80.5	100,936	63,802
Maswa	15,535	29.6	36,895	70.4	52,430	31,070
Shinyanga Rural	11,149	20.5	43,252	79.5	54,401	33,581
Kahama	8,652	8.0	98,826	92.0	107,477	47,586
Bukombe	2,444	3.7	63,547	96.3	65,991	26,233
Meatu	12,820	31.6	27,744	68.4	40,564	24,639
Shinyanga Urban	2,723	18.0	12,431	82.0	15,154	7,072
Kishapu	14,537	30.1	33,721	69.9	48,258	27,168
<b>Total</b>	<b>87,549</b>	<b>18.0</b>	<b>397,663</b>	<b>82.0</b>	<b>485,212</b>	<b>261,150</b>

**9.28: Number of Household Rearing Sheep by Type and District as of 1st October 2008**

	Number of Indigenous	%	Total Sheep	%
Bariadi	19,689	22	140,563	19
Maswa	15,535	18	150,818	20
Shinyanga Rural	11,149	13	64,744	9
Kahama	8,652	10	44,615	6
Bukombe	2,444	3	14,828	2
Meatu	12,820	15	150,637	20
Shinyanga Urban	2,723	3	14,671	2
Kishapu	14,537	9	158,954	21
<b>Total</b>	<b>87,549</b>	<b>13</b>	<b>739,829</b>	<b>13</b>

**9.29: Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October 2007/08 Agricultural Year**

District	Number of Indigenous					Total
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	
Bariadi	16,947	3,489	77,509	23,427	19,190	140,563
Maswa	33,788	5,308	66,282	15,017	30,422	150,818
Shinyanga Rural	12,492	1,209	35,461	8,462	7,119	64,744
Kahama	6,490	1,216	27,985	5,679	3,245	44,615
Bukombe	4,399	815	7,332	652	1,629	14,828
Meatu	28,244	5,008	71,212	15,424	30,748	150,637
Shinyanga Urban	3,294	483	7,204	1,537	2,152	14,671
Kishapu	31,338	3,336	90,678	16,205	17,397	158,954
<b>Total</b>	<b>136,994</b>	<b>20,864</b>	<b>383,664</b>	<b>86,404</b>	<b>111,904</b>	<b>739,829</b>

**9.30: Number of Households rearing Sheep, Head of Sheep and Average Head per Household by Herd size During the 2007/08 Agricultural Year, Shinyanga Region**

Flock Size	Sheep Rearing Households	%	Head of Sheep	Average Number of Sheep Per Household
1 - 4	37,282	43	97,914	3
5 - 9	24,120	28	160,161	7
10 - 14	13,755	16	156,761	11
15 - 19	4,370	5	68,896	16
20 - 24	4,231	5	90,269	21
25 - 29	1,444	2	37,985	26
30 - 34	768	1	23,730	31
35 - 39	550	1	20,290	37
40+	1,027	1	83,823	82
<b>Total</b>	<b>87,549</b>	<b>100</b>	<b>739,829</b>	<b>8</b>

**9.31: Total Number of Sheep by Breed Type 1st October 2008- Shinyanga Region**

Category	Number of Indigenous	%	Number of Improved	%	Total	%
Rams	136,994	100	0	0	136,994	19
She Sheep	20,864	100	0	0	20,864	3
Castrated Sheep	383,664	100	0	0	383,664	52
Male Lamb	86,404	100	0	0	86,404	12
Female Lamb	111,904	100	0	0	111,904	15
<b>Total</b>	<b>739,829</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>739,829</b>	<b>100</b>

**PIG PRODUCTION**

**9.32: Number of Households Raising Pigs by District during 2007/08 Agricultural Year**

District	During the 2007/2008 Agriculture Year					
	rearing Pigs		Not rearing pigs		Total	
	No of households	%	No of households	%	No of households	%
Bariadi	0	8.8	100,936	91.2	100,936	100
Maswa	129	4.1	52,301	95.9	52,430	100
Shinyanga Rural	403	13.9	53,998	86.1	54,401	100
Kahama	1,893	1.7	105,584	98.3	107,477	100
Bukombe	163	11.0	65,828	89.0	65,991	100
Meatu	0	0.8	40,564	99.2	40,564	100
Shinyanga Urban	307	5.5	14,847	94.5	15,154	100
Kishapu	119	1.2	48,139	98.8	48,258	100
Total	3,015	1.6	482,197	98.4	485,212	100

**9.33: Number of Households Rearing Pigs, Head of Pigs and Average Head per Household by Herd Size as of 1st October 2008 - Shinyanga Region**

	Pig rearing households		Herd of pigs		Average per household
	Number	%	Number	%	
1 - 4	1,781	59	4,237	28.7	2
5 - 9	1,016	34	7,165	48.6	7
10 - 14	173	6	2,252	15.3	13
25 - 29	44	1	1,098	7.4	25
Total	3,015	100	14,753	100.0	5

**9.34: Total Number of Pigs by Type of Pigs and District as of 1st October 2008**

District	Pig Type					
	Boar	Castrated Male	Sow / Gilt	Male Piglet	She Piglet	Total
Bariadi	.	.	.	.	.	.
Maswa	388	.	518	129	777	1,812
Shinyanga Rural	537	.	1,209	134	.	1,881
Kahama	2,434	270	2,975	541	1,352	7,572
Bukombe	163	.	163	.	.	326
Meatu	.	.	.	.	.	.
Shinyanga Urban	220	132	1,186	307	483	2,328
Kishapu	119	.	119	596	.	834
Total	3,861	402	6,169	1,708	2,612	14,753

**9.35.: Number of Pigs per Household by District as of 1st October 2008**

District	Number of households	Number of pigs	Average per household
Bariadi	0	0	0
Maswa	129	1,812	14
Shinyanga Rural	403	1,881	5
Kahama	1,893	7,572	4
Bukombe	163	326	2
Meatu	0	0	0
Shinyanga Urban	307	2,328	8
Kishapu	119	834	7
Total	3,015	14,753	5

**CHICKEN AND OTHER LIVESTOCK**

**9.36: Number of Chicken by Type and District as of 1st October 2008**

District	Indigenous chicken			Layers			Broilers			Total	
	Number of Households	Number of Indigenous Chicken	%	Number of Households	Number of Layers	%	Number of Households	Number of Broilers	%	Number of Households	Number of Chicken
Bariadi	75,266	1024816	93	249	3,489	0	249	2,243	0	75,765	1,030,549
Maswa	39,484	580227	95	388	4,013	1	0	0	0	39,873	584,240
Shinyanga Rural	41,371	583096	87	403	44,058	7	0	0	0	41,774	627,154
Kahama	78,141	1135471	94	0	0	0	0	0	0	78,141	1,135,471
Bukombe	47,742	589,031	99	163	978	0	163	163	0	48,068	590,172
Meatu	27,643	407,340	94	100	100	0	100	701	0	27,844	408,141
Shinyanga Urban	8,478	88,817	94	44	395	0	44	44	0	8,565	89,256
Kishapu	33,364	424,673	96	119	715	0	0	0	0	33,483	425,387
<b>Total</b>	<b>351490</b>	<b>4833471</b>	<b>94</b>	<b>1467</b>	<b>53748</b>	<b>1</b>	<b>556</b>	<b>3151</b>	<b>0</b>	<b>353,513</b>	<b>4,890,370</b>

**9.37: Number of Households Keeping Chickens and Average Number of Chickens per Household by Flock Size as of 1st October 2008 -Shinyanga Region**

Flock Size	Indigineous chicken				Layers				Broilers			
	Number of Households	Number of Indigineous Chicken	%	Number of Chicken Per Household	Number of Households	Number of Layers	%	Number of Chicken Per Household	Number of Households	Number of Broilers	%	Number of Chicken Per Household
1-49	346,256	4544163	94	13	1,332	13,451	0	10	556	3,151	0	6
50-99	5,234	289,308	97	55	0	.	0	.	0	.	0	.
300-499	0	.	0	.	134	40,297	100	300	0	.	0	.
<b>Total</b>	<b>351,490</b>	<b>4,833,471</b>	<b>94</b>	<b>14</b>	<b>1,467</b>	<b>53,748</b>	<b>1</b>	<b>37</b>	<b>556</b>	<b>3,151</b>	<b>0</b>	<b>6</b>

**9.38: Number of Other Livestock by Type of livestock and District as of 1st October 2008**

District	Ducks	Guine pigs	Turkeys	Rabbits	Donkeys	Horses	Dogs
Bariadi	35,889	.	.	.	.	.	37,135
Maswa	9,450	388	.	.	1,942	.	11,781
Shinyanga Rural	18,268	.	.	.	10,074	.	13,970
Kahama	41,229	6,760	.	.	1,622	.	27,577
Bukombe	1,955	1,141	.	.	.	.	4,562
Meatu	901	100	601	.	4,307	.	19,230
Shinyanga Urban	1,713	.	.	.	44	.	3,031
Kishapu	3,575	596	.	.	1,430	.	9,175
Total	112,980	8,985	601	.	19,419	.	126,460

**9.39: Total Number of Other Livestock by Type as of 1st October 2008**

Type	Chicken		Others	
	Number	%	Type	Number
Indigenous Chicken	4,833,471	98.8	Ducks	112,980
Layer	53,748	1.1	Guine pigs	8,985
Broiler	3,151	0.1	Turkeys	601
			Rabbits	.
			Donkeys	19,419
			Horses	.
			Dogs	126,460
<b>TOTAL</b>	<b>4,890,370</b>	<b>100</b>		<b>268,446</b>



## **PESTS AND PARASITES**

**9.40: Number of Livestock Rearing households deworming Livestock by District during 2007/08 Agricultural Year**

District	Deworming Livestock		Not Deworm Livestock		Total	
	Number	%	Number	%	Number of Livestock Rearing households	%
Bariadi	39,128	43	52,836	57	91,964	100
Maswa	16,441	35	30,293	65	46,734	100
Shinyanga Rural	20,014	43	26,730	57	46,744	100
Kahama	36,906	40	55,971	60	92,876	100
Bukombe	16,783	31	36,988	69	53,770	100
Meatu	13,020	39	20,733	61	33,753	100
Shinyanga Urban	3,734	32	8,038	68	11,772	100
Kishapu	15,252	38	24,665	62	39,917	100
<b>Total</b>	<b>161,278</b>	<b>39</b>	<b>256,254</b>	<b>61</b>	<b>417,532</b>	<b>100</b>

**9.41: Number of Livestock Rearing households that dewormed Livestock by type of livestock and district, 2007/08 Agricultural Year**

District	Cattle				Goats/sheep			
	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total
Bariadi	32,649	1,246	5,234	39,128	15,203	11,464	12,461	39,128
Maswa	11,910	1,036	3,495	16,441	7,509	5,049	3,884	16,441
Shinyanga Rural	16,253	537	3,492	20,283	9,403	3,089	7,388	19,880
Kahama	27,982	1,082	8,112	37,176	13,653	6,354	16,628	36,635
Bukombe	12,872	163	4,074	17,109	6,681	5,214	4,888	16,783
Meatu	10,517	1,002	1,803	13,321	7,512	2,704	2,804	13,020
Shinyanga Urban	2,723	439	659	3,822	1,845	966	1,054	3,865
Kishapu	13,465	596	1,192	15,252	8,341	4,290	2,621	15,252
<b>Total</b>	<b>128,370</b>	<b>6,100</b>	<b>28,061</b>	<b>162,531</b>	<b>70,145</b>	<b>39,131</b>	<b>51,729</b>	<b>161,005</b>

**Cont... 9.42: PEST AND PARASITES: Number of Livestock Rearing households that dewormed Livestock by type of livestock and district, 2007/08 Agricultural Year**

District	Pigs				Chicken			
	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total
Bariadi	0	1,246	37,882	39,128	8,972	25,421	4,735	39,128
Maswa	388	1,942	13,981	16,312	6,732	8,933	777	16,441
Shinyanga Rural	403	1,075	18,402	19,880	5,373	10,074	4,567	20,014
Kahama	1,622	4,327	30,686	36,635	11,087	16,897	8,652	36,635
Bukombe	326	2,118	14,176	16,620	2,607	10,917	3,259	16,783
Meatu	0	1,703	11,318	13,020	4,006	7,211	1,803	13,020
Shinyanga Urban	132	220	3,382	3,734	659	2,416	659	3,734
Kishapu	119	2,741	12,392	15,252	3,098	10,486	1,668	15,252
<b>Total</b>	<b>2,991</b>	<b>15,370</b>	<b>142,220</b>	<b>160,581</b>	<b>42,534</b>	<b>92,354</b>	<b>26,119</b>	<b>161,008</b>

**9.43: Number of Livestock Rearing Households Normally Encountering Tick Problems by District during 2007/08 Agricultural Year**

District	Tick Problem		No Tick Problem		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	55,079	60	7,477	8	29,409	32	91,964	100
Maswa	25,891	55	5,826	12	15,276	33	46,993	100
Shinyanga Rural	25,790	55	7,253	15	13,970	30	47,013	100
Kahama	44,882	48	10,276	11	37,719	41	92,876	100
Bukombe	17,761	33	10,754	20	25,582	47	54,096	100
Meatu	17,227	51	8,213	24	8,313	25	33,753	100
Shinyanga Urban	5,095	43	2,064	18	4,612	39	11,772	100
Kishapu	22,997	58	4,528	11	12,392	31	39,917	100
<b>Total</b>	<b>214,722</b>	<b>51</b>	<b>56,391</b>	<b>13</b>	<b>147,272</b>	<b>35</b>	<b>418,385</b>	<b>100</b>

**9.44: Number of Livestock Rearing Households normally Encountering Tsetse Flies Problems by District during 2007/08 Agricultural Year**

District	Households Encountering Tsetse problems		Households Without Tsetse Problems		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	14,206	15	42,867	47	34,892	38	91,964	100
Maswa	3,625	8	20,325	43	23,043	49	46,993	100
Shinyanga Rural	2,418	5	27,536	59	17,059	36	47,013	100
Kahama	3,245	3	41,907	45	47,724	51	92,876	100
Bukombe	1,141	2	24,604	45	28,352	52	54,096	100
Meatu	8,013	24	16,426	49	9,315	28	33,753	100
Shinyanga Urban	527	4	5,622	48	5,622	48	11,772	100
Kishapu	2,145	5	23,831	60	13,941	35	39,917	100
<b>Total</b>	<b>35,319</b>	<b>8</b>	<b>203,119</b>	<b>49</b>	<b>179,948</b>	<b>43</b>	<b>418,385</b>	<b>100</b>

**9.45: Number of Livestock Rearing Households by Method of Tick Control and District during 2007/08 Agricultural Year**

District	Dipping		Spraying		Smearing		None		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	1,246	1	52,587	57	5,234	6	32,649	36	249	0	91,964	100
Maswa	3,884	8	19,030	40	2,460	5	21,102	45	518	1	46,993	100
Shinyanga Rural	2,552	5	24,715	53	1,075	2	18,537	39	134	0	47,013	100
Kahama	2,163	2	42,178	45	4,327	5	44,209	48	0	0	92,876	100
Bukombe	652	1	18,575	34	3,259	6	30,796	57	815	2	54,096	100
Meatu	2,404	7	15,625	46	3,506	10	12,119	36	100	0	33,753	100
Shinyanga Urban	966	8	4,788	41	1,054	9	4,964	42	0	0	11,772	100
Kishapu	953	2	22,282	56	1,192	3	15,490	39	0	0	39,917	100
<b>Total</b>	<b>14,820</b>	<b>4</b>	<b>199,780</b>	<b>48</b>	<b>22,105</b>	<b>5</b>	<b>179,864</b>	<b>43</b>	<b>1,816</b>	<b>0.4</b>	<b>418,385</b>	<b>100</b>

**9.46: Number of Livestock Rearing Households by Method of Tsetse Flies Control and District during 2007/08 Agricultural Year**

District	Dipping		Spraying		Trapping		None		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Bariadi	2,492	3	14,954	16	8,972	10	64,799	70	748	1	91,964	100
Maswa	1,424	3	3,236	7	2,460	5	39,484	84	388	1	46,993	100
Shinyanga Rural	940	2	7,253	15	2,955	6	35,864	76	0	0	47,013	100
Kahama	1,622	2	3,786	4	4,867	5	82,060	88	541	1	92,876	100
Bukombe	489	1	4,399	8	2,933	5	45,135	83	1,141	2	54,096	100
Meatu	2,704	8	7,512	22	2,404	7	20,833	62	300	1	33,753	100
Shinyanga Urban	176	1	966	8	1,230	10	9,356	79	44	0	11,772	100
Kishapu	834	2	5,243	13	1,787	4	31,934	80	119	0	39,917	100
<b>Total</b>	<b>10,682</b>	<b>2.6</b>	<b>47,350</b>	<b>11.3</b>	<b>27,608</b>	<b>6.6</b>	<b>329,464</b>	<b>78.7</b>	<b>3,281</b>	<b>0.8</b>	<b>418,385</b>	<b>100</b>

**9.47: Number of Livestock Rearing Households normally Encountering Newcastle Disease Problems by District during 2007/08 Agricultural Year**

District	Households Encountering Newcastle Disease problems		Households NOT Encountering Newcastle Disease problems		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	58,568	64	23,178	25	10,218	11	91,964	100
Maswa	30,422	65	11,651	25	4,919	10	46,993	100
Shinyanga Rural	30,088	64	12,761	27	4,164	9	47,013	100
Kahama	61,648	66	20,279	22	10,949	12	92,876	100
Bukombe	25,745	48	22,486	42	5,866	11	54,096	100
Meatu	17,127	51	13,020	39	3,606	11	33,753	100
Shinyanga Urban	5,183	44	3,865	33	2,723	23	11,772	100
Kishapu	28,717	72	6,911	17	4,170	10	39,798	100
<b>Total</b>	<b>257,498</b>	<b>62</b>	<b>114,152</b>	<b>27</b>	<b>46,616</b>	<b>11</b>	<b>418,266</b>	<b>100</b>

**9.48: Number of Livestock Rearing Households by Method of Newcastle Disease Control and District during 2007/08 Agricultural Year**

District	Vaccination		Local Herbs		None		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	23,926	26	18,941	21	49,097	53	91,964	100
Maswa	8,933	19	10,874	23	27,186	58	46,993	100
Shinyanga Rural	14,641	31	16,253	35	16,119	34	47,013	100
Kahama	18,521	20	37,989	41	36,367	39	92,876	100
Bukombe	18,086	33	9,288	17	26,722	49	54,096	100
Meatu	5,509	16	8,914	26	19,330	57	33,753	100
Shinyanga Urban	1,406	12	3,602	31	6,765	57	11,772	100
Kishapu	5,958	15	13,941	35	20,018	50	39,917	100
<b>Total</b>	<b>96,979</b>	<b>23</b>	<b>119,802</b>	<b>29</b>	<b>201,604</b>	<b>48</b>	<b>418,385</b>	<b>100</b>

**9.49: Number of Livestock Rearing Households by Method of Newcastle Disease Control and District during 2007/08 Agricultural Year**

District	Vaccination		Local Herbs		None		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	15,701	17	23,676	26	52,836	57	92,214	100
Maswa	777	2	7,250	15	38,967	83	46,993	100
Shinyanga Rural	6,045	13	16,119	34	24,850	53	47,013	100
Kahama	4,461	5	25,009	27	63,406	68	92,876	100
Bukombe	9,614	18	9,451	17	35,032	65	54,096	100
Meatu	1,803	5	9,815	29	22,135	66	33,753	100
Shinyanga Urban	307	3	2,679	23	8,785	75	11,772	100
Kishapu	3,456	9	14,418	36	22,163	55	40,036	100
<b>Total</b>	<b>42,163</b>	<b>10</b>	<b>108,417</b>	<b>26</b>	<b>268,174</b>	<b>64</b>	<b>418,754</b>	<b>100</b>

**9.50: Number of Livestock Rearing Households normally Encountering Foot and Mouth Disease Problems by District during 2007/08 Agricultural Year**

District	Households Encountering Foot and Mouth Disease		Households NOT Encountering Foot and Mouth Disease		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	997	1	55,827	61	35,141	38	91,964	100
Maswa	518	1	27,833	59	18,512	40	46,863	100
Shinyanga Rural	672	1	27,939	59	18,671	39	47,282	100
Kahama	7,031	8	35,958	39	49,887	54	92,876	100
Bukombe	1,792	3	20,856	39	31,448	58	54,096	100
Meatu	1,703	5	20,833	62	11,318	33	33,853	100
Shinyanga Urban	132	1	5,579	47	6,062	51	11,772	100
Kishapu	1,787	4	23,355	59	14,775	37	39,917	100
<b>Total</b>	<b>14,631</b>	<b>3</b>	<b>218,180</b>	<b>52</b>	<b>185,814</b>	<b>44</b>	<b>418,625</b>	<b>100</b>

**9.51: Number of Livestock Rearing Households normally Encountering Lymphskin Disease Problems by District during 2007/08 Agricultural Year**

District	Households Encountering Lymphskin Disease		Households NOT Encountering Lymphskin Disease		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Bariadi	748	1	54,580	59	36,636	40	91,964	100
Maswa	259	1	27,833	59	18,771	40	46,863	100
Shinyanga Rural	403	1	28,611	61	17,999	38	47,013	100
Kahama	4,049	4	38,669	42	50,158	54	92,876	100
Bukombe	3,259	6	20,205	37	30,633	57	54,096	100
Meatu	1,202	4	21,534	64	11,117	33	33,853	100
Shinyanga Urban	307	3	5,315	45	6,150	52	11,772	100
Kishapu	1,787	4	23,712	59	14,418	36	39,917	100
<b>Total</b>	<b>12,014</b>	<b>3</b>	<b>220,460</b>	<b>53</b>	<b>185,882</b>	<b>44</b>	<b>418,356</b>	<b>100</b>

## **LIVESTOCK EXTENSION SERVICES**

**9.52: Number of households receiving extension advice by District during the 2007/08 agricultural year**

District	Receiving Livestock services		Not Receiving Livestock Extension services		Total
	Number	%	Number	%	
Bariadi	46,854	54	40,624	46	87,478
Maswa	18,124	41	26,409	59	44,533
Shinyanga Rural	26,865	58	19,611	42	46,476
Kahama	58,267	66	30,013	34	88,279
Bukombe	17,435	33	34,706	67	52,141
Meatu	23,437	72	8,914	28	32,351
Shinyanga Urban	5,710	55	4,744	45	10,454
Kishapu	30,385	82	6,673	18	37,058
<b>Total</b>	<b>227,076</b>	<b>57</b>	<b>171,694</b>	<b>43</b>	<b>398,770</b>

**9.53: Number of Households receiving Livestock advice (overall) by Source of Extension and District during the 2007/08 agricultural year**

District	Source of Livestock Extension												Number of Household receiving Extension
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	44,113	94.1	4,985	10.6	2,243	4.8	3,489	7.4	3,988	8.5	5,234	11.2	46,854
Maswa	12,169	67.1	7,379	40.7	1,942	10.7	647	3.6	129	0.7	1,295	7.1	18,124
Shinyanga Rural	24,447	91.0	4,298	16.0	403	1.5	2,149	8.0	940	3.5	1,343	5.0	26,865
Kahama	55,833	95.8	4,731	8.1	269	0.5	946	1.6	6,757	11.6	3,920	6.7	58,267
Bukombe	16,457	94.4	815	4.7	163	0.9	652	3.7	2,607	15.0	1,792	10.3	17,435
Meatu	22,636	96.6	1,402	6.0	901	3.8	601	2.6	901	3.8	300	1.3	23,437
Shinyanga Urban	5,579	97.7	1,098	19.2	44	0.8	88	1.5	88	1.5	220	3.8	5,710
Kishapu	29,908	98.4	834	2.7	834	2.7	715	2.4	4,409	14.5	1,192	3.9	30,385
Total	211,141	93.0	25,542	11.2	6,799	3.0	9,287	4.1	19,819	8.7	15,296	6.7	227,076

**9.54: Number of Agriculture Households Receiving Advice on Feeds and Proper Feeding by Source and District During 2007/08 agricultural Year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Other (Specify)	%	
Bariadi	10,467	82.4	748	5.9	0	0.0	249	2.0	1,246	9.8	0	0.0	0	0.0	12,711
Maswa	6,343	72.1	1,424	16.2	0	0.0	259	2.9	0	0.0	777	8.8	0	0.0	8,803
Shinyanga Rural	9,134	93.2	269	2.7	0	0.0	134	1.4	134	1.4	134	1.4	0	0.0	9,806
Kahama	26,363	96.1	0	0.0	0	0.0	0	0.0	270	1.0	811	3.0	0	0.0	27,445
Bukombe	4,562	75.7	163	2.7	0	0.0	0	0.0	1,141	18.9	163	2.7	0	0.0	6,029
Meatu	9,315	97.9	100	1.1	0	0.0	0	0.0	0	0.0	100	1.1	0	0.0	9,515
Shinyanga Urban	2,723	92.5	220	7.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,943
Kishapu	19,661	93.8	0	0.0	0	0.0	238	1.1	834	4.0	238	1.1	0	0.0	20,971
Total	88,569	90.2	2,923	3.0	0	0.0	881	0.9	3,626	3.7	2,224	2.3	0	0.0	98,222

**9.55: Number of households Receiving Extension Advice on Proper Livestock Housing by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	15,203	82.4	997	5.4	498	2.7	997	5.4	4,401	249	498	2.7	0	0.0	18,443
Maswa	5,955	49.5	4,919	40.9	0	0.0	518	4.3	1,333	0	647	5.4	0	0.0	12,040
Shinyanga Rural	9,537	85.5	537	4.8	0	0.0	672	6.0	6,912	134	134	1.2	134	1.2	11,149
Kahama	31,907	89.7	1,893	5.3	0	0.0	0	0.0	510	1,486	270	0.8	0	0.0	35,557
Bukombe	7,006	89.6	0	0.0	0	0.0	0	0.0	2,144	326	489	6.3	0	0.0	7,821
Meatu	13,321	95.7	200	1.4	0	0.0	300	2.2	937	0	100	0.7	0	0.0	13,922
Shinyanga Urban	2,987	94.4	132	4.2	0	0.0	0	0.0	489	0	44	1.4	0	0.0	3,163
Kishapu	16,324	90.7	119	0.7	0	0.0	119	0.7	182	1,311	119	0.7	0	0.0	17,993
Total	102,241	85.1	8,798	7.3	498	0.4	2,606	2.2	1,553	3,507	2,303	1.9	134	0.1	120,086



**9.56: Number of households receiving extension advice on Proper Milking and Milk Hygiene by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	8,723	73	997	8	249	2	0	0	1,246	10	748	6	0	0	11,963
Maswa	4,919	67	1,424	19	0	0	259	4	0	0	777	11	89	1	7,379
Shinyanga Rural	5,373	95	134	2	0	0	134	2	0	0	0	0	140	2	5,642
Kahama	16,089	87	946	5	0	0	0	0	946	5	541	3	0	0	18,521
Bukombe	2,770	63	163	4	0	0	0	0	978	22	489	11	35	1	4,399
Meatu	7,111	96	100	1	0	0	100	1	100	1	0	0	45	1	7,412
Shinyanga Urban	1,406	86	176	11	0	0	0	0	44	3	0	0	85	5	1,625
Kishapu	15,014	92	0	0	0	0	0	0	1,072	7	238	1	0	0	16,324
Total	61,405	84	3,940	5	249	0	493	1	4,386	6	2,792	4	0	0	73,265

**9.57: Number of households receiving extension advice on Livestock fattening by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	12,711	81.0	1,994	12.7	249	1.6	0	0.0	0	0.0	498	3.2	249	1.6	15,701
Maswa	4,272	64.7	1,165	17.6	0	0.0	388	5.9	129	2.0	647	9.8	0	0.0	6,602
Shinyanga Rural	10,343	89.5	269	2.3	0	0.0	537	4.7	134	1.2	269	2.3	0	0.0	11,552
Kahama	17,169	84.1	1,622	7.9	134	0.7	270	1.3	946	4.6	270	1.3	0	0.0	20,412
Bukombe	4,562	71.8	163	2.6	0	0.0	326	5.1	978	15.4	163	2.6	163	2.6	6,355
Meatu	9,014	93.8	200	2.1	0	0.0	100	1.0	200	2.1	100	1.0	0	0.0	9,615
Shinyanga Urban	1,274	82.9	132	8.6	0	0.0	88	5.7	0	0.0	44	2.9	0	0.0	1,537
Kishapu	18,708	91.3	238	1.2	0	0.0	119	0.6	1,072	5.2	357	1.7	0	0.0	20,495
Total	78,052	84.6	5,783	6.3	384	0.4	1,829	2.0	3,460	3.7	2,349	2.5	412	0.4	92,269

**9.58: Number of households receiving extension advice on Disease control (dipping/spraying) by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbour		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	33,895	90.7	748	2.0	0	0.0	997	2.7	249	0.7	997	2.7	498	1.3	37,384
Maswa	7,897	72.6	1,553	14.3	129	1.2	388	3.6	0	0.0	906	8.3	0	0.0	10,874
Shinyanga Rural	18,940	89.8	940	4.5	134	0.6	537	2.5	134	0.6	403	1.9	0	0.0	21,089
Kahama	44,748	93.2	1,082	2.3	0	0.0	270	0.6	1,082	2.3	811	1.7	0	0.0	47,993
Bukombe	12,546	91.7	326	2.4	0	0.0	326	2.4	326	2.4	163	1.2	0	0.0	13,687
Meatu	17,227	95.6	300	1.7	0	0.0	200	1.1	200	1.1	100	0.6	0	0.0	18,028
Shinyanga Urban	3,602	91.1	220	5.6	0	0.0	88	2.2	44	1.1	0	0.0	0	0.0	3,953
Kishapu	26,691	94.9	238	0.8	0	0.0	238	0.8	715	2.5	238	0.8	0	0.0	28,121
Total	165,545	91.4	5,407	3.0	264	0.1	3,045	1.7	2,750	1.5	3,619	2.0	498	0.3	181,129

**9.59: Number of households receiving extension advice on Herd/Flock size and selection by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	21,932	90.7	498	2.1	0	0.0	748	3.1	498	2.1	498	2.1	0	0.0	24,175
Maswa	7,379	79.2	647	6.9	0	0.0	259	2.8	129	1.4	777	8.3	129	1.4	9,321
Shinyanga Rural	11,417	89.5	403	3.2	0	0.0	403	3.2	269	2.1	269	2.1	0	0.0	12,761
Kahama	19,200	86.1	1,622	7.3	0	0.0	134	0.6	1,078	4.8	270	1.2	0	0.0	22,305
Bukombe	5,540	79.1	0	0.0	0	0.0	0	0.0	1,466	20.9	0	0.0	0	0.0	7,006
Meatu	13,822	95.2	300	2.1	0	0.0	0	0.0	300	2.1	100	0.7	0	0.0	14,523
Shinyanga Urban	2,679	95.3	132	4.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,811
Kishapu	21,686	93.3	0	0.0	0	0.0	119	0.5	1,430	6.2	0	0.0	0	0.0	23,235
Total	103,655	89.3	3,603	3.1	0	0.0	1,663	1.4	5,171	4.5	1,914	1.6	129	0.1	116,137

**9.60: Number of households receiving extension advice on Pasture Establishment by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	20,187	88.0	748	3.3	748	3.3	0	0.0	249	1.1	997	4.3	0	0.0	22,929
Maswa	5,696	80.0	518	7.3	0	0.0	259	3.6	0	0.0	647	9.1	0	0.0	7,120
Shinyanga Rural	10,477	89.7	806	6.9	0	0.0	0	0.0	134	1.1	134	1.1	134	1.1	11,686
Kahama	12,439	79.3	811	5.2	0	0.0	134	0.9	2,025	12.9	270	1.7	0	0.0	15,681
Bukombe	2,607	72.7	0	0.0	0	0.0	0	0.0	652	18.2	326	9.1	0	0.0	3,585
Meatu	10,917	96.5	401	3.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	11,318
Shinyanga Urban	1,230	80.0	220	14.3	0	0.0	0	0.0	0	0.0	88	5.7	0	0.0	1,537
Kishapu	16,444	89.0	0	0.0	0	0.0	0	0.0	1,787	9.7	238	1.3	0	0.0	18,469
<b>Total</b>	<b>79,997</b>	<b>86.6</b>	<b>3,503</b>	<b>3.8</b>	<b>748</b>	<b>0.8</b>	<b>393</b>	<b>0.4</b>	<b>4,848</b>	<b>5.3</b>	<b>2,701</b>	<b>2.9</b>	<b>134</b>	<b>0.1</b>	<b>92,325</b>

**9.61: Number of households receiving extension advice on Group formation and strengthening by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	14,455	78.4	1,495	8.1	249	1.4	498	2.7	1,246	6.8	498	2.7	0	0.0	18,443
Maswa	4,919	50.7	1,942	20.0	1,812	18.7	388	4.0	0	0.0	647	6.7	0	0.0	9,709
Shinyanga Rural	11,283	82.4	2,283	16.7	134	1.0	0	0.0	0	0.0	0	0.0	0	0.0	13,701
Kahama	27,849	86.2	1,622	5.0	0	0.0	0	0.0	2,296	7.1	270	0.8	270	0.8	32,309
Bukombe	9,614	95.2	0	0.0	163	1.6	0	0.0	326	3.2	0	0.0	0	0.0	10,102
Meatu	12,920	90.2	401	2.8	801	5.6	0	0.0	100	0.7	100	0.7	0	0.0	14,322
Shinyanga Urban	2,460	81.2	527	17.4	44	1.4	0	0.0	0	0.0	0	0.0	0	0.0	3,031
Kishapu	19,661	91.2	238	1.1	834	3.9	0	0.0	715	3.3	119	0.6	0	0.0	21,567
<b>Total</b>	<b>103,161</b>	<b>83.7</b>	<b>8,509</b>	<b>6.9</b>	<b>4,038</b>	<b>3.3</b>	<b>887</b>	<b>0.7</b>	<b>4,683</b>	<b>3.8</b>	<b>1,635</b>	<b>1.3</b>	<b>270</b>	<b>0.2</b>	<b>123,184</b>

**9.62: Number of households receiving extension advice on Calf Rearing by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	16,200	85.5	748	3.9	249	1.3	498	2.6	498	2.6	748	3.9	0	0.0	18,941
Maswa	6,473	74.6	1,036	11.9	0	0.0	388	4.5	0	0.0	777	9.0	0	0.0	8,674
Shinyanga Rural	8,597	84.2	940	9.2	134	1.3	537	5.3	0	0.0	0	0.0	0	0.0	10,209
Kahama	21,904	89.5	541	2.2	134	0.5	0	0.0	1,350	5.5	541	2.2	0	0.0	24,470
Bukombe	4,725	80.6	0	0.0	0	0.0	0	0.0	652	11.1	489	8.3	0	0.0	5,866
Meatu	8,113	97.6	0	0.0	0	0.0	100	1.2	100	1.2	0	0.0	0	0.0	8,313
Shinyanga Urban	2,021	93.9	88	4.1	0	0.0	0	0.0	0	0.0	44	2.0	0	0.0	2,152
Kishapu	18,469	94.5	0	0.0	0	0.0	0	0.0	1,072	5.5	0	0.0	0	0.0	19,542
Total	86,501	88.1	3,352	3.4	518	0.5	1,524	1.6	3,673	3.7	2,598	2.6	0	0.0	98,166

**9.63: Number of households receiving extension advice on Use of improved Bulls by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	12,461	96.2	498	3.8	0	0	0	0.0	0	0.0	0	0.0	0	0	12,960
Maswa	5,049	75.0	777	11.5	0	0	259	3.8	0	0.0	647	9.6	0	0	6,732
Shinyanga Rural	8,059	98.4	0	0.0	0	0	134	1.6	0	0.0	0	0.0	0	0	8,194
Kahama	10,681	82.3	811	6.3	0	0	0	0.0	1,214	9.4	270	2.1	0	0	12,976
Bukombe	6,355	95.1	0	0.0	0	0	0	0.0	326	4.9	0	0.0	0	0	6,681
Meatu	10,316	99.0	100	1.0	0	0	0	0.0	0	0.0	0	0.0	0	0	10,416
Shinyanga Urban	2,284	94.5	132	5.5	0	0	0	0.0	0	0.0	0	0.0	0	0	2,416
Kishapu	13,345	91.1	0	0.0	0	0	0	0.0	1,192	8.1	119	0.8	0	0	14,656
Total	68,551	91.4	2,318	3.1	0	0	393	0.5	2,732	3.6	1,037	1.4	0	0	75,031

**9.64: Number of households receiving extension advice on Livestock Feeds processing by District during the 2007/08 agricultural year**

District	Source of Livestock Extension														Total Number of households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/TV/Newspapers		Neighbor		Other		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Bariadi	6,729	71.1	997	10.5	249	2.6	498	5.3	748	7.9	249	2.6	0	0.0	9,471
Maswa	5,049	66.1	1,553	20.3	129	1.7	259	3.4	0	0.0	647	8.5	0	0.0	7,638
Shinyanga Rural	6,850	96.2	134	1.9	0	0.0	134	1.9	0	0.0	0	0.0	0	0.0	7,119
Kahama	14,601	86.4	811	4.8	0	0.0	0	0.0	1,350	8.0	134	0.8	0	0.0	16,897
Bukombe	2,933	75.0	0	0.0	0	0.0	0	0.0	489	12.5	489	12.5	0	0.0	3,911
Meatu	5,408	96.4	0	0.0	100	1.8	100	1.8	0	0.0	0	0.0	0	0.0	5,609
Shinyanga Urban	1,010	92.0	88	8.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,098
Kishapu	14,060	94.4	0	0.0	0	0.0	0	0.0	596	4.0	119	0.8	119	0.8	14,895
<b>Total</b>	<b>56,641</b>	<b>85.0</b>	<b>3,584</b>	<b>5.4</b>	<b>479</b>	<b>0.7</b>	<b>992</b>	<b>1.5</b>	<b>3,183</b>	<b>4.8</b>	<b>1,639</b>	<b>2.5</b>	<b>119</b>	<b>0.2</b>	<b>66,636</b>

## **FISH FARMING**

**9.65: Number of Agricultural Households involved in Fish Farming and District, 2007/08  
Agricultural Year**

District	Number of Agricultural Households NOT Doing Fish Farming		Total	
	Number	%	Number	%
Bariadi	100,936	100.0	100,936	100.0
Maswa	52,430	100.0	52,430	100.0
Shinyanga Rural	54,401	100.0	54,401	100.0
Kahama	107,477	100.0	107,477	100.0
Bukombe	65,991	100.0	65,991	100.0
Meatu	40,564	100.0	40,564	100.0
Shinyanga Urban	15,154	100.0	15,154	100.0
Kishapu	48,258	100.0	48,258	100.0
<b>Total</b>	<b>485,212</b>	<b>100.0</b>	<b>485,212</b>	<b>100.0</b>

**BEE KEEPING**



**9.66: Number of Agricultural Households involved in Honey Production/Collection and District, 2007/08 Agricultural Year**

District	Agricultural Households Involved in Honey Production/Collection		Agricultural Households NOT Involved in Honey Production/Collection		Total	
	Number	%	Number	%	Number	%
Bariadi	0	.0	100,936	100.0	100,936	100.0
Maswa	129	.2	52,301	99.8	52,430	100.0
Shinyanga Rural	269	.5	54,132	99.5	54,401	100.0
Kahama	1,352	1.3	106,125	98.7	107,477	100.0
Bukombe	1,466	2.2	64,525	97.8	65,991	100.0
Meatu	100	.2	40,464	99.8	40,564	100.0
Shinyanga Urban	0	.0	15,154	100.0	15,154	100.0
Kishapu	0	.0	48,258	100.0	48,258	100.0
<b>Total</b>	<b>3,317</b>	<b>.7</b>	<b>481,895</b>	<b>99.3</b>	<b>485,212</b>	<b>100.0</b>

**9.67: Number of Agriculture Households Harvesting Honey by Type of Bee and District during the 2007/08 Agricultural Year**

District	Number of Agricultural Households that Poduced/Collected Honey			Number of Agricultural Households NOT Produced/Collected honey			Total		
	Stingless Bee	Sting Bee	Total	Stingless Bee	Sting Bee	Total	Stingless Bee	Sting Bee	Total
Maswa	129	0	129	0	0	0	129	0	129
Shinyanga Rural	269	0	269	0	0	0	269	0	269
Kahama	811	541	1,352	0	0	0	811	541	1,352
Bukombe	163	1,304	1,466	0	0	0	163	1,304	1,466
Meatu	100	0	100	0	0	0	100	0	100
<b>Total</b>	<b>1,472</b>	<b>1,844</b>	<b>3,317</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,472</b>	<b>1,844</b>	<b>3,317</b>

**9.68: Number of Agricultural Households, type of bee Hives and type of bees and District , 2007/08 Agricultural Year**

District	Number of Improved Bee Hives						Number of Local Bee Hives					
	Stingless Bee		Sting Bee		Total		Stingless Bee		Sting Bee		Total	
	Number of Households	Number of Hives	Number of Households	Number of Hives	Number of Households	Number of Hives	Number of Households	Number of Hives	Number of Households	Number of Hives	Number of Households	Number of Hives
Maswa	129	0	0	.	129	0	129	129	0	.	129	129
Shinyanga Rural	269	0	0	.	269	0	269	269	0	.	269	269
Kahama	811	0	541	2,704	1,352	2,704	811	118,172	541	62,196	1,352	180,368
Bukombe	163	0	1,304	0	1,466	0	163	9,776	1,304	118,621	1,466	128,397
Meatu	100	0	0	.	100	0	100	100	0	.	100	100
<b>Total</b>	<b>1,472</b>	<b>0</b>	<b>1,844</b>	<b>2,704</b>	<b>3,317</b>	<b>2,704</b>	<b>1,472</b>	<b>128,447</b>	<b>1,844</b>	<b>180,817</b>	<b>3,317</b>	<b>309,263</b>

**9.69: Quantity of Honey Harvested and Sold by Size of Bees and District during the 2007/08 Agricultural Year**

District	Stingless Bee				Sting Bee				Total	
	Honey Harvested		Honey Sold		Honey Harvested		Honey Sold		Honey Sold	Honey Harvested
	Quantity (Its)	%	Quantity (Its)	%	Quantity (Its)	%	Quantity (Its)	%		
Bariadi	0	0	0	0	.	0	0	0	2,589	2,589
Maswa	2,589	0	2,589	0	.	0	.	0	0	0
Shinyanga Rural	2,686	100	0	0	.	0	.	0	.	2,686
Kahama	189,291	32	135,208	26	404,272	68	393,455	74	528,663	593,563
Bukombe	19,553	3	19,553	4	760,934	97	425,276	96	444,828	780,487
Meatu	501	100	0	0	.	0	.	0	.	501
Shinyanga Urban	.	0	0	0	.	0	.	0	0	0
Kishapu	.	0	.	0	.	0	.	0	0	0
<b>Total</b>	<b>214,621</b>	<b>16</b>	<b>157,350</b>	<b>16</b>	<b>1,165,206</b>	<b>84</b>	<b>818,731</b>	<b>84</b>	<b>976,080</b>	<b>1,379,826</b>

**9.70: Average price of Honey (Tshs/litre) by Size of Bees and District during the 2007/08 Agricultural Year**

District	Stingless Bee (Price per Litre)	Sting Bee (Price per Litre)	Average Price Per Litre
Bariadi	.	.	.
Maswa	0	.	.
Shinyanga Rural	0	.	.
Kahama	1,200	1,750	1,420
Bukombe	1,250	1,466	1,442
Meatu	0	.	.
Shinyanga Urban	.	.	.
Kishapu	.	.	.
<b>Total</b>	<b>799</b>	<b>1,549</b>	<b>1,217</b>

**9.71: Number of Agricultural Households By Location of Selling Honey and District, 2007/08 Agricultural Year**

District	Neighbour		Local market		Processing industry	Did not sell	Total	
	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee	Stingless Bee	Stingless Bee	Stingless Bee	Sting Bee
Maswa	0	0	0	0	0	129	129	0
Shinyanga Rural	0	0	0	0	0	269	269	0
Kahama	270	541	270	0	270	0	811	541
Bukombe	163	652	0	652	0	0	163	1,304
Meatu	0	0	0	0	0	100	100	0
<b>Total</b>	<b>433</b>	<b>1,193</b>	<b>270</b>	<b>652</b>	<b>270</b>	<b>498</b>	<b>1,472</b>	<b>1,844</b>

**AGRICULTURE CONSTRAINTS**

**9.72: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility	
	Number	%	Number	%	Number	%	Number	%
Bariadi	36,885	36.54	10,717	10.62	20,686	20.49	3,988	3.95
Maswa	17,606	33.58	1,165	2.22	13,464	25.68	2,589	4.94
Shinyanga Rural	18,402	33.91	3,224	5.94	13,567	25.00	2,283	4.21
Kahama	16,494	15.35	5,408	5.03	29,603	27.54	21,766	20.25
Bukombe	18,575	28.15	1,955	2.96	22,649	34.32	7,658	11.60
Meatu	14,923	36.79	4,607	11.36	6,310	15.56	1,202	2.96
Shinyanga Urban	3,119	20.52	1,054	6.94	4,217	27.75	1,142	7.51
Kishapu	12,511	25.93	3,098	6.42	14,418	29.88	2,621	5.43
Total	138,516	28.55	31,229	6.44	124,912	25.75	43,250	8.92

**Cont. 9.72: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	3,489	3.46	1,495	1.48	1,994	1.98	6,978	6.91
Maswa	1,683	3.21	259	0.49	1,036	1.98	777	1.48
Shinyanga Rural	1,612	2.97	1,075	1.98	537	0.99	2,552	4.70
Kahama	2,704	2.52	1,352	1.26	1,893	1.76	9,328	8.68
Bukombe	815	1.23	326	0.49	489	0.74	4,888	7.41
Meatu	1,102	2.72	300	0.74	501	1.23	801	1.98
Shinyanga Urban	659	4.34	615	4.05	44	0.29	1,493	9.83
Kishapu	2,383	4.94	596	1.23	715	1.48	2,860	5.93
Total	14,447	2.98	6,018	1.24	7,208	1.49	29,678	6.12

**Cont. 9.72: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Extension Services		Access to Forest Resources		Hunting and Gathering		Access to Potable Water	
	Number	%	Number	%	Number	%	Number	%
Bariadi	1,994	1.98	249	0.25	249	0.25	4,735	4.69
Maswa	3,366	6.42	0	0.00	0	0.00	1,424	2.72
Shinyanga Rural	1,478	2.72	0	0.00	134	0.25	1,343	2.48
Kahama	1,622	1.51	0	0.00	0	0.00	1,082	1.01
Bukombe	1,955	2.96	0	0.00	0	0.00	326	0.49
Meatu	701	1.73	0	0.00	0	0.00	801	1.98
Shinyanga Urban	527	3.47	88	0.58	0	0.00	88	0.58
Kishapu	477	0.99	0	0.00	0	0.00	1,430	2.96
Total	12,120	2.50	337	0.07	384	0.08	11,229	2.31

**Cont. Table 9.72: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Credit		Access to Off Farm Income		Threshing		Harvesting	
	Number	%	Number	%	Number	%	Number	%
Bariadi	3,489	3.46	249	0.25	249	0.25	0	0.00
Maswa	906	1.73	0	0.00	0	0.00	0	0.00
Shinyanga Rural	2,015	3.71	134	0.25	0	0.00	0	0.00
Kahama	3,786	3.52	541	0.50	0	0.00	0	0.00
Bukombe	815	1.23	326	0.49	163	0.25	0	0.00
Meatu	3,806	9.38	801	1.98	0	0.00	0	0.00
Shinyanga Urban	176	1.16	44	0.29	0	0.00	0	0.00
Kishapu	1,787	3.70	238	0.49	0	0.00	0	0.00
<b>Total</b>	<b>16,780</b>	<b>3.46</b>	<b>2,334</b>	<b>0.48</b>	<b>412</b>	<b>0.08</b>	<b>0</b>	<b>0.00</b>

**Cont. 9.72: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Crop Storage		Crop Processing		Marketing Information		Higher Transport Costs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	0	0.00	0	0.00	1,246	1.23	0	0.00
Maswa	388	0.74	0	0.00	129	0.25	0	0.00
Shinyanga Rural	403	0.74	0	0.00	134	0.25	269	0.50
Kahama	0	0.00	270	0.25	0	0.00	270	0.25
Bukombe	0	0.00	0	0.00	0	0.00	326	0.49
Meatu	0	0.00	0	0.00	200	0.49	300	0.74
Shinyanga Urban	44	0.29	0	0.00	44	0.29	0	0.00
Kishapu	0	0.00	0	0.00	357	0.74	119	0.25
<b>Total</b>	<b>835</b>	<b>0.17</b>	<b>270</b>	<b>0.06</b>	<b>2,112</b>	<b>0.44</b>	<b>1,285</b>	<b>0.26</b>

**Cont. 9.72: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation	
	Number	%	Number	%	Number	%	Number	%
Bariadi	0	0.00	0	0.00	249	0.25	0	0.00
Maswa	129	0.25	0	0.00	259	0.49	129	0.25
Shinyanga Rural	0	0.00	0	0.00	537	0.99	0	0.00
Kahama	270	0.25	270	0.25	2,704	2.52	0	0.00
Bukombe	326	0.49	489	0.74	1,466	2.22	0	0.00
Meatu	0	0.00	0	0.00	1,102	2.72	0	0.00
Shinyanga Urban	0	0.00	0	0.00	88	0.58	0	0.00
Kishapu	238	0.49	0	0.00	119	0.25	0	0.00
<b>Total</b>	<b>964</b>	<b>0.20</b>	<b>759</b>	<b>0.16</b>	<b>6,525</b>	<b>1.34</b>	<b>129</b>	<b>0.03</b>

**Cont. 9.72: Number of Agricultural Households Reporting the FIRST most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint					
	Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%
Bariadi	1,994	1.98	0	0.00	100,936	100.00
Maswa	7,120	13.58	0	0.00	52,430	100.00
Shinyanga Rural	4,433	8.17	134	0.25	54,266	100.00
Kahama	7,842	7.30	270	0.25	107,477	100.00
Bukombe	2,281	3.46	163	0.25	65,991	100.00
Meatu	3,105	7.65	0	0.00	40,564	100.00
Shinyanga Urban	1,757	11.56	0	0.00	15,198	100.00
Kishapu	4,290	8.89	0	0.00	48,258	100.00
<b>Total</b>	<b>32,821</b>	<b>6.77</b>	<b>568</b>	<b>0.12</b>	<b>485,121</b>	<b>100.00</b>

**9.73: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility	
	Number	%	Number	%	Number	%	Number	%
Bariadi	5,483	5.4	9,471	9.4	32,399	32.1	7,726	7.7
Maswa	1,683	3.2	4,272	8.1	16,441	31.4	5,437	10.4
Shinyanga Rural	2,283	4.2	5,507	10.1	11,149	20.5	3,089	5.7
Kahama	5,272	4.9	5,813	5.4	13,655	12.7	21,085	19.6
Bukombe	1,955	3.0	1,629	2.5	14,991	22.8	12,221	18.6
Meatu	5,609	13.8	5,709	14.1	6,110	15.1	1,402	3.5
Shinyanga Urban	1,098	7.2	1,362	9.0	3,294	21.7	2,152	14.2
Kishapu	2,145	4.4	2,502	5.2	12,511	25.9	5,124	10.6
<b>Total</b>	<b>25,529</b>	<b>5.3</b>	<b>36,265</b>	<b>7.5</b>	<b>110,550</b>	<b>22.8</b>	<b>58,237</b>	<b>12.0</b>

**Cont. 9.73: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	19,938	19.75	1,994	1.98	4,985	4.94	6,231	6.17
Maswa	4,790	9.14	1,553	2.96	3,754	7.16	4,143	7.90
Shinyanga Rural	4,298	7.92	1,612	2.97	1,612	2.97	11,283	20.79
Kahama	10,951	10.16	2,975	2.76	3,245	3.01	22,308	20.70
Bukombe	3,422	5.20	1,141	1.73	652	.99	16,457	25.00
Meatu	3,405	8.40	401	.99	1,302	3.21	4,106	10.12
Shinyanga Urban	1,713	11.30	483	3.19	395	2.61	1,450	9.57
Kishapu	3,694	7.65	1,311	2.72	1,906	3.95	8,579	17.78
<b>Total</b>	<b>52,211</b>	<b>10.76</b>	<b>11,469</b>	<b>2.36</b>	<b>17,851</b>	<b>3.68</b>	<b>74,557</b>	<b>15.37</b>

**Cont. 9.73: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Extension Services		Access to Forest Resources		Hunting and Gathering		Access to Potable Water	
	Number	%	Number	%	Number	%	Number	%
Bariadi	1,246	1.23	0	.00	249	.25	2,492	2.47
Maswa	1,942	3.70	0	.00	0	.00	777	1.48
Shinyanga Rural	2,552	4.70	0	.00	0	.00	2,015	3.71
Kahama	2,702	2.51	0	.00	0	.00	811	.75
Bukombe	4,236	6.44	0	.00	163	.25	326	.50
Meatu	701	1.73	100	.25	100	.25	2,404	5.93
Shinyanga Urban	791	5.22	0	.00	88	.58	703	4.64
Kishapu	1,668	3.46	0	.00	0	.00	2,979	6.17
<b>Total</b>	15,839	3.26	100	.02	600	.12	12,506	2.58

**Cont. 9.73: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Credit		Access to Off Farm Income		Threshing		Crop Storage	
	Number	%	Number	%	Number	%	Number	%
Bariadi	2,243	2.22	997	.99	748	.74	249	.25
Maswa	1,295	2.47	777	1.48	0	.00	777	1.48
Shinyanga Rural	2,283	4.21	537	.99	0	.00	537	.99
Kahama	5,138	4.77	541	.50	0	.00	270	.25
Bukombe	1,955	2.97	1,304	1.98	163	.25	0	.00
Meatu	3,105	7.65	1,603	3.95	100	.25	200	.49
Shinyanga Urban	351	2.32	132	.87	132	.87	0	.00
Kishapu	1,430	2.96	238	.49	0	.00	119	.25
<b>Total</b>	17,800	3.67	6,128	1.26	1,143	.24	2,153	.44

**Cont. 9.73: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Crop Processing		Marketing Information		Higher Transport Costs		Destruction by Animals	
	Number	%	Number	%	Number	%	Number	%
Bariadi	0	.00	498	.49	1,246	1.23	0	.00
Maswa	0	.00	1,295	2.47	0	.00	0	.00
Shinyanga Rural	0	.00	537	.99	806	1.49	0	.00
Kahama	0	.00	811	.75	270	.25	270	.25
Bukombe	326	.50	163	.25	163	.25	0	.00
Meatu	100	.25	1,002	2.47	100	.25	401	.99
Shinyanga Urban	88	.58	0	.00	44	.29	176	1.16
Kishapu	119	.25	477	.99	0	.00	477	.99
<b>Total</b>	633	.13	4,783	.99	2,630	.54	1,323	.27



**Cont. 9.73: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Stealing		Pest and Disease		Local Government Taxation		Extended dry spell	
	Number	%	Number	%	Number	%	Number	%
Bariadi	0	.00	249	.25	0	.00	2,492	2.47
Maswa	0	.00	2,071	3.95	0	.00	1,424	2.72
Shinyanga Rural	0	.00	806	1.49	134	.25	3,224	5.94
Kahama	270	.25	5,138	4.77	0	.00	6,220	5.77
Bukombe	326	.50	2,444	3.71	163	.25	815	1.24
Meatu	0	.00	801	1.98	0	.00	1,803	4.44
Shinyanga Urban	0	.00	132	.87	0	.00	527	3.48
Kishapu	0	.00	596	1.23	0	.00	2,383	4.94
<b>Total</b>	<b>596</b>	<b>.12</b>	<b>12,237</b>	<b>2.52</b>	<b>297</b>	<b>.06</b>	<b>18,887</b>	<b>3.89</b>

**Cont. 9.73: Number of Agricultural Households Reporting the SECOND most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint			
	Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%
Bariadi	0	.0	100,936	100.0
Maswa	0	.0	52,430	100.0
Shinyanga Rural	0	.0	54,266	100.0
Kahama	0	.0	107,748	100.0
Bukombe	815	1.2	65,828	100.0
Meatu	0	.0	40,564	100.0
Shinyanga Urban	44	.3	15,154	100.0
Kishapu	0	.0	48,258	100.0
<b>Total</b>	<b>859</b>	<b>.2</b>	<b>485,185</b>	<b>100.0</b>

**9.74: Number of Agricultural Households Reporting the THIRD most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility	
	Number	%	Number	%	Number	%	Number	%
Bariadi	1,745	1.73	1,994	1.98	11,963	11.85	8,972	8.89
Maswa	1,942	3.70	1,165	2.22	8,415	16.05	5,955	11.36
Shinyanga Rural	2,552	4.70	806	1.49	7,388	13.61	3,224	5.94
Kahama	1,893	1.76	1,893	1.76	13,114	12.20	11,628	10.82
Bukombe	1,141	1.73	815	1.23	6,355	9.63	5,866	8.89
Meatu	2,704	6.68	1,903	4.70	4,808	11.88	2,304	5.69
Shinyanga Urban	351	2.32	483	3.19	2,679	17.68	1,537	10.14
Kishapu	834	1.73	1,549	3.21	4,528	9.38	4,409	9.14
<b>Total</b>	<b>13,162</b>	<b>2.71</b>	<b>10,608</b>	<b>2.19</b>	<b>59,249</b>	<b>12.22</b>	<b>43,894</b>	<b>9.05</b>

**Cont 9.74: Number of Agricultural Households Reporting the THIRD most important  
Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	21,683	21.48	3,988	3.95	6,231	6.17	15,452	15.31
Maswa	8,156	15.56	1,036	1.98	4,272	8.15	7,638	14.57
Shinyanga Rural	4,567	8.42	2,418	4.46	3,627	6.68	4,567	8.42
Kahama	8,383	7.80	2,704	2.52	6,895	6.42	19,603	18.24
Bukombe	3,585	5.43	489	0.74	1,629	2.47	18,901	28.64
Meatu	2,804	6.93	901	2.23	2,304	5.69	6,410	15.84
Shinyanga Urban	1,318	8.70	747	4.93	527	3.48	2,284	15.07
Kishapu	6,434	13.33	3,456	7.16	2,026	4.20	6,792	14.07
<b>Total</b>	<b>56,930</b>	<b>11.74</b>	<b>15,738</b>	<b>3.25</b>	<b>27,510</b>	<b>5.67</b>	<b>81,647</b>	<b>16.84</b>

**Cont 9.74: Number of Agricultural Households Reporting the THIRD most important  
Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Extension Services		Access to Forest Resources		Hunting and Gathering		Access to Potable Water	
	Number	%	Number	%	Number	%	Number	%
Bariadi	7,228	7.16	249	0.25	249	0.25	4,237	4.20
Maswa	3,107	5.93	0	0.00	0	0.00	1,553	2.96
Shinyanga Rural	4,030	7.43	0	0.00	0	0.00	1,612	2.97
Kahama	5,134	4.78	0	0.00	0	0.00	1,893	1.76
Bukombe	3,585	5.43	489	0.74	0	0.00	1,304	1.98
Meatu	1,502	3.71	100	0.25	701	1.73	1,402	3.47
Shinyanga Urban	615	4.06	0	0.00	0	0.00	659	4.35
Kishapu	1,668	3.46	119	0.25	0	0.00	1,906	3.95
<b>Total</b>	<b>26,869</b>	<b>5.54</b>	<b>957</b>	<b>0.20</b>	<b>950</b>	<b>0.20</b>	<b>14,566</b>	<b>3.00</b>

**Cont 9.74: Number of Agricultural Households Reporting the THIRD most important  
Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Credit		Access to Off Farm Income		Threshing		Harvesting	
	Number	%	Number	%	Number	%	Number	%
Bariadi	6,480	6.42	1,994	1.98	498	0.49	0	0.00
Maswa	2,848	5.43	906	1.73	0	0.00	0	0.00
Shinyanga Rural	10,074	18.56	1,209	2.23	0	0.00	0	0.00
Kahama	10,951	10.19	4,461	4.15	270	0.25	0	0.00
Bukombe	11,406	17.28	1,466	2.22	652	0.99	0	0.00
Meatu	4,507	11.14	2,203	5.45	300	0.74	0	0.00
Shinyanga Urban	879	5.80	659	4.35	132	0.87	88	0.58
Kishapu	2,860	5.93	2,145	4.44	0	0.00	0	0.00
<b>Total</b>	<b>50,004</b>	<b>10.31</b>	<b>15,044</b>	<b>3.10</b>	<b>1,853</b>	<b>0.38</b>	<b>88</b>	<b>0.02</b>

**Cont 9.74: Number of Agricultural Households Reporting the THIRD most important  
Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Crop Storage		Crop Processing		Marketing Information		Higher Transport Costs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	997	0.99	0	0.00	1,495	1.48	748	0.74
Maswa	1,036	1.98	0	0.00	1,812	3.46	0	0.00
Shinyanga Rural	403	0.74	537	0.99	1,075	1.98	940	1.73
Kahama	541	0.50	270	0.25	675	0.63	3,245	3.02
Bukombe	489	0.74	326	0.49	326	0.49	1,466	2.22
Meatu	501	1.24	100	0.25	801	1.98	300	0.74
Shinyanga Urban	176	1.16	88	0.58	132	0.87	0	0.00
Kishapu	0	0.00	357	0.74	2,741	5.68	119	0.25
<b>Total</b>	<b>4,142</b>	<b>0.85</b>	<b>1,679</b>	<b>0.35</b>	<b>9,057</b>	<b>1.87</b>	<b>6,819</b>	<b>1.41</b>

**Cont 9.74: Number of Agricultural Households Reporting the THIRD most important  
Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation	
	Number	%	Number	%	Number	%	Number	%
Bariadi	249	0.25	498	0.49	498	0.49	249	0.25
Maswa	0	0.00	518	0.99	518	0.99	259	0.49
Shinyanga Rural	0	0.00	134	0.25	1,209	2.23	0	0.00
Kahama	541	0.50	270	0.25	4,191	3.90	0	0.00
Bukombe	163	0.25	489	0.74	978	1.48	163	0.25
Meatu	701	1.73	0	0.00	1,102	2.72	100	0.25
Shinyanga Urban	88	0.58	44	0.29	176	1.16	0	0.00
Kishapu	834	1.73	119	0.25	2,145	4.44	0	0.00
<b>Total</b>	<b>2,576</b>	<b>0.53</b>	<b>2,073</b>	<b>0.43</b>	<b>10,816</b>	<b>2.23</b>	<b>771</b>	<b>0.16</b>

**Cont 9.74: Number of Agricultural Households Reporting the THIRD most important  
Constraint by District, 2007/08 Agricultural Year**

District	Constraint					
	Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%
Bariadi	3,240	3.21	0	0.00	100,936	100.00
Maswa	1,295	2.47	0	0.00	52,430	100.00
Shinyanga Rural	3,895	7.18	0	0.00	54,266	100.00
Kahama	8,922	8.30	0	0.00	107,477	100.00
Bukombe	3,422	5.19	489	0.74	65,991	100.00
Meatu	1,903	4.70	100	0.25	40,464	100.00
Shinyanga Urban	1,493	9.86	0	0.00	15,154	100.00
Kishapu	3,217	6.67	0	0.00	48,258	100.00
<b>Total</b>	<b>27,387</b>	<b>5.65</b>	<b>589</b>	<b>0.12</b>	<b>484,977</b>	<b>100.00</b>

**9.75: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility	
	Number	%	Number	%	Number	%	Number	%
Bariadi	2,243	2.22	1,495	1.48	5,981	5.93	5,981	5.93
Maswa	777	1.48	906	1.73	5,049	9.63	2,848	5.43
Shinyanga Rural	1,746	3.22	1,612	2.97	2,686	4.95	2,283	4.21
Kahama	1,893	1.77	1,352	1.26	7,165	6.68	7,301	6.81
Bukombe	1,141	1.73	815	1.23	4,562	6.91	3,422	5.19
Meatu	2,203	5.45	2,404	5.94	2,704	6.68	1,402	3.47
Shinyanga Urban	439	2.90	351	2.32	1,010	6.67	1,186	7.83
Kishapu	715	1.48	1,668	3.46	3,575	7.41	3,694	7.65
<b>Total</b>	<b>11,157</b>	<b>2.30</b>	<b>10,604</b>	<b>2.19</b>	<b>32,733</b>	<b>6.75</b>	<b>28,118</b>	<b>5.80</b>

**Cont. 9.75: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	12,461	12.35	1,246	1.23	6,480	6.42	17,944	17.78
Maswa	4,531	8.64	1,036	1.98	4,143	7.90	6,732	12.84
Shinyanga Rural	3,627	6.68	1,881	3.47	2,418	4.46	3,358	6.19
Kahama	6,220	5.80	2,704	2.52	6,220	5.80	19,470	18.16
Bukombe	4,888	7.41	1,955	2.96	1,304	1.98	8,147	12.35
Meatu	1,603	3.96	1,002	2.48	1,903	4.70	4,106	10.15
Shinyanga Urban	1,098	7.25	439	2.90	747	4.93	2,284	15.07
Kishapu	2,860	5.93	1,430	2.96	2,621	5.43	5,719	11.85
<b>Total</b>	<b>37,287</b>	<b>7.69</b>	<b>11,692</b>	<b>2.41</b>	<b>25,835</b>	<b>5.33</b>	<b>67,761</b>	<b>13.98</b>

**Cont. 9.75: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Extension Services		Access to Forest Resources		Hunting and Gathering		Access to Potable Water	
	Number	%	Number	%	Number	%	Number	%
Bariadi	11,963	11.85	0	0.00	249	0.25	5,483	5.43
Maswa	3,754	7.16	129	0.25	0	0.00	1,424	2.72
Shinyanga Rural	3,358	6.19	134	0.25	403	0.74	1,746	3.22
Kahama	3,512	3.28	811	0.76	270	0.25	3,109	2.90
Bukombe	4,236	6.42	163	0.25	0	0.00	815	1.23
Meatu	1,903	4.70	200	0.50	100	0.25	1,603	3.96
Shinyanga Urban	527	3.48	0	0.00	0	0.00	132	0.87
Kishapu	2,383	4.94	0	0.00	0	0.00	1,192	2.47
<b>Total</b>	<b>31,637</b>	<b>6.53</b>	<b>1,438</b>	<b>0.30</b>	<b>1,023</b>	<b>0.21</b>	<b>15,503</b>	<b>3.20</b>

**Cont. 9.75: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Credit		Access to Off Farm Income		Threshing		Harvesting	
	Number	%	Number	%	Number	%	Number	%
Bariadi	6,978	6.91	3,240	3.21	748	0.74	249	0.25
Maswa	3,107	5.93	2,589	4.94	518	0.99	0	0.00
Shinyanga Rural	8,194	15.10	6,179	11.39	537	0.99	0	0.00
Kahama	11,085	10.34	9,599	8.95	0	0.00	0	0.00
Bukombe	6,029	9.14	2,118	3.21	489	0.74	0	0.00
Meatu	4,106	10.15	4,908	12.13	401	0.99	100	0.25
Shinyanga Urban	1,098	7.25	1,406	9.28	0	0.00	44	0.29
Kishapu	2,979	6.17	3,456	7.16	0	0.00	0	0.00
<b>Total</b>	<b>43,577</b>	<b>8.99</b>	<b>33,494</b>	<b>6.91</b>	<b>2,692</b>	<b>0.56</b>	<b>393</b>	<b>0.08</b>

**Cont. 9.75: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Crop Storage		Crop Processing		Marketing Information		Higher Transport Costs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	1,745	1.73	498	0.49	2,741	2.72	1,745	1.73
Maswa	1,683	3.21	259	0.49	2,978	5.68	129	0.25
Shinyanga Rural	1,746	3.22	672	1.24	3,089	5.69	537	0.99
Kahama	2,027	1.89	811	0.76	2,975	2.77	3,515	3.28
Bukombe	163	0.25	978	1.48	815	1.23	652	0.99
Meatu	701	1.73	300	0.74	2,704	6.68	701	1.73
Shinyanga Urban	439	2.90	307	2.03	439	2.90	88	0.58
Kishapu	596	1.23	238	0.49	3,694	7.65	477	0.99
<b>Total</b>	<b>9,100</b>	<b>1.88</b>	<b>4,064</b>	<b>0.84</b>	<b>19,435</b>	<b>4.01</b>	<b>7,844</b>	<b>1.62</b>

**Cont. 9.75: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation	
	Number	%	Number	%	Number	%	Number	%
Bariadi	748	0.74	1,495	1.48	3,988	3.95	249	0.25
Maswa	259	0.49	1,942	3.70	5,178	9.88	129	0.25
Shinyanga Rural	269	0.50	0	0.00	1,343	2.48	269	0.50
Kahama	811	0.76	541	0.50	3,514	3.28	0	0.00
Bukombe	652	0.99	489	0.74	9,939	15.06	6,518	9.88
Meatu	1,603	3.96	0	0.00	1,302	3.22	0	0.00
Shinyanga Urban	307	2.03	88	0.58	439	2.90	0	0.00
Kishapu	2,621	5.43	0	0.00	4,290	8.89	0	0.00
<b>Total</b>	<b>7,270</b>	<b>1.50</b>	<b>4,555</b>	<b>0.94</b>	<b>29,993</b>	<b>6.19</b>	<b>7,165</b>	<b>1.48</b>

**Cont. 9.75: Number of Agricultural Households Reporting the FOURTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint					
	Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%
Bariadi	4,985	4.94	0	0.00	100,936	100
Maswa	2,330	4.44	0	0.00	52,430	100
Shinyanga Rural	6,045	11.14	134	0.25	54,266	100
Kahama	12,301	11.47	0	0.00	107,207	100
Bukombe	4,725	7.16	978	1.48	65,991	100
Meatu	2,504	6.19	0	0.00	40,464	100
Shinyanga Urban	2,152	14.20	132	0.87	15,154	100
Kishapu	4,051	8.40	0	0.00	48,258	100
<b>Total</b>	<b>39,093</b>	<b>8.07</b>	<b>1,244</b>	<b>0.26</b>	<b>484,707</b>	<b>100</b>

**9.76: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Land		Ownership of Land		Poor Soil Cultivation Equipment		Soil Fertility	
	Number	%	Number	%	Number	%	Number	%
Bariadi	3,240	3.21	2,741	2.72	6,231	6.17	2,492	2.47
Maswa	647	1.23	647	1.23	3,107	5.93	1,295	2.47
Shinyanga Rural	1,209	2.23	1,343	2.48	3,895	7.18	1,209	2.23
Kahama	1,352	1.26	1,622	1.52	8,112	7.59	5,813	5.44
Bukombe	4,888	7.41	978	1.48	3,096	4.69	1,955	2.96
Meatu	1,502	3.71	2,905	7.18	2,704	6.68	2,203	5.45
Shinyanga Urban	615	4.07	439	2.91	659	4.36	703	4.65
Kishapu	1,072	2.22	834	1.73	3,098	6.42	2,264	4.69
<b>Total</b>	<b>14,526</b>	<b>3.00</b>	<b>11,510</b>	<b>2.38</b>	<b>30,903</b>	<b>6.38</b>	<b>17,934</b>	<b>3.70</b>

**Cont. 9.76: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Improved Seed		Irrigation Facilities		Access to Chemical Inputs		Cost of Inputs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	4,735	4.69	498	0.49	6,480	6.42	10,218	10.12
Maswa	4,143	7.90	1,683	3.21	4,143	7.90	5,178	9.88
Shinyanga Rural	1,746	3.22	1,746	3.22	3,358	6.19	4,298	7.92
Kahama	5,408	5.06	4,056	3.79	7,572	7.08	8,112	7.59
Bukombe	2,444	3.70	1,629	2.47	2,118	3.21	3,911	5.93
Meatu	2,003	4.95	501	1.24	1,402	3.47	2,704	6.68
Shinyanga Urban	1,142	7.56	483	3.20	703	4.65	1,581	10.47
Kishapu	2,502	5.19	1,787	3.70	2,145	4.44	4,290	8.89
<b>Total</b>	<b>24,124</b>	<b>4.98</b>	<b>12,385</b>	<b>2.56</b>	<b>27,920</b>	<b>5.76</b>	<b>40,293</b>	<b>8.32</b>

**Cont. 9.76: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Extension Services		Access to Forest Resources		Hunting and Gathering		Access to Potable Water	
	Number	%	Number	%	Number	%	Number	%
Bariadi	11,963	11.85	0	0.00	0	0.00	2,492	2.47
Maswa	3,107	5.93	0	0.00	0	0.00	1,812	3.46
Shinyanga Rural	3,761	6.93	0	0.00	134	0.25	2,821	5.20
Kahama	4,191	3.92	541	0.51	270	0.25	3,245	3.03
Bukombe	2,933	4.44	0	0.00	0	0.00	978	1.48
Meatu	1,803	4.46	100	0.25	100	0.25	1,502	3.71
Shinyanga Urban	1,098	7.27	0	0.00	0	0.00	395	2.62
Kishapu	2,026	4.20	0	0.00	0	0.00	1,072	2.22
<b>Total</b>	<b>30,881</b>	<b>6.38</b>	<b>641</b>	<b>0.13</b>	<b>505</b>	<b>0.10</b>	<b>14,318</b>	<b>2.96</b>

**Cont. 9.76: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Access to Credit		Access to Off Farm Income		Threshing		Harvesting	
	Number	%	Number	%	Number	%	Number	%
Bariadi	17,197	17.04	7,726	7.65	748	0.74	0	0.00
Maswa	4,013	7.65	2,071	3.95	388	0.74	259	0.49
Shinyanga Rural	5,239	9.65	3,761	6.93	537	0.99	134	0.25
Kahama	10,544	9.86	7,842	7.33	811	0.76	541	0.51
Bukombe	7,984	12.10	2,281	3.46	0	0.00	0	0.00
Meatu	3,405	8.42	3,105	7.67	200	0.50	200	0.50
Shinyanga Urban	1,801	11.92	791	5.23	88	0.58	0	0.00
Kishapu	2,502	5.19	2,383	4.94	477	0.99	0	0.00
<b>Total</b>	<b>52,685</b>	<b>10.88</b>	<b>29,960</b>	<b>6.19</b>	<b>3,249</b>	<b>0.67</b>	<b>1,134</b>	<b>0.23</b>

**Cont. 9.76: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint							
	Crop Storage		Crop Processing		Marketing Information		Higher Transport Costs	
	Number	%	Number	%	Number	%	Number	%
Bariadi	748	0.74	249	0.25	2,243	2.22	3,240	3.21
Maswa	2,071	3.95	906	1.73	2,201	4.20	647	1.23
Shinyanga Rural	1,075	1.98	403	0.74	2,149	3.96	2,015	3.71
Kahama	3,245	3.03	270	0.25	4,327	4.05	4,191	3.92
Bukombe	815	1.23	652	0.99	1,629	2.47	2,770	4.20
Meatu	701	1.73	300	0.74	4,307	10.64	601	1.49
Shinyanga Urban	483	3.20	351	2.33	791	5.23	88	0.58
Kishapu	953	1.98	0	0.00	3,098	6.42	715	1.48
<b>Total</b>	<b>10,091</b>	<b>2.08</b>	<b>3,132</b>	<b>0.65</b>	<b>20,745</b>	<b>4.28</b>	<b>14,266</b>	<b>2.95</b>

**Cont. 9.76: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint						
	Destruction by Animals		Stealing		Pest and Disease		Local Government Taxation
	Number	%	Number	%	Number	%	Number %
Bariadi	498	0.49	1,495	1.48	6,231	6.17	0 0.00
Maswa	129	0.25	388	0.74	5,826	11.11	259 0.49
Shinyanga Rural	0	0.00	403	0.74	2,686	4.95	0 0.00
Kahama	1,622	1.52	1,893	1.77	7,436	6.95	0 0.00
Bukombe	326	0.49	652	0.99	3,422	5.19	1,629 2.47
Meatu	501	1.24	100	0.25	2,804	6.93	601 1.49
Shinyanga Urban	44	0.29	264	1.74	835	5.52	0 0.00
Kishapu	2,145	4.44	0	0.00	3,932	8.15	119 0.25
<b>Total</b>	<b>5,266</b>	<b>1.09</b>	<b>5,195</b>	<b>1.07</b>	<b>33,171</b>	<b>6.85</b>	<b>2,608 0.54</b>

**Cont. 9.76: Number of Agricultural Households Reporting the FIFTH most important Constraint by District, 2007/08 Agricultural Year**

District	Constraint					
	Extended dry spell		Crop Farmers/Livestock keepers Conflicts		Total	
	Number	%	Number	%	Number	%
Bariadi	9,221	9.14	249	0.25	100,936	100.00
Maswa	6,991	13.33	518	0.99	52,430	100.00
Shinyanga Rural	9,403	17.33	940	1.73	54,266	100.00
Kahama	12,702	11.88	1,216	1.14	106,936	100.00
Bukombe	17,761	26.91	1,141	1.73	65,991	100.00
Meatu	4,207	10.40	0	0.00	40,464	100.00
Shinyanga Urban	1,713	11.34	44	0.29	15,110	100.00
Kishapu	10,843	22.47	0	0.00	48,258	100.00
<b>Total</b>	<b>72,841</b>	<b>15.04</b>	<b>4,108</b>	<b>0.85</b>	<b>484,392</b>	<b>100.00</b>



## HOUSEHOLD FACILITIES

**10.1: Number of households reporting average number of rooms and type of building Materials and District, 2007/08 Agricultural Year**

District	Roofing Materials								
	Number of rooms	Iron Sheets	Tiles	Concrete	Asbestos	Grass/Leaves	Grass & Mud	Other	Total
Bariadi	3	80,251	498	0	0	11,963	8,224	0	100,936
Maswa	3	17,736	0	129	129	5,567	28,869	0	52,430
Shinyanga Rural	3	16,790	672	134	537	24,850	11,283	134	54,401
Kahama	3	46,915	270	405	1,622	56,103	2,162	0	107,477
Bukombe	3	34,218	163	0	0	26,396	5,214	0	65,991
Meatu	3	21,734	200	0	100	1,903	16,626	0	40,564
Shinyanga Urban	3	4,744	132	0	0	2,240	7,950	88	15,154
Kishapu	3	7,983	119	0	238	596	39,322	0	48,258
Total	3	230,370	2,055	669	2,628	129,618	119,650	222	485,212
%		47.5	0.4	0.1	0.5	26.7	24.7	0.0	100

**10.2: Number of households by type of Floor Materials and District, 2007/08 Agricultural Year**

District	Floor Materials						
	Earth, Sand, Dung	Wood Planks, Bamboo, Palm	Parquet Or Polished Wood	Ceramic Tiles, Terrazzo	Cement	Other	Total
Bariadi	92,463	2,741	498	0	5,234	0	100,936
Maswa	48,288	388	259	0	3,495	0	52,430
Shinyanga Rural	47,147	1,209	269	0	5,642	134	54,401
Kahama	88,954	1,082	675	0	16,766	0	107,477
Bukombe	52,141	1,141	163	0	12,546	0	65,991
Meatu	38,260	1,002	0	0	1,302	0	40,564
Shinyanga Urban	13,705	132	0	44	1,274	0	15,154
Kishapu	45,518	1,072	238	0	1,430	0	48,258
Total	426,476	8,767	2,102	44	47,689	134	485,212

**10.3: Number of households by type of Wall Materials and District, 2007/08 Agricultural Year**

District	Wall Materials							
	Grass	Poles and Mud	Sun-Dried Bricks	Baked Bricks	Wood, Timber	Cement Blocks	Other	Total
Bariadi	997	2,991	87,229	8,224	498	997	0	100,936
Maswa	518	11,004	39,873	388	129	518	0	52,430
Shinyanga Rural	1,881	15,044	34,521	2,015	0	940	0	54,401
Kahama	3,650	10,276	85,846	5,543	0	1,893	270	107,477
Bukombe	4,725	26,396	19,227	13,524	978	489	652	65,991
Meatu	300	8,614	30,247	701	100	501	100	40,564
Shinyanga Urban	395	2,328	11,508	483	132	176	132	15,154
Kishapu	357	13,226	30,981	357	0	238	3,098	48,258
Total	12,824	89,879	339,432	31,236	1,837	5,752	4,252	485,212

**10.4: Number of Agricultural Households reporting ownership of Assets by District, 2007/08**  
**Agricultural Year**

District	Radio			Landline phone			Mobile phone		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Bariadi	54,082	46,854	100,936	249	100,687	100,936	30,655	70,282	100,936
Maswa	31,329	21,102	52,430	129	52,301	52,430	14,888	37,543	52,430
Shinyanga Rural	35,461	18,940	54,401	269	54,132	54,401	24,178	30,223	54,401
Kahama	75,437	32,040	107,477	541	106,936	107,477	49,483	57,995	107,477
Bukombe	43,994	21,997	65,991	1,141	64,850	65,991	20,368	45,623	65,991
Meatu	29,947	10,617	40,564	100	40,464	40,564	17,027	23,537	40,564
Shinyanga Urban	11,113	4,041	15,154	88	15,066	15,154	4,217	10,937	15,154
Kishapu	28,836	19,422	48,258	357	47,901	48,258	9,890	38,368	48,258
Total	310,199	175,013	485,212	2,874	482,337	485,212	170,704	314,507	485,212
%	64	36	100	1	99	100	35	65	100

**cont. 10.4: Number of Agricultural Households reporting ownership of Assets by District, 2007/08**  
**Agricultural Year**

District	Iron			Wheelbarrow			Bicycle		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Bariadi	21,683	79,254	100,936	7,975	92,961	100,936	71,528	29,409	100,936
Maswa	9,709	42,721	52,430	6,214	46,216	52,430	34,177	18,253	52,430
Shinyanga Rural	13,835	40,566	54,401	5,373	49,028	54,401	45,267	9,134	54,401
Kahama	37,584	69,893	107,477	9,733	97,744	107,477	86,657	20,820	107,477
Bukombe	13,687	52,304	65,991	2,281	63,710	65,991	53,119	12,872	65,991
Meatu	13,822	26,742	40,564	12,420	28,144	40,564	33,553	7,011	40,564
Shinyanga Urban	2,548	12,607	15,154	1,625	13,529	15,154	10,586	4,568	15,154
Kishapu	9,890	38,368	48,258	5,005	43,254	48,258	34,555	13,703	48,258
Total	122,758	362,454	485,212	50,626	434,586	485,212	<b>369,441</b>	<b>115,771</b>	<b>485,212</b>
%	25	75	100	10	90	100	76	24	100

**cont... 10.4: Number of Agricultural Households reporting ownership of Assets by District, 2007/08**  
**Agricultural Year**

District	Vehicle			Television / Video			Refrigerator		
	Yes	No	Total	Yes	No	Total	Yes	No	Total
Bariadi	7,228	93,709	100,936	997	99,940	100,936	1,246	99,690	100,936
Maswa	6,343	46,087	52,430	777	51,653	52,430	388	52,042	52,430
Shinyanga Rural	1,478	52,923	54,401	806	53,595	54,401	806	53,595	54,401
Kahama	4,191	103,287	107,477	4,327	103,150	107,477	541	106,936	107,477
Bukombe	5,703	60,288	65,991	1,466	64,525	65,991	0	65,991	65,991
Meatu	1,302	39,262	40,564	401	40,163	40,564	200	40,363	40,564
Shinyanga Urban	703	14,451	15,154	307	14,847	15,154	176	14,979	15,154
Kishapu	2,026	46,233	48,258	1,072	47,186	48,258	238	48,020	48,258
Total	<b>28,972</b>	<b>456,239</b>	<b>485,212</b>	<b>10,153</b>	<b>475,058</b>	<b>485,212</b>	<b>3,596</b>	<b>481,616</b>	<b>485,212</b>
%	6	94	100	2	98	100	1	99	100

**cont 10.4: Number of Agricultural Households reporting ownership  
of Assets by District, 2007/08 Agricultural Year**

District	Motor Cycle		
	Yes	No	Total
Bariadi	2,492	98,444	100,936
Maswa	777	51,653	52,430
Shinyanga Rural	2,015	52,386	54,401
Kahama	2,704	104,773	107,477
Bukombe	1,466	64,525	65,991
Meatu	1,903	38,661	40,564
Shinyanga Urban	791	14,364	15,154
Kishapu	1,192	47,067	48,258
<b>Total</b>	<b>13,340</b>	<b>471,872</b>	<b>485,212</b>
<b>%</b>	3	97	100

**10.5: Number of Agricultural Households Reporting Main Source of Energy for Lighting by District, 2007/08 Agricultural Year**

District	Mains Electricity	Solar	Gas (Biogas)	Hurricane Lamp	Pressure Lamp	Wick Lamp	Candles	Firewood	Other	Total
Bariadi	498	0	0	14,954	1,495	82,494	249	748	498	100,936
Maswa	388	0	432	6,602	906	40,520	129	3,754	129	52,430
Shinyanga Rural	0	806	0	4,836	3,358	44,864	134	269	134	54,401
Kahama	0	1,082	252	15,681	6,350	81,120	0	2,163	1,082	107,477
Bukombe	0	0	144	7,984	1,629	55,237	163	978	0	65,991
Meatu	200	501	111	13,521	701	24,739	0	701	200	40,564
Shinyanga Urban	88	44	190	1,625	659	12,211	88	132	307	15,154
Kishapu	119	357	355	3,336	1,668	38,607	119	3,336	715	48,258
Total	1,294	2,790	1,484	68,539	16,768	379,791	883	12,081	3,067	485,212
%	0.3	0.6	0.3	14.1	3.5	78.3	0.2	2.5	0.6	100.0

**10.6: Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2007/08 Agricultural Year**

District	Mains Electricity	Solar	Gas(Hh Biogas)	Bottled Gas(Industrial)	Parraffin / Kerosine	Charcoal	Firewood	Crop Residues	Livestock Dung	Other	Total
Bariadi	498	0	0	0	0	498	98,693	1,246	0	0	100,936
Maswa	0	0	129	129	0	1,036	49,582	1,553	0	0	52,430
Shinyanga Rural	134	134	0	0	0	3,224	49,699	1,209	0	0	54,401
Kahama	541	0	0	811	0	7,301	98,824	0	0	0	107,477
Bukombe	0	0	0	0	0	1,304	64,525	163	0	0	65,991
Meatu	0	0	0	100	0	1,002	38,561	801	0	100	40,564
Shinyanga Urban	44	44	44	0	0	439	14,232	176	176	0	15,154
Kishapu	0	0	0	0	119	953	46,471	715	0	0	48,258
Total	1,218	178	173	1,041	119	15,757	460,587	5,863	176	100	485,212
%	0.3	0.0	0.0	0.2	0.0	3.2	94.9	1.2	0.0	0.0	100

**10.7: Number of Agricultural Households Reporting Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year**

District	Piped Water	Protected Well	Protected / Covered Spring	Uprotected Well	Unprotected Spring	Surface Water (Lake / Dam / River / Stream)	Covered Rainwater Catchment	Uncovered Rainwater Catchment	Water Vendor	Other	Total
Bariadi	6,729	59,814	1,994	20,437	2,991	5,483	997	2,492	0	0	100,936
Maswa	4,272	14,888	647	12,816	1,036	15,405	647	2,589	0	129	52,430
Shinyanga Rural	9,000	7,791	269	12,492	2,149	15,178	0	7,522	0	0	54,401
Kahama	5,808	21,227	4,327	60,432	5,138	1,893	1,893	5,138	1,622	0	107,477
Bukombe	21,182	20,856	489	18,738	326	326	1,955	2,118	0	0	65,991
Meatu	1,703	14,222	601	8,814	1,402	7,812	0	6,009	0	0	40,564
Shinyanga Urban	3,822	3,426	132	5,491	176	1,669	88	132	0	220	15,154
Kishapu	3,098	715	238	5,600	119	26,214	0	11,796	357	119	48,258
Total	55,613	142,939	8,696	144,820	13,336	73,981	5,580	37,797	1,980	468	485,212

**10.8: Number of Agricultural Households Reporting Main Source of Drinking Water during Dry Season by District, 2007/08 Agricultural Year**

District	Piped Water	Protected Well	Protected / Covered Spring	Uprotected Well	Unprotected Spring	Surface Water (Lake / Dam / River / Stream)	Covered Rainwater Catchment	Uncovered Rainwater Catchment	Water Vendor	Tanker truck	Other	Total HH
Bariadi	6,480	63,802	2,243	18,692	1,994	6,480	748	498	0	0	0	100,936
Maswa	6,084	20,066	777	7,250	1,165	16,053	388	518	0	0	129	52,430
Shinyanga Rural	9,134	7,119	269	11,552	3,358	14,507	134	6,045	2,149	134	0	54,401
Kahama	6,212	21,227	4,867	61,109	6,490	1,893	1,082	2,163	2,434	0	0	107,477
Bukombe	20,693	20,042	815	19,879	489	326	2,444	1,304	0	0	0	65,991
Meatu	2,704	14,523	501	10,416	801	11,117	100	401	0	0	0	40,564
Shinyanga Urban	2,548	4,612	132	5,666	88	1,713	44	44	132	0	176	15,154
Kishapu	5,719	238	0	7,149	477	30,266	0	2,979	1,430	0	0	48,258
Total	59,576	151,629	9,603	141,713	14,862	82,354	4,940	13,951	6,145	134	305	485,212

**10.9: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year**

District	Less than 100m	100-299 m	300-499 m	500-999 m	1-1.99 Km	2-2.99 Km	3-4.99 Km	Total
Bariadi	3,738	7,477	3,738	41,122	37,384	3,738	3,738	100,936
Maswa	1,942	9,709	1,942	11,651	27,186	0	0	52,430
Shinyanga Rural	0	4,030	0	14,104	30,223	0	6,045	54,401
Kahama	24,337	8,112	0	32,450	38,521	4,056	0	107,477
Bukombe	14,665	4,888	0	17,109	26,885	0	2,444	65,991
Meatu	3,005	0	1,502	10,517	15,024	7,512	3,005	40,564
Shinyanga Urban	2,636	659	0	6,589	3,953	659	659	15,154
Kishapu	0	1,787	0	16,086	16,086	14,299	0	48,258
Total	50,323	36,663	7,183	149,627	195,262	30,264	15,891	485,212
%	10	8	1	31	40	6	3	100

**10.10: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water during Dry Season by District, 2007/08 Agricultural Year**

District	Less than 100m	100-299 m	300-499 m	500-999 m	1-1.99 Km	2-2.99 Km	3-4.99 Km	5-9.99 Km	10Km and above	Total
Bariadi	7,477	3,738	3,738	41,122	37,384	3,738	3,738	0	0	100,936
Maswa	0	7,767	0	13,593	23,302	7,767	0	0	0	52,430
Shinyanga Rural	0	0	0	2,015	34,252	4,030	10,074	2,015	2,015	54,401
Kahama	20,281	8,112	0	30,409	36,506	12,169	0	0	0	107,477
Bukombe	12,221	4,888	0	19,553	26,885	0	0	2,444	0	65,991
Meatu	1,502	0	1,502	7,512	16,526	7,512	1,502	4,507	0	40,564
Shinyanga Urban	659	0	0	5,930	5,930	659	1,318	659	0	15,154
Kishapu	0	0	0	8,937	16,086	12,511	1,787	7,149	1,787	48,258
Total	42,140	24,507	5,241	129,070	196,872	48,386	18,420	16,774	3,802	485,212
%	9	5	1	27	41	10	4	3	1	100

**10.11: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year**

District	Less than 10	10-19 Minutes	20-29 Minutes	30-39 Minutes	40-49 Minutes	50-59 Minutes	One Hour and above	Total
Bariadi	7,477	11,215	3,738	44,861	3,738	0	29,907	100,936
Maswa	11,651	1,942	3,884	17,477	1,942	3,884	11,651	52,430
Shinyanga Rural	2,015	2,015	2,015	22,163	0	4,030	22,163	54,401
Kahama	28,394	0	0	46,633	12,169	0	20,281	107,477
Bukombe	9,776	7,332	0	26,885	0	0	21,997	65,991
Meatu	1,502	0	1,502	15,024	3,005	0	19,531	40,564
Shinyanga Urban	3,953	1,977	0	5,271	1,977	0	1,977	15,154
Kishapu	1,787	0	1,787	14,299	0	1,787	28,597	48,258
Total	66,556	24,481	12,927	192,613	22,830	9,701	156,105	485,212

**10.12: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Dry Season by District, 2007/08 Agricultural Year**

District	Less than 10 Minutes	10 - 19 Minutes	20 - 29 Minutes	30 - 39 Minutes	40 - 49 Minutes	50 - 59 Minutes	above one Hour	Total
Bariadi	11,215	11,215	0	44,861	0	0	33,645	100,936
Maswa	9,709	0	3,884	15,535	1,942	0	21,360	52,430
Shinyanga Rural	0	0	0	8,059	0	4,030	42,312	54,401
Kahama	16,225	4,056	0	22,296	16,225	0	48,675	107,477
Bukombe	9,776	2,444	2,444	17,109	9,776	0	24,441	65,991
Meatu	1,502	0	0	7,512	1,502	0	30,047	40,564
Shinyanga Urban	1,318	1,318	659	3,953	1,318	659	5,930	15,154
Kishapu	1,787	0	0	8,937	3,575	1,787	32,172	48,258
Total	51,533	19,033	6,987	128,261	34,338	6,476	238,583	485,212
%	11	4	1	26	7	1	49	100

**10.13: Number of Agricultural Households Reporting type of TOILET the household normally use by District, 2007/08 Agricultural Year**

District	No Toilet / Bush	Flush Toilet	Traditional Pit Latrine	Improved Pit Latrine	Other Type	Total
Bariadi	11,714	498	87,478	997	249	100,936
Maswa	8,933	0	41,038	2,460	0	52,430
Shinyanga Rural	7,925	269	45,132	1,075	0	54,401
Kahama	15,143	541	88,143	3,515	134	107,477
Bukombe	2,933	652	59,962	2,444	0	65,991
Meatu	2,604	401	36,858	701	0	40,564
Shinyanga Urban	1,977	176	12,738	264	0	15,154
Kishapu	2,383	238	45,279	357	0	48,258
Total	53,611	2,774	416,630	11,813	384	485,212
%	11.0	0.6	85.9	2.4	0.1	100.0



**10.14: Number of Agricultural Households Reporting Number of Meals the Household Normally has per Day by District, 2007/08 Agricultural Year**

District	One	%	Two	%	Three	%	Total
Bariadi	249	0.2	59,814	59	40,873	40.5	100,936
Maswa	129	0.2	12,428	24	39,873	76.0	52,430
Shinyanga Rural	269	0.5	12,626	23	41,506	76.3	54,401
Kahama	541	0.5	36,768	34	70,169	65.3	107,477
Bukombe	815	1.2	27,537	42	37,639	57.0	65,991
Meatu	100	0.2	10,216	25	30,247	74.6	40,564
Shinyanga Urban	132	0.9	5,095	34	9,927	65.5	15,154
Kishapu	119	0.2	13,584	28	34,555	71.6	48,258
<b>Total</b>	<b>2,354</b>	<b>0.5</b>	<b>178,068</b>	<b>37</b>	<b>304,789</b>	<b>62.8</b>	<b>485,212</b>

**10.15: Number of Agricultural Households Reporting Number of days the household Consumed Meat during the Preceding Week by District, 2007/08 Agricultural Year**

District	Not Eaten	One	Two	Three	Four	Five	Six	Seven	Total
Bariadi	61,060	29,907	8,224	1,495	249	0	0	0	100,936
Maswa	30,811	15,923	3,754	1,424	388	0	129	0	52,430
Shinyanga Rural	23,641	19,074	7,522	3,358	403	403	0	0	54,401
Kahama	40,154	39,878	19,875	5,002	1,352	541	405	270	107,477
Bukombe	17,598	36,988	9,288	1,629	326	0	0	163	65,991
Meatu	16,526	17,327	4,808	1,002	601	300	0	0	40,564
Shinyanga Urban	4,876	6,545	2,899	615	88	132	0	0	15,154
Kishapu	23,116	17,516	6,196	1,072	357	0	0	0	48,258
<b>Total</b>	<b>217,782</b>	<b>183,158</b>	<b>62,566</b>	<b>15,598</b>	<b>3,765</b>	<b>1,376</b>	<b>534</b>	<b>433</b>	<b>485,212</b>
<b>%</b>	<b>45</b>	<b>38</b>	<b>13</b>	<b>3.2</b>	<b>0.8</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>100</b>

**10.16: Number of Agricultural Households Reporting Number of days the household Consumed Fish during the Preceding Week by District, 2007/08 Agricultural Year**

District	Not Eaten	One	Two	Three	Four	Five	Six	Seven	Total
Bariadi	33,645	23,676	15,701	8,474	7,975	4,237	1,246	5,981	100,936
Maswa	39,096	6,214	3,884	1,942	906	259	0	129	52,430
Shinyanga Rural	28,073	17,999	5,642	2,283	269	0	0	134	54,401
Kahama	48,403	32,035	16,900	8,247	1,622	0	270	0	107,477
Bukombe	8,636	35,195	9,776	7,006	3,096	1,141	163	978	65,991
Meatu	19,030	13,521	5,108	2,003	701	200	0	0	40,564
Shinyanga Urban	5,930	5,183	2,328	1,098	176	395	44	0	15,154
Kishapu	29,551	10,486	4,170	2,502	834	238	119	357	48,258
<b>Total</b>	<b>212,364</b>	<b>144,310</b>	<b>63,510</b>	<b>33,556</b>	<b>15,579</b>	<b>6,470</b>	<b>1,843</b>	<b>7,580</b>	<b>485,212</b>
<b>%</b>	<b>43.8</b>	<b>29.7</b>	<b>13.1</b>	<b>6.9</b>	<b>3.2</b>	<b>1.3</b>	<b>0.4</b>	<b>1.6</b>	<b>100</b>





**10.17: Number of Agricultural Households Reporting the status of food unsatisfaction of the household during the Preceeding Year by District, 2007/08 Agricultural Year**

District	Never	Seldom	Sometimes	Often	Always	Total
Bariadi	33,396	42,618	3,738	12,461	8,723	100,936
Maswa	16,571	20,584	5,437	5,308	4,531	52,430
Shinyanga Rural	13,567	20,283	8,194	7,522	4,836	54,401
Kahama	41,098	38,800	10,410	10,681	6,488	107,477
Bukombe	47,579	9,288	3,748	3,422	1,955	65,991
Meatu	14,122	12,720	1,903	5,809	6,009	40,564
Shinyanga Urban	4,085	5,315	2,679	2,240	835	15,154
Kishapu	14,060	16,205	5,600	9,771	2,621	48,258
Total	184,478	165,812	41,710	57,214	35,998	485,212
%	38	34	9	12	7	100

**10.18: Number of Agricultural Households Reporting Main Source of Income by District, 2007/08 Agricultural Year**

District	Sales of Food Crops	Sale of Livestock	Sale of Livestock Products	Sales of Cash Crops	Sale of Forest Products	Business Income	Wages & Salaries in Cash	Other Casual Cash Earnings	Cash Remittance	Other	Not applicable	Total
Bariadi	54,580	1,745	748	24,424	249	6,978	997	10,467	748	0	0	100,936
Maswa	33,918	2,201	1,036	9,709	129	2,071	777	1,812	129	0	647	52,430
Shinyanga Rural	33,849	2,552	3,761	5,776	134	2,552	1,075	4,298	134	269	0	54,401
Kahama	83,817	1,893	1,352	10,005	811	2,704	1,622	4,191	0	811	270	107,477
Bukombe	43,179	1,466	1,466	9,776	652	1,955	652	5,214	978	652	0	65,991
Meatu	23,136	2,504	1,002	8,614	601	1,202	300	3,005	0	100	100	40,564
Shinyanga Urban	7,467	1,010	1,054	1,098	132	1,230	395	2,021	395	307	44	15,154
Kishapu	21,925	1,906	119	20,018	0	953	238	2,621	357	0	119	48,258
Total	301,872	15,278	10,538	89,421	2,709	19,646	6,057	33,630	2,742	2,139	1,181	485,212
%	62.2	3.1	2.2	18.4	0.6	4.0	1.2	6.9	0.6	0.4	0.2	100

## **Appendix III: QUESTIONNAIRE**

<b>United Republic of Tanzania</b>							
<b>ACQI</b>	<b>CONFIDENTIAL</b>						
							
<b>Small holder/Small Scale Farmer questionnaire</b>							
Identification <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 15px; height: 15px;"></span>							
<b>Agricultural Sample Census</b> <b>2007/2008</b>							
							
							
<b>Enumerator Name</b> ..... <b>Signature</b> .....							
<b>Date of Enumeration</b> <div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="margin: 0 5px;">/</div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="margin: 0 5px;">/</div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; margin: 0 5px;"></div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;">             d d    m m    y y y y           </div> <div>             Start Time               End Time           </div> <div style="border: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Hour</th> <th style="width: 50%;">Minutes</th> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table> </div> </div>		Hour	Minutes				
Hour	Minutes						
<b>Field level checking by:</b>							
<b>District Supervisor</b> Name ..... Signature ..... Date ..... / ..... / .....	I To be filled by the supervisor ONLY after Field/farm level checking of the enumeration process. This should be countersigned by the Supervisor in front of the enumerator						
<b>Regional Supervisor</b> Name ..... Signature ..... Date ..... / ..... / .....							
<b>National Supervisor</b> Name ..... Signature ..... Date ..... / ..... / .....							
<b>District checking in Office</b>							
<b>District Supervisor</b> Name ..... Signature ..... Date ..... / ..... / .....	All questionnaires must be checked at the district office.						
<b>For Use at Regional Level Only</b>							
<b>Data entered by:</b> Name ..... Signature ..... Date ..... / ..... / .....	See the back page for details of queries						
<b>Queried</b> Name ..... Signature ..... Date ..... / ..... / .....							
Ministry of Agriculture and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Administration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Government of Zanzibar							

## Definition and working page for page 1

### General Definitions

Who is a Smallholder /Small Scale farmer?

Should have one or more of the following: in the 2007/08 farming season had one or more cultivated and planted farms. The farm land may either be owned, rented, borrowed. The farmer may also be raising 1 and 50 head of cattle, and/or between 5 and 100 head of sheep/Goats/Pigs, and/or between 50 and 1000

**Household:** A group of people who occupy the whole of part one or more housing units and makes joint provision for food and/or other household items. Usually such a group comprises a husband, wife, and their children. Other relatives may be members of the household if they happen to live and get food provisions from the same household. People who live together and eat from the same pot may be considered as members of the same household even if they stay in separate dwellings. An individual who lives and eat alone is considered as an independent household.

**Household Head:** A person who is acknowledged by all other members of the household either by virtue of his age or standing in the household as the head. He/she should be a permanent resident of the house and he/she is the main person responsible for decision making regarding use of household resources..

**Agricultural Holding:** This is an economic unit of agricultural production under single management. This unit may have been grown various crops. For the purpose of the survey, the agricultural holdings are restricted to those which meet one of the following conditions:

- Having or operated at least 25 sq meter of arable land
- Own or keep at least one head of cattle or five goats/sheep/five pigs or fifty chicken/ducks/turkeys during the agricultural year 2007/08 (from October 2007 to September 2008).

### Question Specific Definitions:

#### Type of Agriculture holding Codes (Q2.1):

**Crops only:** A holding is referred to be a crop only holding if it has cultivated at least one piece of land. This also applies to all households owning or have kept livestock whose number does not qualify such households to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/rabbits).

**Livestock only:** A holding is referred to be a livestock only holding if it has exercised livestock husbandry only during the 2007/08 agricultural year.

#### NOTE

For agricultural holding only and pastoralist holding only; the number of livestock should be at least one head of cattle, not less than five goats/sheep/pigs, not less than 50 chickens /turkeys /rabbits. This also applies to households having or operated less than 25 sq meter of cultivated land (which does not qualify the household to be considered as agricultural holding) but has the number of livestock that makes the holding qualifies to be considered as livestock holding.

**Pastoralist holding:** This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they have no permanent place of residence.

**Both crops and livestock:** A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq meter and if such households have own or kept livestock whose number qualify such household be considered as an agricultural holding.

### Procedures for questions:

#### Q 2.1 Type of agriculture household/holding

Using the options under the question classify the type of agriculture household/holding

Note: If the household had an acre of crops and raised 40 chickens during 2007/08, it is classified as 'Crops only' as the number of chickens does not qualify the household as a livestock holding.

1.0 IDENTIFICATION DETAILS		
1.1	Location	Identification <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Na.	Location Name	Codes
1.1.1	Region .....	<input type="text"/> <input type="text"/>
1.1.2	District .....	<input type="text"/>
1.1.3	Ward .....	<input type="text"/> <input type="text"/> <input type="text"/>
1.1.4	Village .....	<input type="text"/> <input type="text"/> <input type="text"/>
1.2	Details of the respondent or household head	
Na.		Codes
1.2.1	Name and number of local leader	<input type="text"/> <input type="text"/> <input type="text"/>
1.2.2	Name and number of household head .....	<input type="text"/> <input type="text"/>
1.2.3	Sex of household head	<input type="text"/>
1.2.4	Name of respondent .....	
1.2.5	Relationship of Respondent to household head	
<u>Relationship to household head codes (Q 1.2.5)</u> Head of Household .....1      Son /Daughter.....3      Grandson/Granddaughter.....5      No relationship.....7 Spouse.....2      Father/Mother.....4      Other relatives.....6		
2.0 ACTIVITIES OF THE HOUSEHOLD		
2.1	Type of Agriculture Household	<input type="text"/> <input type="text"/>
<u>Household agricultural activities codes(Q 2.1)</u> Crops only.....1      Livestock only .....2      Pastoralist.....3      Crops and Livestock .....4		

**Definition and working page for page 2**
**Question Specific Definitions:**
**Relation to head (Col 2):**

**Household Head:** A person who is acknowledged by all other members of the household either by virtue of their age or standing as the household head.

**Read and Write (Col 8)**
**Any other language: Must be a written language.**

For someone who can read and write in Kiswahili and any other language apart from English, the correct code is 1. For one who can read and write in English and any other language apart from Kiswahili the the correct code is 2. Code 4 should only be used for any other language which is not English or Kiswahili.

**Education Level Reached (Col 10):**

Ask the respondent the highest educational level reached. This aims at establishing whether at the time of enumeration the member of the household is studying has completed or has never studied. Make further enquiry for the level of education reached for those who have completed studies. Establish if the member had attained any training after graduation for the purposes for completing column number 9. For those who still continue attending studies during the period of this survey, establish their learning stage. For instance for a household member who studied up to Standard Three but did not complete his/her education at this level, then his/her highest education level reached is Standard Two. For those indicated under code 3 (not studied) in column 8 should be marked code 99 (Not applicable) in column 9.

**Section 3.0 Note**

Make sure that you define the hh proper to ensure that all the members of the hh are included. Ensure that you stress that the hh is not just the hh heads direct family and that it includes other people living and eating together with the family.

If you notice that the hh is large or you see many people around the hh and you have been given a smaller number of the hh members, make further enquiries until you are sure that you have captured all the hh members.

**Section 3.0 Household information.**

- ii) For each household member complete columns 1,2,3 and 3  
After completing columns 1, 2, 3 and 3 for each household member, go back to the first household member and complete the remaining columns for that member.
- iii) Repeat step 2 for the rest of the household members.



3.0 HOUSEHOLD INFORMATION													
3.1 Give details of personal particulars of all hh members beginning with hh head								Identification					
Na.	Names of hh members (Start with hh Head)	Ex Start with hh Head	Sex M = 1 F = 2	Age (98 years or more enter 97, under one year old write 00)	Marit al Status	Parental Survival		Not applicable for children under 5 years					
						Mother	Father	Reard and Write	Education status	Level of education attained	On farm engagem ents	Main activity	Off farm income  yes=1 no=2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
01	.....	1											
02	.....												
03	.....												
04	.....												
05	.....												
06	.....												
07	.....												
08	.....												
09	.....												
10	.....												
11	.....												
12	.....												
13	.....												
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26	.....												
27	.....												
28	.....												
29	.....												
30	.....												
31	.....												
32	.....												
33	.....												

**Relationship to household head (Col 2)**

Head of household.....1  
 Female/Male.....2  
 Son/Daughter.....3  
 Father/Mother.....4  
 Grandson/daughter....5  
 Other Relatives.....6

**Marital Status(Col 4)**

Married.....1  
 Single.....2  
 Co-habiting .....3  
 Divorced  
 Separated.....4  
 Widow/widower.....5

**Survival of Parents( Col 6 & 7)**

Yes.....1 No .....2  
 Don't know .....3

**Education Level(Col 9)**

Studying .....1  
 Has completed.....2  
 Never been to school .....3

**Reading and writing (Col 8)**

Kiswahili.....1  
 English .....2  
 Kiswahili and English.....3  
 Lugha nyingine.....4  
 Cannot read or write.....5

**Education Level (Col 10)**

**Primary education**

Below Standard One.....00  
 Standard One .....01  
 Standard Two.....02  
 Standard Three.....03  
 Standard Four.....04  
 Standard Five.....05  
 Standard Six .....06  
 Standard Seven.....07  
 Standard Eight ..08  
 Education.....19  
 Training after Primary Ed...09  
 Pre Form One.....10

**Secondary Education**

Form One.....11  
 Form Two .....12  
 Form Three.....13  
 Form Four .....14  
 Form Five .....15  
 Form Six .....16  
 Training after Secondary Ed.....17  
 University and other Tertiary Ed...8  
 Adult  
 Not applicable .....99

**Involvement in farming activities (Col 11)**

Works on farm full time.....1  
 Works on farm part time.....2  
 Rarely works on farm.....3  
 Never works on farm.....4

**Off-farm Income (Col 13)**

These are income made from activities NOT on the HH's farming activities. This can be from formal employment (e.g. in government etc.), temporary jobs, casual labourers and income generation activity and includes working for cash on other people's farms.  
 Indicate whether each member was involved in an off farm income generating activity during 2007/08

**Main activity (Col 12)**

Crop farming: .....01.  
 Livestock farming/herding: ....02.  
 Pastoralist .....03  
 Fishing .....04  
 Fish farming .....05  
 Paid employment /  
 Government/parastatal.....06  
 Private/NGOs .....07  
 Self employee (Off-farm activities)  
 - With employees .....08  
 - Without employees .....09  
 Non paid household member (off-farm activities) .....10.  
 Unemployed but available for work ....11  
 Unemployed but unavailable for work..12  
 House mother .....13  
 Student .....14  
 Unable to work too old, too young, retired, disabled, child 15  
 Others (specify) .....98

### Definitions and working page for page 3

#### Definitions for Key Specific Questions

##### Section 4.1 – Land Access/Ownership

These are areas that were used by the households for the 2007/08 farming season

**Lease/Certificate of Ownership:** Area under lease/certificate of ownership refers to the areas which were issued by the government. The household possesses government issued leasehold title or certificate of ownership. The land will normally be officially surveyed and boundaries marked. This includes leased land bought from others where the lease/certificate of ownership has been transferred.

**Customary Law:** This refers to the land which the household does not have an official government but its right of use is granted by the traditional leaders.

**Bought:** This refers to the areas of customary land that has been bought from others. This land does not have an official title and therefore is not leasehold.

**Rented from others:** Land rented from others for cash or for a fixed amount in crop produce (e.g. fixed number of bags at harvest).

**Borrowed:** use granted by land owner free of charge. Land owner can either be a lease holder or has right of access through customary law.

**Share cropping:** where the household is permitted to use land which is then paid for from a percentage of the harvested crop

#### Section 4.2 Land Use

Temporary crops: are sown and harvested during the same agricultural year

Permanent crops: are crops once sown or planted last for some years and need not to be replanted after each annual harvest.

Permanent crops /mixed crops: This is a mixture of permanent and seasonal crops. The two crops can either be randomly planted together or in a particular pattern e; for example intercropping (1 row of maize and 1 row of beans). A field that has been divided into plots for different crops is not mixed).

This is further subdivided into:

Mixture of Permanent crops – two or more permanent crops grown together

Mixture of Permanent and Temporary crops – permanent crop and annual crop together

Mixture of Temporary crops– two or more temporary, annual crops grown together

**Pasture land:** this is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or where other means have been applied to improve the pasture. Or it can be natural pasture.

**Natural Bush:** Land which has naturally grown shrubs and trees and is considered productive but is not utilized for farming or livestock production.

### Overview to section 4

#### Overview to section 4

##### Section 4.0: Preliminary note

##### Land Access/Ownership

Land access/ownership refers to the area utilized by the members of the household. This does not include communal land where the resources are shared between household members. It does not include official communal land that the household has sole access to for example a plot for crop farming in the communal area.

### Procedures for questions

#### Section 4.0 – Land Ownership

1. Ask the respondent if he knows the total areas of land the household has sole access to. If he knows make a note in the calculation space
2. Ask the respondent the area of the different land ownership categories the household has sole access to (Q4.1, 1 to 4.1.7) and record in the appropriate spaces.
3. Add up the area of the different categories of land and compare it with the total area obtained in step 1 (if the respondent provided the information)
4. If the total area is different find out which one is correct and make

#### Section 4.2: Land Use

1. Ask the respondent the area of the different land use categories the household has sole access to (Q4.2.1 to 4.2.12) and record in the appropriate spaces.
2. Add up the area of the different categories of land and compare it with the total area obtained in section 4.0. The total area should be the same.
3. If the total area is different find out which one is correct and make amendments where appropriate.

4.0 LAND ACCESS/OWNERSHIP/TENURE				Identification <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>			
4.1 LAND ACCESS/OWNERSHIP/TENURE							
Give details on Area owned by the household during 2007/08 agricultural season.							
Give area as reported by the respondent in acres		Area in Acre					
			4.1.8 Was the whole household area used during the 2007/08 agricultural season? (Yes=1, No=2) <input type="checkbox"/>				
4.1.1	Area under certificate of ownership	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.1.2	Area owned under customary law	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.1.3	Area bought	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	4.1.9 Do you consider to have enough land for your household? (Yes=1, No=2) <input type="checkbox"/>				
4.1.4	Area rented from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.1.5	Area borrowed from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.1.6	Area share cropped from others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	4.1.10 Is there any female who owns land or has customary rights to land ownership in this household? (Yes=1, No=2) <input type="checkbox"/>				
4.1.7	Area under other forms of tenure	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2 LAND USE							
Area used by the household for various agricultural activities during 2007/08 agricultural season							
Enter area as reported by the respondent in acres		Area in acre	Working space for calculations				
4.2.1	Area planted temporary monocrops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.2	Area planted temporary mixed crops (e.g. maize and beans)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.3	Area planted permanent monocrops	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.4	Area planted permanent mixed crops (e.g. banana, coffee, trees)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.5	Area planted permanent and temporary mixed crops (e.g. maize and banana)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.6	Area under pasture	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.7	Area under fallow	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.8	Area under natural forest	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.9	Area planted trees	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.10	Area rented to others	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.11	Area unsuitable for agriculture	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
4.2.12	Uncultivated arable land (minus area under fallow)	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					
Total area		<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>					

## Definitions and working page for page 4

Working table for the calculation area for annual mixed crops					
Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
Total Area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			% of temporary	Area for permanent crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

Mixed crops	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
Total area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			% of temporary	Area for temporary crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

**Planted Area:** Area in acre the household was able to plant

**Harvested Area:** Area in acre the household was able to harvest a large portion of harvests. This is the same as the area planted minus the area that was destroyed by floods/ pests /

**Temporary/Annual Crops**  
Crops planted and harvested within 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal base.

**Cash crop codes:**

Code	Crop
50	Cotton
51	Tobacco
53	Payrethrum
62	Jute
19	Seaweed

**Crop Codes (Cereal / Tubers/ Roots):**

Code	Crop
11	Maize
12	Paddy
13	Sorghum
14	Burush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatoes
23	Irish Potatoes
24	Yams
25	Cocoyams
26	Onions
27	Ginger

**Vegetable Codes:**

Code	Crop
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranth
92	Pumpkin
93	Cucumber
94	Egg plant
95	Water melon
96	Cauliflower
06	Mellon
05	nyanyachungu
02	Oca
03	Radish
01	Green Beans
04	Bizari

**Crop Codes Legumes and Oil**

Code	Crop
31	Beans
32	Cowpeas
33	Green Gram
34	Chick Peas
35	Dengu
36	Bambara nuts
37	Njegere
41	Sun flower
42	Simsim
43	Ground uts
47	Soya beans
48	Caster Seed

**Instructions for calculating the area of mixed crops in a mixture**

**A.** If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions.

**B.** If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.

**C:** Number of trees method to calculate annual crop areas in a permanent-annual crop mix:

- List each of the permanent crop in column b and enter the ground area per acre for each permanent crop ( from instrctions for page 8) in colum d.
- Enter the number of permanent trees in the mix in column e as will be provided to you by the respondent
- Calculate the area occpied by each crop by multiplying column d and collumn e and sum up these to obatin the total area of permanent crops in the mix.
- To obatin the area for tempofrory crops , subtract (-) the area fro permanent crops from thne total area of crop mix and enter the result in in the total area under temporary crops.
- Proceed to step 1 to calculate the area under each temporary crop.

- Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop.
- Using the percentage for each crop, calculate the are for each crop from the remaining area under temporary crop.
- After completing the excrise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1 Column 3.
- Once the quantity harvested is obtained , caklculate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly difference, check the area and the amount harvested..

5.0	PERMANENT AND TEMPORARY CROP PRODUCTION															Identificatioon				
5.1	ANNUAL CROPS AND VEGATBLE PRODUCTION-SHORT RAINY SEASON																			
Did your household palnted any crop duding short rainy season for 2007/08 agricultural year? Yes = 1, No = 2,(If the answer is yes proceed to Section 5.3)																				
5.1.1	Provide the following details for each crop planted during the short rainy season for 2007/08 agricultural year																			
Name of Crop	Planting		Main crop owner: Enetr the number of the hh member from page 2 on informati on for hh members	Use of Seeds					Irriga ted area	Pembejeo					Use of chemicals agaিসnt weeds (If 6 is the answer in col 11 proceed to col 20)					
	Crop code	Actual area plnated (acre)		The type of seed plant ed	Use of seeds	Quantity		Cost (Tshs)		Cultiv ated area	Tyep of fertili sers used	Quantity of fertilisers		Coist (Ths)	Cultiv ated areaE neo lililot umik a	Qunaity of agrochemicals		Cost		
						Quant ity	Quantity used					Meas urement	Quantity used			Quant ity	Quantity used			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)		
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.....																				
.....																				
.....																				
.....																				
.....																				
Total area planted																				

Type of seeds planted (Col 5)

Local seeds ...1

Improved seeds.....2

Use of agricultural seeds (Col 6)

For the whole crop.....1

3/4 of the whole crop.....2

1/2 of tyhe whole crop.....3

1/4 old the whole crop.....4

Under 1/4 of the whole crop...5

Qunatity ( Col 7)

Kg .....1

Seedlings....2

Gram.....3

Use of farm inputs (SCol10,11 & 16)

For the whole crop.....1

3/4 of the wholecrop.....2

1/2 of tyhe whole crop.....3

1/4 old the whole crop.....4

Under 1/4 of the whole crop...5

Not used .....6

Type of fertilisers ( Col 12)

Organic fertiliser.....1

Inorganic fertilisers.....2

Kipimo ( S/wima 13)

Kilo .....1

Lita.....2

Milli-lita..3

Main crop owner: (Col 4)

Enter number of hh member from page 2 on details on hh members in Q. 3

Quantity ( Col 17)

Kig .....1

Litre.....2

Gram.....3

Millilitre.....6

ANNUAL CROPS AND VEGETABLE PRODUCTION-LONG RAINY SEASON CONTINUED ...																
Provide the following details for each crop planted during the short rainy season for 2007/08 agricultural year										Identification						
Crop code  Name of crop	Use of fungicides (If 6 is the answer in col 20 proceed to col 24)	Area used				Cost	Area used	Size		Cost	Harvesting and Storage			Marketing		
		Quant ity	Used		Quant ity			Used	Quantity harvested (kg)		Quantity stored (kg)	Main stora ge meth ods	Quantity sold (kg)	Where was the crop mostly sold?	Main problem in crop marketin g	
(1)	(2)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	

Use of farm inputs ( Col 20&24)

For the whole crop.....1  
 3/4 of the wholecrop.....2  
 1/2 of tyhe whole crop.....3  
 1/4 ofd the whole crop.....4  
 Under 1/4 of the whole crop...5  
 Not used .....6

Main Storage mechanisms (Col 30)

Local storage facilities.....1  
 Improved Local storage facilities.....2  
 Modern store.....3  
 Open drums/sacks.....4  
 Cealed drums.....5  
 In heaps.....O.....6  
 not Stored.....7  
 Other means (I)Specify.....8

Where the crop was sold(Col 32)

Neighbours.....01 Private Businessman.....08  
 Open markets.....02 Contract farming....09  
 Auctions.....03 Not sold.....10  
 Main Market.....04 Others .....98  
 Cooperative Union....05  
 Farmers Association..06  
 Large Scale farm.....07

Marketing problems (Col 33)

Very low prices.....01 No problem .....11  
 No transport.....02 Others (Specify .....98  
 High transport costs.....03 Not applicable .....99  
 Lack of crop buyers.....04  
 Markets located far away ..05  
 Problems with farmers Associations 06  
 Probleoms with cooperative Unions ....7  
 Problems with Businessmen Association ...8  
 Strigent Government Conditions ...9

## Definitions and working page for page 5

**Storage (Col. 30, Q 5.1.1):**

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storagesrutures improved through modern technology.

**Marketing Challenges Q 5.1.1 Col. 33:**

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulatinq transportation and selling of crops.

**Inputs (Q 5.1.1)**

- Farm Yard Manure:** An organics fertliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical usde in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

## Questions specific definitions

**Q 5.1.1. Instructions on crops storage:**

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

**Crops storage is keeping/reserving crops in a container or a special place for future use.**

**Q 5.1.1 Col 31**

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

**Working area/calculation space**



**Definitions and working page for page 6**

*Working table for the calculation area for annual mixed crops*

Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1		0.000			
Permanent crop 2		0.000			
Permanent crop 3		0.000			
Permanent crop 4		0.000			
Total Area for mixed crops			Total area for permanent crops		
The remaining area for temp crops					
			% of temporary	Area for permanent crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

Mazao mchanganyiko 2	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1		0.000			
Permanent crop 2		0.000			
Permanent crop 3		0.000			
Permanent crop 4		0.000			
Total area for mixed crops			Total area for permanent crops		
The remaining area for temp crops					
			% of temporary	Area for permanent crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

**Planted Area:** Area in acre the household was able to plant  
**Harvested Area:** Area in acre the household was able to harvest a large portion of harvests. this is the same as the area planted minus the area that was destroyed by floods/ pets /

**Temporary/Annual Crops**  
 Crops planted and harvested within 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal base.

**Cash crop codes:**  
 Code Crop  
 50 Cotton  
 51 Tobacco  
 53 Payrethrum  
 62 Jute  
 19 Seaweed

**Crop Codes(Cereal / Tubers/ Roots):**  
 Code Crop  
 11 Maize  
 12 Paddy  
 13 Sorghum  
 14 Buirush Millet  
 15 Finger Millet  
 16 Wheat  
 17 Barley  
 22 Sweet Potatoes  
 23 Irish Potatoes  
 24 Yams  
 25 Cocoyams  
 26 Onions  
 27 Ginger

**Vegetable Codes:**  
 Code Crop  
 86 Cabbage  
 87 Tomatoes  
 88 Spinach  
 89 Carrot  
 90 Chillies  
 91 Amaranths  
 92 Pumpkin  
 93 Cucumber  
 94 Egg plant  
 95 Water melon  
 96 Cauliflower  
 06 Mellon  
 05 nyanyachungu  
 02 Ocra  
 03 Radish  
 01 Green Beans  
 04 Bizari

**Crop Codes Legumes and Oil**  
 Code Crop  
 31 Beans  
 32 Cowpeas  
 33 Green Gram  
 34 Chick Peas  
 35 Dengu  
 36 Bambara nuts  
 37 Njegere  
 41 Sun flower  
 42 Simsim  
 43 Ground uts  
 47 Soya beans  
 48 Caster Seed

**Instructions for calculating the area of mixed crops in a mixture**  
**A.** If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions  
**B.** If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calcaulet the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.  
**C:** Number of trees method to calculate annual crop areas in a permanent-annual crop mix:  
 (i) List each of tyhe permanent crop in column b and enter the ground area per acre for each permanent crop (from instructions for page 8) in colum d.  
 (ii) Enter the number of permanent trees in the mix in column e as will be provided to you by the respondent.  
 (iii) Calculate the area occpied by each crop by multiplying column d and collumn e and sum up these to obatin the total area of permanent crops in the mix.  
 iv) To obatin the area for temporary crops , subtract (-) the area fro permanent crops from thne total area of crop mix and enter the result in in the total area under temporary crops.  
 (v) Proceed to step 1 to calculate the area under each temporary crop.  
**1.** Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop.  
**2. Using the percentage for each crop, calculate the are for each crop from the remaining area under temporary crop.**  
**3.** After completing the excrise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1. Collumn 3.  
**4. Once the quantity harvested is obtained , calcikulate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly difference, check the area and the amount harvested..**

<b>5.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION</b>														Identification																	
Does your household have any permanent/perennial crops or fruit trees Yes =1, No = 2, (If answer is NO proceed to Section 6.0)																															
<b>5.3.1 Give details on permanent/perennial crops or fruit trees</b>																															
<b>Production Section</b>																															
Name of permanent/perennial crop		crop code of permanent / perennial crop/fruit trees	Monocrops		Mixed crops		Main crop owner: Enter the number of the hh member from page 2 on information for hh	Farm inputs																							
			Area for trees/seedling/branch/bushes	Are for mixed crops  (Acre)	Number of Tplants/ trees in the crop mix of permanent and perennial crop	Uses of seeds					Cost (Ths)	Irrigation	Uses of Fertilisers (If 6 is the answer in col 13 proceed to col. 17)																		
						Type of planted seeds		Cultivated area	Size  Quant ity    Used				Area used		The type of fertiliser used	Quantity of fertiliser (kg)	Cost (Ths)														
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)																
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.....		.	.	.	.																										

Type of seed planted (Col 7)

Local seeds.....1

Improved seeds.....2

Don't know/ Not applicable...3

Main crop owner (Col 6):

Enter the number of the hh member from page 2 on information for hh members in Q 3

Area cultivated ( col. 8)

For the whole crop.....1

3/4 of the whole crop.....2

1/2 of tyhe whole crop.....3

1/4 old the whole crop.....4

Under 1/4 of the whole crop....

Qunatity. ( Col 9)

Kg .....1

Seedlings....2

Gram.....3

Use of farm inputs (Col 12 & 13)

For the whole crop.....1

3/4 of the wholecrop.....2

1/2 of tyhe whole crop.....3

1/4 old the whole crop.....4

Under 1/4 of the whole crop...5

Not record                  6

Type of fertlizers ( Col 14)

Organic fertiliser.....1

[illegible]

## Definitions and working page for page 7

**Storage (Col. 30, Q 5.2.1):**

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storages structures improved through modern technology.

**Marketing Challenges Q 5.2.1 Col. 33:**

- **Farmers' Association:** Village farmers who came together and started an association for the purposes of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulating transportation and selling of crops.

**Inputs (Q 5.2.1)**

- Farm Yard Manure:** An organics fertiliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical used in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

## Questions specific definitions

**Q 5.2.1. Instructions on crops storage:**

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

**Crops storage is keeping/reserving crops in a container or a special place for future use.**

**Q 5.2.1 Col 33**

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

**Working area/calculation space**

Definitions and working page for page 8																																																																																																																																																						
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Permanent Crops:</b> These are crops once planted last longer in the farm and need not be replanted after each annual harvest. Most of the permanent plants include tress such as coconut tress, apple trees, grape trees, banana trees. pineapple trees etc.</p> <p><b>Number of Trees:</b> These include manure trees and premature trees.</p> <p><b>Number of mature plants:</b> A total of fruit bearing tress (e.g. mango trees, orange trees, avocado trees e.t.c).</p> <p><b>Instructions for permanent monocrops and crop mix:</b>  <b>A.</b> For a field with permanent monocrop enter farm size in collumn. 3.  <b>B.</b> For a field with a permanent crop mix or a temporary crop mix, enter the number of trees only in collumn 4.  <b>C.</b> For a field with a permanent crop mix /temporary annual crops , either:            -Enter the area in collumn 4, if the total arae for permanent crops was obtained through calcaultion of percentages of each crop            OR            Enter the number of tree in collumn 5, if the number of plants/ seedlings of permanent crops was excluded.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>21 Cassava:</b> Cassava is a temporary crop, in order to simplify data collection on areas of production, data on cassava will be collected from areas under permanent crops.</p> </div> </div> <div style="width: 50%;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Permanent crops:( crop oils)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Crop</th> <th>Area per crop</th> </tr> </thead> <tbody> <tr><td>44</td><td>Palm Trees</td><td>0.00049</td></tr> <tr><td>45</td><td>Coconut tree</td><td>0.00037</td></tr> <tr><td>46</td><td>Cashew nut tress</td><td>0.00062</td></tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Permanent crops ( Cash crops)</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Code</th> <th>Crop</th> <th>Area per crop</th> </tr> </thead> <tbody> <tr><td>53</td><td>Sisal</td><td>0.00012</td></tr> <tr><td>54</td><td>Coffee</td><td>0.00049</td></tr> <tr><td>55</td><td>Tea</td><td>0.00037</td></tr> <tr><td>56</td><td>Cocoa</td><td>0.00049</td></tr> <tr><td>57</td><td>Rubber</td><td>0.00099</td></tr> <tr><td>58</td><td>Wattle</td><td>0.00099</td></tr> <tr><td>59</td><td>Kapok</td><td>0.00124</td></tr> <tr><td>60</td><td>Sugar-cane</td><td>0.00012</td></tr> <tr><td>61</td><td>Cardamon</td><td>0.00049</td></tr> <tr><td>63</td><td>Tamarin</td><td>0.00099</td></tr> <tr><td>64</td><td>Cinarmon</td><td>0.00124</td></tr> <tr><td>65</td><td>Nutmeg</td><td>0.00099</td></tr> <tr><td>66</td><td>Clove</td><td>0.00074</td></tr> <tr><td>18</td><td>Black pepper</td><td>0.00037</td></tr> <tr><td>34</td><td>Pigeon Peas</td><td>0.00025</td></tr> <tr><td>21</td><td>Cassava</td><td>0.00019</td></tr> <tr><td>75</td><td>Pineapple</td><td>0.00006</td></tr> <tr><td>86</td><td>Lemon Grass</td><td></td></tr> </tbody> </table> </div> <div style="border: 1px solid black; 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## Definitions and working page for page 9

**Storage (Col. 33, Q 5.3.1):**

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storages structures improved through modern technology.

**Marketing Challenges Q 5.3.1 Col. 35:**

- **Farmers' Association:** Village farmers who came together and started an association for the purposes of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulating transportation and selling of crops.

**Inputs (Q 5.3.1)**

- Farm Yard Manure:** An organics fertiliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical used in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

## Questions specific definitions

**Q 5.3.1. Instructions on crops storage:**

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

**Q 5.3.1 Col 35**

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

**Working area/calculation space**

## Definitions and working page for page 10

**Investment in agriculture****Investment activities:**

Investment activities refer to medium to long term farm development structures and projects. This can be irrigation structures, erosion control and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

**Irrigated farming: Section 6.5:**

**Source of irrigation water** (Col 1): The main source of the water used for irrigation.

**Method of obtaining water** (Col 2): The mechanism by which the water is extracted from the source

**Irrigatable area** (Col 3): The area the irrigation system is designed to cover in acreage

Area of irrigated land during the 2007/08 (Col 5): Area of land under irrigation during the 2007/08 agricultural year. This is the actual area and NOT the cumulative areas recultivated in 2 or more cropping seasons.

**Farm Implements (Col. 1):**

**Machette** : Include all implements use in tree cutting namely cicle, etc.

**Sprinkler**: The pump carried on the back or a hand used water pump

**Hand used small tractor**: A small tractor used in cultivation while the user walks on foot (see photo).

**Section 6.2 Use of draft animals**

Animals used in agricultural activities by the household during 2007/08 agricultural season.

**Castrated Bulls**: Castrated oxen meant for use in agricultural production.  
**Uncastrated Bulls**: mature bulls used for garicultrual activities but are not castrated.

**Cow**: Farmers also use mature female cattle in agricultural activities due to shortage of bulls

**Donkey**: Mature Male or female donekys are also used for agricultrual production.

**Q 6.5 Irrigation.**

1. If a household uses irrigated farming give explanations aon source and method of obatining water. .

2. See Col 10, Q. 5.1.1 and 5.2.1 and Col 12, Q 5.3.1 to see if irrigation was applied to any crop.

**Farm implements, Q 6.1:**

1. Collumn 2 Indicate whether or not inputs were used

2. Complete collumn 3 by entering the number of inputs used.

**Farm inputs: Sections 6.3 and 6.4**

1. Collumn 2 Indicate whether or not inputs were used.

2. Compelte collumn 3 by indicating where the inouts were obatined and collumn 4 by indicating the distance from where the inputs were obatined

**Compost**: An organic fertiliser made on farm from decomposed plant materials.

**Insecticides**: This is the chemical usde in protecting plants or killing pests.

**Fungicides**: Protects plants from fungi attack.

**Herbicide**: Chemicals used to control or kills weeds.

**Improved seeds**: Scientifically attested to be suitable for agricultural use.

Tractor tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.2.6 Power Tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tractor hallow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Castrated bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Uncastrated bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Cows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Donkeys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Shredding Machine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Power Tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Oxen pulled plough for making terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

<b>ACCES TO INPUTS</b>			
Give details on inputs used during 2007/08 agricultural year			
Name of inputs	Used (Yes=1, No=2)	Source	Distance
(1)	(2)	(3)	(4)
Inorganic fertilisers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm yard manure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insecticides/Fungicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pest and weeds control chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved seeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Source (Col.3)</b> Government.....01 Cooperative Union.....02 Farm inputs store/market.....03 Auction.....04 Development project.....05 Corp buyers.....06 Large Scake farms.....07 Made by the household.....08 Form neighbour.....09 Cooperative Union.....10 Others .....98 Not applicable.....99				<b>KQuantity (Col 3)</b> Kg.....1 Ton.....2
<b>Distance from the source (Col 4)</b> Under 1 kilometre .....1 Between One and three kilometres .....2 Between three and 10 kilometres.....3 Between 10 and 20 Kilometres .....4 Over 20 Kilometres.....5 Not applicable.....9				

<b>IRRIGATED FARMING</b>				
Did the household use irrigated farming during 2007/08 agriculture year? Yes=1, No = 2 <input type="checkbox"/>				
If the answer is yes proceed to Section 6.6				
Na.	Main source of water for irrigation	Main source of obtaining water	Area that can be irrigated (Acre)	Area irrigated during 2007/08 agriculture year (Acre)
	(1)	(2)	(3)	(4)
6.5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Source of irrigation water (Col 1)</b> River.....1 Wells .....4 Lake .....2 Deep wells.....5 Dams.....3 Cannals .....6 Tape water.....7	
<b>Means of obtaining water(Col2)</b> Flwoing. (gravity).....1 Using a bucket.....2 Water pump (using hand or leg).....3 Electric /fuel driven pump/ mafuta.....4 Other (Specify).....8	



## Definitions and working page for page 11

## Q 6.6

**The type of erosion control/Water harvesting (Col 1)**

**Terraces:** Structures constructed on mountain slopes to provide flat terrain for crop planting.

**Erosion control bunds:** these are bunks of earth/stones built perpendicular to the slope to slow down the speed of water and thus preventing soil erosion. Its differs from terraces in that the soils on these banks are not at ground level .

**Gabions:** A box like structure made of wire and filled with large stones to prevent gully erosion.

**Sand bags:** Are used in controlling and preventing gully erosion

**Tree belt/wind breaks:** Trees planted against the wind direction for breaking wind speed..

**Section 7.0 Acces to credit for crop or livestock production**

Credit refers to something provided in cash or in kind (such as farm inputs, machines, livestock and other things) for crop or livestock production. The value of the credit must be repaid back to the lender. An Interest may or may not be attached to the value of the credit

The credit may be repaid either in cash or through farm produce to be harvested .

In this question the enumerator is at liberty to inquire up to three sources of credit where the farmer accessed credit from more than one source.

**Section 8.0 Agricultural Extension Services**

**Agricultural Extension Services:** Refers to educational services provided to farmers by extension officers for the purposes of increasing crop and livestock production.

**Share-cropping:** Refers to farming where smallholder / Smallscale farmer enters into an agreement with large scale farmer where the former sells produce to the latter in exchange of provisions of farm inputs and the like. .

**Contract farming Farming:** Farming agreement entered between smallscale and large scale farmers with regards to markets of farm produce and provision of farm inputs

**Q 6.6 Number of water harvesting structures and year of construction**

1. The number water harvesting structures refers to the number of working / maintained structures and does not include derelict or irreparable structures.

2. Year of construction refers to the year in which the structures were built, and not the year the structures were last repaired. The year should be written in figures e.g. 1998, 2006.

**Section 7.0 Source of agriculture credit**

If the farmer obtained credit from more than one source the use the code from the list provided. Start with the main source of credit in Section "7.1.1".a

**Section 8.0 Agricultural extension services**

1. Ask if the household did receive agricultural extension services during 2007/08 agricultural season from the respondents listed in column 1, then enter column 2.

2. Complete all columns for every extension officer.

6.6 SOIL EROSION										Identification <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>									
6.6.1 Did the household experience soil erosion during 2007/08 agriculture year? (Yes=1, No=2)										<input type="checkbox"/>									
6.6.2 Did the household applied any methods for erosion control/water harvesting during 2007/08 agricultural year? (Yes=1, No=2) (If the answer is No, Proceed to Section 7.0)										<input type="checkbox"/>									
Na.		Mechanisms of controlling erosion/ Water harvesting (1)		Number of water harvesting (2)		Year of construction (3)		Type of erosion control/water harvesting (1)		Number of water harvesting (2)		Year of construction (3)							
6.6.3		Terraces		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6.6.7		Tree belt		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
6.6.4		Bunks for erosion control		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6.6.8		Soil bunks of water harvesting		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
6.6.5		Gabions/sand bags		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6.6.9		Trenches		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
6.6.6		Vetiva leaves		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		6.6.10		Other		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
7.0 ACCESS TO ON FARM CREDITS																			
7.1 Is there any household member who accessed on farm credit during 2007/08 agriculture year? Yes=1, No=2 (If answer is NO, Proceed to Section 7.2)																			
<div> <div> <b>SELECT UP TO THREE SOURCES AND PROCEED TO QUESTION 8.0</b>  <i>(Source of credit Q 7.1.1, 7.1.2, 7.1.3)</i>  Relative.....1 Saccos.....4 NGO/Development projects.....7  Bank.....2 Businessman/Shop.....5  Cooperative Union.....3 Private individuals.....6 Other.....9 </div> <div> Source of credit  7.1.1a 7.1.2a 7.1.3a  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> </div> <div> Credit provided to  7.1.1b 7.1.2b 7.1.3b  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  (Male=1, Female=2) </div> </div>																			
7.2 IF THE ANSWER TO QUESTION 7.1 IS NO																			
Give reasons for not accessing credit Reasons for not accessing credit (Q 7.2) COL Not required.....1 Did not to be indebted.....3 Did not know how to access credit.....5 Credit delayed.....7 Did not credit existed.....9 Not available.....2 High interest rates.....4 Bureaucracy.....6 Other (Specify).....8																			
8.0 ADVISORY SERVICES IN AGRICULTURE																			
8.1 Did the household participate in outgrowers scheme during 2007/08 agriculture year? (Yes=1, No=2)																			
8.2 Did the household participate in the contract farming during 2007/08 agriculture year? (Yes=1, No=2)																			
8.3 Did your household receive agricultural advise on the following : (IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION)																			
Na.		Advise on agriculture (1)		Received advice (Yes=1, No=2) (2)		Source of advise (3)													
8.3.1		Spacing		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.2		Use of agrochemicals		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.3		Soil erosion control		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.4		Use of organic manure		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.5		Matumizi ya mbolea za viwandani		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.6		Use of improved seeds		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.7		Use of modern farm implements		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.8		Irrigation		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.9		Crop Storage		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.10		Pest control		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
8.3.11		Other (Specify)		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>													
Source of agricultural advice (Col 3) Government.....1 NGO/Development project.....2 Cooperative.....3 Large Scale farmer.....4 Radio/Newspapers.....5 Neighbour.....6 Other source.....8																			

### Definitions and working page for page 12

**Q 9.1 and 9.3 :** What is required is to establish whether or not the household kept or raised the listed livestock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

**Keeping or raising livestock** is to to keep livestock at home while providing the livestock with animal feeds and medication and other services. The livestock could be owned by the farmer or kept on behalf of relatives or neighbours .

#### Sections 9.1.1 to 9.1.7 Cattle

**Note:**

**Q 9.1 is for the actual number of cattle owned or kept by the household (as of 1st October 2008). This number does not include herds of cattle kept on behalf by relatives or neighbours; that is, the cattle outside the residential area of the household under survey.**

1. If the the household keep mature fecund female cattle, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

#### Type of cattle (section 9.1.1 to 9.1.7)

**Bull:** Mature uncastrated male cattle used for breeding

**Cow:** Mature female cattle that has given birth at least once

**Ox:** Castrated male cattle used for farm work

**Steer:** Castrated male cattle used for meat

**Heifer:** Female cattle of 1 year up to the first calving

#### Section 9.3 Goat

**Note:**

**Question 9.3 is for the actual number of owned or raised by the household (as of 1st October 2008) This number does not include goats kept on behalf by relatives or neighbours, that is the goat outside the residential area of the household under survey.**

1. If the household has she goats, you would normally expect them to have kids

#### Type of Goat (Qs 9.3.1 to 9.3.5)

**Billy Goat (he-goat):** Mature Uncastrated male goat used for breeding

**Castrated goat:** Male goat that has been castrated

**She Goat:** Mature female goat over 9 months of age

9.0	<b>LIVESTOCK (LIVESTOCK AND FISH)</b>					
9.1	<b>CATTLE</b>					
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3)						
Number of cattle as of 1.10.2008						
No.	Type of cattle	Number of indigenous cattle (2)	Number of improved cattle for meat (3) Dairy (4)		Total (5)	
9.1.1	Castrated bulls					
9.1.2	uncastrated bulls					
9.1.3	Cows					
9.1.4	Steers					
9.1.5	Heifer					
9.1.6	Male calves					
9.1.7	Female calves					
Grand total						
9.1.8	What main methods do you use to identify your cattle?					
<b>Cattle identification methods</b> Iron stamp (chapa moto).....1 Throat.....2 Ear/tail cutting.....3 Colour.....4 Earrings.....5 Other .....8						
9.2	<b>Milk production: CATTLE</b>					
Na.	Season (1)	Type of cattle (2)	Number of milked cows (3)	Average of milk per cow per day (litre) (4)	Average number of days which your cows were milked (5)	Average price per litre per season (6)
9.2.1	Rainy	Improved				
9.2.2		Indigenous				
9.2.3	Dry	Improved				
9.2.4		Indigenous				
9.3	<b>GOAT</b>					
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3)						
Number of goats as of 1.10.2008						
Na.	Type of goat (1)	Number of indigenous goat (2)	Number of improved for meat (3) Dairy (4)		Total (5)	
9.3.1	Male uncastrated goat					
9.3.2	Male castrated goat					
9.3.3	She goat					
9.3.4	Male kid					
9.3.5	She kid					
Grand total						
<b>Milk Production: GOAT</b>						
Na.	Season (1)	Number of milked goats (2)	Average of milk per goat per day (litre) (3)	Average number of days which your she goats were milked (4)	Average price per litre per season (5)	
9.3.6	Rainy					
9.3.7	Dry					

### Definitions and working page for page 13

**Q 9.1 and 9.3 :** What is required is to establish whether or not the household kept or raised the listed livestock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

**Keeping or raising livestock** is to keep livestock at home while providing the livestock with animal feeds and medication and other services. The livestock could be owned by the farmer or kept on behalf of relatives or neighbours .

### Sections 9.4 Sheep

**Note:**

**Q 9.4 is for the actual number of sheep owned or kept by the household (as of 1st October 2008). This number does not include sheep kept on behalf by relatives or neighbours; that is, the sheep outside the residential area of the household under survey.**

1. If the the household keep ewes, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

### Type of Sheepe (Section 9.4.1 to 9.4.5)

**Ram:** Mature Uncastrated male sheept used for breeding

**Castrated sheep:** Male sheep that has been castrated

**Ewe:** Mature female sheep over 9 months of age

**Lamb:** Young sheep under 9 months of age.

### Section 9.5 Pigs

**Note:**

**Question 9.3 is for the actual number of pigs owned or raised by the household (as of 1st October 2008). This number does not include pigs kept on behalf by relatives or neighbours, that is the cattle outside the residential area of the household under survey. .**

1. If the household has she goats, you would normally expect them to have kids in column

### Type of Pigs (Qs 9.5.1 to 9.5.5)

**Boar:** Mature Uncastrated male pig used for breeing

**Sow:** Mature female pig that has given birth to at least one ltter of pigs.

**Gilt;** Female pig of over 3 months up to the first farrowing

**Piglet:** Young pig less than 3 months of age

Identification <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span>									
<b>9.4 SHEEP</b>					<b>9.5 PIGS</b>				
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No=2 (If the answer is No proceed to Section 9.5) <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span>					Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No=2 (If the answer is No proceed to Section 9.6) <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span>				
Number of sheep as of 1.10.2008					Number of pigsp as of 1.10.2008				
Na.	Type of sheep	Number of indigenous sheep	Number of improved	Total	Na.	Type Pigs	Number of pigs		
	(1)	(2)	(3)	(5)		(1)	(2)		
9.4.1	Ram	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.1	Boar	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.2	Castrated sheep	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.2	Castrated male	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.3	She sheep	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.3	Sow/Gilt	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.4	Male lamb	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.4	Male piglet	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.5	Female lamb	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.5	Female piglet	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
Grand total				<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	Grand total				<div style="border: 1px solid black; width: 20px; height: 20px;"></div>
<b>9.6 OTHER LIVESTOCK</b>									
	Type of animal	Number as of 1 October 2008	Number of eggs 2007/08 agriculture year			Type of animal	Number as of 1 October 2008	Number of Eggs 2007/08 agriculture year	
	(1)	(2)	(3)			1	(2)	(3)	
9.6.1	Local chicken	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		9.6.6	Turkeys	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	
9.6.2	Layers	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		9.6.7	Rabbit	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.6.3	Broilers	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>			9.6.8	Donkeys	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.6.4	Ducks	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		9.6.9	Horses	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.6.5	Guinea pigs	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>			9.6.10	Dogs	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		

### Definitions and working page for page 14

### Control of livestock diseases causing bugs

**Livestock worm control medicine:** Medicine used to kill or control livestock on livestock. It is often used for cattle, goats, sheep and pigs.

**Tiick:** Is a dangerous bug that sucks blood from livestock and transmits animal diseases from one to the other animal.

**Tse tse fly:** A fly like bug that sucks blood from livestock and transmits diseases sleeping sickness from one to the other animal.

### Livestock advice (Section 9.8)

IA service provided by extension officers to livestock keepers for increasing livestock production.

9.7 LIVESTOCK DISEASES AND PEST CONTROL			Identificatio
Did you livestock during 2007/08 agriculture year? (Yes=1, No=2) (If the answer is No proceed to Section 9.7.5)		<input type="checkbox"/>	<input type="checkbox"/>
Which animals did your deworm? ( Yes=1, No =2, Not applicable=3 in the relevant box)			<input type="checkbox"/>
9.7.1 Cattle <input type="checkbox"/>	9.7.2 Goat/Sheep <input type="checkbox"/>	9.7.3 Pigs <input type="checkbox"/>	9.7.4 Poultry <input type="checkbox"/>
9.7.5 Do you experience tick problem with your livestock? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	<input type="checkbox"/>
9.7.6 How did you control tick problem? <div>Control method (Q. 9.7.6): Dipping.....1 Spaying.....2  Application of medicine on back bone.....3 None.....4 Other.....8</div>		<input type="checkbox"/>	NOTE : If answers to Qs 9.1 to 9.6 is No (THAT IS THE HOUSEHOLD DOES NOT RAISE LIVESTOCK) Proceed to q.9.9
9.7.7 Do you experience Tse tse problem with your livestock? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	
9.7.8 How did you control Tse tse problem with your livestock? <div>Control method (Q. 9.7.8): Dipping.....1 Spaying.....2  Traps.....3 None.....4 Other.....8</div>		<input type="checkbox"/>	
9.7.9 Do you experience Newcastle disease problem with your poultry? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	
9.7.10 How do you control Newcastle disease problem with your poultry? <div>Control/curative methods (Q. 9.7.10)  Vaccination.....1 Herbs.....2 None.....3</div>		<input type="checkbox"/>	
9.7.11 Did you experience Fowl Typhoid with your poultry? Yes=1, No=2, Not applicable=3		<input type="checkbox"/>	
9.7.12 How did you control/cure Fowl Typhoid with your poultry? <div>Control/curative methods (Swali 9.7.12)  Vaccination.....1 Herbs.....2 None.....3</div>		<input type="checkbox"/>	
9.7.13 Were your cattle vaccinated against the following diseases? (Yes = 1, No = 2, Not applicable=3). 9.7.13A: Foot and Mouth diseases <input type="checkbox"/> 9.7.13B: Skin disease <input type="checkbox"/>			
9.8 Extension services on livestock			
Did you receive the following extension advice on the following? (IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION)			
Na.	Livestock extension advice	Received Extension advice (Yes=1, No=2)	Source of Extension
	(1)	(2)	(3)
9.8.1	Feed and better feeding methods	<input type="checkbox"/>	<input type="checkbox"/>
9.8.2	Improved livestock shed (Goat, Dairy cattle, Poultry and pigs)	<input type="checkbox"/>	<input type="checkbox"/>
9.8.3	Milking and hygiene	<input type="checkbox"/>	<input type="checkbox"/>
9.8.4	Cattle fattening	<input type="checkbox"/>	<input type="checkbox"/>
9.8.5	Livestock diseases control	<input type="checkbox"/>	<input type="checkbox"/>
9.8.6	Livestock keeping in line with land availability	<input type="checkbox"/>	<input type="checkbox"/>
9.8.7	Pasture establishment and maintenance	<input type="checkbox"/>	<input type="checkbox"/>
9.8.8	Forming and strengthening groups/cooperatives	<input type="checkbox"/>	<input type="checkbox"/>
9.8.9	Calf rearing	<input type="checkbox"/>	<input type="checkbox"/>
9.8.10	Basics of production and use of improved bulls (AI)	<input type="checkbox"/>	<input type="checkbox"/>
9.8.11	Animals feed production	<input type="checkbox"/>	<input type="checkbox"/>
9.8.12	Other extension advice (Specify) .....	<input type="checkbox"/>	<input type="checkbox"/>
<div>Source of agriculture extension (Swali 3)  Government.....1 NGO/Development project.....2 Cooperative Union.....3 Large Scale farmer.....4 Radio/TV/Newspapers.....5  Neighbour.....6 Other source .....8</div>			

## Definitions and working page for page 15

## General definitions

**Fish farming:** Refers to the rearing/production of fish. It is different from fishing in that in fish farming the fish have to be reared. While in fishing, fishing nets or traps are used to catch fish from rivers, lakes and the sea; thus fishing should not be included in this section

I

## Question Specific Definitions (Q 9.9 )

Production unit number (Col 1): A production unit is a pond river/lake which is treated as a separate entity for the production of fish eg it may be by virtue of manageable size, maturity of fish, type of fish etc. eg. a farmer may have 3 fish ponds (each one is a separate production unit).

Frequency of stocking (Col . 5): What is the number of time the farmer puts new fingerlings into the pond each year.

Fingerlings: These are young immature fish used for stocking ponds.

**Sols: (Col 10 & 11)**

If no fish were sold enter "0" in column 10 and 11`

## Fish sold (Col.12)

Kama hakuna samaki waliouzwa jaza "0" katika safuwima 12

## Working space for page 15



9.9 FISH FARMING														Identification <input type="text"/>			
Did your household practice fish farming? Yes=1, No=2 (If the answer is no proceed to section 9.10) <input type="text"/>																	
Give details on the fish farming during 2007/08 agriculture year																	
No.	Number of Ponds	Aina ya ufugaji	Square area of pond (m <sup>2</sup> )	Source of fingerings	What is the frequency of stocking during the period?	Kiwango cha Huduma ya bwawa	Total number of stoked fish				Total number of fish harvested	Total weight of all fish		What is the main fish outlet?			
							Tialpia	Mwatiko	Crabs	Lulu		waliovuliwa (kg)	waliouzwa (kg)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
9.9.1	1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
9.9.2	2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			
9.9.3	3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>			

**Type of farming (SCol 2)**  
 Natural pond.....1  
 Small earth pond.....2  
 Large pond.....3  
 Other .....8

**Standard of services to the pond (Col 6)**  
 High leve .....1  
 Intermediate level.....2  
 Low leve.....3  
 Don't know.....8

**Source of fingerings(Col 4)**  
 From the pond.....1 Neighbour.....4  
 Government.....2 Business man.....5  
 NGO/Development Project...3 Natural Pond.....6  
 Other .....8

**mainly sold to? (Col 14)**  
 Neighbour...1 Auction.....3 Large Scale farmers.....5  
 Open market....2 Fish processing industry..4 Private business people ....6  
 Did not sell.....7 Other .....8

9.10 HONEY PRODUCTION								
Is there honey production/harvesting in your household? Yes=1, No=2 (If answer is no PROCEED to Section 9.11) <input type="text"/>								
Give details on honery harvesting during 2007/08 agriculture year								
Number	Type of honey	Harvesting done ? (Yes=1, No=2)	Number of improved bee hives	Number of local bee hives	Amount sold per year (Litre)	Amount of honey sold (litre)	Price per litre	Main market)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9.10.1	Small bees	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9.10.2	Large bees	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Honey outlet Co 8**  
 Neighbour...1 Auction.....3  
 Large Scale farmers.....5  
 Open market....2 Fish processing industry..4  
 Private business people ....6  
 Did not sell.....7

9.11 AGRICULTURAL CHALLENGES		
From the list of cahhalengs in farming on the right of the page, SELECT FIVE MAIN CHALLENGES WHICH constrain your development in agriculture		
No	With first five priorities	Code
	(1)	(2)
9.11.1	Priority 1	<input type="text"/>
9.11.2	Priority 2	<input type="text"/>
9.11.3	Priority 3	<input type="text"/>

No	Important for	Code
	(1)	(2)
9.11.4	Priority 4	<input type="text"/>
9.11.5	Prioty 5	<input type="text"/>

**LIST OF CHALLENGES**

01 Land availability  
 02 Land ownership  
 03 Poor farm implementso  
 04 Soil fertility  
 05 Availability of improved seeds  
 06 Irrigation services  
 07 Availability of agrochemicals  
 08 Cists of farm inputs  
 09 Extension services  
 10 Availability of forest resources  
 11 Huntinf and collection problems  
 12 Water availability  
 13 Access to credits  
 14 Lack of off farm incomes  
 15 Harvesting problems  
 16 Kupukuchua  
 17 Crop stiorage  
 18 Crop processing  
 19 Market information  
 20 High transportation costs  
 21 Destructive animals  
 22 Crop theft  
 23 Pests and diseases  
 24 Advice from Local government  
 25 Long dry spells  
 26 Conflicts between livetsock keepers and pastoralists

**Definitions and working page for page 16****10.0 Household poverty indicators****Number of rooms used for sleeping in the household (Q 10.1.4)**

Include sitting room, dining room, kitchen, etc if used for sleeping.

It also includes rooms outside the main dwelling

A room is defined as a space which is separate from the rest of the building by a permanent wall or division. A building / house that is not divided into rooms is considered to have one room.

**Household assets (Q 10.2):**

These assets must be functional. Do not include if broken.

**Access to drinking water (Q 10.4):**

If there is more than one source use the one, which the hh uses most frequently.





**Main source of hh cash income:(Q 10.7:**

Activity that provides the hh with the most cash during 2007/08 agricultural season.

10.0 POVERTY INDICATORS																																							
<b>10.1 HOUSE CONSTRUCTION</b> Specify materials used in the construction of the following sehemu zifuatazo		<b>10.2 Household property</b> Does your household own the following?, (Yes=1 No =2)																																					
<b>10.1.1 Roof</b> <input type="checkbox"/>	<b>10.1.2 Floor</b> <input type="checkbox"/>	<b>10.1.3 Wall</b> <input type="checkbox"/>																																					
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <b>Roofing materials</b>            Iron sheets.....1            Tiles.....2            Concrete.....3            Asbestos.....4            Grass/Makuti.....5            Grass and mud.....6            Other.....8         </div> <div style="width: 48%;"> <b>Floor materials</b>            Earthen material.....1            Wood.....2            Wooden tiles.....3            Tiles.....4            Cement.....5            Other.....8         </div> </div>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Number</th> <th style="width: 70%;">Property</th> <th style="width: 20%;">Yes=1, No=2</th> </tr> <tr> <th></th> <th>(1)</th> <th>(2)</th> </tr> </thead> <tbody> <tr><td>10.2.1</td><td>Radio (Radio, Radio Casette, music system)</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.2</td><td>Land line</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.3</td><td>Celkl phone</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.4</td><td>Iron</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.5</td><td>Trolley</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.6</td><td>Bycycle</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.7</td><td>Vehicle</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.8</td><td>TV/ Video</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.9</td><td>Refrigerator</td><td><input type="checkbox"/></td></tr> <tr><td>10.2.10</td><td>Motorbike/vespa</td><td><input type="checkbox"/></td></tr> </tbody> </table>		Number	Property	Yes=1, No=2		(1)	(2)	10.2.1	Radio (Radio, Radio Casette, music system)	<input type="checkbox"/>	10.2.2	Land line	<input type="checkbox"/>	10.2.3	Celkl phone	<input type="checkbox"/>	10.2.4	Iron	<input type="checkbox"/>	10.2.5	Trolley	<input type="checkbox"/>	10.2.6	Bycycle	<input type="checkbox"/>	10.2.7	Vehicle	<input type="checkbox"/>	10.2.8	TV/ Video	<input type="checkbox"/>	10.2.9	Refrigerator	<input type="checkbox"/>	10.2.10	Motorbike/vespa	<input type="checkbox"/>
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10.2.9	Refrigerator	<input type="checkbox"/>																																					
10.2.10	Motorbike/vespa	<input type="checkbox"/>																																					
<b>10.1.4 Number of bedrooms</b> <input type="text"/>		<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <b>Main materials</b>            Grass and pieces of woods.....1 Mud.....2            Wet bricks.....3 Burnt bricks.....4            Wood.....5 Block bricks.....6            Stonese.....7 Bricks /Mawe ya kichanga.....8         </div> </div>																																					
<b>10.3 Energy use and availability in the household</b>		<b>10.4 Availability of drinking water</b>																																					
<b>Main source of energy</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Season</th> <th style="width: 25%;">Main source of water</th> <th style="width: 25%;">Distance from source ( km)</th> <th style="width: 25%;">Time spent waiting or going to and from the source (Hours)</th> </tr> <tr> <th>(1)</th> <th>(2)</th> <th>(3)</th> <th>(4)</th> </tr> </thead> <tbody> <tr> <td>10.4.1 Rainy</td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> <tr> <td>10.4.2 Dry period</td> <td><input type="text"/></td> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table>		Season	Main source of water	Distance from source ( km)	Time spent waiting or going to and from the source (Hours)	(1)	(2)	(3)	(4)	10.4.1 Rainy	<input type="text"/>	<input type="text"/>	<input type="text"/>	10.4.2 Dry period	<input type="text"/>	<input type="text"/>	<input type="text"/>																				
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<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <b>10.3.1 Lightening</b> <input type="checkbox"/> </div> <div style="width: 48%;"> <b>10.3.2 Cooking</b> <input type="checkbox"/> </div> </div>		<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <b>Nishati za Kuangazia</b>            Umeme.....01            Sola.....02            Gesi (biogas).....03            Taa ya kandili.....04            Karabai.....05            Kibatari.....06            Mishumaa.....07            kuni.....08            Nyingine.....98         </div> <div style="width: 48%;"> <b>Nishati za kupikia</b>            Umeme.....01            Sola.....02            Gesi (biogas).....03            Gesi (Kiwandani).....04            Mafuta ya taa.....05            Mkaa.....06            Kuni.....07            Mabaki ya Mazao.....08            Kinyesi cha.....09            Wanyama.....09            Nyingine.....98         </div> </div>																																					
<b>10.5 Toilet facilities</b>		<b>10.6 Eating patterns</b>																																					
<b>10.5.1 What type of toilet does your household use?</b> <input type="checkbox"/>		<b>10.6.1 How many meals does your household usually get per day ?</b> <input type="checkbox"/>																																					
<b>Type of toilet</b> No toilet/in the bush.....1 Pit latrine.....4 Flush toilet.....2 Other type (Specify).....8 Ordinal pit latrine.....3		<b>10.6.2 How days did the household eat meat last week?</b> <input type="checkbox"/>																																					
<b>10.7 Main source of household cash income?</b>		<b>10.6.3 How days did the household eat fish last week?</b> <input type="checkbox"/>																																					
<b>10.7.1 What are the sources of household income?</b> <input type="checkbox"/>		<b>10.6.4 How many times did the household experience food shortages last year?</b> <input type="checkbox"/>																																					
<b>Code for source of income</b> Selling food crops.....01 Sales of forest products.....05 Cash assistance.....09 Sales of livestock.....02 Business.....06 Fishing.....10 Sales of livestock products.....03 Salaries.....07 Other.....98 Sales of cash crops.....04 Casual labour.....08 None.....99		<b>Food shortage problems (Swali 10.6.4)</b> Never.....1 Few times.....2 Sometimes.....3 Many times.....4 Often.....5																																					
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <b>TIME OF FINISHING THE INTERVIEW</b> </div> <div style="width: 35%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Hour</th> <th style="width: 50%;">Minutes</th> </tr> </thead> <tbody> <tr> <td><input type="text"/></td> <td><input type="text"/></td> </tr> </tbody> </table> </div> </div>				Hour	Minutes	<input type="text"/>	<input type="text"/>																																
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<input type="text"/>	<input type="text"/>																																						

Average/maximum yields per area					
Use this table to compare the yields calculated in Sections 5.1, 5.2 and 5.3.					
These stats are strictly to be used as a guide for the purpose of assisting to get the correct area and yields for each crop.					
	Name of Crop	Kilogram/ha		Kilogram/acre	
		Average	Max	Average	Max
11	Maize	1,150	6,250	466	2,530
12	Paddy	700	4,000	283	1,619
13	Sorghum	750	3,500	304	1,417
14	Bulrush Millet	350	3,000	142	1,215
15	Funger Millet	300	2,500	121	1,012
16	Wheat	1,150	4,500	466	1,822
17	Barley	1,400	1,800	567	729
18	Cassava	3,000	7,000	1,215	2,834
19	Sweet potatoes	600	8,000	243	3,239
20	Irish potatoes	750	8,500	304	3,441
21	Yams	4,000	10,000	466	1,822
22	Coco yams	2,500	5,000	567	729
23	Onions	30,000	50,000	1,215	2,834
24	Ginger	20,000	30,000	243	3,239
25	Mahar Beans	400	1,300	304	3,441
26	Cow peas	300	1,750	121	709
27	Green gram	1,500	1,800	1,012	2,024
28	Pigeon peas	600	1,500	243	607
29	Chick peas	500	1,500	202	607
30	Bambara nuts	600	4,000	243	1,619
31	Sun flower	600	1,700	243	688
32	Simsim	300	1,000	121	405
33	Gound nuts	600	4,000	243	1,619
34	Soyabeans	1,300	2,500	526	1,012
35	Caster seeds	300	750	121	304
36	Pineapple	25,000	60,000	10,121	24,291
37	Cotton	300	1,500	121	607
38	Tobacco	500	1,500	202	607
39	Pyrethrum			0	0
40	Jute	800	3,500	324	1,417
41	Palm oil	1,150	5,000	466	2,024
42	Cononut	1,500	8,000	607	3,239
43	Cashw nut	9	60/tree	4	24
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					
64					
65					
66	Cabbage	20,000	50,000	8,097	20,243
67	Tomatoes	25,000	60,000	10,121	24,291
68	Spinach	15,000	17,000	6,073	6,883
69	Carrot	25,000	30,000	10,121	12,146
70	Pepper	3,500		1,417	0
71	Amaranthus	20,000	40,000	8,097	16,194
72	Pumpkin	35,000	40,000	14,170	16,194
73	Cucumber	5,000	10,000	2,024	4,049
74	Egg plant	30,000	60,000	12,146	24,291
75	Water melon	10,000	20,000	4,049	8,097
76	Caouliflower	17,000	20,000	8,097	16,194
77	Cotton	800	25,000	14,170	16,194
78	Coffee	500	100	2,024	4,049
79	Tea	2,500	10,000	12,146	24,291
80	Cocoa	150	1,000	4,049	8,097
81	Rubber	400	1,400	6,883	8,097
82	Wattle			324	10,121
83	Kapok			0	0
84	Sugar cane	60,000	150,000	24,291	60,729
85	Cardamon	3,000		1,215	0
86	Banana	10,000	50,000	4,049	20,243
87	Avocado			0	0
88	Mango	10,000	25,000	4,049	10,121
89	Pawpaw	50,000	70,000	20,243	28,340
90	Orrage	15,000	40,000	6,073	16,194
91	Grape fruit	30,000	50,000	12,146	20,243
92	Grapes	5,000	30,000	2,024	12,146
93	Mandarin	15,000	40,000	6,073	16,194
94	Quava	7,000	35,000	2,834	14,170
95	Plums			0	0
96	Tufaha		20,000	0	8,097
97	Pea	15,000	27,000	6,073	10,931
98	Pitches	14,000	57,000	5,668	23,077
99	Clove	4,500	5,000	1,772	1,969
100	Black pepper	2,000	3,750		
101	Mung'unye				
102	Ocra	1,000	1,500		

## Community Level Questionnaire

<b>ACQ 3</b>		<b>United Republic of Tanzania</b>		<b>CONFIDENTIAL</b>						
										
		<b>Village/Community Level Formats</b> Access to and Use of Community Resources Farm Gate Prices of commodities produced by the village								
		<b>Agricultural Sample Census</b> <b>2007/2008</b>		<b>NUMBER OF FARMERS HH IN THE VIALAGE</b> To be filled by the enumerator after completing form ACLF2  <b>NUMBER OF HH MEMBERS</b> To be filled by the enumerator after completing form ACLF2						
Region			Ward							
District			Village							
<b>Enumerator Name</b> .....			<b>Signature</b> .....							
<b>Date of Enumeration</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">d</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">d</div> <div style="font-size: 10px;">/</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">m</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">m</div> <div style="font-size: 10px;">/</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">y</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">y</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">y</div> <div style="border: 1px solid black; width: 20px; height: 20px; display: flex; align-items: center; justify-content: center;">y</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div style="text-align: center;">Start Time</div> <div style="text-align: center;">End Time</div> </div>			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">Hour</th> <th style="width: 50%;">Minutes</th> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table>		Hour	Minutes				
Hour	Minutes									
<b>Field level checking by:</b>			I To be filled by the supervisor ONLY after Field/farm level checking of the enumeration process. This should be countersigned by the Supervisor in front of the enumerator							
District Supervisor	Name .....	Signature .....				Date .. / .. / ..				
Regional Supervisor	Name .....	Signature .....				Date .. / .. / ..				
National Supervisor	Name .....	Signature .....	Date .. / .. / ..							
<b>District checking in Office</b>			All questionnaires must be checked at the district office.							
District Supervisor	Name .....	Signature .....				Date .. / .. / ..				
<b>For Use at Regional Level Only</b>										
Data entered by:	Name .....	Signature .....	Date .. / .. / ..	See the back page for details of queries						
Queried	Name .....	Signature .....	Date .. / .. / ..							
Ministry of Agriculture and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Administration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Government of Zanzibar										

## Definitions and working page for page 3

## Question Specific Definitions:

Obtain answers to the following questions from the meeting between the enumerator and influential farmers in the village. Influential people can be Village Chairman, Village Government Executive Officer, Councillor, Ward Chairman, Extension Officer in the village or any other person in the village and who is well informed about village matters. It is important to not that these questions must be asked in groups (of more than one people) to obtain answers discussed and approved by many people.

## Definitions of some specific terms

**Access to community resources. Section 1.0**

**Community Resources:** Resources in which the hh members have no individual claim to and which are shared together by all the village

**Community Land:** The area officiall demarcated by the village as shared/public land.

**Squatting farmers Land:** Communal land where individual hhs make sole claim to (for crop farming or fenced livestock) without official rights to ownership.

**Available remaining Land:** Official area of communal land minus areas of squatting farmers.

**Government Land Reserve:** Area set aside by the government as national reserve

**Community tree planting scheme(Section 14.3)**

**Community Forest:** A forest planted on the communal land which is planted, replanted or spt planted by the members of the village.

**Plant Planting:** An area designated by the village for planting a block of trees.

**Spot Planted:** Replanting an area where selective logging has been carried out. A tree is planted to replace the one that has been cut.

**Indigeous Trees:** Trees that are native to Tanzania

**Exotic Trees:** Trees that are not native to Tanzania

**Non Government Organisation:** Is managed by people from outside the village and it normally covers more than one village/District/R region. Its function is to provide deveoopment assistance to the farmer and is free from direct government links.

**Village level organization:** is managed by members of the village. Its purpose is normally to access/provide development assistance to the village

## ACCESS TO COMMUNAL RESOURCES

1 ACCESS TO COMMUNITY RESOURCES									
1.1 Does the village set aside an area for communal resources e.g. forest, grazing, etc. (Yes =1 No =2) <input type="checkbox"/>									
(If the answer is no proceed to 1.2)									
Are of Community, Village, Ward resources					Area in acre				
1.1.1 Total area of communal land					<input type="text"/>				
1.1.2 Area of squatting farmers in communal land					<input type="text"/>				
1.1.3 Remaining available communal land					<input type="text"/>				
1.1.4 Government reserve land					<input type="text"/>				
1.2 UPATIKANAJI NA MATUMIZI YA MALIASILI ZA JUMUIYA/KIJI/SHEHIA									
Community Resources		Distance from the resource in Km -season		Main Use		Instructions on distance from the resource (Cols 2 and 3): Distance is estimated from the centre of the village.  If under 1 km 1, enter 0 If above 1 km 1 enter whole number, eg. 1.5km= 2km, 1.25km= 1km  <b>Main uses (Col. 4)</b> Home or farm /livestock consumption...1 Sold to traders in the village.....2 Sold to the village market.....3 Sold to local wholesalers.....4 Sold to Big wholesalers.....5 Not available.....6			
(1)		Dry (2) Rainy (3)		(4)					
1.2.1 Water for human consumption		<input type="text"/>		<input type="text"/>					
1.2.2 Water for livestock		<input type="text"/>		<input type="text"/>					
1.2.3 Communal grazing land		<input type="text"/>		<input type="text"/>					
1.2.4 Communal firewood		<input type="text"/>		<input type="text"/>					
1.2.5 Wood for charcoal burning		<input type="text"/>		<input type="text"/>					
1.2.6 Wood for building poles		<input type="text"/>		<input type="text"/>					
1.2.7 Forest for bee keeping (honey)		<input type="text"/>		<input type="text"/>					
1.2.8 Hunting		<input type="text"/>		<input type="text"/>					
1.2.9 Fishing		<input type="text"/>		<input type="text"/>					
2.0 COMMUNITY PLANTED TREES									
2.1 Did your village have community planted trees during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>									
(If the answer is no proceed to Section 3.0)									
Details of the community tree planting scheme									
No.	Distance from the community forest	Forest Area (acre)	Type of Planting	Type of Trees	Source of seeds/ Seedlings	Number of Years since the start of planting	Main uses 2007/08 agriculture year	Main uses of communal forest products	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
2.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Type of planting (Col. 3): Plantation planting.....1 Spot planting.....2		Source of seedlings (Col. 5): Seeds collection and planting.....1 Village Nursery.....2 Department of Forestry.....3 Private Individuals.....4			Main Uses (Col. 7): Poles.....1 Wood.....2 Charcoal.....3 Firewood.....4 Other (Specify).....8		Main use of revenue (Col. 8): Village development fund.....1 Household use.....2 Household income.....3		
3.0 Non governmental Organisation (NGOs) Contact									
3.1 Did any NGO visit the village during 2007/08 agriculture year? (Yes=1, No=2) (If no proceed to Section 4) <input type="checkbox"/>									
4.0 Community Based Organisation									
4.1 Did the village have any CBO during the 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>									
Na.	Type of NGO	Visited Yes=1, No=2	Number of visits	Distance to the Office (km)	Na.	Type of CBO	Nid=1, Map=2		
3.2	Extension/ Research	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.2	Extension/ Research	<input type="text"/>		
3.3	Service/ Input provision	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.3	Service/ Input provision	<input type="text"/>		
3.4	Community Development	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.4	Community Development	<input type="text"/>		
3.5	Other	<input type="text"/>	<input type="text"/>	<input type="text"/>	4.5	Other	<input type="text"/>		
5.1 Did the village have Field farm schools during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>									
5.2 Did the village participate in any research on crops/ improved livestock during in the village during 2007/08 agriculture year? (Yes=1, No=2) <input type="checkbox"/>									
5.3 Did the village have local ironsmiths during 2007/08 agriculture year? (Yes=1, No=2) (If the answer is 2 proceed to q. 5.5) <input type="checkbox"/>									
5.4 Number of local ironsmiths <input type="text"/>									
5.5 Did the village have any training centres on draft animals during 2007/08 agriculture year? (Yes=1, No=2) If number 2 is the answer conclude the enumeration. <input type="checkbox"/>									
5.6 Number of training centres for draft animals <input type="text"/>									

**Procedure:** Administer this from after completing all smallholder questionnaires for the village.

1. Copy the name of all crops from Sections 5.1, 5.2 and 5.3 grown in the village from smallholder questionnaires. This should also include livestock raised by the household from questions 9.1, 9.3, 9.4 and 9.5 and enter them in col na 1 of this form. Also see codes for livestock below.
2. Enter price estimates per kg in col 5 and 6.

<b><u>Type of livestock(Col 2)</u></b>	
Cattle.....01	Ducks.....07
Goat.....02	Turkey.....08
Sheep.....03	Rabbit.....09
Pigs.....04	Kanga.....10
Poultry.....05	Simbilisi.....11
Donkeys.....06	

**Main product: CROPS (SCO1.4)**

Cereals.....01	Flowers eg. Pyrethrum.....07
Green maize.....02	Vegetables.....08
Green leaves and stem .....03	Fruit.....09
Straw, dry stems etc.....04	Other.....10
Roots and tubers, etc.....05	
Leaves (Tobacco etc).....06	

(Col. 4)  
Live animals.....01  
Meat .....02  
Milk.....03  
Eggs.....04

Kg.....1  
Number.....2  
Litre.....3  
A portion/piece 14




## Village Community Level formats

**UNITED REPUBLIC OF TANZANIA**



**CONFIDENTIAL**

**ACLF 1**



Page Number..... out of.....

**Agriculture Sample Census 2007/08**

**Sub-village /ward leader listing from**


Region \_\_\_\_\_ Code   Ward \_\_\_\_\_ Code    
 District \_\_\_\_\_ Code   Village \_\_\_\_\_ Code

Sub village leader Number	Name of Ward village leader	Number of Households		Comments
		Form Office Register	After enumeration	
(1)	(2)	(3)	(4)	(5)
<input type="text"/> <input type="text"/> <input type="text"/>		<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	
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**ACLF 2**



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**Agriculture Sample Census 2007/08**

**Household listing from-for listing hh heads and agriculture activities**

Region \_\_\_\_\_ Code    
 District \_\_\_\_\_ Code    
 Ward \_\_\_\_\_ Code    
 Village \_\_\_\_\_ Code

Name of sub village leader \_\_\_\_\_  
 Name of sub village \_\_\_\_\_

Household number	Household head name	Fields a	Number of								If the Respondent Qualifies X	Farmer Serial Number	
			Cattle				Goats	Sheep	Pigs	Kuku/Bata/ Rabbit			
			Total	Bulls	Cows	Calves							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
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*Shinyanga Region Agriculture Sample Census – 2007/08*