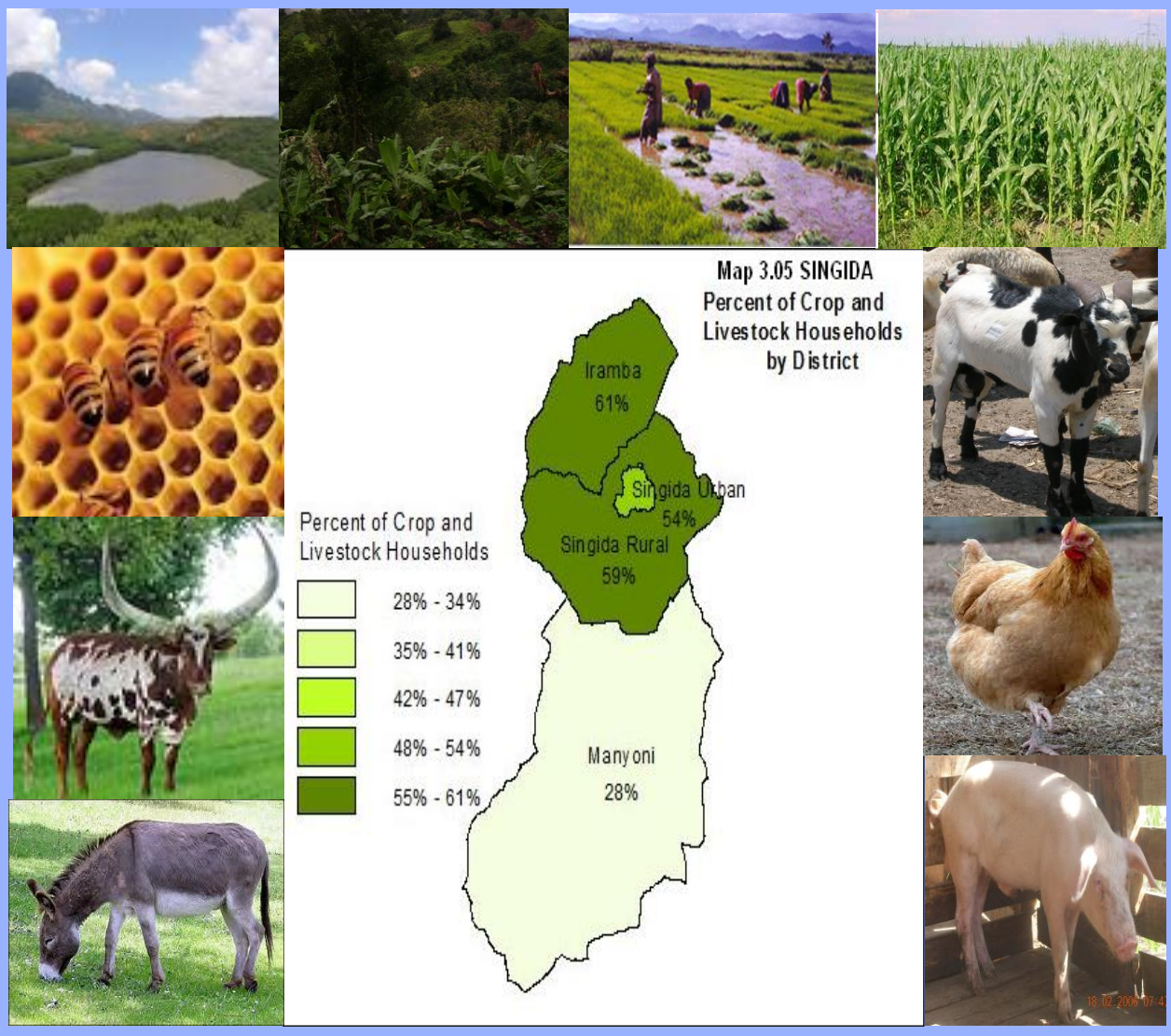
The United Republic of Tanzania

NATIONAL SAMPLE CENSUS OF AGRICULTURE 2007/2008

Volume Vm: REGIONAL REPORT: SINGIDA 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 Resources Zanzibar; Prime Minister's Office, Regional Administration and Local Governments; Ministry of Industries, Trade and Marketing; The National Bureau of Statistics and the Office of the Chief Government Statistician, Zanzibar.

JULY, 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
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

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 could not be successful.

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

EXECUTIVE SUMMARY

This report presents survey data results for Singida region as a subset of the National Sample Census of Agriculture 2007/08. The report covers small-scale agriculture households in rural areas of Singida region; selected using statistical sampling techniques and the results excludes large-scale farmers. The highlights are described under relevant subheadings on issues related to agricultural production, production practices, productivity, access to resources and levels of involvement in agricultural related activities, including a section on poverty indicators.

i) Household Characteristics

The total number of agricultural households in Singida region were 216,992 of which, 46.3% engaged in crop production only, 53.3% engaged in mixed crop and livestock production. Livestock only and pastoralist households were found only in Manyoni comprising of 0.23% and 0.09%, respectively. However, the majority of household members in the region (53%) depended on crop production as a major source of livelihood.

The female population was more prevalent in the younger age bracket of 26-39 while the male population was more prevalent in the older age brackets of 50-54, and 75-84 years. This implies that females are more likely to

The literacy level was at average of 78%, the lowest being 74% in Manyoni district and the highest 82 % in Singida Urban district. In all the districts, the largest proportions of the households (69-72%) were able to read or write Kiswahili. Manyoni had the largest proportion of households (11.5%) who were able to read and write in both Kiswahili and English and Iramba had the smallest proportion of households (6%) able to read and write in the two languages.

ii) Crop Production

Land Area

The total usable land available was 639,999 ha. The district with the largest usable land was Singida Rural (212,811 ha, 33.3% of the total available usable land in the region) while Singida Urban had the smallest usable land area available (30,096 ha, 4.7%).

Land Use Types

Crops, either temporary in monoculture occupied the largest part of the usable land area (336,891 ha, 52.4% of the usable land area in the region) followed by temporary mixed crops (127,821 ha,

19.9%) and area kept under (natural) pasture (57,827 ha, 9%). The land area left under fallow occupied 49,788 ha (7.7%)

Planted Area

The total planted area in the region was 544,565 ha. The region receives only one season of rainfall, the long rains. The largest average of land area planted per household was 3.7 hectares in Manyoni, (2.4 ha) in Iramba, 1.9 ha in Singida rural and 1.4 ha in Singida urban.

iii) Crop Types

The main crops in the region comprised of cereals (68% of the planted area), oil seeds and oil nuts (26%) and pulses planted on 4% of the planted area.

Cereal production

The total area planted with cereals in the region was 316,613 ha and maize occupied 150,240 ha (47.5%). Other cereals planted were sorghum (30.8%), bulrush millet (15.4%), paddy (4.1%) and finger millet (2.2%). The total production of cereals was 360,696 tons and maize contributed 52.8% of the total cereals harvested while sorghum had a contribution of 31%

- **Maize**

Maize was planted in all the districts by a total of 144,016 households and the total area planted was 150,240 ha. The major maize production district was Iramba with (58,267 ha) equivalent to 38.8% of the total planted area with cereal crops in the region, and also had the largest number of households equivalent to 38.6% of maize growing households in the region.

The planted area per household was the largest in Manyoni district (1.3 ha/household) and smallest in Singida Urban (0.6 ha/household). Maize yield was the b highest in both Iramba and Manyoni districts each at (1.4 t/ha).

- **Sorghum**

Sorghum was planted on a total of 97,513 ha. The largest planted area was in Iramba district 42,121ha, (43.2% of the total planted area) followed by Singida Rural (38,859 ha, 39.9%). However, the higher number of households which planted the crop was in Singida Rural district (50,766hh, 46.9%) and Iramba district (36,859hh, 34.1%). Yield was the highest in Iramba (1.42 t/ha) and lowest in Singida urban district (0.68 t/ha).

- **Bulrush millet**

The producing districts of bulrush millet were Singida Rural (48.6% of the planted area), Iramba district (27.7%) and Singida Urban (19.1%). Bulrush millet was a minor crop in Manyoni district. Planted area per household was the largest in Iramba district (1.1 ha/household) and smallest in Singida Rural (0.7 ha).

- **Paddy**

Paddy was planted by about 11,425 households. Singida Rural district had the largest planted area in the region (64.3%), Manyoni (25.2%) and Iramba (9.8%). Paddy production in Singida Urban was almost negligible.

- **Finger millet**

Finger millet was grown predominantly in Singida Rural district (5,308ha,77.7%) involving 6,913 households(76.2%)of the households in the Region).

The average planted area per household was largest in Manyoni (1.1 ha) followed by SingidaRural (0.8 ha/hh), Singada Urban (0.6 ha/hh) and Iramba (0.4ha/hh).

Oil Seeds and Oil Nuts Production

Oil seed and oil nut crops were planted on a total of 120,237 ha (22.1% of the total planted area in the region). The major oil seed crop was under sunflower and others included groundnuts and simsim.

- **Sunflower**

Sunflower was planted in all the four districts on a total area of 99,363 ha (18.2% of the total planted area in the region) by a total of 89,875 households. Iramba district was the major production area with 53.1% of the total area planted with sunflower. Planted area per household was largest in Iramba (1.3 ha/hh) and smallest in Singida Rural (0.90 ha/hh). Sunflower productivity was highest in Iramba (0.72 t/ha) and lowest in Manyoni (0.52 t/ha). The total harvested quantity was 68,297 tons and Iramba district contributed the largest share (55.7%). Sunflower was a minor crop in Singida Urban district.

- **Groundnuts**

Groundnuts were planted in Iramba, Manyoni and Singida rural districts on 2.8% of the total planted area in the region. engaging 30,892 households, The largest planted area was in Manyoni

district (58.6% of total planted area) compared to 23.1%) in Iramba district and 17.7%) in Singida Rural. The average planted area was in the range of 0.46 – 0.6 ha/household.

Pulse crops

The pulses grown in the region includes beans and chick peas and to a limited extent, green grams, Bambara nuts and cowpeas. A total of 16,560 ha were planted with pulses in the region.

- **Beans**

Beans were planted in all the districts except Singida Urban. The total area planted with beans was 6,420 ha (1.2% of the total planted area). Production areas were Manyoni district (45.3% of planted area), Iramba (33.6%) and Singida Rural district (21.1%). The average area planted per household was below one hectare. Highest yield was 2 t/ha in Iramba district and lowest in Manyoni district (0.97 t/ha). The total harvested quantity was (8,965 ton) with Iramba district producing the largest quantity (4,254 tons, 47.5% of the total production) followed by, Manyoni (31.3%) and Singida Rural (21.2%).

- **Chick peas**

Chick peas were planted in Iramba, Manyoni and Singida Rural districts on 35.9% of the total planted area planted with pulses in the region (5,949 ha). Manyoni district had the largest planted area (51.3%) and Iramba district had the largest proportion of land planted with chick peas (1.32%). Most of the harvested quantity was also obtained from Iramba (48.2%) and Manyoni districts (48.2% of the total harvest).

Roots and Tuber Crops Production

- **Sweet Potatoes**

The total area planted with sweet potatoes in the region was 3,591 ha. Planted area distribution between districts was 37.5% in Iramba, 35.9% in Manyoni, 20.9% in Singida Rural and 5.8% in Singida Urban. Iramba had 40.3% of the growing households. The planted area per household was within the range of 0.3-0.4 ha. Sweet potatoes were most productive in Singida Urban (3.3 t/ha) and least productive in Manyoni district (2.3 t/ha). However, Iramba district had the largest production (41.3%) of the total of 9,695 tons of sweet potatoes harvested.in the region.

- **Cassava**

Cassava was planted on 3,216 ha most of it in Manyoni district (84.4% of the total area planted with cassava). Cassava yields were highly variable between districts ranging from 0.02 t/ha in Manyoni to 4.22 t/ha in Singida Rural district.

Fruits and Vegetables

Fruits and vegetable crops were planted on less than one percent of the planted area in the region. The two most dominant vegetable crops were onion (44.3% of area planted with vegetables) and okra (37.6%) followed by tomato.

- **Onion**

The single largest onion producing district in the region was Singida Rural (78.3% of the total planted area). However, onion yields was lowest in Singida Rural district (1.5 t/ha) compared to other districts where yields of 2.6 to 2.8 tons/ha were recorded.

- **Okra**

Okra was produced in Singida Rural and Singida Urban districts. Singida rural district was the major producer with 98.7% of the planted area and contributing 94% of the total harvest. Yields varied from 0.5 t/ha in Singida Rural to 2.3 t/ha in Singida Urban.

Planted area per household was relatively large in Singida rural district (3.04 ha/household) and small in Singida Urban district (0.15 ha/household).

- **Tomatoes**

Tomatoes were mostly grown in Singida Urban (51.8% of the planted area) and Iramba district (48.2% of the planted area). Yields were at an average of 23 t/ha for both Singida Urban and Iramba However, Singida urban accounted for slightly more (51.5%) to the total 2,596 tons harvested tomatoes as compared to Iramba district (48.5% of the total harvest).

Production of Other Annual Crops

Other annual crops planted were cotton and tobacco both of which are cash crops. A total of 4,114 households were involved of which 53.1% planted cotton and 46.9% planted tobacco.

- **Tobacco**

Tobacco was planted in Manyoni and Iramba districts only on 2,231 hectares by 1929 households. Manyoni was the major producing which accounted for 96.7% of the total planted area and by 1,749 household's equivalent to 90.7% of the total tobacco growing households in the region.

- **Cotton**

Cotton was planted in Manyoni and Iramba districts only Iramba was the major cotton production district accounting for 75.4% (1,601 ha) of the planted area. The cotton planted area per household in Iramba district (1.27 ha/hh) was more than twice that of Manyoni. Iramba district also accounted for 85.8% of the total harvested seed cotton.

Perennial or Permanent Crops

Permanent crops occupied about 10,830 ha (2% of the planted area) implying that in this region, permanent crops made a relatively small contribution to crop production in the region. The major permanent crop was mango (62.6% of the area under permanent crops) and others were banana (11.8%) and sugarcane (3.8%).

- **Mango**

Mango was planted on 0.43 % of the total planted area in the region of which 50.2% was in Iramba district and Manyoni district was the second most important district for mango production in the region. The planted area per household was highly variable from 0.2 ha/household in Singida rural district to 1.3 ha in Iramba district

- **Banana**

Banana was planted mostly in Manyoni district (62.8% of the total area planted with banana in the region) and also in Singida rural (21.1%) and Iramba district (21.1%).

iv) Use of Inputs

Use of Un-mechanized Agricultural Equipment

The type of agricultural equipment used for different farm operations were mostly operated by hand and or relied on simple mechanized technologies. The hand hoe was used by the largest proportion of the households in all districts in the range of 31-41%, followed by the sword (23-38%) and the ox-plough (5-12.5%) Iramba and Singida Rural districts were leading in the use of animal-drawn equipment.

Use of Animal-drawn and Mechanized Agricultural Equipment

The animals used most frequently to provide power were the cow mostly used in Singida Rural followed by Iramba district, and the donkeys mostly used in Iramba followed by Singida Rural. Power tillers were amongst the agricultural equipment's available to rural households. However, these equipment's were used by relatively few agricultural households but the choices differed between districts.

Use of Improved Seed

Overall, the use of improved seeds was limited to less than (15%) of the total planted area in the region. The largest area planted with improved seeds was in Iramba district (49.8% of the total planted area in the region) and the smallest was in Singida Urban (4.1%).

Use of Fertilizer

Both organic and inorganic fertilizers were applied in the region on 11.2% of the total planted area in the region implying that the major portion of the planted area did not receive any type of fertilizer. Organic fertilizers were used in all the districts whereas inorganic fertilizers were used in all the districts except Singida Rural

Use of Pesticides

Pesticides were applied on a total of 9,702 ha, equivalent to (2.1%) of the planted area. Insecticides were the most dominant pesticide used (70.8%) followed by fungicides (20.4%) while herbicides were the least in use (8.9%).

v) Irrigation

The planted area applied with irrigation in the region was 1.5% of the total planted area in the region. In each of the districts, the area planted with irrigation represented very small proportion of the total planted area in the district and Singida Rural district had the largest planted area applied with irrigation (61.4% of the total irrigated area in the region).

Sources of Water for Irrigation

The main sources of irrigation water were tap water (44%), rivers (27%) and canals (22%). Dams were used only in Manyoni and wells were used only in Singida Rural district. Bore holes and lakes were not used as sources of irrigation water in the region.

Method of Obtaining Irrigation Water

The majority of households that applied irrigation obtained water by gravity (61.7%) followed by hand bucket (33.8%) and a few households used the hand pump (4.5%).

vi) Access to Crop Extension Services

Extension services were provided most extensively in Iramba district (95.1%of the households reached), Singida Urban (70.4%), Manyoni (60.5%) and in Singida Rural district (43.2%)

vii) Crop Storage, Processing and Marketing

Methods of Storage

The largest proportion of the households (41%) stored crops in locally made structures, followed by sacks or open drums (38%) of the households.

Crop Sales

Sale of crops was conducted in all the districts with household participation varying from 43% in Singida Urban to 79% in Manyoni district.

Marketing Problems

The single most challenging problem cited by the largest proportion of households (70%) was the low price in the open market and others included market being too far (5.5%), lack of transport (4%), transport cost too high (3%), lack of market information and government regulation (each with 2%). Other minor problems were also cited.

viii) Agricultural Credit

Access to credit was reported in all the districts except Singida Urban. Family, friends and relatives were the only sources of credit in Iramba district and the major source in Manyoni district. In Singida Rural, households accessed credit only through cooperatives. Banks provided credit to a limited proportion of the households in Manyoni district.

ix) Soil Erosion Control and Water Harvesting Structures

Singida Rural district accounted for 57.4% of all water harvesting structures in the region followed by Iramba district with 31.4%, Manyoni (6.8%) and Singida Urban (4.3%).

x) Livestock Production

The livestock types in the region comprised of cattle, goats/sheep, pigs and chicken.

- **Cattle**

The cattle population in the region was 1,588,837 with Manyoni district having the largest cattle population (767,273 or 48.3% of the total cattle population in the region) followed by Singida Rural (400,510, 25.2%), Iramba (356,005, 22.4%) and Singida Urban (65,005, 4.1%). Over 90% of the cattle were indigenous.

- **Goats**

The total goat population was 839,169 with Singida Rural district having the largest population of 312,804 goats or 37.3 % of the total goat population in the region followed by Iramba with 249,923 (29.8%), Manyoni with 212,783 (25.4%), and Singida Urban with 63,659 (7.6%). Most of the goats (99.5%) were indigenous.

- **Sheep**

The region had a population of 477,772 sheep most of which were reared in Iramba (165,596, 34.7%) followed by Manyoni (162,982, 34.1%), Singida Rural (127,455, 26.7%) and Singida Urban (21,739, 4.6%).

- **Pigs**

Total pig population was 48,935 reared in all the districts except Singida Urban. Iramba district had the largest number with 42,073 pigs or 86 % of the total pig population in the region, followed by Singida Rural with 3,672 (7.5%) and Manyoni district with 3,190 (6.5%).

- **Chicken**

The total chicken population in the region was 1,615,779 with Singida Rural district keeping the largest number (717,202 chicken or 44.4 % of the total chicken population in the region), followed by Iramba with 539,761 (33.4%), Manyoni with 257,850 (16%) and Singida Urban district with 100,966 (6.2%). Most of the chicken population (93%) was of the indigenous type.

Incidences of Ticks and Tsetse Flies and Deworming

All the districts reported incidences of tick-borne diseases and tsetse fly infestation. About 43 % of the livestock households reported to have been affected by the tick incidence and 14 % by the tsetse incidence.

De-worming of livestock against the parasites was reported by all the districts in the region and relatively, cattle were de-wormed by the largest proportion (81%) of the households compared to other types of livestock.

Fish Farming

Fish farming was not practiced in the region.

xi) Poverty Indicators

Toilet Facilities

The majority of the agricultural households in Singida region used the traditional pit latrine (94.4%) with a limited use of other types of toilet facilities including flush toilets (0.6%). About 3.6 % of the households did not have toilet facilities.

Household Assets

Most of the households owned radios (61.5%) followed by bicycles (48%), mobile phones (24.1%), iron (20.8%), wheelbarrows (7%) and vehicles (5.6%).

Access to Drinking Water

The main sources of drinking water for the majority of the households were the unprotected wells/springs with 35.2 % of the households, piped water (16.6%), protected wells (16.1%) and surface water such as a dams, rivers or lakes (14.5%).

Sources of Energy for Lighting

Wick lamp was the most common source of energy for lighting used by 80.1 % of the households followed by hurricane lamp (11.6%), firewood (3.8%) and pressure lamp (2.5%).

Sources of Energy for Cooking

The most common source of energy for cooking was firewood used by 92.3 % of the households. The second common source was crop residue (4.6%) followed by charcoal (2.5%).

Roofing Material

Grass roofing was used in all the districts by between 1.5% and 7.6% of the households in the region. Singida Urban district had the lowest proportion of houses roofed using grasses or leaves (1.5%) and Manyoni district had the highest proportion (10.1%) of the households roofed with grass or leaves.

Number of Meals per Day

On the average, the majority of the households (62%) in the region took two meals per day followed by households that took an average two meals per day (36%). A relatively small proportion (2%) survived on one meal per day.

Meat and Fish Consumption Frequency

The frequency of consumption of meat and fish were almost similar in all the districts. Relatively, large numbers of households did not eat meat or fish once a week. The number of households was inversely proportional to the frequency of consumption. Generally, the number of households that ate meat or fish once a week was the in the range of 17.4% in Manyoni to 32.4% in Iramba district.

Food Sufficiency

The district most affected by food insufficiency was Manyoni with 68 % of the households, followed by Singida Urban (67%), Singida Rural (56%). Iramba district had the lowest proportion of (51 %).

Main Sources of Cash Income

The main source of cash income for most of the rural agricultural households was the sale of food crops reported by 52.8 % of the households followed by sale of cash crops (16.6%),

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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

Singida region is situated in the Central part of Tanzania. It lies between longitudes 33027' and 350 26' east of Greenwich, and latitudes 3052' and 7034' south of the equator. Arusha region bounds the region to the north, Dodoma region to the east, Mbeya and Iringa regions to the south, Tabora region to the west and Shinyanga to the north-west.

The region has four districts namely; Iramba, Singida Rural, Manyoni and Singida Urban. The reginal headquarters is located in Singida Urban district.

1.3 Land Area and Administrative Set-up

The four districts cover an area of 49,341 square kilometres, equivalent to about 6 percent of the total land area of Tanzania Mainland. The region is divided into three district councils namely; Iramba, Singida Rural and Manyoni and one town council located in Singida Urban.

1.4 Climate

1.4.1 Temperature

Temperature in the region ranges between 15^0C and 30^0C depending on season and altitude. The coldest period in the year is July while the hottest period is in October and November.

1.4.2 Rainfall

The average annual rainfall ranges between 500-800 millimetres. In normal circumstances, rainfall usually takes place from mid-November to end of April or early May every year.

1.5 Population

According to population projection based on the 2002 Population and Housing Census, the 2008 population of Singida stands at 1,294,584 inhabitants with an average population density of about 26 people per square kilometre.

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 Vm) 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 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, and

- 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 farms questionnaire was administered to all 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 production of 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), 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. 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 were 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, implementations of the census activities were 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 2.1 gives the sample size of households, villages and districts for the Mainland and Zanzibar.

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:

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

- 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 (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 % 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 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 5 % 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. CSPro 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 CSPro 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 complexes 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 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 s, 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).

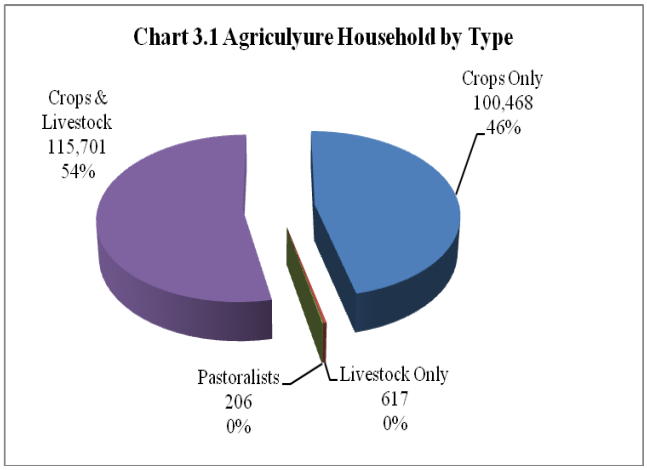
3 CENSUS RESULTS

This part of the report presents results of the 2007/08 Agricultural Census for Singida region. The census results are based on the data tables presented in Appendix tables. They are presented in different formats including brief summaries, charts, condensed tables, graphs and s in order to make it easier for the users to understand. Comparisons are made between related variables and between districts. Comparisons are also made with past censuses particularly the 2002/03 agricultural census results. The presentation of the results is divided into four main sections which are; household characteristics, crop results, livestock results and poverty indicators.

3.1 Household Characteristics

3.1.1 Types of Agricultural Households

The total number of agricultural households in Singida region (Table 3.1) was 216,992. The majority (115,701 households equivalent to 54% of the total agricultural households) were involved in both crop and livestock production, followed by households that were involved in crops only (100,468 household, 46%), livestock only (617 household) and pastoralists (206 household), each with less than one percent, (Chart 3.1).



The highest density of agricultural households was in Singida Urban district with 496 households/sq km followed by Singida Rural (410 households/sq km) and Iramba (355 households/sq km). Manyoni district had the least population density of 211 households/sq km.

Table 3.1 Agricultural Households by Type and District

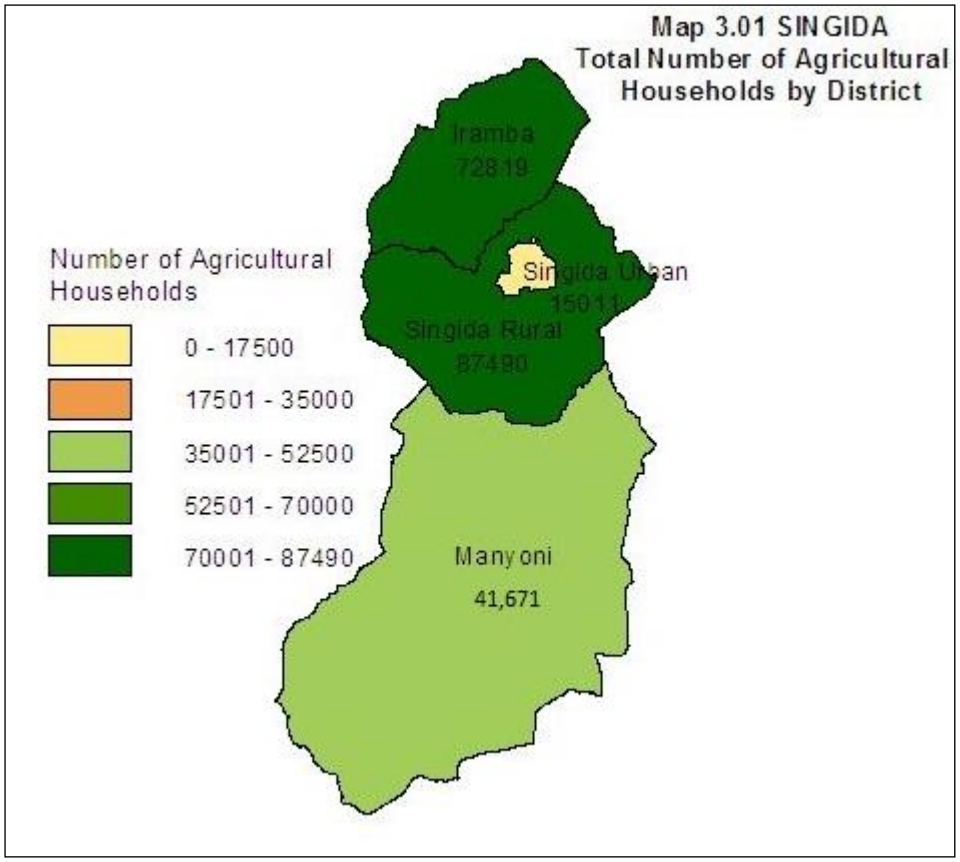
District	Crops Only	Livestock Only	Pastoralists	Crops & Livestock	Total
Iramba	28,229	0	0	44,591	72,819
Singida Rural	36,076	0	0	51,414	87,490
Manyoni	29,324	617	206	11,524	41,672
Singida Urban	6,839	0	0	8,173	15,011
Total	**100,468**	**617**	**206**	**115,701**	**216,992**

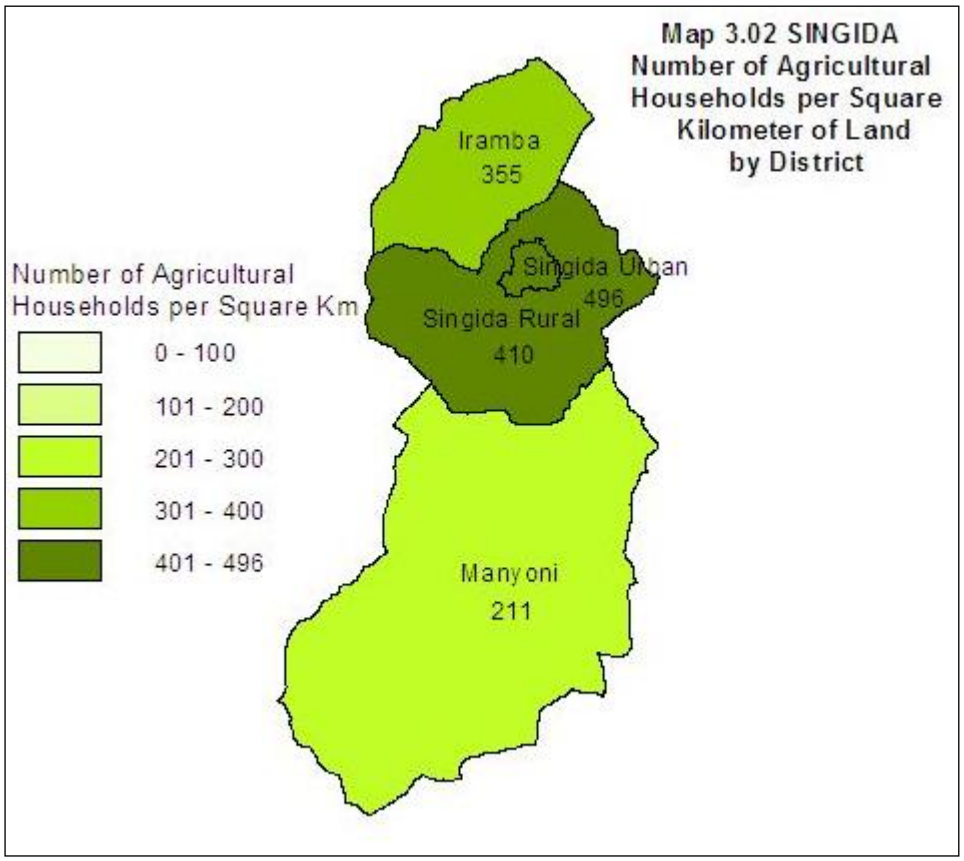
3.1.2 Livelihood Activities

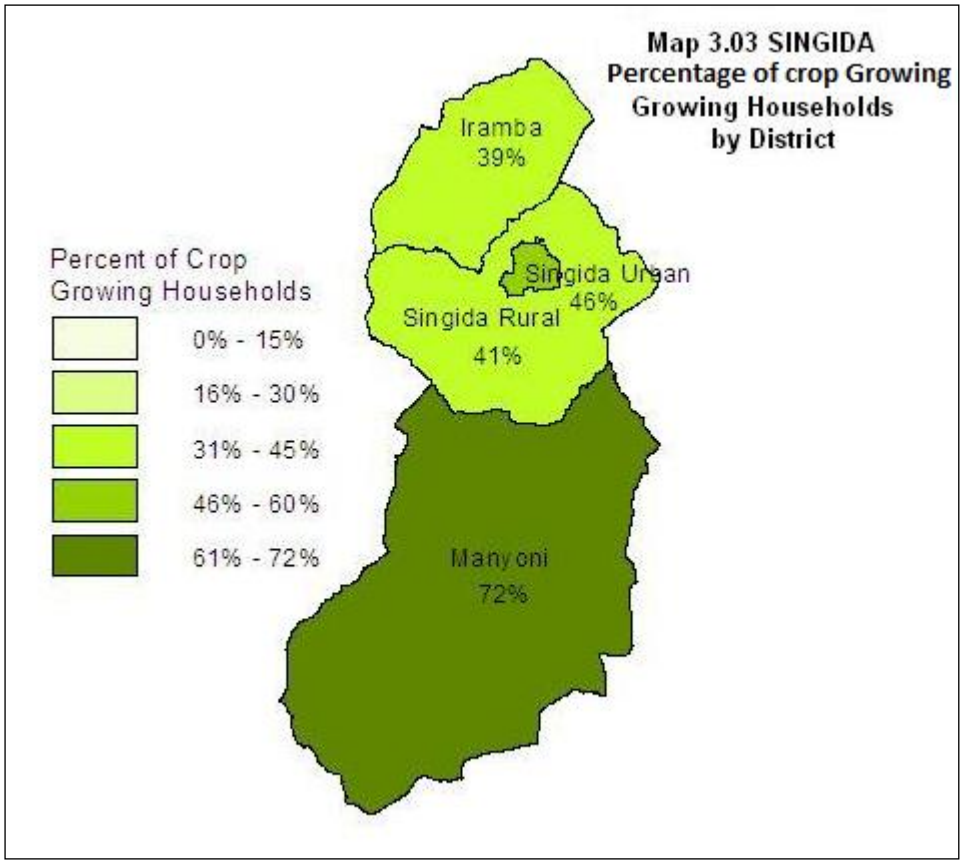
The majority of the agricultural households (205,633 households, 95%) in Singida region ranked annual crop farming as the activity that provided most of their cash income, followed by employment(6,221 households, 3%) off-farm income (2,254 households,1%) and herding 1,954 households. The remaining proportion of the households earned their income through off-farm income activities, (Table 3.2).

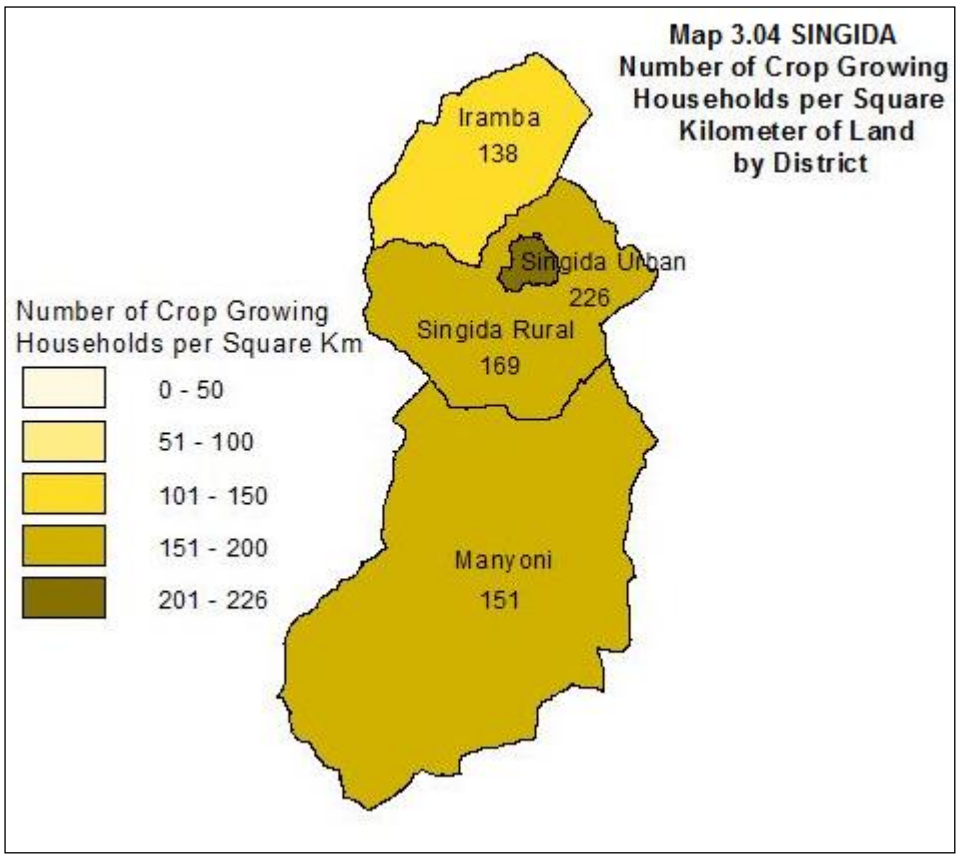
Table 3.2 Heads of Households Main Occupation

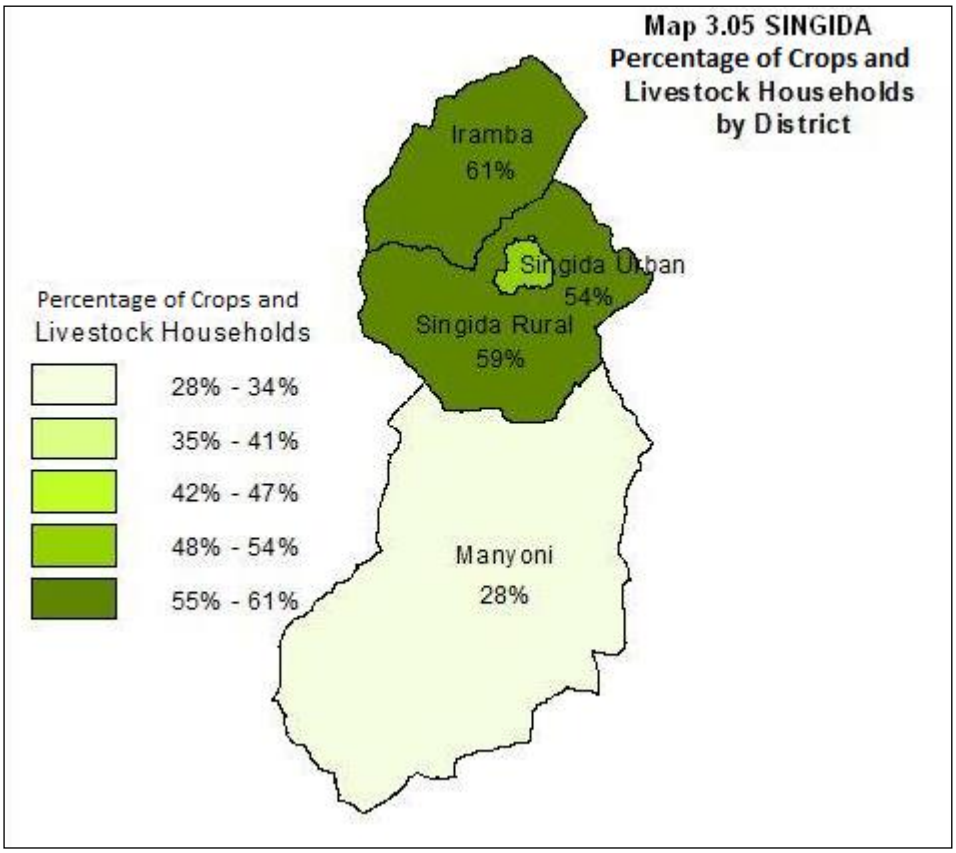
	Crop Farming		Livestock Keeping / Herding		Fishing		Employment		Off-Farm Income		Total	
District	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
Iramba	68,504	94	180	0	180	0	2,337	3	1,618	2	72,819	100
Singida Rural	84,898	97	0	0	648	1	1,728	2	216	0	87,490	100
Manyoni	38,276	92	1,441	3	103	0	1,543	4	309	1	41,672	100
Singida Urban	13,955	93	334	2	0	0	612	4	111	1	15,011	100
Total	**205,633**	**95**	**1,954**	**1**	**931**	**0**	**6,221**	**3**	**2,254**	**1**	**216,992**	**100**


Map 3.01 SINGIDA
Total Number of Agricultural Households by District
Iramba
72819
Singida Urban
15011
Singida Rural
87490
Manyoni
41,671
Number of Agricultural Households
0 - 17500
17501 - 35000
35001 - 52500
52501 - 70000
70001 - 87490


Map 3.02 SINGIDA
Number of Agricultural Households per Square Kilometer of Land by District
Iramba
355
Singida Urban
496
Singida Rural
410
Manyoni
211
Number of Agricultural Households per Square Km
0 - 100
101 - 200
201 - 300
301 - 400
401 - 496

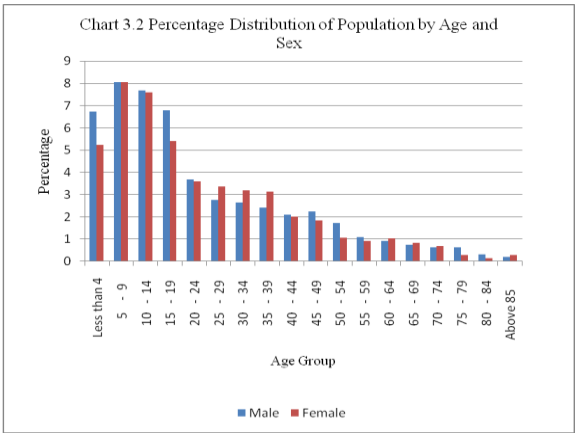

Map 3.03 SINGIDA
Percentage of crop Growing
Growing Households
by District
Iramba
39%
Singida Urban
46%
Singida Rural
41%
Manyoni
72%
Percent of Crop
Growing Households
0% - 15%
16% - 30%
31% - 45%
46% - 60%
61% - 72%


Map 3.04 SINGIDA
Number of Crop Growing
Households per Square
Kilometer of Land
by District
Iramba
138
Singida Urban
226
Singida Rural
169
Manyoni
151
Number of Crop Growing
Households per Square Km
0 - 50
51 - 100
101 - 150
151 - 200
201 - 226


Map 3.05 SINGIDA
Percentage of Crops and
Livestock Households
by District
Iramba
61%
Singida Urban
54%
Singida Rural
59%
Manyoni
28%
Percentage of Crops and
Livestock Households
28% - 34%
35% - 41%
42% - 47%
48% - 54%
55% - 61%

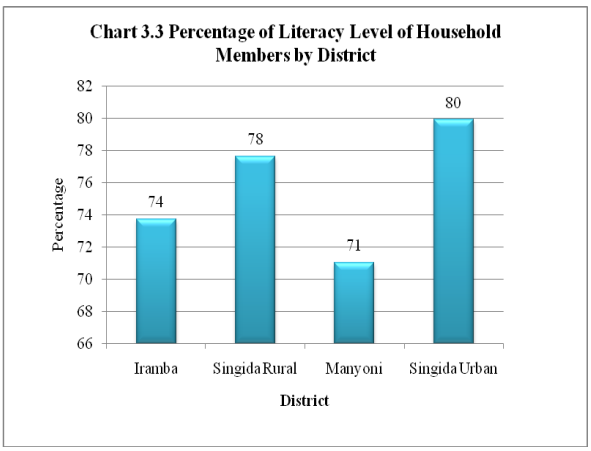
3.1.3 Age and Sex of Household Members

Members of agricultural households were distributed over the entire range of age brackets in comparable proportions, (Chart 3.2). However, the female population was more prevalent in at the younger age brackets of 26-39 while the male population was more prevalent in the older age brackets of 50-54, and 75-84 years. This implies that females are more likely to be the major workforce for agricultural activities in the region. On the other hand, females were also most prevalent in the oldest age bracket of above 85 years.



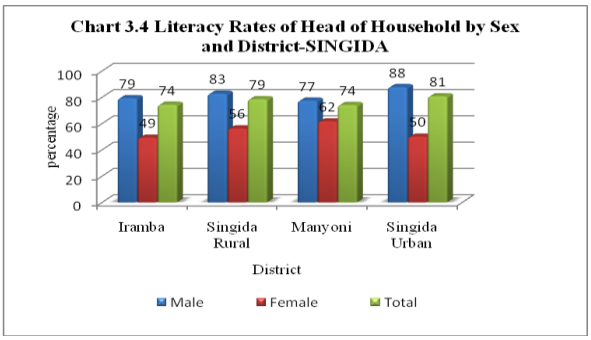
3.1.4 Literacy

Literacy as used in this report means the ability of an individual to read and write in Kiswahili. Or English. The average literacy level of the agricultural household members was 75 % with Singida Urban district having the highest literacy level of 80 % and Manyoni district having the lowest literacy level of 74 % (Chart 3.3).



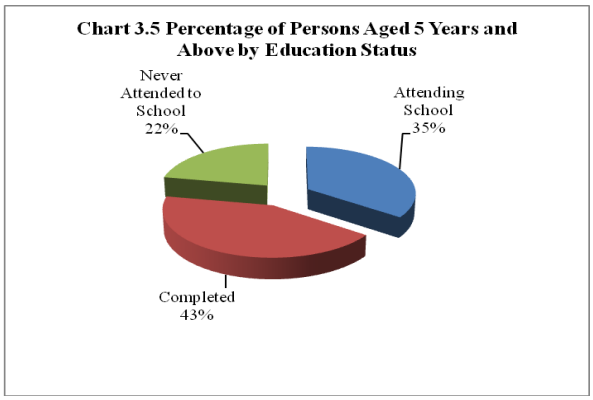
Literacy of Heads of Household

In each district, the average literacy rate for male heads of household was much higher than that of female heads. The literacy rates for male heads of household ranged between 79 % in Iramba district and 88 % in Singida Urban district while the rates for female heads ranged between 49 % in Iramba district and 62 % in Manyoni district, (Chart 3.4)

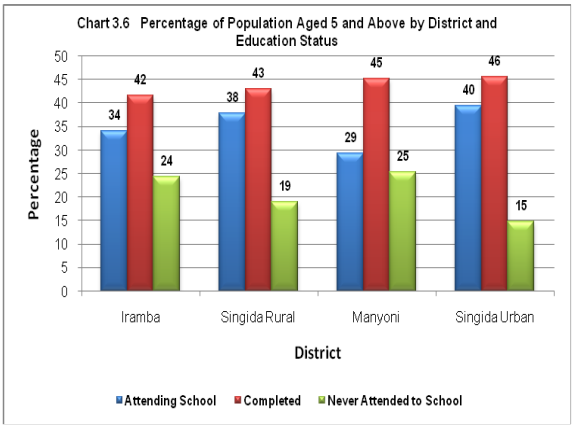


3.1.5 General Educational Status

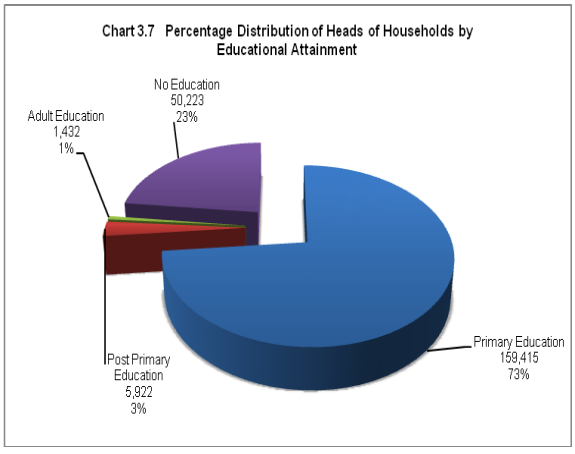
The general education status of the districts is summarized on the basis of having attended and completed primary education (completed), attending school at the time of the census (attending school) or had never attempted schooling (never attended school). The general education status indicates averages of the members of Agricultural households 35% were attending school, 43% had completed school and 22 % had never attended school (Chart 3.5)



District wise, the proportion of the population aged 5 years or more, that completed school was the highest for Singida Urban (46%) and the lowest for Iramba district (42%) while in the category of never attended school, the highest proportion was in Manyoni (25%) and the lowest was in Singida Urban district (15%). The population that was attending school ranged from the lowest of (29%) in Manyoni district to the highest (40%) in Singida Urban district, (Chart 3.6).



The level of education attained by heads of agricultural households in the region was predominantly Primary Education (159,415 households, 73%), followed by Post Primary Education (5,922 households, 3%) and Adult Education (1,432 households, 1%). However, the remaining 50,223 households or 23 % had no education, (Chart 3.7).



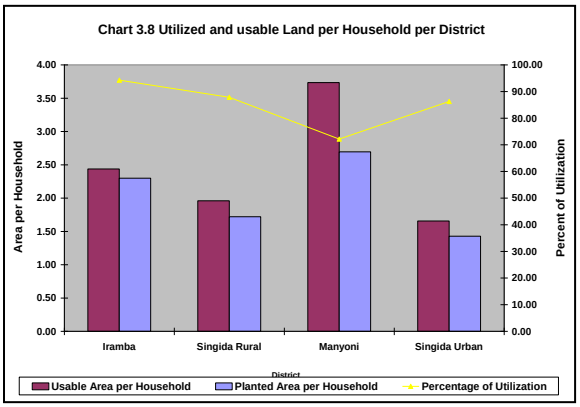
3.2 Land Use

This section describes the situation with regard to the available land area for general use and the extent to which the land is utilized for agricultural activities. *Available land* as used in this context refers to the total area of land available to households through customary law and other forms of

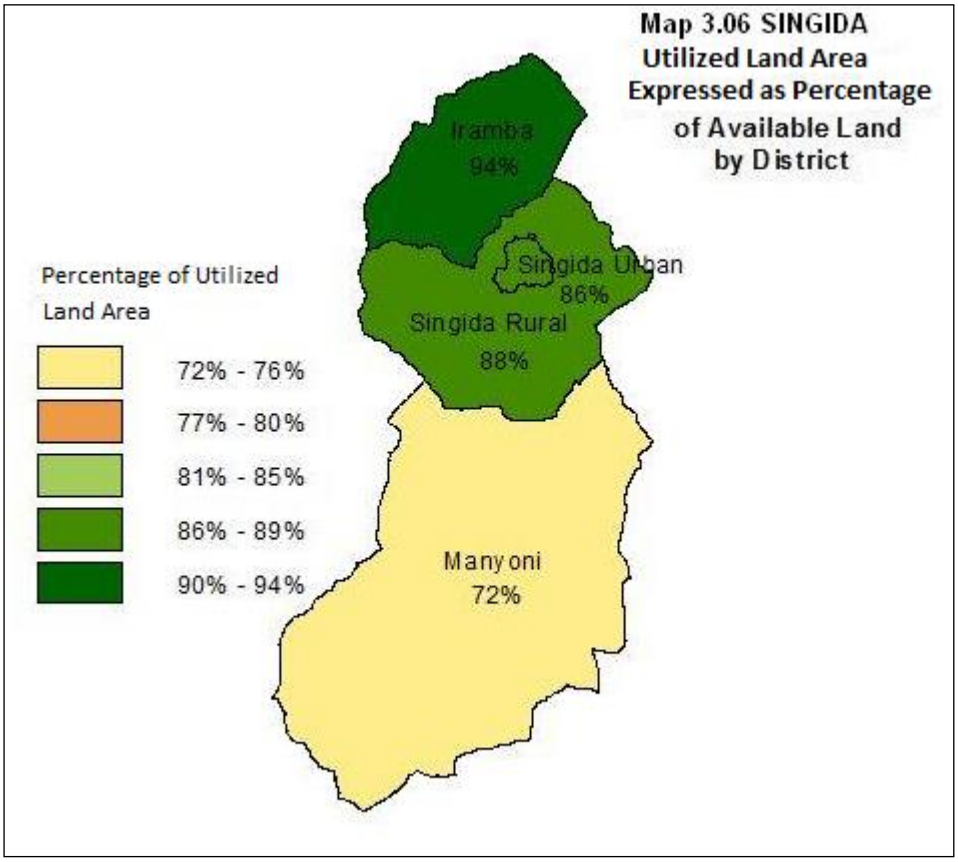
ownership. *Usable land*, on the other hand, is the parcel of land available less the parcels that cannot be used for being rocky, water bodies, swampy or steep slopes. Within the usable land, the *planted area* is the total area planted with crops in a particular agricultural year.

3.2.1 Area of Land Utilized

The total usable land available was 639,999 hectares. The district with the largest usable land was Singida Rural (212,811 ha, 33.3% of the total available usable land in the region) followed by Iramba (204,223 ha, 31.9%) and Manyoni (192,870 ha, 30.1%). Singida Urban had the smallest usable land area available (30,096 ha, 4.7%).



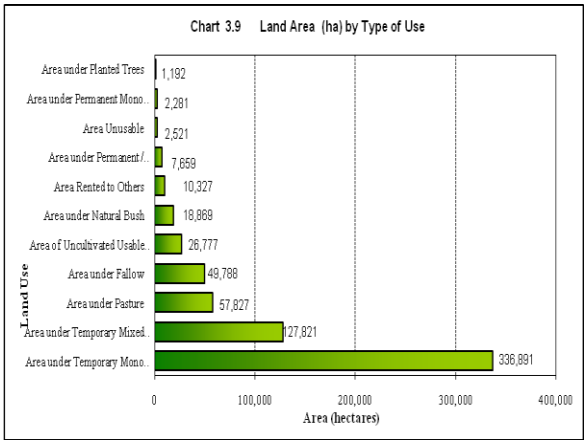
The usable land area per household in all the districts (except Singida Urban district), was more than 2 hectares per household. The largest usable land area available per household was in Manyoni (3.7 ha/household) followed by Iramba district (2.4 ha/household) and Singida Rural (2 ha/household). However, the average land utilization rate was above 70 percent. The highest land utilization was in Iramba district at 94.3 percent, (Chart 3.8 and 3.06).


Map 3.06 SINGIDA
Utilized Land Area
Expressed as Percentage
of Available Land
by District
Iramba
94%
Singida Urban
86%
Singida Rural
88%
Manyoni
72%
Percentage of Utilized
Land Area
72% - 76%
77% - 80%
81% - 85%
86% - 89%
90% - 94%

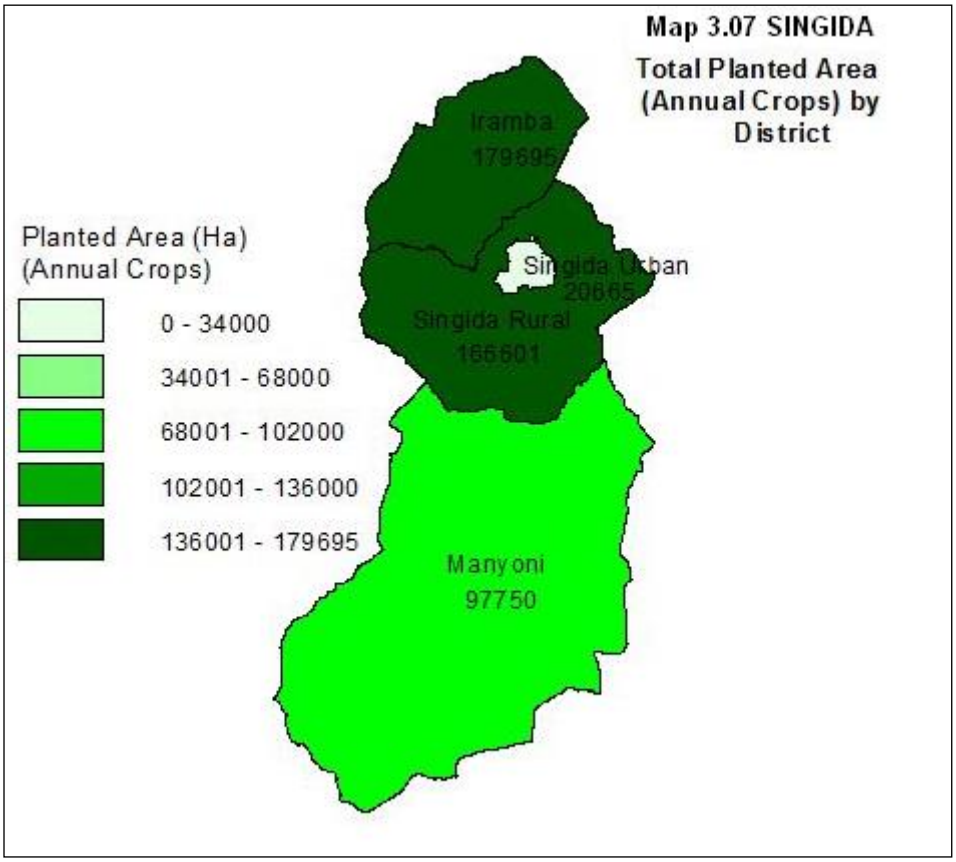
3.2.2 Types of Land Use

The area under temporary mono crops occupied the largest part of the usable land area (336,891 hectares, 52.4% of the usable land in the region) followed by temporary mixed crops (127,821 ha, 19.9%) and area kept under pasture (57,827 ha, 9%).

The land area left under fallow occupied 49,788 ha (7.7%) and much smaller land areas were either uncultivated, under natural bush, rented to others or planted with mixtures of annual and permanent crops. All other types of land use were insignificant, (Chart 3.9).



The total planted area in the region was 544,565 ha of which, 192,521 ha (35.4%) were in Iramba district, 186,923 ha (34.3%) were in Singida Rural, 139,162 ha (25.6%) were in Manyoni and 25,960 ha (4.8%) were in Singida Urban, (Chart 3.8).

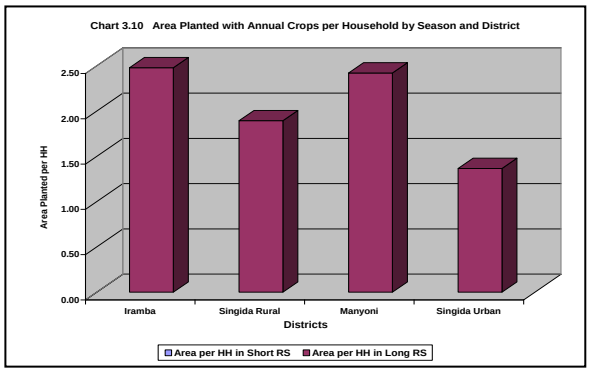

Map 3.07 SINGIDA
Total Planted Area (Annual Crops) by District
Iramba 179695
Singida Urban 20665
Singida Rural 166601
Manyoni 97750
Planted Area (Ha) (Annual Crops)
0 - 34000
34001 - 68000
68001 - 102000
102001 - 136000
136001 - 179695

3.3 Annual Crops And Vegetable Production

The region normally receives only one season of rainfall namely; the long rainy season. Therefore, the agricultural households in the region planted their annual crops during this season.

3.3.1 Area Planted

The planted land area per household was 2.5 ha in Iramba district which was almost comparable to that of Manyoni district (2.4 ha/household). The planted land area per household in Singida Rural was 1.9 hectares and that of Singida Urban was 1.4 hectares, (Chart 3.10).

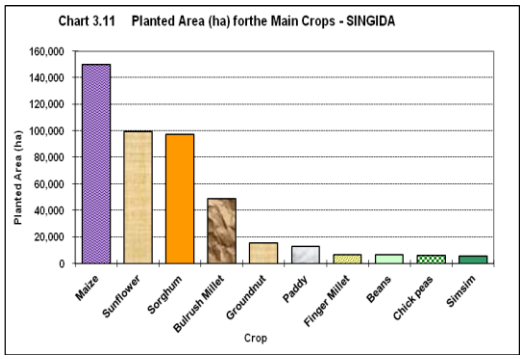


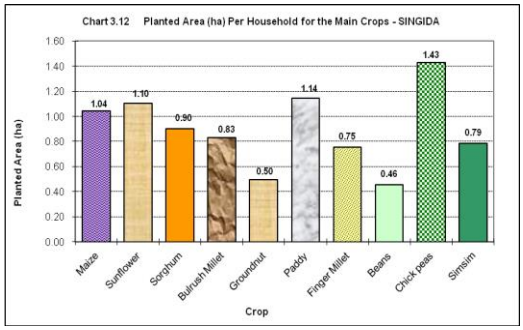
Analysis of Main Crops

The main crops produced in the region have been categorized on the basis of their relative importance, for both annual and permanent crops followed by a more detailed analysis of individual crop and crop type.

3.3.2 Main Crops

The main crops in the region (Chart 3.11) comprised of cereals mostly maize, sorghum, bulrush millet, paddy and finger millet occupied 68 % of the total planted area; oil seeds and oil nuts planted on a 26 % of the planted area and pulses planted on a 4 % of the planted area. Other crops of minor importance were roots and tubers, fruits and vegetables, each occupying about 1 % of the total planted area. The planted area per household was the largest for chick peas (1.43 ha/household), followed by paddy (1.14 ha/household), sunflower (1.1 ha/household) and maize (1.04 ha/household). However, for each of the remaining main crops, the area planted per household was less than an acre, (Chart 3.12)

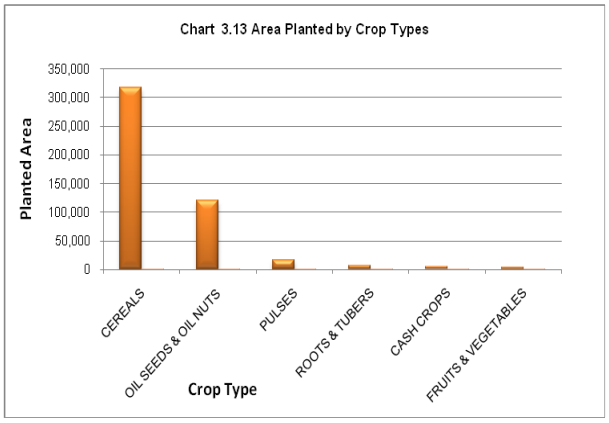




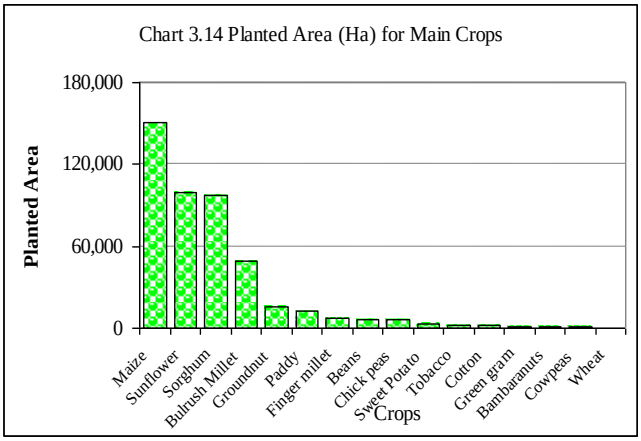
3.3.3 Crop Types

3.3.3.1 Cereal Crops Production

Cereals were the main crop types grown in Singida region. The area planted with cereals was 316,614 (68% of the total planted area) followed by oil seeds and oil nut crops (120,237 ha, 26%). Other crop types were pulses (16,560 ha, 4%), roots and tubers (6,826 ha, 2%), cash crops (4,353 ha, 1%) and fruits and vegetables (3,534 ha, 1%), (Chart 3.13).

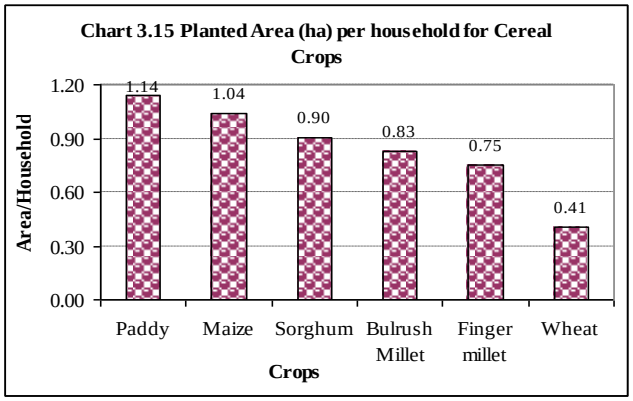


Maize had the largest planted area (150,240 ha, 33%) planted by 144,016 households, (66% of the total crop growing households). The situation in 2007/08 shows a slight decline compared to 2002/03 agricultural year when the area planted with maize constituted 43 % of the total area planted with annual crops in the region. Sunflower was the second crop planted on (99,363 ha, 22%) planted by 89,975 households, followed by sorghum (97,513 ha, 21%) planted by 108,206 households and bulrush millet (48,891 ha, 11%) planted by 58,960 households.



Other relatively important crops were groundnuts planted by 30,982 households on 15,376 ha (3%) and paddy planted by 11,425 households on 13,066 ha (3%). Maize, sorghum, bulrush millet, paddy, sunflower and groundnuts combined, accounted for 93% of the total area planted with annual crops. The remaining 7% of the land area was planted with a variety of other annual crops on relatively smaller areas, (Chart 3.14).

Paddy had the largest planted area per household (1.14 ha/household), followed by maize (1.04 ha/household), sorghum (0.9 ha/household), bulrush millet (0.83 ha/household) and finger millet (0.75 ha/household. Wheat was the least important cereal crop in the region (0.41



ha/household), (Chart 3.15).

Among the major cereals, maize was planted by the largest number of households (144,016 households, 29% of the households), followed by sorghum (108,206 households, 21.8%), bulrush millet (58,960 households, 11.9%), paddy (11,425 households, 2.3%) and finger millet (9,070 households, 1.8%).

Table 3.3 Area, Production and Yield of Cereal Crops

Crop	Wet Season			Total		
	Area Planted (ha)	**Quantity harvested (tons)**	**Yield (kg/ha)**	**Area Planted (ha)**	**Quantity harvested (tons)**	**Yield (kg/ha)**
Maize	150,240	190,491	1.3	150,240	190,491	1.3
Paddy	13,066	15,051	1.2	13,066	15,051	1.2
Sorghum	97,513	111,959	1.1	97,513	111,959	1.1
Bulrush Millet	48,891	36,903	0.8	48,891	36,903	0.8
Finger Millet	6,830	6,227	0.9	6,830	6,227	0.9
Wheat	73	65	0.9	73	65	0.9
Barley	-	-	-	-	-	-
Total	**316,613**	**360,969**		**316,613**	**360,969**	

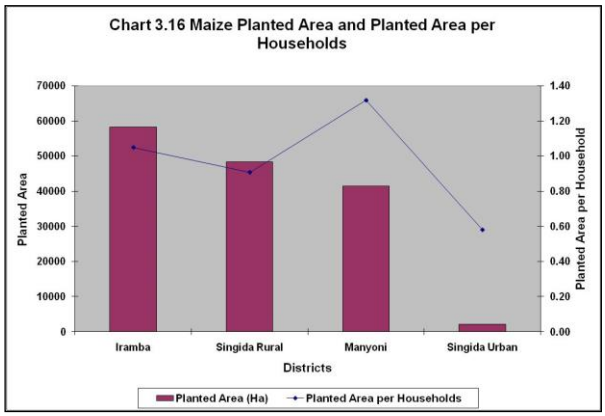
The results show that the preference for maize over other cereal crops has been maintained since 2002/03 agricultural year when the planted area with cereals constituted 76.4% of the total area planted with the annuals. Maize was the dominant annual crop with a planted area of 150,240 hectares followed by Sorghum with a planted area of 97,513 hectares.

Yields for all the cereals had an average of one ton per hectare, whereby bulrush millet had the lowest yield (0.8 t/ha) and maize had the highest yield (1.3 t/ha) among the cereal crops. The total production of cereals was 360,696 tonnes and maize alone contributed 190,491 tons (52.8%) of the total cereals harvested followed by sorghum (111,959 tone, 31%). The remaining 58,246 tone or 15.9 % of the total harvested grains were mostly from paddy, bulrush millet and finger millet while wheat had a small harvest of 65 tone (0.2%), (Table 3.3).

Maize

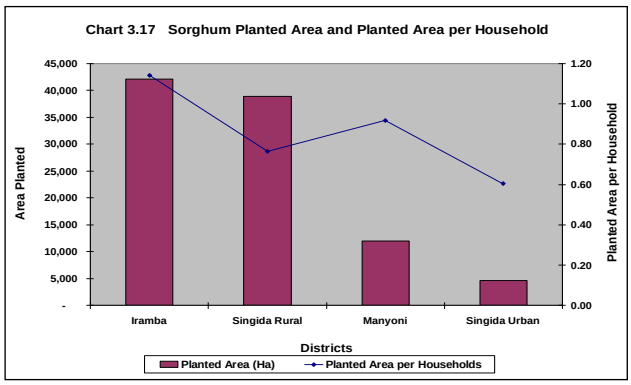
Maize was planted in all the districts by a total of 144,016 households and a total planted area of 150,240 hectares. The district with the largest area planted with maize was Iramba with 58,267 hectares or 38.8 % of the total area planted with maize in the region (Chart 3.16 and map 3.08). The crop was also planted by the largest number of households (55,558 household, 38.6% of maize growing households) in the region.

Singida Rural had the second largest area (48,407 ha, 32.2%) planted with maize which involving 53,358 households (37.1%) followed by Manyoni (41,472 ha, 27.6%) involving 31,485 households (21.9%). The smallest planted area with maize (2,095 ha, 1.4%) was in Singida Urban district. However, for the planted area per household (Chart 3.16 and map 3.09), Manyoni district had the largest planted area per household (1.3 ha/household) while Singida Urban had the smallest planted area per household (0.6 ha/household).



Sorghum

Sorghum was planted on a total area of 97,513 hactares. The largest planted area with the crop was in Iramba district (42,121 ha, 43% of the total area planted with sorghum in the region), followed by Singida Rural (38,859 ha, 40%), Manyoni (11,916 ha, 12%) and Singida Urban district (4,617 ha, 4.7%), (Chart 3.17 and 3.10).

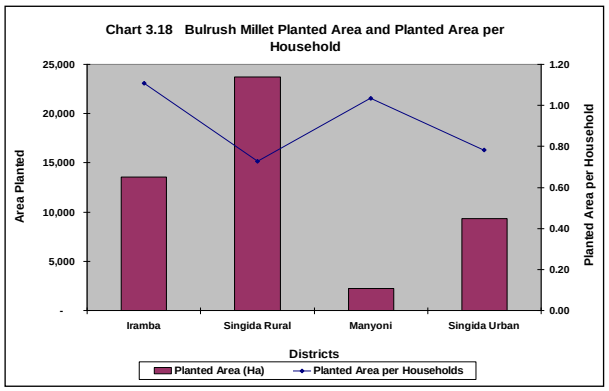


With regard to the number of households which planted the crop, Singida Rural district had the largest number of households (50,766 households, 46.9%) followed by Iramba district (36,859 households, 34.1%). Most of the districts had less than one hectare per household. However, the largest planted area per household was in Iramba district with 1.1 hectares per household and smallest in Singida Urban with 0.6 hectares per household, (Map 3.11).

Yields were the highest in Iramba district with 1.42 tons per hectare followed by Manyoni with 91.18 tons per hectare. The yields in both Singida Rural and Singida Urban districts were below one ton, the lowest being 0.68 tons per hectare in Singida Urban district, (Map 3.10).

Bulrush Millet

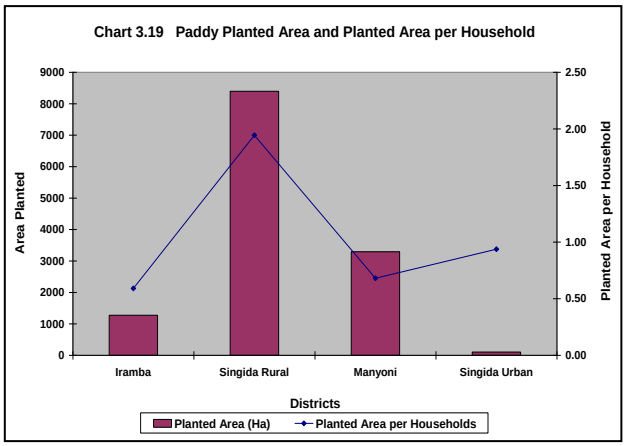
The district with the largest area planted with bulrush millet was Singida Rural (23,743 ha, 48.6% of the total crop planted area) followed by Iramba district (13,558 ha, 27.7%) and Singida Urban (9,353 ha, 19.1%). Bulrush millet was a minor crop in Manyoni district.



The planted area per household was the largest in Iramba district with 1.1 hectares per household), followed by Manyoni (one ha/household), Singida Urban (0.8 ha/household) and Singida Rural with 0.7 hectare per household, (Chart 3.18).

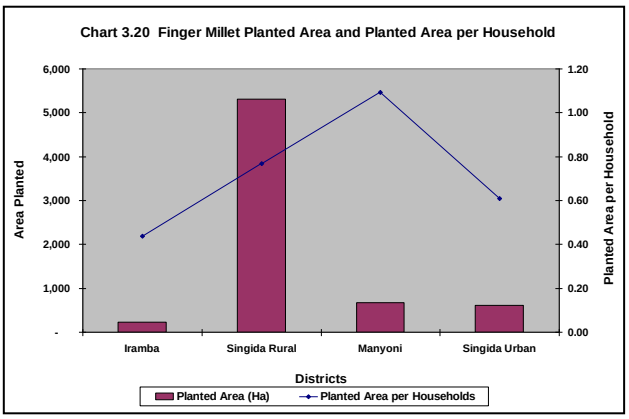
Paddy

Paddy was planted by 11,425 households. Singida Rural district had the largest planted area in the region (8,396 ha, 64.3%) followed by Manyoni (3,292 ha, 25.2%) and Iramba (1,274 ha, 9.8%). However, paddy production in Singida Urban was almost negligible (Chart 3.19). About 4,836 households or 43.3% of the crop growing households were located in Manyoni district followed by Singida Rural (4,320 households, 37.8%) and Singida Urban (111 households, 1%).



The average planted area per household (Chart 3.19) was largest in Singida Rural (1.9 ha/household) followed by Singida Urban (0.9 ha/household), Manyoni (0.7 ha/household) and Iramba (0.6 ha/household).

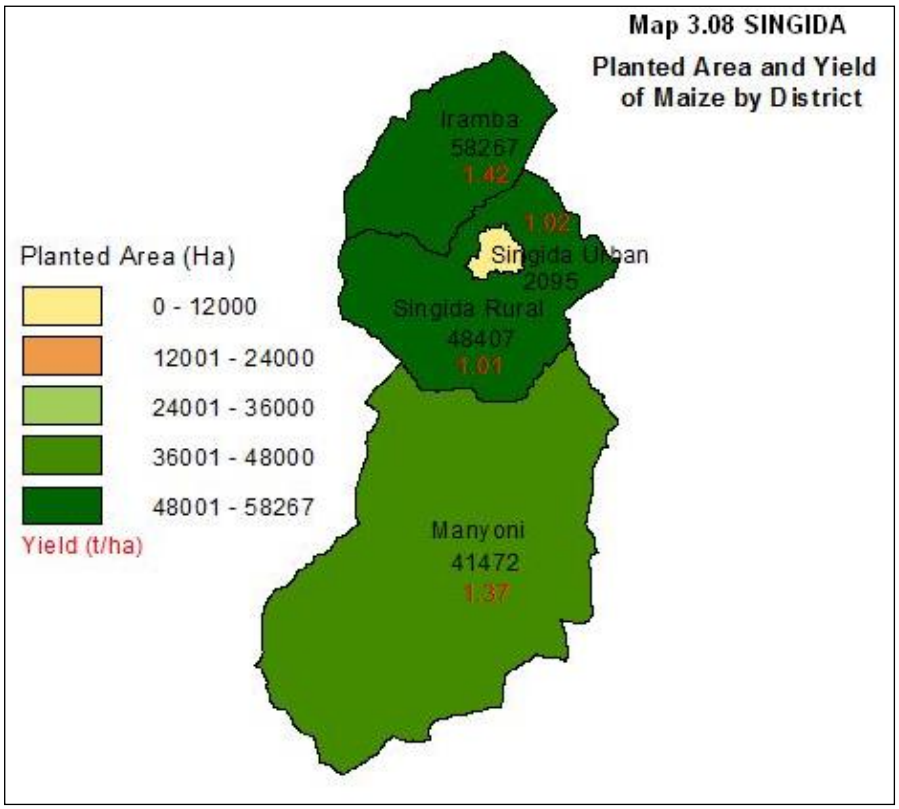
Finger Millet

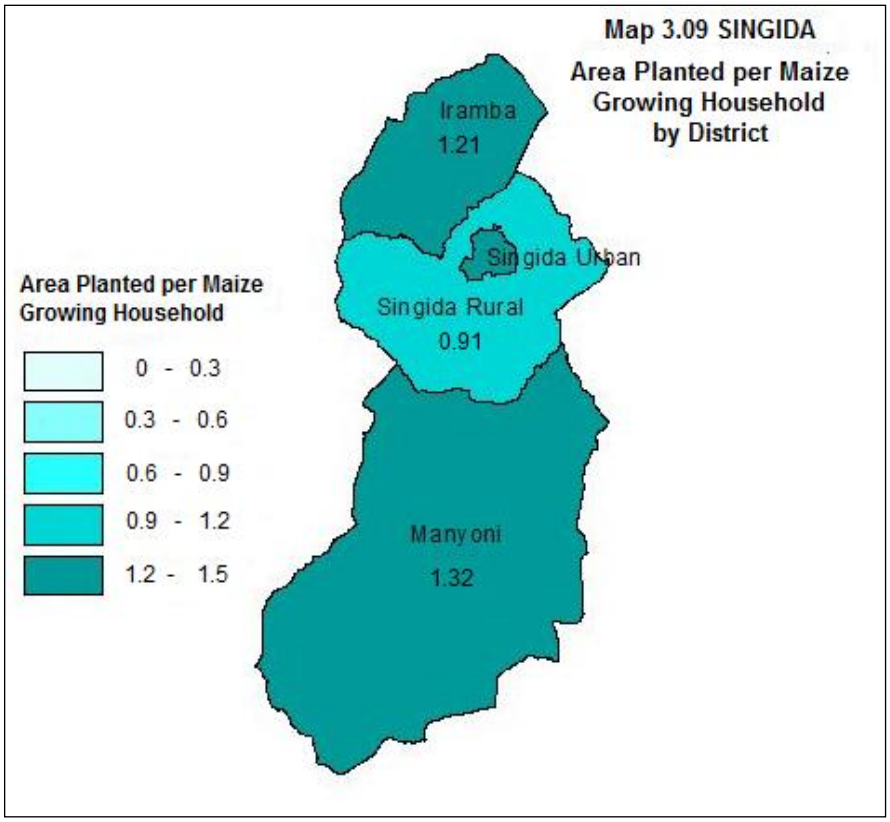


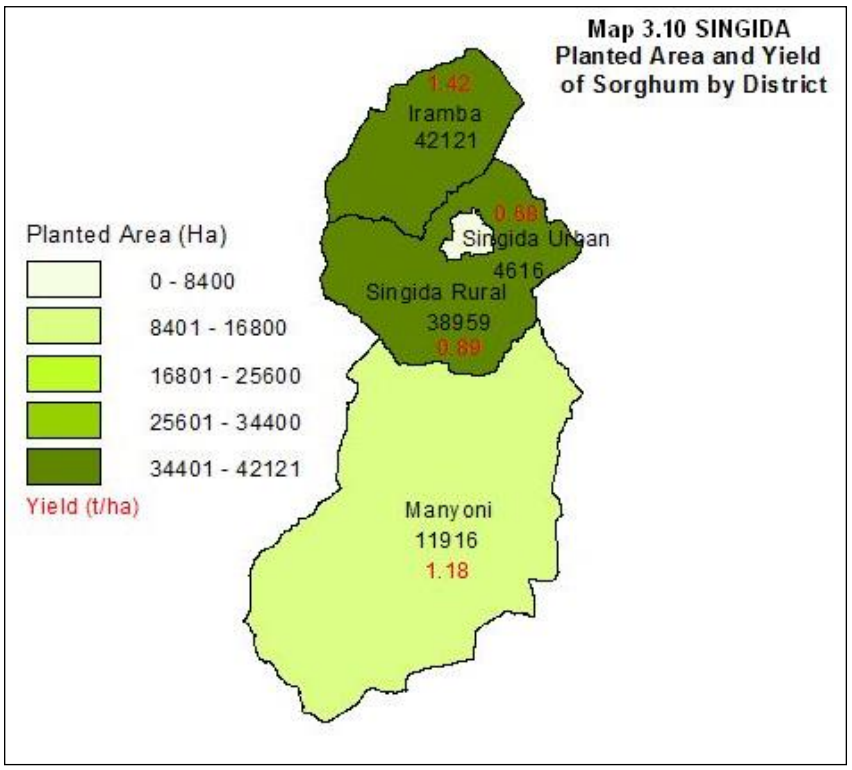
Finger millet was grown predominantly in Singida Rural district (Chart 3.20). The total planted area was about 6,830 hectares and Singida Rural district had the largest planted area with the crop (5,308 ha, 77.7%). A total of 9,070 households planted the crop in the region, mostly located in Singida Rural district (6,913 households, 76.2%), and the remaining 23.8% was distributed between Singida Urban, Manyoni and Iramba districts, (Chart 3.20). The average planted area per household was the largest in Manyoni (1.1 ha/household) followed by Singida Rural (0.8 ha/household), Singida Urban (0.6 ha/household) and Iramba (0.4 ha/household), (Chart 3.20).

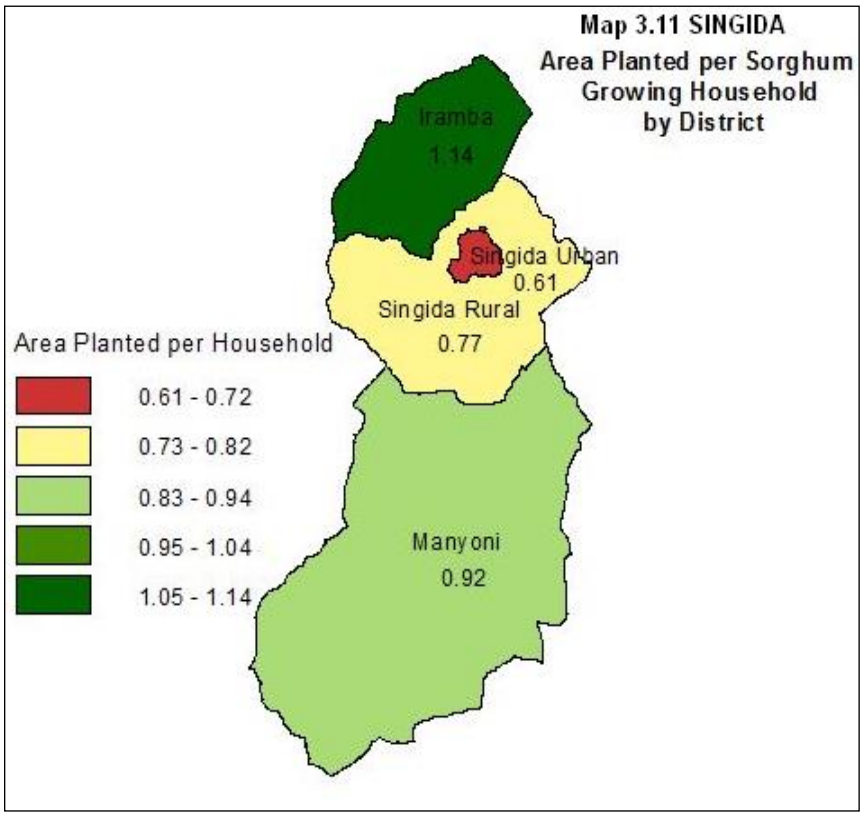
Other Cereals

The only other cereal planted in the region was wheat, planted on a total of 73 hectares with an average yield of 0.9 tons per hectare. In view of the limited planted area, wheat was a very minor cereal in the region.


Map 3.08 SINGIDA
Planted Area and Yield of Maize by District
Iramba
58267
1.42
1.92
Singida Urban
2095
Singida Rural
48407
1.01
Manyoni
41472
1.37
Planted Area (Ha)
0 - 12000
12001 - 24000
24001 - 36000
36001 - 48000
48001 - 58267
Yield (t/ha)


Map 3.09 SINGIDA
Area Planted per Maize Growing Household by District
Iramba
1.21
Singida Urban
Singida Rural
0.91
Manyoni
1.32
Area Planted per Maize Growing Household
0 - 0.3
0.3 - 0.6
0.6 - 0.9
0.9 - 1.2
1.2 - 1.5


Map 3.10 SINGIDA
Planted Area and Yield
of Sorghum by District
1.42
Iramba
42121
0.68
Singida Urban
4616
Singida Rural
38959
0.89
Manyoni
11916
1.18
Planted Area (Ha)
0 - 8400
8401 - 16800
16801 - 25600
25601 - 34400
34401 - 42121
Yield (t/ha)


Map 3.11 SINGIDA
Area Planted per Sorghum
Growing Household
by District
Iramba
1.14
Singida Urban
0.61
Singida Rural
0.77
Manyoni
0.92
Area Planted per Household
0.61 - 0.72
0.73 - 0.82
0.83 - 0.94
0.95 - 1.04
1.05 - 1.14

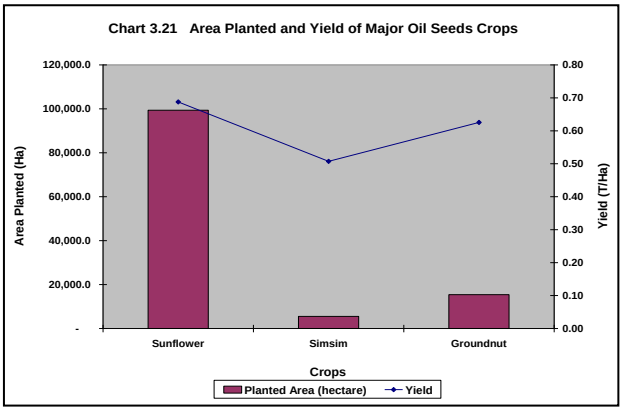
3.3.3.2 Oil Seeds and Oil Nuts Production

Oil seed and oil nut crops were planted on a total of 120,237 hectares equivalent to 22.1 % of the total planted area in the region. Sunflower had the largest planted area (99,363 ha, 82.6% of the total area planted with oil seed crops) followed by groundnuts (15,376 ha, 13%), and simsim (5,498 ha, 4.6%), (Table 3.4 and Chart 3.21).

Table 3.4 Area, Production and Yield of Oil Seeds and Oil Nuts

Crop	Wet Season			Total		
	Area Planted (ha)	Quantity harvested tons)	Yield (kg/ha)	Area Planted (ha)	Quantity harvested tons)	Yield (kg/ha)
Sunflower	99,363	68,297	0.7	99,363	68,297	0.7
Simsim	5,498	2,789	0.5	5,498	2,789	0.5
Groundnuts	15,376	9,614	0.6	15,376	9,614	0.6
Total	**120,237**	**80,700**		**120,237**	**80,700**	

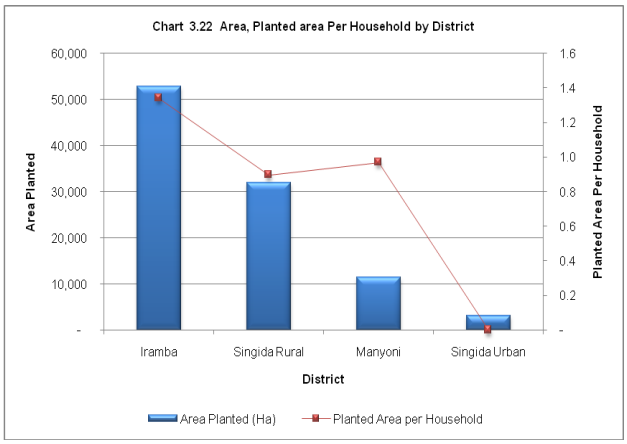
A total of 127,863 households planted oil seed crops, out of which, 89,975 households (70.4%) planted sunflower, (30,892 households, 24.2%) planted groundnuts and the remaining households planted simsim. However, productivity was highest for sunflower with an average yield of 0.69 tons per hectare followed by groundnuts (0.63 t/ha) and simsim (0.51 t/ha).



The total harvested quantities for oil seed and oil nut crops were 80,700 tons of which, sunflower had the largest production (68,297 tons, 84.6% of the total harvested oil seeds) followed by groundnuts (9,614 tons, 11.9%) and simsim (2,789 tons, 3.5%), (Table 3.4).

Sunflower

Sunflower was planted in all the four districts (Chart 3.22) on a total area of 99,363 hectares or 18.2 % of the total planted area in in the region and involving a total of 89,875 households. Iramba district had the largest planted area (52,793 ha, 53%) followed by Singida Rural (32,019 ha, 32%), Manyoni (11,389 ha, 12%) and Singida Urban (3,161 ha, 3%), (Chart 3.22 and Map 3.12).



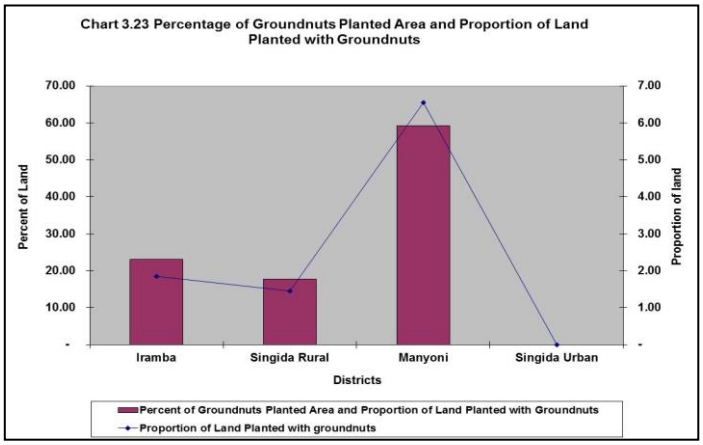
Iramba district had the largest number of households that planted sunflower (39,376 households, 43.8%) and Singida Urban had the smallest number of sunflower growing households (3,225 households, 3.6%).

The planted area per household was largest in Iramba district with 1.3 hectares per household followed by Singida Urban (0.98 ha/household), Manyoni (0.97 ha/household) and Singida Rural (0.9 ha/household), (Chart 3.22 and Map 3.13).

Sunflower productivity was the highest in both Iramba and Singida Rural districts, each with 0.7 tons per hectare. Manyoni district had the lowest productivity of 0.52 tons per hectare (Map 3.12). Out of the total harvested quantity of 68,297 tons, Iramba district had the largest share of the harvested quantity (38,049 tons, 55.7%) compared to Singida Rural (32.8%), Manyoni (8.7%) and Singida Urban (2.7%).

Groundnuts

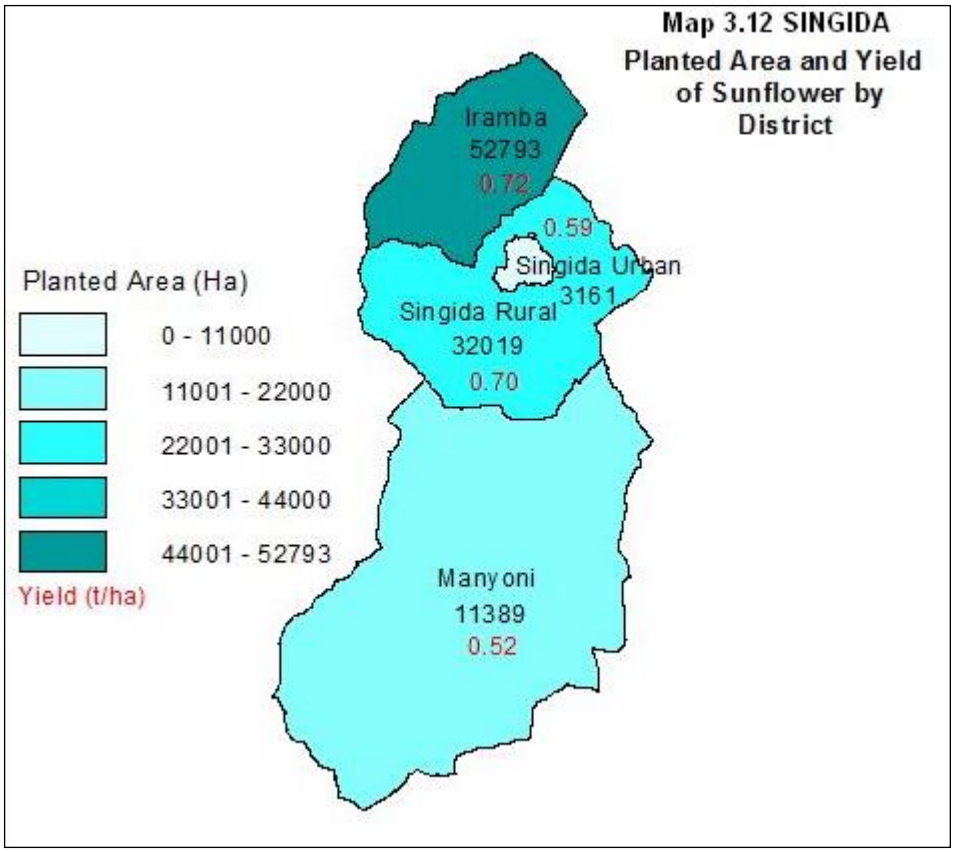
Groundnuts were planted in Iramba, Manyoni and Singida Rural districts (Chart 3.23) on a total of 15,376 hectares (2.8% of the total planted area in the region) by a total of 30,892 households. The largest planted area was in Manyoni district (9,105 ha, 58.6% of the total planted area in the region) equivalent to 6.5% of the total planted area in the district followed by Iramba district (3,549 ha, 23.1%) and Singida Rural district (2,723 ha, 17.7%). However Singida Urban district did not grow groundnuts.

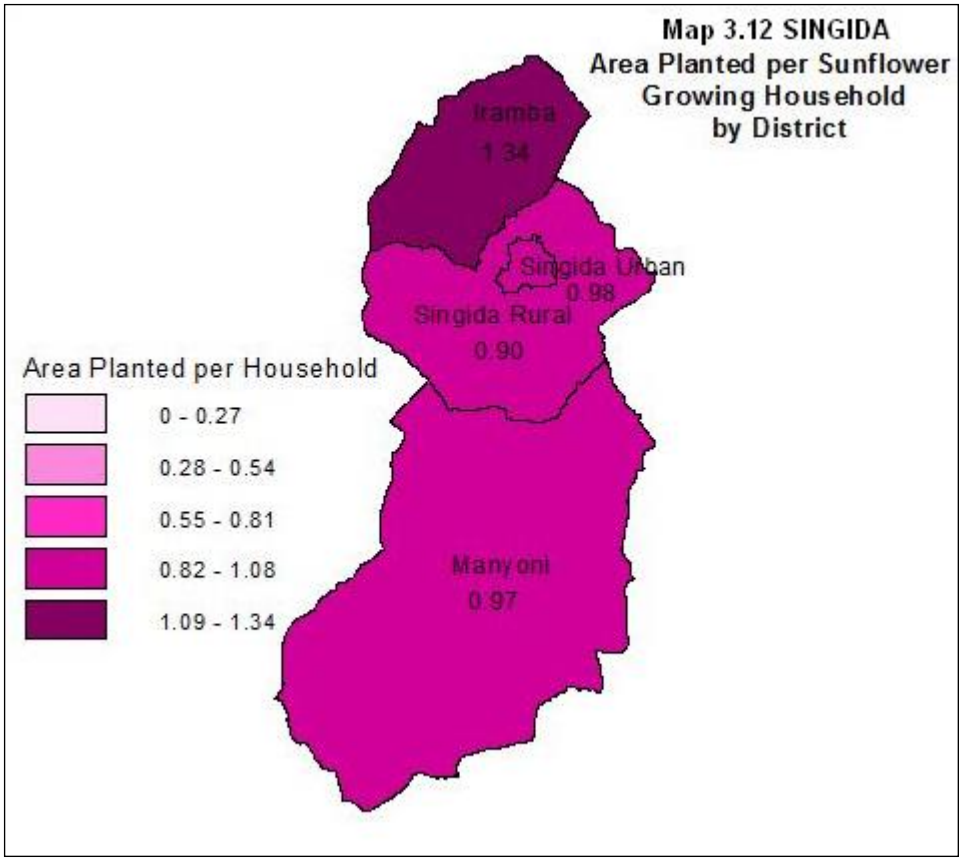


The 30,892 groundnuts growing households were distributed as follows: Manyoni (60.3%), Iramba (25%) and Singida Rural (14.7%).

Groundnut productivity was almost similar in all the districts, at an average of 0.6 tons per hectare. The total quantity of harvested groundnuts was about 9,614 tons, Manyoni district having contributed 59.5% of the total harvested quantity as compared to Iramba (22.6%) and Singida Rural (17.9%).

The average planted area in all the districts was less than a hectare. The planted area per household was the largest in Singida Rural (0.6 ha/household), followed by Manyoni (0.49 ha/household) and Iramba district (0.46 ha/household), (Chart 3.22)


Map 3.12 SINGIDA
Planted Area and Yield of Sunflower by District
Iramba
52793
0.72
0.59
Singida Urban
3161
Singida Rural
32019
0.70
Manyoni
11389
0.52
Planted Area (Ha)
0 - 11000
11001 - 22000
22001 - 33000
33001 - 44000
44001 - 52793
Yield (t/ha)

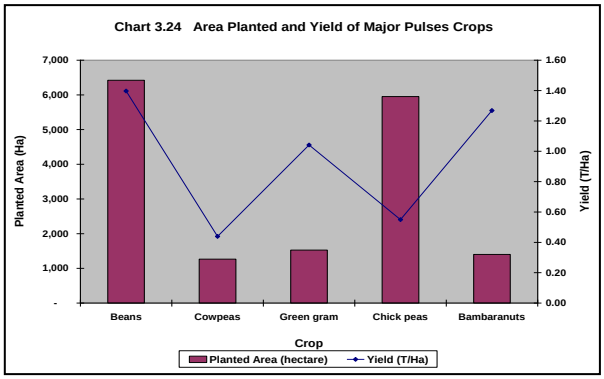

Map 3.12 SINGIDA
Area Planted per Sunflower Growing Household by District
Iramba
1.34
Singida Urban
0.98
Singida Rural
0.90
Manyoni
0.97
Area Planted per Household
0 - 0.27
0.28 - 0.54
0.55 - 0.81
0.82 - 1.08
1.09 - 1.34

3.3.3.3 Pulses Crop Production

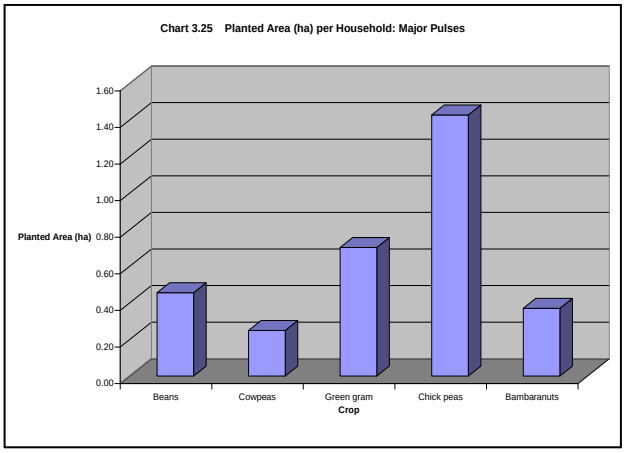
The types of pulses grown in the region comprised of beans, chick peas, green grams, bambaranuts and cowpeas, (Table 3.5 and Chart 3.24). Pulses are grown primarily for grain except for cowpeas and beans, for which the leaves are also consumed as vegetables.

Table 3.5 Area, Production and Yield of Pulses

Crop	Wet Season			Total		
	Area Planted (ha)	Quantity harvested(tons)	Yield (kg/ha)	Area Planted (ha)	Quantity harvested (tons)	Yield (kg/ha)
Beans	6,420	8,965	1.4	6,420	8,965	1.4
Cowpeas	1,264	555	0.44	1,264	555	0.44
Green gram	1,527	1,589	1.04	1,527	1,589	1.04
Chick peas	5,949	3,270	0.55	5,949	3,270	0.55
Bambaranuts	1,401	1,776	1.27	1,401	1,776	1.27
Total	**16,560**	**16,156**	**0.98**	**16,560**	**16,156**	**0.98**



A total of 16,560 hectares (3% of the total planted area in the region) were planted with pulses (Chart 3.24) involving a total of 29,273 households (29.1% of the crops-only households in the region). The major pulse crops were beans and chick peas. Beans occupied the largest planted area (6,420 ha, 38.8% of the total area planted with pulses in the region) and was planted by the largest proportion of the pulse growing households (14,084 households, 48.1%) followed by chick peas (5,949 ha, 35.9%) planted by 4,168 households (14.2%). Other pulses grown in the region included green grams (1,527 ha, 9.2%) planted by 2,171 households (7.4%); bambaranuts (1,401 ha, 8.5%) planted by 3,780 households (12.9%) and cowpeas (1,264 ha, 7.6%) planted by 5,069 households (17.3%), (Chart 3.24 and Table 3.5).



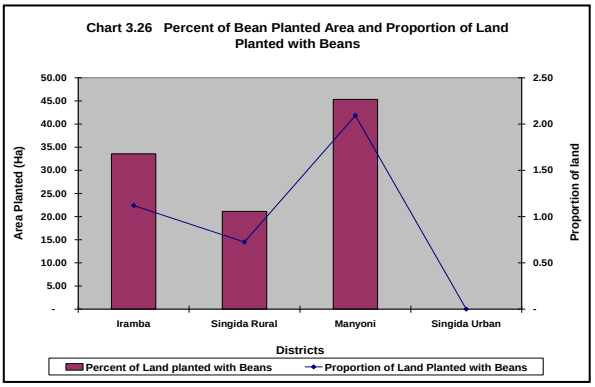
The planted area per household was highly variable with chick peas having the largest planted area per household (1.43 ha/household), followed by green gram (0.7 ha/household), beans (0.46 ha/household), bambaranuts (0.37 ha/household) and cowpeas (0.25 ha/household), (Chart 3.25).

However, productivity was the highest for beans with an average yield of 1.4 tons per hectare followed by bambaranuts with an average yield of 1.27 tons per hectare, green gram (1.04 t/ha), chick peas (0.55 t/ha) and cowpeas (0.44 t/ha).

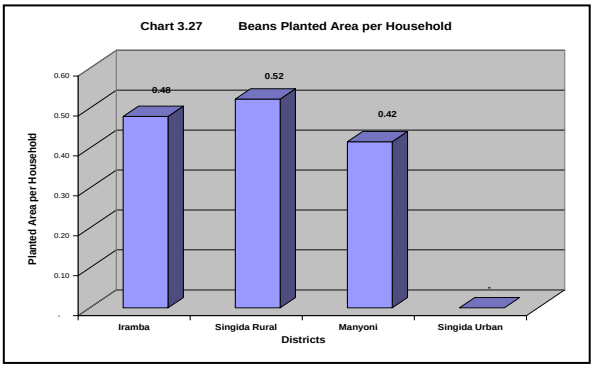
A total of 16,156 tons of pulses were harvested of which, beans contributed 8,965 tons or 55.5 % of the total harvested grains while chick peas accounted for 20.2%, bambaranuts (11%), green gram (9.8%) and cowpeas (3.4%) of the total harvested grains.

Beans

Beans were planted in all the districts except Singida Urban. The total area planted with beans was 6,420 hectares (1.2% of the total planted area in the region). Manyoni district had the largest planted area (92,910 ha, 45.3% of the total area planted with beans) followed by Iramba (2,155 ha, 33.6%) and Singida Rural district (1,356 ha, 21.1%), Manyoni district had the largest proportion of land planted with beans (2.1%), and Singida Rural district had the least proportion, (Chart 3.26).



The average planted area per household in each district was below one hectare, (Chart 3.27 and Map 3.14). The largest planted area per household was in Singida Urban (0.55 ha/household), followed by Singida Rural district (0.52 ha/household), Iramba (0.48 ha/household) and Manyoni district (0.42 ha/household).

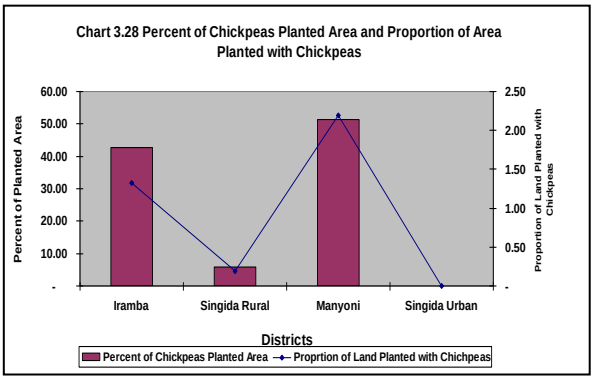


The highest yield (Map 3.13) was in Iramba district (2 t/ha) and the lowest yield was in Manyoni district (0.97 t/ha). The yield in Singida Rural district was the second highest (1.4 t/ha).

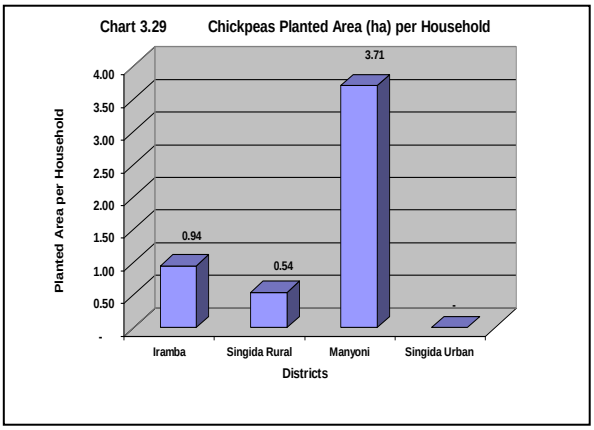
Iramba district had the largest harvest of beans (4,254 tons, 47.5%) followed by Manyoni (2,810 tons, 31.3%) and Singida Rural district (1,901 tons, 21.2%)

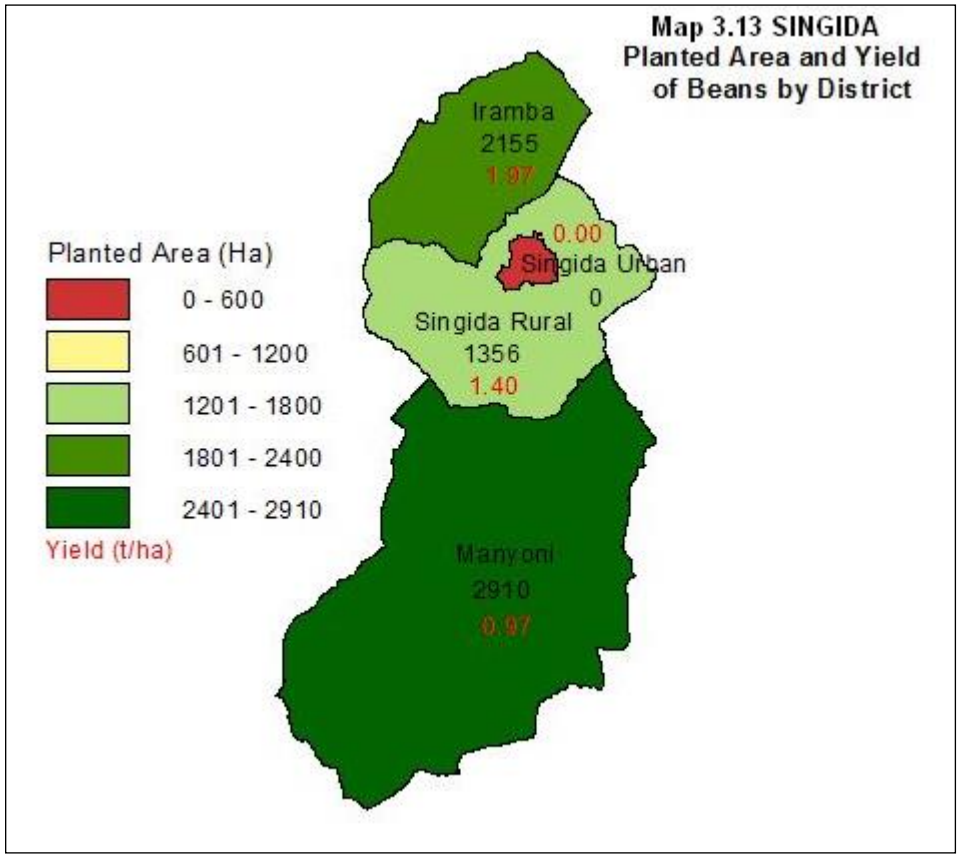
Chick Peas

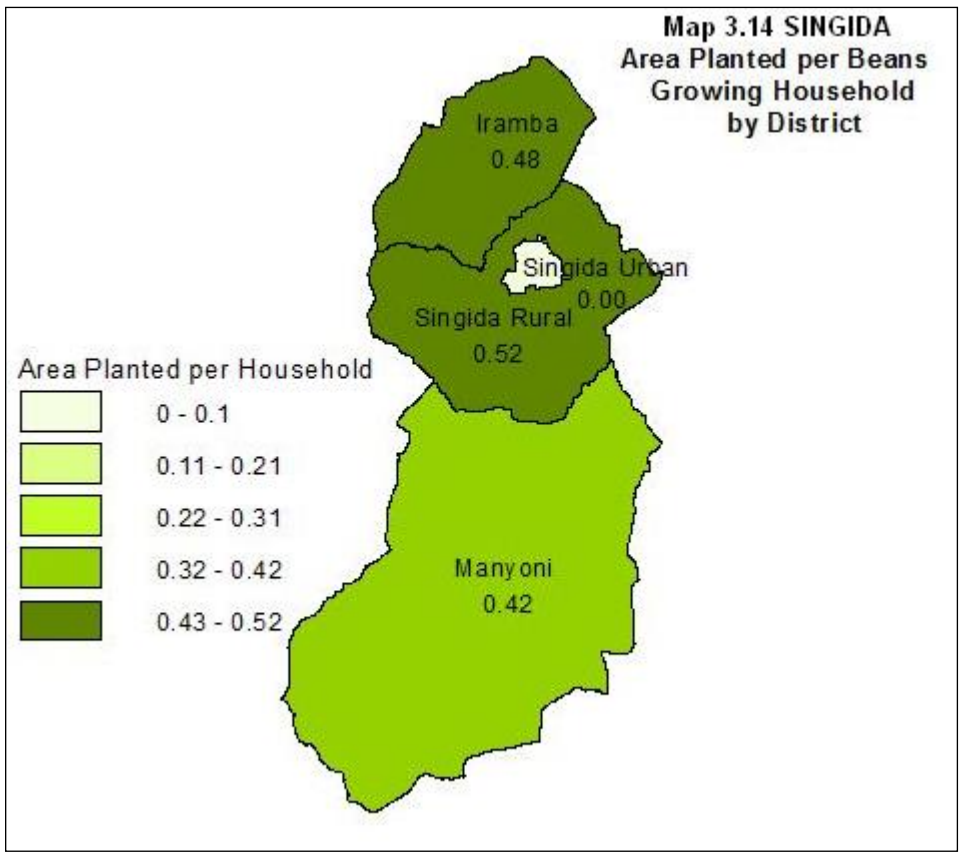
Chick peas were mostly planted in Iramba, Manyoni and Singida Rural districts. The total area planted with chick peas (Chart 3.28) was 5,949 ha (35.9% of the total area planted with pulses in the region). Manyoni district had the largest planted area (3,051 ha, 51.3% of the total area planted with chick peas) followed by Iramba (2,697 ha, 45.3%) and Singida Rural district (648 ha, 10.9%). Iramba district had the largest proportion of land planted with the crop (1.32%). Chick peas were not planted in Singida Urban district.



Manyoni district had the largest Planted area per household (Chart 3.29) at 3.71 ha/household) and Singida Rural had the smallest planted area per household (0.54 ha/household). Yield levels were in the range of 0.34 t/ha in Singida Rural to 0.62 t/ha in Iramba district. The total harvested quantity of 3,270 ton) was obtained mostly from Iramba and Manyoni districts, each with 48.2 % of the total harvest.



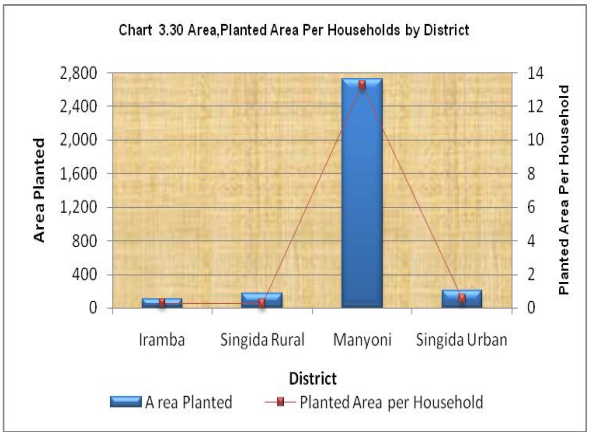

Map 3.13 SINGIDA
Planted Area and Yield
of Beans by District
Iramba
2155
1.97
0.00
Singida Urban
0
Singida Rural
1356
1.40
Manyoni
2910
0.97
Planted Area (Ha)
0 - 600
601 - 1200
1201 - 1800
1801 - 2400
2401 - 2910
Yield (t/ha)


Map 3.14 SINGIDA
Area Planted per Beans
Growing Household
by District
Iramba
0.48
Singida Urban
0.00
Singida Rural
0.52
Manyoni
0.42
Area Planted per Household
0 - 0.1
0.11 - 0.21
0.22 - 0.31
0.32 - 0.42
0.43 - 0.52

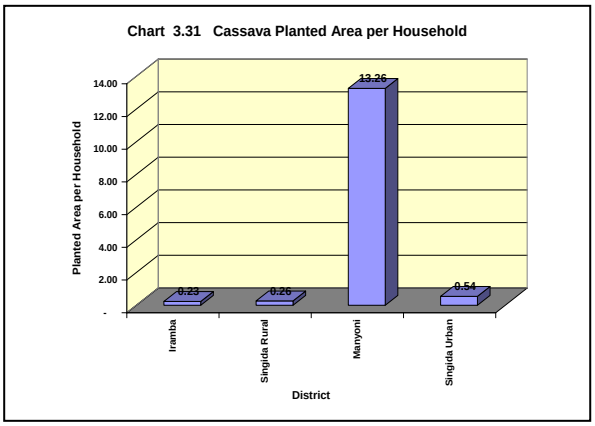
3.3.3.4 Roots and Tuber Crops Production

Cassava

Cassava was planted on 3,216 hectares most of which was planted in Manyoni district (2,729 ha, 84.9% of the total area planted with cassava) followed by Singida Urban (6.6%), Singida Rural (5.3%) and Iramba district (3.3%), (Chart 3.30 and Map 3.15). About 648 households that planted cassava were in Singida Rural (40.4%), while in Singida Urban, cassava growing households constituted 24.3%, in Iramba (22.5%), and Manyoni district (12.9%).



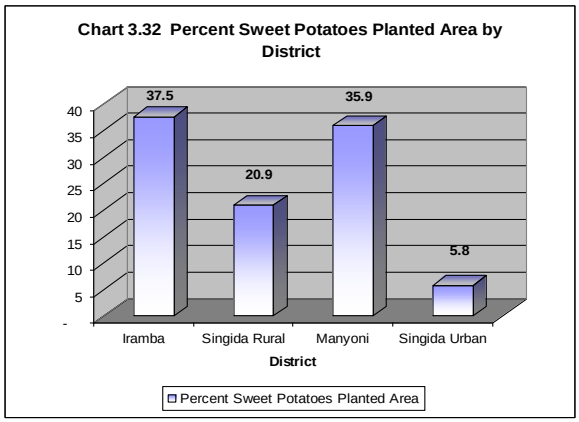
Cassava yields were highly variable between districts (map 3.15) ranging from 0.02 tons per hectare in Manyoni to 4.2 tons per hectare in Singida Rural district. A total of 1,309 tons were harvested and the major producing districts were Singida Rural (717 tons, 54.8%) and Iramba (379 tons, 29%).



The planted area per household (Chart 3.31 and map 3.16) was also highly variable ranging from 0.26 hectares per household in Singida Rural to 13.25 hectares per household in Manyoni district.

Sweet Potatoes

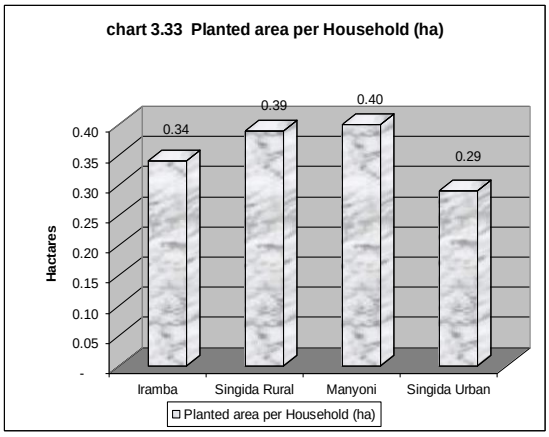
The total area planted with sweet potatoes in the region was 3,591 hectares with Iramba having the largest planted area (1,347 ha, 37.5% of the total area planted with sweet potatoes in the region) followed by Manyoni (1,288 ha, 35.9%), Singida Rural (750 ha, 20.9%) and Singida Urban (208 ha, 5.8%), (Chart 3.32).



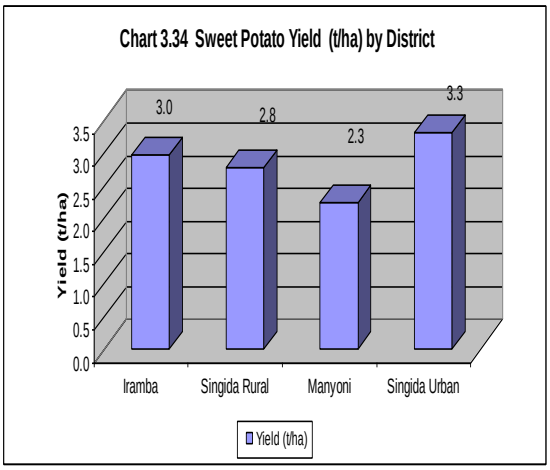
A total of 9,812 households planted the crop in the region. The growing households followed a similar trend to the planted area whereby Iramba had the largest number of sweet potato growing

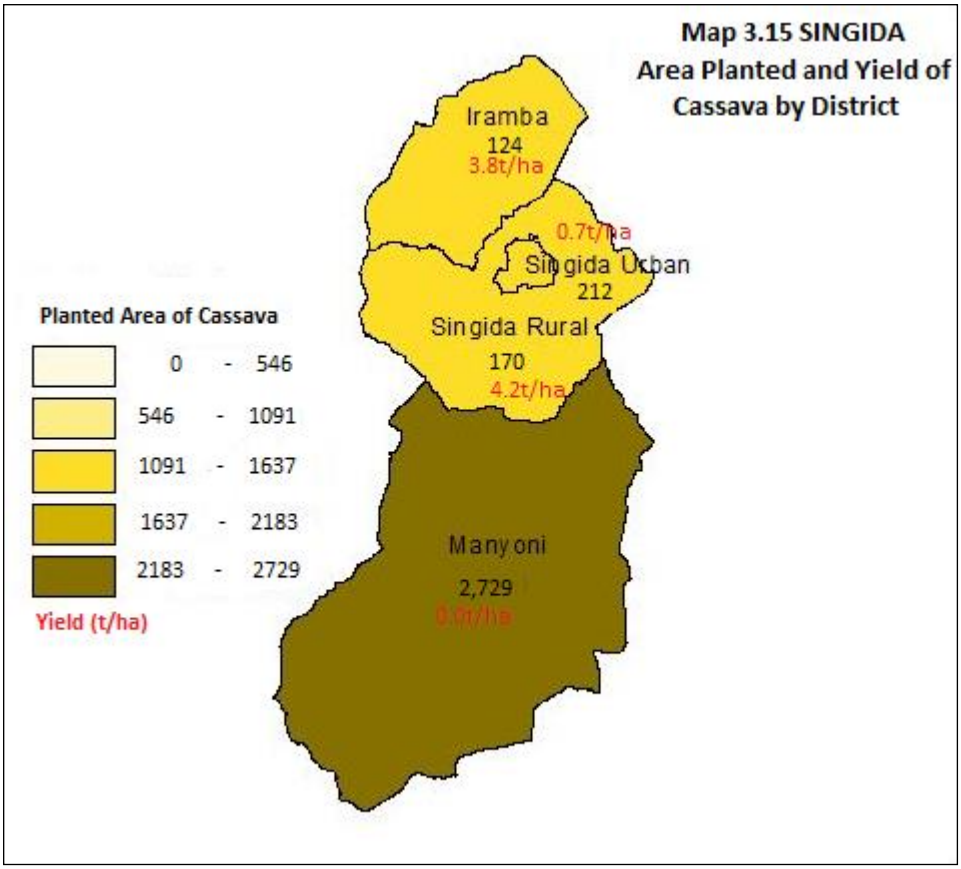
households (3,956 household, 40.3%) and Singida Urban had the smallest number (723 household, 7.4%).

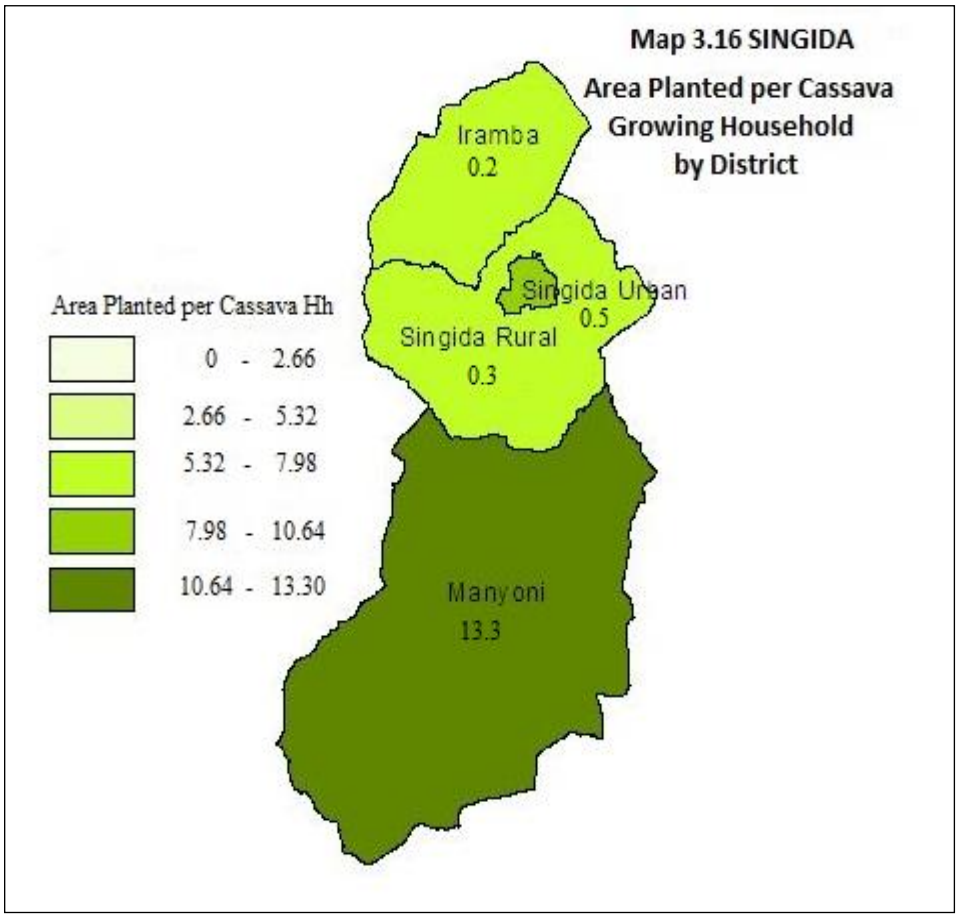
Regardless of the planted area in the district, the land allocated for sweet potato in any district was less than one percent of the total planted area in the respective district. The highest was 0.93 percent in Manyoni and the lowest was 0.4 percent in Singida Rural district. The planted area per household was within the narrow range of 0.3 ha/household in Singida Urban and Iramba districts to 0.4 ha/household in Manyoni and Singida Rural districts, (Chart 3.33).



Sweet potatoes productivity (Chart 3.34) was the highest in Singida Urban district (3.3 t/ha) followed by Iramba district (3.0 t/ha), Singida Rural district (2.8 t/ha) and Manyoni district (2.3 t/ha). A total of 9,695 tons of sweet potatoes were harvested in the region. Iramba district produced 4,007 tons equivalent to 41.3 % of the total harvested quantity while Manyoni produced 30% and Singida Rural district accounted for 21.6%.of the total production.




Map 3.15 SINGIDA
Area Planted and Yield of Cassava by District
Iramba
124
3.8t/ha
0.7t/ha
Singida Urban
212
Singida Rural
170
4.2t/ha
Manyoni
2,729
Planted Area of Cassava
0 - 546
546 - 1091
1091 - 1637
1637 - 2183
2183 - 2729
Yield (t/ha)


Map 3.16 SINGIDA
Area Planted per Cassava Growing Household by District
Iramba
0.2
Singida Urban
0.5
Singida Rural
0.3
Manyoni
13.3
Area Planted per Cassava Hh
0 - 2.66
2.66 - 5.32
5.32 - 7.98
7.98 - 10.64
10.64 - 13.30

3.3.3.5 Fruits and Vegetables

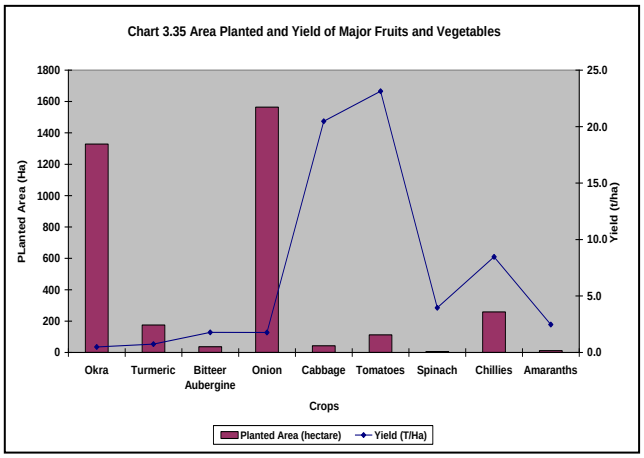
Fruits and vegetable crops were planted on less than one percent of the total planted area in the region (3,534 ha, 0.65% of the total planted area). The most dominant vegetable crops were onion with 1,564 hectares equivalent to 44.3 % of the total area planted with fruits and vegetables and okra which occupied 1,329 hectares or 37.6% of the total planted area. The remaining fruits and vegetable crops occupied about 641 hectares or 18.1% of the total planted area

About 5,739 households planted fruits and vegetable crops in the region. The largest number of households (3,455 households, 60.2%) planted onion followed by tomato (749 household, 13.1%) and okra (543 households, 9.5%) and chilli (317 households, 5.5%). Other fruits and vegetable crops were planted by much fewer household, (Table 3.6).

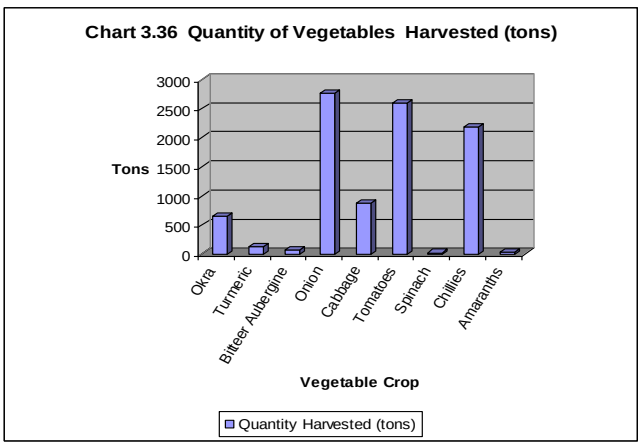
Table 3.6 Planted Area and Yields of Fruits and Vegetables by crop

Crop	Number of Vegetable Growing Households	Planted Area (hectare)	Yield (t/Ha)
Okra	543	1,329	0.5
Turmeric	216	175	0.7
Bitteer Aubergine	180	36	1.8
Onion	3,455	1,564	1.8
Cabbage	167	42	20.5
Tomatoes	749	112	23.1
Spinach	56	6	4
Chillies	317	258	8.5
Amaranths	56	11	2.5
Total	**5,739**	**3,533**	

With regard to yield (Chart 3.35), tomatoes were the most productive crop with 23.1 tons per hectare followed by cabbage (20.5 t/ha). The yield levels for most of the fruits and vegetable crops were relatively low except for chillies (8.5 t/ha), spinach (4 t/ha) and amaranths (2.5 t/ha).

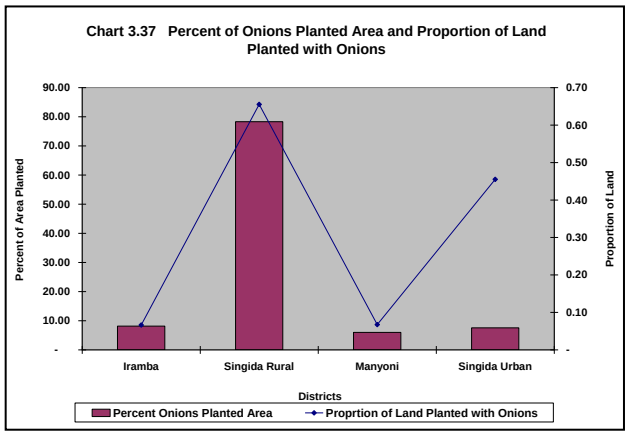


The largest production (Chart 3.36) was from onion (2,760 tons, 29.7%) followed by tomatoes (2,596 tons, 27.9%) and chillies (2,187 tons, 23.5%). Other crops that contributed at least 5% of the total harvested produce were cabbage (9.3%) and okra (6.9%). All other crops contributed small and insignificant quantities to the total harvest.



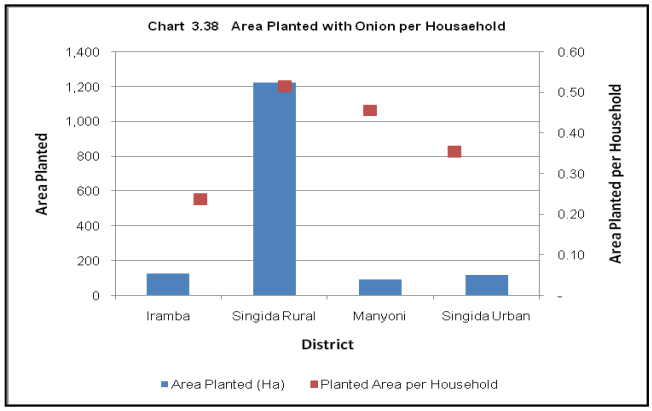
Onion

Onion was the major vegetable crop planted in all the districts of Singida region, the total planted area with the crop was 1,564 hectares or 0.29 % of the total planted area in the region. The largest onion producing district in the region was Singida Rural where 1,224 hectares (78.3% of the total area planted with onion in the region) followed by Iramba (8.2%), Singida Urban (7.6%) and Manyoni district (6%), (Chart 3.37 and Map 3.17).



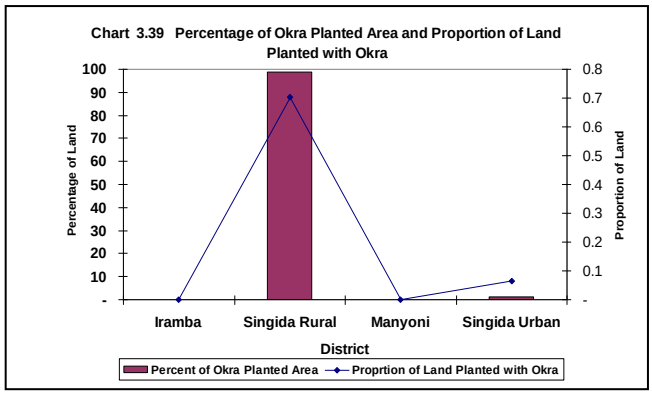
The yield of onion was the lowest in Singida Rural district (1.5 t/ha) compared to the other districts where the yields were within the range of 2.6 to 2.8 tons per hectare. Hence, the overall significant contribution of Singida Rural district to the total onions harvested (1,840.5 tons, 66.7% of the total harvested onions) was a function of the large planted area in this district.

The onion planted area per household was largest in Singida Rural district (0.52 ha/household), followed by Manyoni (0.46 ha/household), Singida Urban (0.35 ha/household) and Iramba district (0.24 ha/household), (Chart 3.38 and Map 3.18).

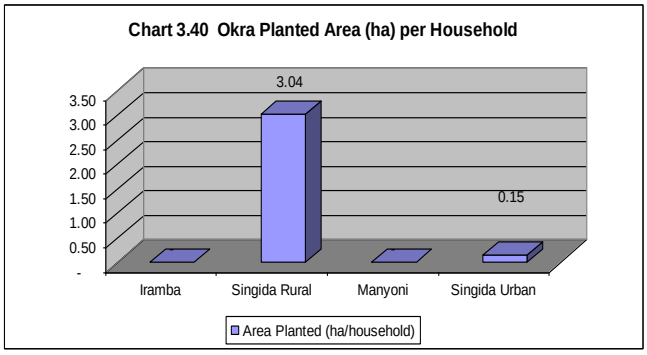


Okra

Okra was planted on a total of 1,329 hectares most of which (1,312 ha, 98.7% of the area planted with okra) was in Singida Rural district with the remaining 17 hectares (1.3%) planted in Singida Urban district (Chart 3.39). However, the yield was the highest in Singida Urban (2.3 t/ha) as compared to Singida Rural,
(0.5 t/ha).

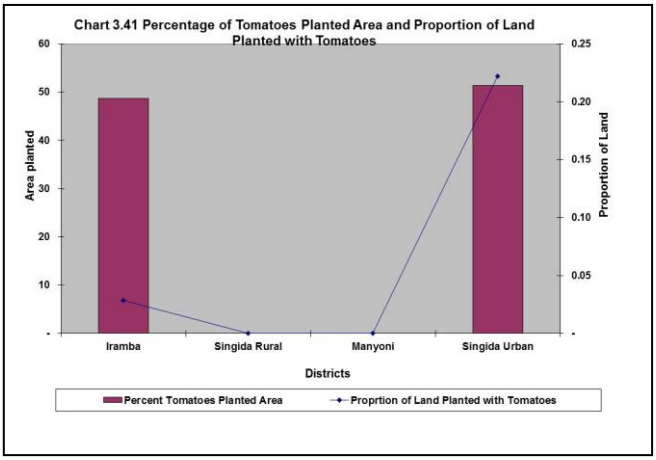


The total quantities harvested were 644 tons of which 94 % was produced in Singida Rural district. Planted area per household was relatively large in Singida Rural district (3.04 ha/household) and small in Singida Urban district (0.15 ha/household), (Chart 3.40).



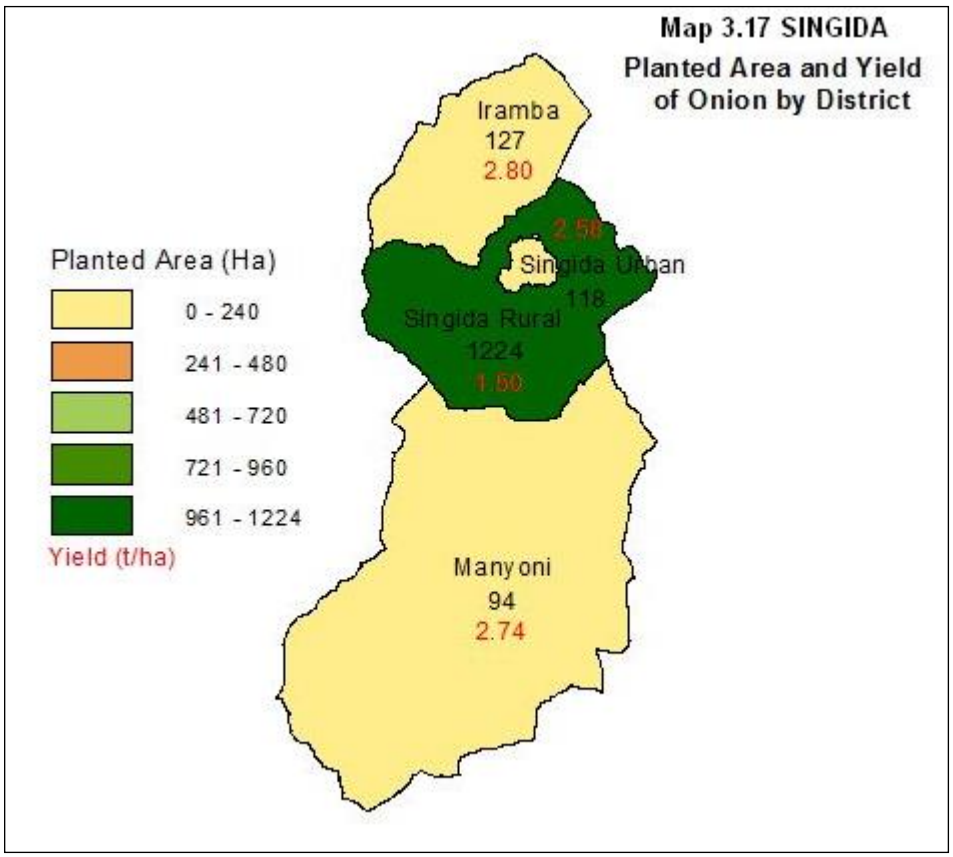
Tomatoes

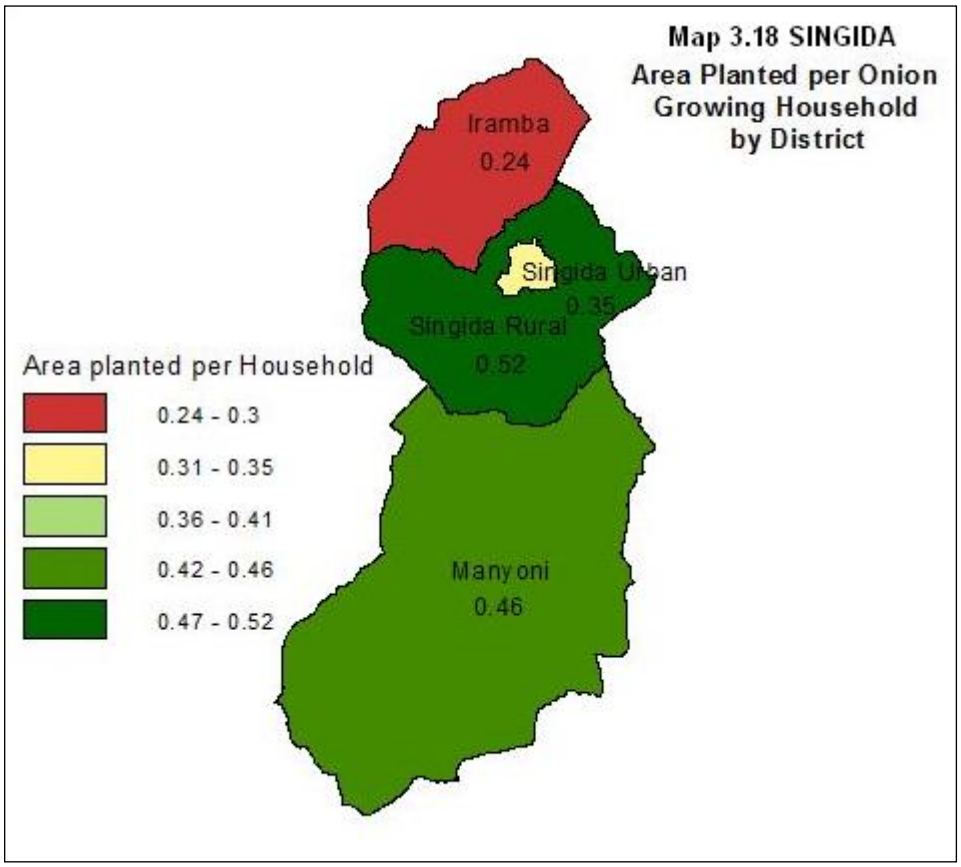
Tomatoes were grown in only two districts in the region i.e in Singida Urban and Iramba districts with almost equal planted areas. Singida Urban district had 58 hectares (51.8%) and Iramba had 54 hectares (48.2%), (Chart 3.41). However, proportionally, Singida Urban district allocated more land for tomato production (0.22%) as compared to Iramba district 0.03 percent.



The 749 tomato growing households in the region were also almost equally distributed in the two growing districts where by 52 % of the growers were in Singida Urban district and 48 % in Iramba district. Planted area per household in each district was in the average of 0.15 hectares per household.

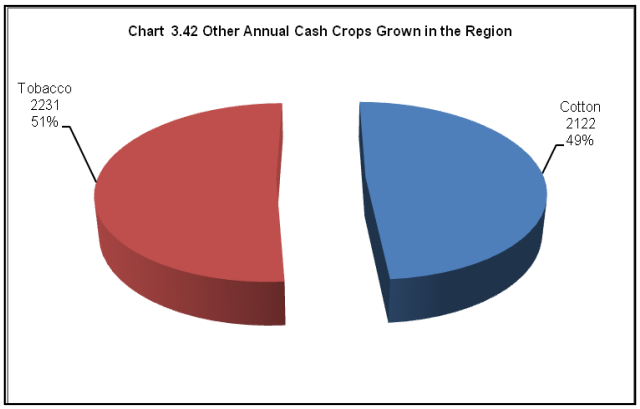
Tomato yields were almost similar across the two growing districts (23 t/ha for both). However, Singida Urban had a production 1,337 tons equivalent to 51.5 % of the total production while Iramba district had a production of 1,259 tons (48.5%).


Map 3.17 SINGIDA
Planted Area and Yield of Onion by District
Iramba
127
2.80
2.50
Singida Urban
118
Singida Rural
1224
1.50
Manyoni
94
2.74
Planted Area (Ha)
0 - 240
241 - 480
481 - 720
721 - 960
961 - 1224
Yield (t/ha)


Map 3.18 SINGIDA
Area Planted per Onion Growing Household by District
Iramba
0.24
Singida Urban
0.35
Singida Rural
0.52
Manyoni
0.46
Area planted per Household
0.24 - 0.3
0.31 - 0.35
0.36 - 0.41
0.42 - 0.46
0.47 - 0.52

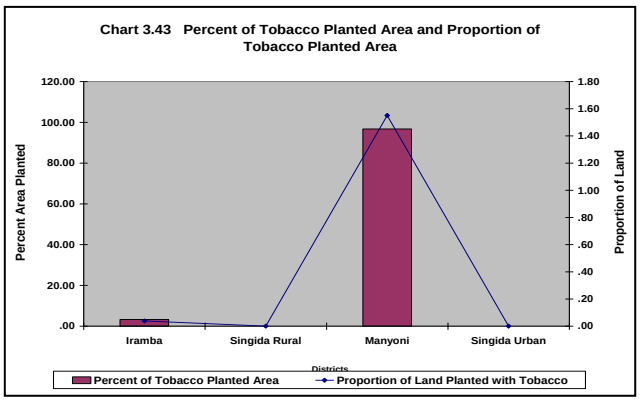
3.3.3.6 Production of Other Annual Crops

Other annual crops were planted on a total of 2,122 hectares comprised of cotton (2,122 ha, 49% of the total area planted with other annual crops) and tobacco (2,231 ha, 51%). Both of these are cash crops. A total of 4,114 households were engaged in growing these cash crops, of which 2,185 households (53%) planted cotton and 47 % grew tobacco), (Chart 3.42).



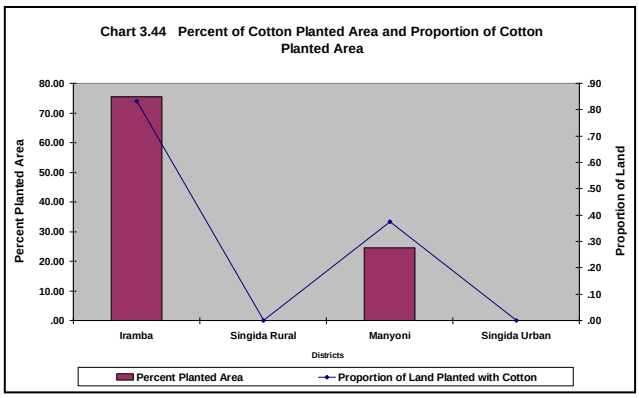
Tobacco

Tobacco was planted in Manyoni and Iramba districts only on a total area of 2,231 hectares. Manyoni was the major production district accounting for 96.7% (2,158 ha) of the total planted area and 90.7% of the total 1,929 growing households in the region, (Chart 3.43). Tobacco yield was higher in Manyoni district (1.03 t/ha) compared to Iramba district (0.89 t/ha). The contribution to the total (2,279 tons) of harvested tobacco was similarly higher in Manyoni (97.1%) compared to Iramba (2.9%).



Cotton

Cotton was planted in Manyoni and Iramba districts only on a total of 2,122 hectares. Iramba district was the major cotton production district accounting for 75.4% (1,601 ha) of the planted area. The area planted with cotton was equivalent to 0.83% of the total planted area in the district. In Manyoni district, the area planted with cotton was equivalent to 0.37% of the total planted area, (Chart 3.44).

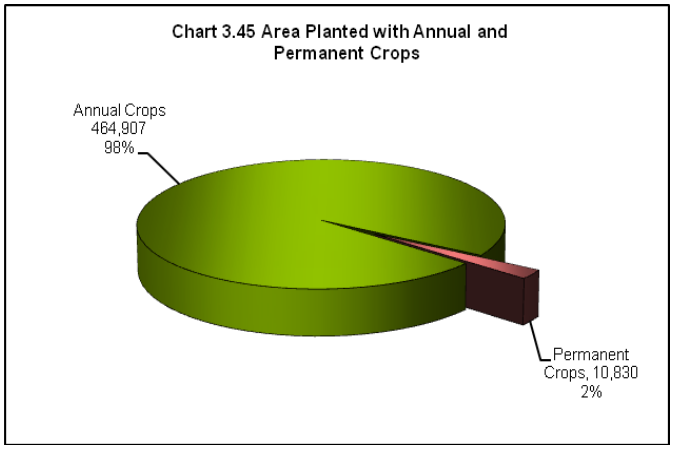


The total number of cotton growing households in the region was 2,185 of which, 57.6 % were in Iramba district. The cotton planted area per household in Iramba district (1.27 ha/household) was more than twice that of Manyoni.

Cotton yield was higher in Iramba district where the yield level of 0.86 t/ha was almost twice that of Manyoni district (0.44 t/ha). Similarly, the bulk (85.8%) of the total harvested 1,603 tons of cotton was obtained from Iramba district as compared to 14.2% (227 tons) obtained from Manyoni district (0.56ha/household)

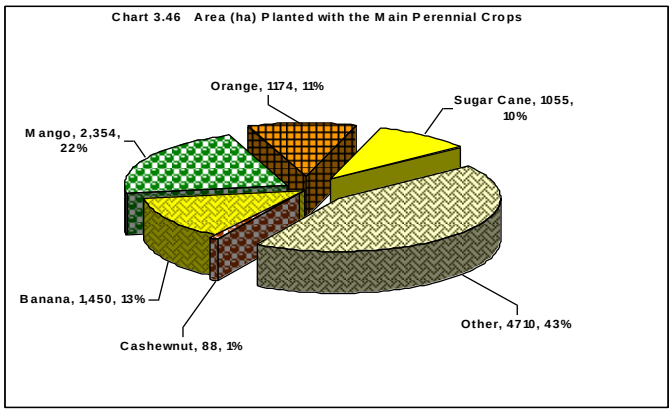
3.4 Permanent/Perennial Crops

Permanent crops, also referred to as perennial crops, normally require more than one season or year to mature and produce and would continue to do so for a number of seasons or years. In this report, crops that can mature and produce harvestable parts within one growing season or one year but can remain in the field and continue producing over several seasons are also considered as permanent crops. Examples of crops of this nature are crops such as banana and pigeon peas.



Permanent crops occupied about 10,830 hectares equivalent to 2 % of the planted area, (Chart 3.45) implying that, permanent crops in this region had a relatively small contribution to crop production.

The major permanent crop in the region (Chart 3.46) was mango planted on about 2,354 ha (22% of the area under permanent crops) followed by banana (13%) and orange (11%). However, a relatively large proportion of the planted area (43%) was under 'other' crops which were not specified.

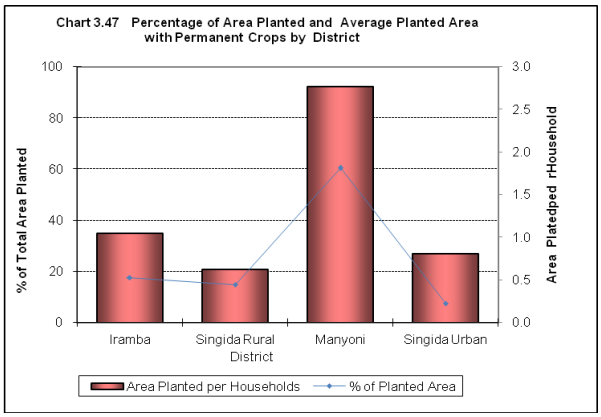


The total harvested quantity was 439,918 kilograms of which the single largest contributor was sugarcane (chewing type) with 359,601 kg (81.7% of the total harvested quantity), with mango

contributing 22,277 kg (5.1%). Banana contributed a small proportion (0.9%) and the remaining 12.3% of the harvested quantity was attributed to other unspecified permanent crops.

Productivity of the planted permanent crops was equally highly variable with sugarcane producing 50.8 t/ha compared to mango (0.7 t/ha) and banana (0.2 t/ha).

The most important district for permanent crop production in the region was Manyoni district. The district had the largest area planted with permanent crops (6,535 ha) accounting for 60.3% of the total area under permanent crops in the region, (Chart 3.47). In the other districts, the area under permanent crops was about 17.4% of the planted area in Iramba district and 14.8% in Singida Rural district. The percentage of the total area planted with permanent crops was the smallest in Singida Urban with only 809 hectares equivalent to 7.5% of the area planted with permanent crops, (Chart 3.47).

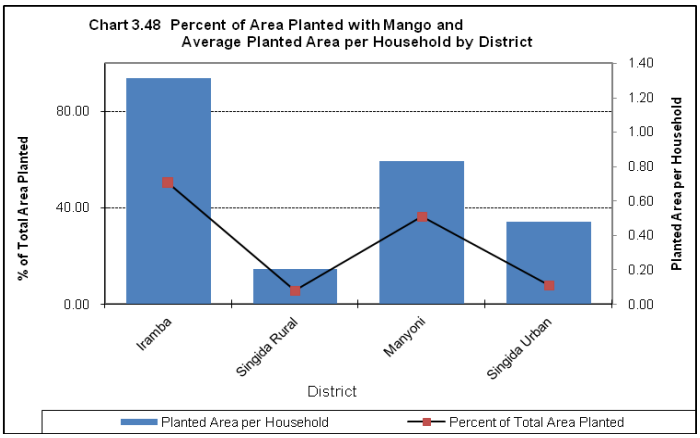


A total of 7,758 households planted one or more perennial crops with Singida Rural district having the largest number of households growing perennial crops (2,592 households, 33.4%) followed by Manyoni (2,367 households, 30.5%). The proportion of households which grew perennial crops in Iramba district (23.2%) was almost twice as many as in Singida Urban district which had the smallest proportion of the households (12.9%).

The average planted area per household was highly variable between districts and was largest in Manyoni (2.8 ha/hh), intermediate in Iramba (1.05 ha/hh) and Singida urban (0.81 ha/hh) and smallest in Singida rural (0.62 ha/hh), (Chart 3.47).

3.4.1 Mango

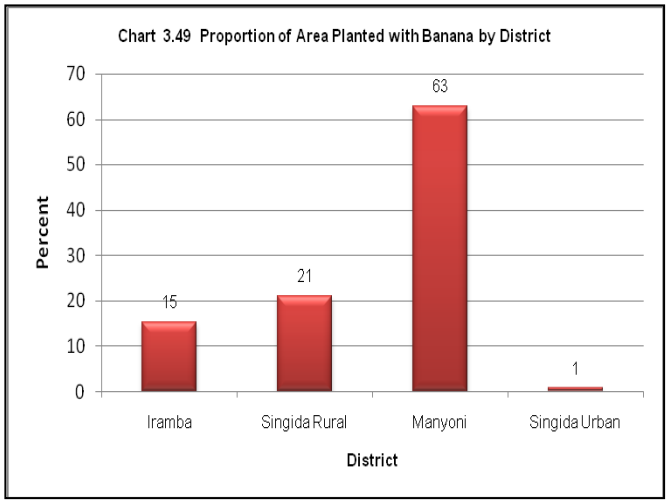
Mango was planted on a total of 2,354 hectares (0.43 % of the total permanent crops planted area) of which, 1,181 hectares (50.2% of the total area planted with mango in the region) were in Iramba district (Map 3.19 and Chart 3.48). Manyoni district was the second most important district for mango production, with a planted area of 855 hectares (36.3%). Singida Urban and Singida Rural districts each accounted for small planted areas of 7.9% and 5.6%, respectively.



Mango growing households were located predominantly in Manyoni district (1,029 household, 34.7%) with relatively fewer growing households in Iramba (30.3%), Singida Rural (21.9%) and Singida Urban (13.1%). The planted area per household was highly variable (Chart 3.48 and map 3.20).from the largest in Iramba district (1.3 ha/household) to the smallest in Singida rural district (0.2 ha/household).

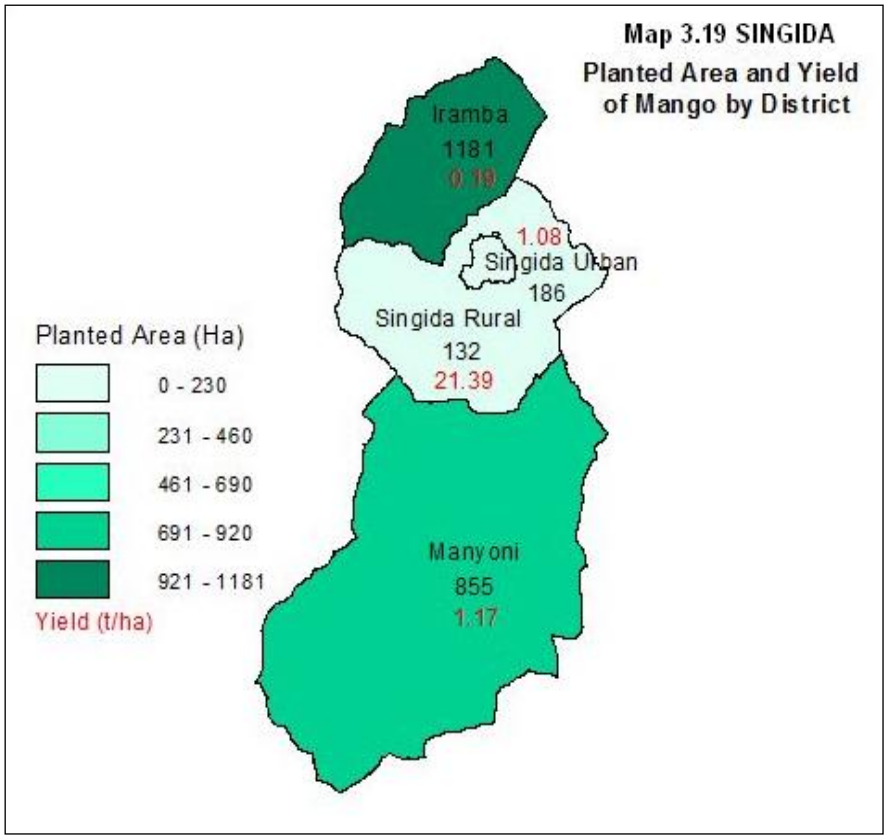
3.4.2 Banana

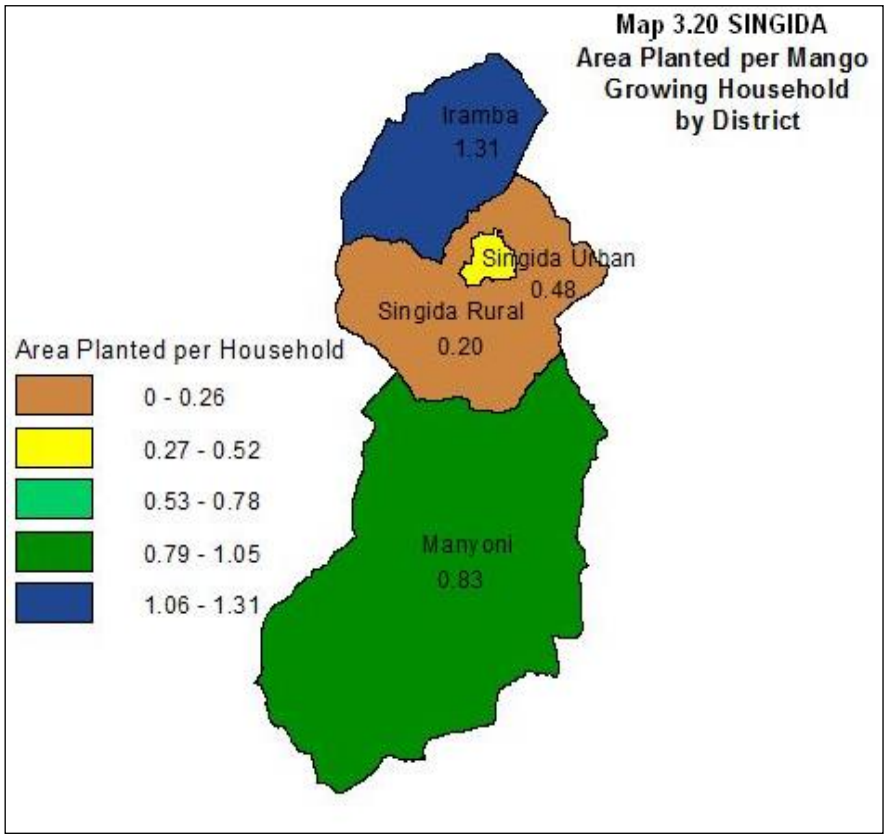
Banana was planted on a total of 1,450 hectares (0.27 % of the total permanent crops planted area) in the region and the major production area was Manyoni district with 911 hectares (62.8% of the total area planted with banana in the region), (Chart 3.49 and Map 3.21). Singida Rural district was second largest with a planted area of 306 hectares (21.1%), followed by Iramba district (306 ha, 21.1%). Singida Urban had the smallest planted area with banana (11 ha, 0.75%).

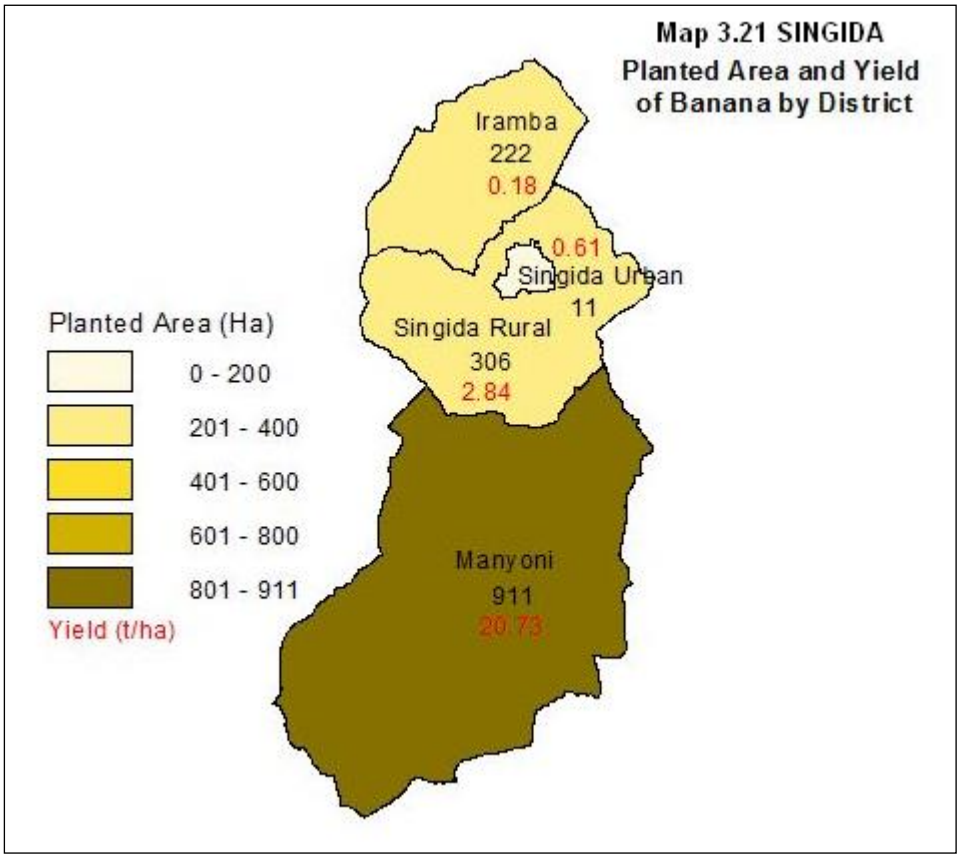


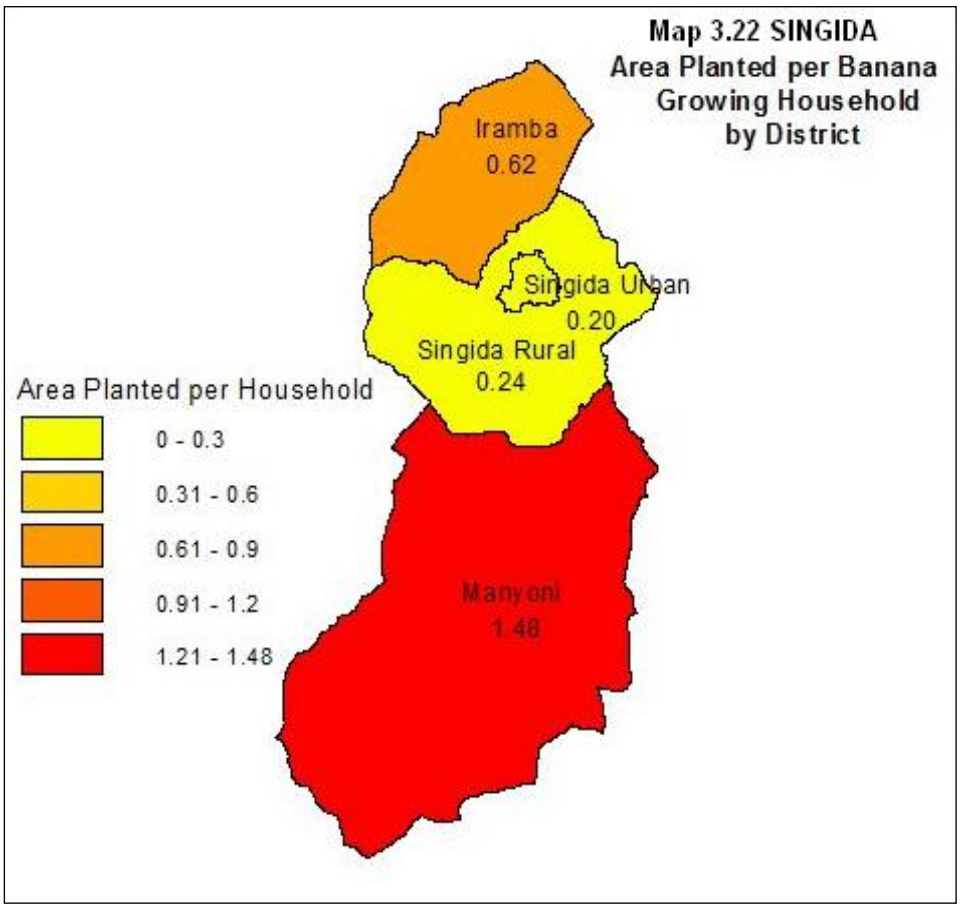
Banana growing households were located predominantly in Singida Rural district (1,296 household, 55.6%) with relatively fewer growing households in Manyoni (26.5%), Iramba (15.5%), and Singida Rural (2.4%).

The planted area per household was highly variable from the largest in Manyoni district (1.48 ha/household) to the smallest in Singida Rural district (0.2 ha/household) which was comparable to Singida Urban district (0.24 ha). The banana planted area per household in Iramba district was intermediate at 0.62 hectares per household, (Map 3.22).


Map 3.19 SINGIDA
Planted Area and Yield
of Mango by District
Iramba
1181
0.19
1.08
Singida Urban
186
Singida Rural
132
21.39
Manyoni
855
1.17
Planted Area (Ha)
0 - 230
231 - 460
461 - 690
691 - 920
921 - 1181
Yield (t/ha)


Map 3.20 SINGIDA
Area Planted per Mango
Growing Household
by District
Iramba
1.31
Singida Urban
0.48
Singida Rural
0.20
Manyoni
0.83
Area Planted per Household
0 - 0.26
0.27 - 0.52
0.53 - 0.78
0.79 - 1.05
1.06 - 1.31

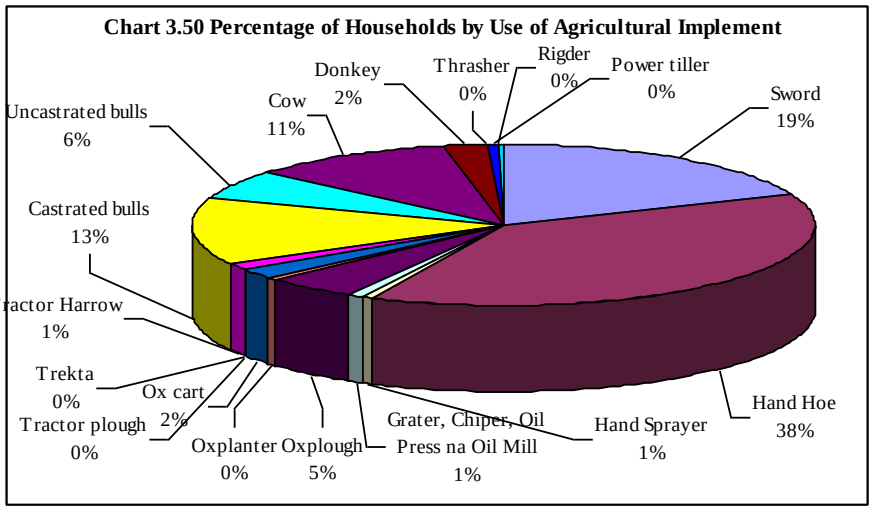

Map 3.21 SINGIDA
Planted Area and Yield
of Banana by District
Iramba
222
0.18
0.61
Singida Urban
11
Singida Rural
306
2.84
Manyoni
911
20.73
Planted Area (Ha)
0 - 200
201 - 400
401 - 600
601 - 800
801 - 911
Yield (t/ha)


Map 3.22 SINGIDA
Area Planted per Banana
Growing Household
by District
Iramba
0.62
Singida Urban
0.20
Singida Rural
0.24
Manyoni
1.48
Area Planted per Household
0 - 0.3
0.31 - 0.6
0.61 - 0.9
0.91 - 1.2
1.21 - 1.48

3.5 Use of Implements, Inputs and Access to Crop Production Services

3.5.1 Use of Agricultural Implements

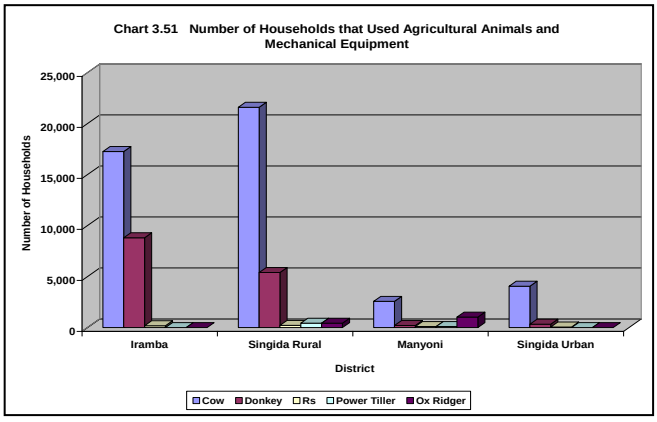
The types of agricultural equipment used for different farm operations were mostly operated by hand and or relied on simple mechanized technologies. The hand hoe was used by the largest proportion of the households in the region (43 %), followed by the sword (39%), ox-plough (14%). Other equipment used by much fewer households were; the ox-planter, hand sprayer, and equipment associated with extraction of oil from oilseeds (e.g, grater, oil press, chipper, etc), Chart 3.50).



3.5.1.1 Use of Animal-drawn and Mechanized Agricultural Equipment

The animals used most frequently to provide power were the cow and the donkey used mostly in Iramba followed by Singida Rural district. In Manyoni and Singida Urban districts, the cow was used by less than 5,000 households. The use of power tillers and ox-ridger was somehow insignificant.

Eequipment drawn by animals such as donkeys and oxen or cow and simple mechanized equipment such as the power tiller were also used by relatively few agricultural households across all the districts, (Chart 3.51).



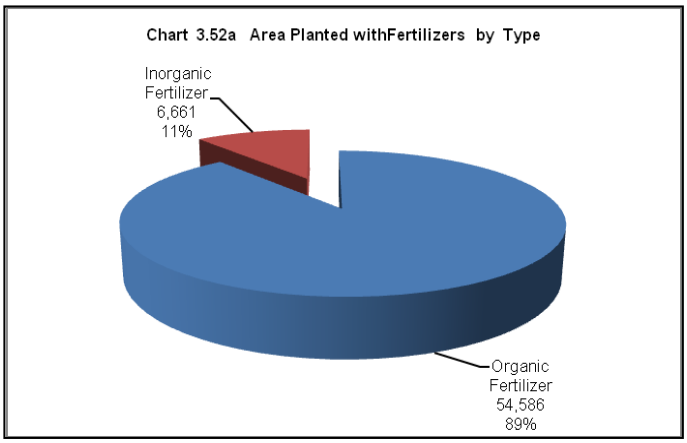
3.5.2 Inputs Use

Access to inputs in this section refers to all crop growing households in the region growing both annual and perennial crops. A small number of households used inputs and this is true particularly

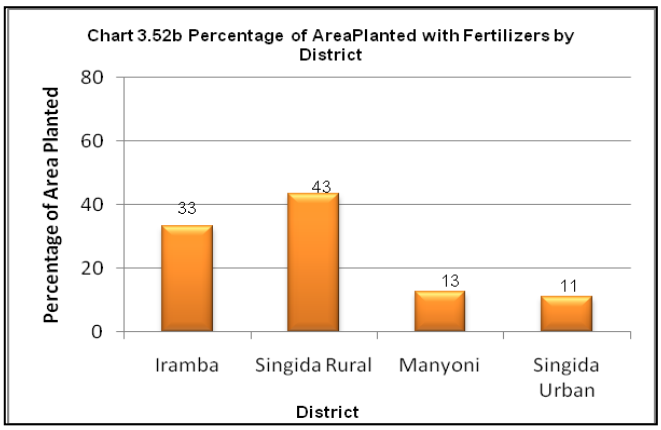
the inputs that are not produced on farm for example: improved seeds, fungicides, inorganic fertilizers and herbicides.

3.5.2.1 Use of Fertilizer

Both organic and inorganic fertilizers were applied in the region. The total planted area applied with fertilizers was 61,247 hectares (11.2% of the total planted area in the region) implying that the major portion of the planted area did not receive any type of fertilizers (Map 3.23). However, of the two types of fertilizers, organic fertilizers were applied on a much larger planted area (54,586 ha, 89% of the total area applied with fertilizers) compared to inorganic fertilizers. (Chart 3.52a)

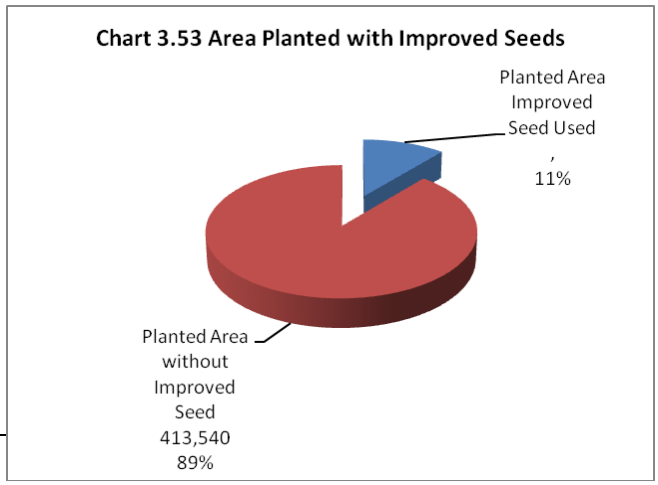


The largest area planted with fertilizers was in Singida Rural district (26,566 ha, 43% of the total planted area applied with fertilizers in the region) followed by Iramba (19,692 ha, 33%) and Manyoni (7,677 ha, 13%). Singida Urban district had the smallest planted area applied with fertilizers (6,692 ha, 11%), (Chart 3.52b). On the other hand, Manyoni district had the largest planted area applied with inorganic fertilizers (6,019 ha, 90.4%) while Iramba had a relatively smaller area planted with inorganic fertilizers (619 ha, 9.3%) and Singida Urban (23 ha, 0.3%). Inorganic fertilizers were not applied in Singida Rural district.

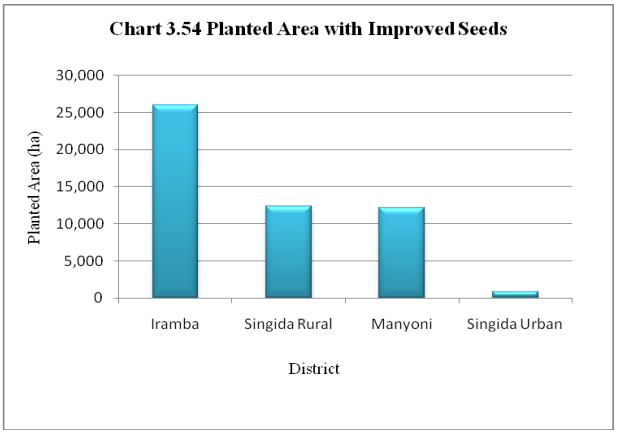


3.5.2.2 Use of Improved Seeds

The planted area with improved seeds was 51,368 ha which represented 11% of the total area planted with annual crops and vegetables (Chart 3.53).

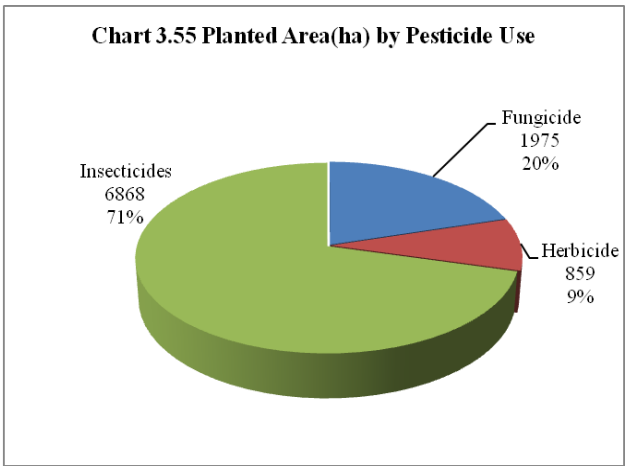


The largest area planted with improved seeds was in Iramba district with 25,965 hectares followed by Singida Rural (12,413 ha) and Manyoni (12,156 ha). Singida Urban district had the smallest area planted with improved seeds (834 ha), (Chart 3.54).



3.5.2.3 Use of Pesticides

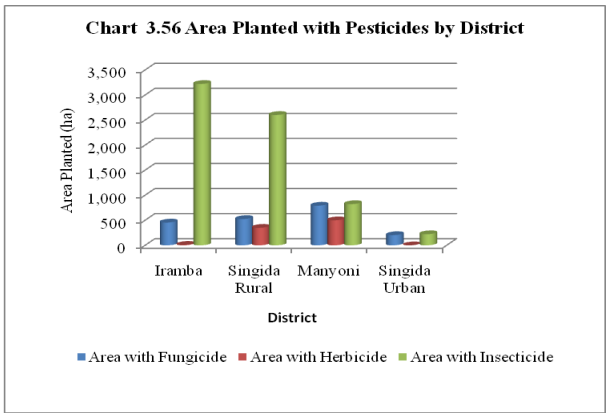
Pesticides, comprising of insecticides, fungicides and herbicides were applied on a total 9,702 hectares, equivalent to 2.1percet of the total planted area in the region, implying a very low level of pesticides use in the region.



Insecticides were the most dominant pesticide used in the region with 6,868 hectares equivalent to 71 % of the planted area applied with pesticides followed by fungicides (1,975ha, 20%). Herbicides were the least used (859 ha, 9%), (Chart 3.55).

The planted area applied with insecticides was the largest in Iramba (3,221 ha, 47% of the total area applied with insecticides in the region), followed by Singida Rural (2,602 ha, 38%) and Manyoni (823 ha, 12%). Insecticides were least used in Singida Urban (222 ha, 3%). The largest planted area applied with fungicides was in Manyoni (791ha, 40% of the total area applied with fungicides) followed by Singida Rural (525 ha, 27%) and Iramba (455 ha, 23%). Singida Urban district had the smallest area applied with fungicide, (204 ha, 10%).

Herbicides were applied in only three districts. Manyoni was the leading district in the region in the use of herbicide (500 ha, 58%), followed by Singida Rural (350 ha, 41%) and Iramba district with only 9 hectares equivalent to 1 percent of the total area plated with herbicides. However, herbicides were not used in Singida Urban, (Chart 3.56).

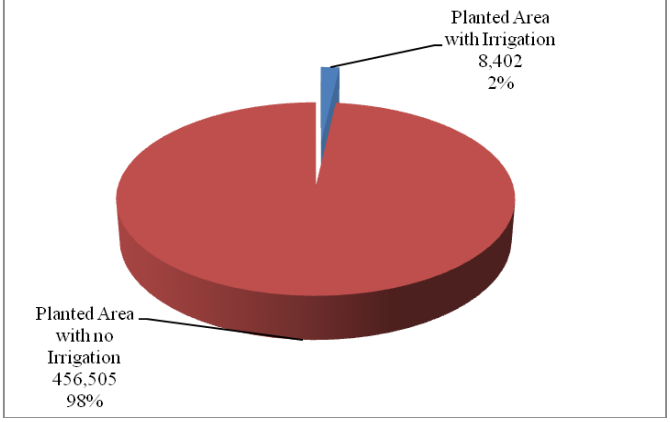


3.6 Irrigation

3.6.1 Area Planted With Irrigation

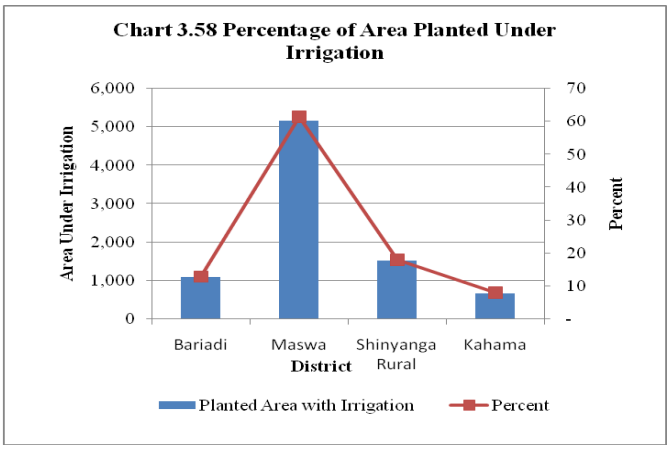
The planted area applied with irrigation in the region (Chart 3.57 and map 3.24) was 8,401 hectares (1.5% of the total planted area in the region). Singida Rural district had the largest planted area applied with irrigation (5,160 ha, 61% of the total irrigated area in the region) followed by Manyoni with 1,506 hectares (18%), Iramba (1,074 ha, 13%) and Singida Urban (662 ha, 8%).

Chart 3.57 Area Planted with Irrigation



However, in each of the districts, the area planted with irrigation represented very small proportion of the total planted area in the district comparatively; the district with the largest proportion of the planted area was Singida Urban (3.2%), followed closely by Singida Rural (3.1%) and Manyoni (1.5%). Iramba district had the smallest proportion of the planted area under irrigation (1%).

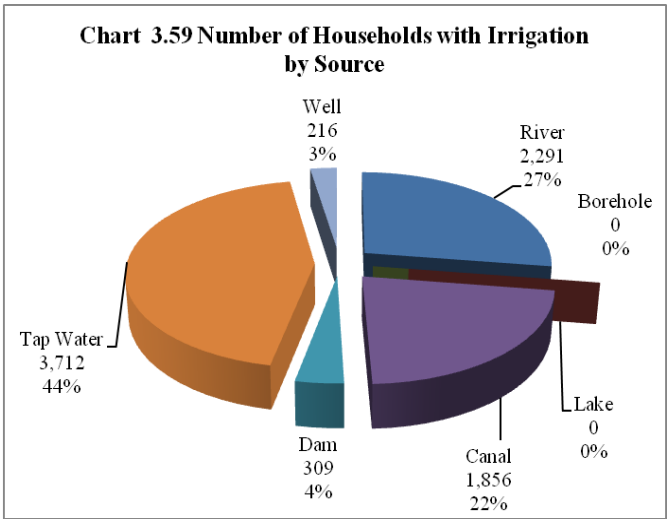
Chart 3.58 Percentage of Area Planted Under Irrigation



3.6.2 Sources of Water for Irrigation

The total number of households that applied irrigation in the region was 8,384 (8.3% of the crops-only households). The main sources of irrigation water were tap water (3,712 household, 44%) followed by the river (2,291 household, 27%) and canals (1,856 household, 22%), (Chart 3.59).

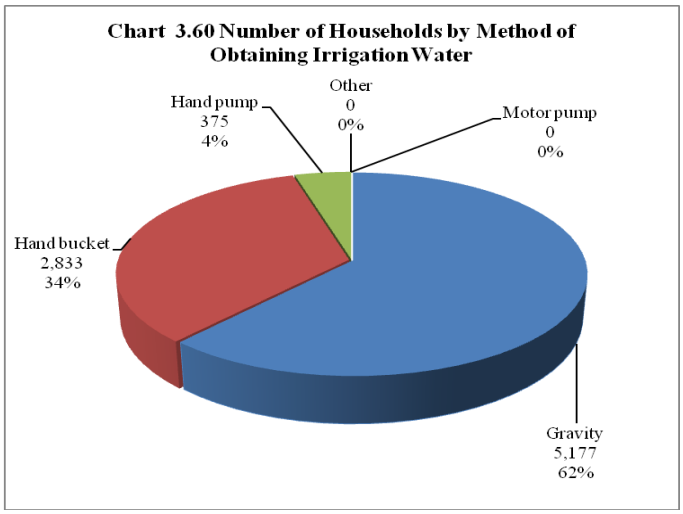
Chart 3.59 Number of Households with Irrigation by Source



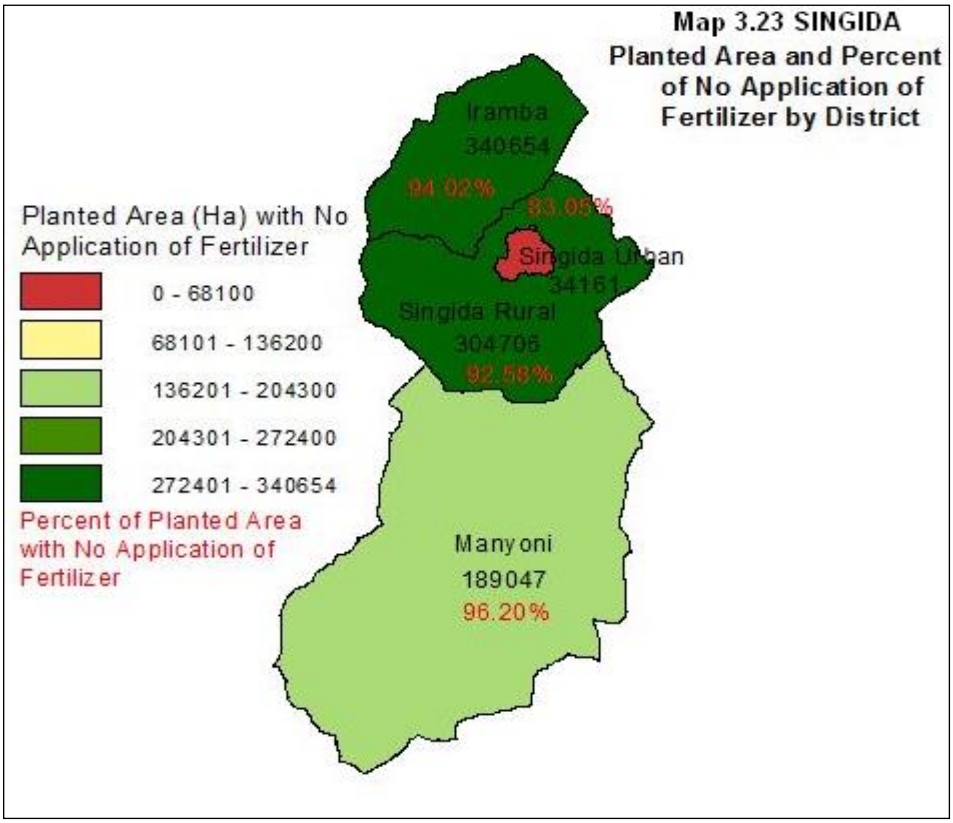
Dams were only used in Manyoni by 309 households (4%) and wells were only used in Singida Rural district by 216 households (3%). Bore holes and lakes were not used as sources of irrigation water in the region.

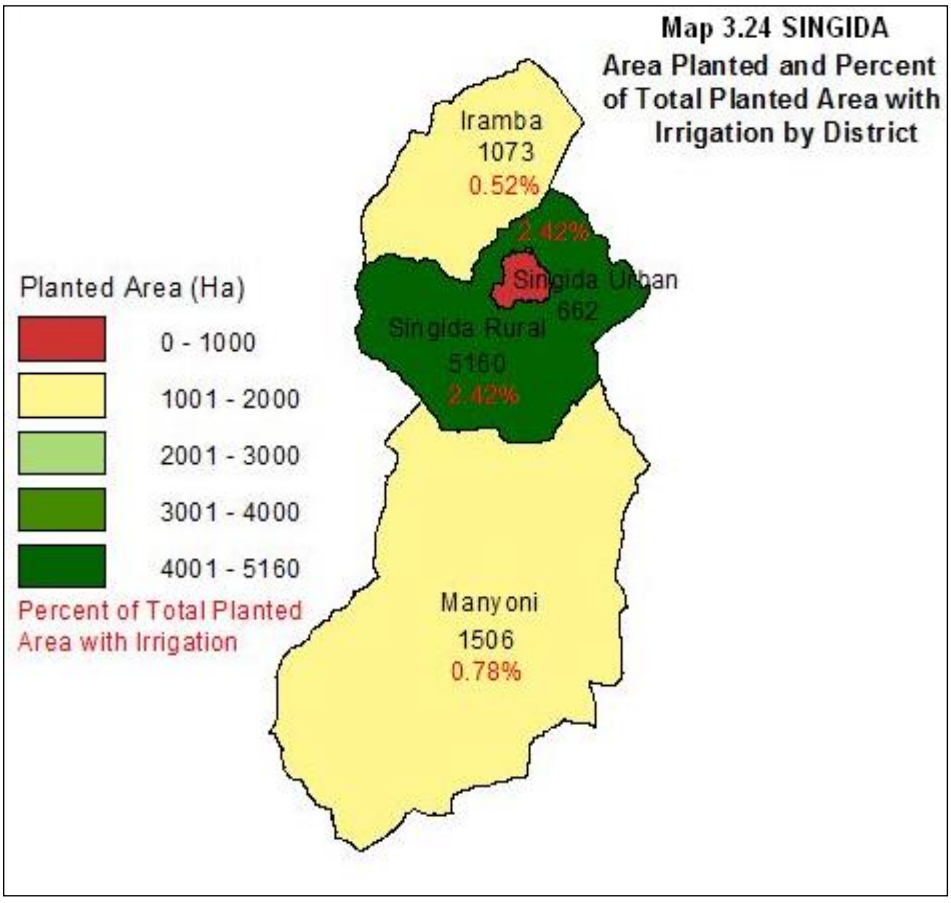
3.6.3 Methods of Obtaining Irrigation Water

The majority of the households that practises irrigation obtained water by gravity (5,177 households, 61.7%) followed by hand bucket (2,833 households, 33.8%) and a few households used hand pump (375households, 4.5%), (Chart 3.60).



The proportion of households that depended on gravity to access irrigation water was the highest in Manyoni (73.5% of the households which obtained water by gravity) followed by Iramba (24.3%) and Singida Urban (2.1%). Hand buckets were used predominantly in Manyoni (40% of the households that used hand buckets), followed by Iramba (25.4%), Singida Rural (22.9%) and Singida Urban (11.8%). The extent on the use of the hand pump was 69.6% in Singida Rural, 27.5% in Manyoni and 14.9% in Singida Urban. The hand pump was not used in Iramba district.

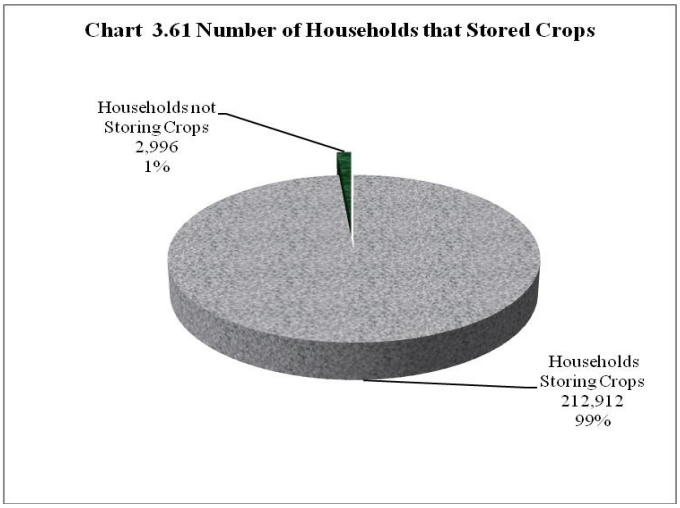

Map 3.23 SINGIDA
Planted Area and Percent of No Application of Fertilizer by District
Iramba
340654
84.02%
83.05%
Singida Urban
34161
Singida Rural
304706
92.58%
Manyoni
189047
96.20%
Planted Area (Ha) with No Application of Fertilizer
0 - 68100
68101 - 136200
136201 - 204300
204301 - 272400
272401 - 340654
Percent of Planted Area with No Application of Fertilizer


Map 3.24 SINGIDA
Area Planted and Percent of Total Planted Area with Irrigation by District
Iramba
1073
0.52%
2.42%
Singida Urban
662
Singida Rural
5160
2.42%
Manyoni
1506
0.78%
Planted Area (Ha)
0 - 1000
1001 - 2000
2001 - 3000
3001 - 4000
4001 - 5160
Percent of Total Planted Area with Irrigation

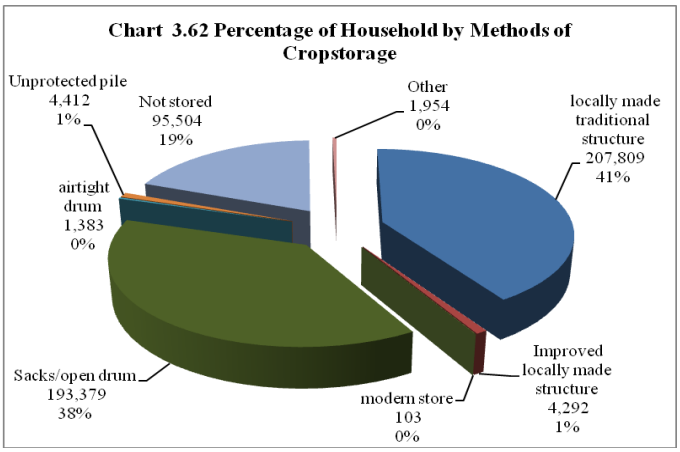
3.7 Crop Storage and Marketing

3.7.1 Crop Storage

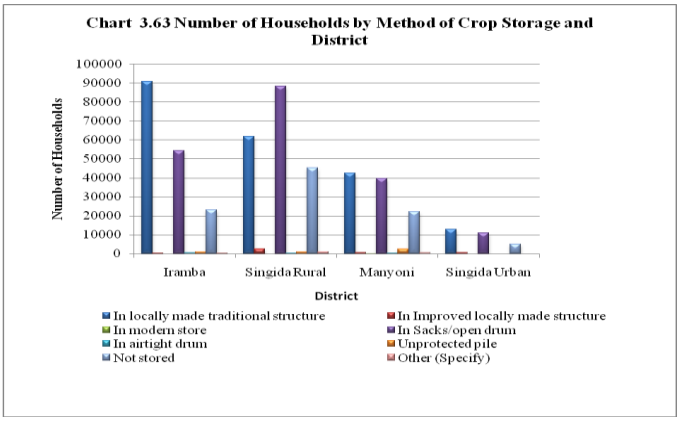
Crop storage means keeping a crop for a certain period of time as either food for household, in order to sell at high prices later on or as seed for planting in the following season. The census results for Singida region show that, crop storage was practiced by 99% of agricultural households in the region, (Chart 3.61). The largest proportion of households (41%) stored crops in locally made structures.



The proportion of households using this method was highest in Iramba, Manyoni and Singida Urban districts, (Chart 3.62). The second most common method of crop storage was the use of sacks or open drums practiced by about 38% of the households. This method was most common in Singida Rural and was second most common method in Iramba, Manyoni and Singida Urban districts. The use of other methods such as improved locally made structures, storing in an unprotected pile and airtight drums were practiced but were almost insignificant.

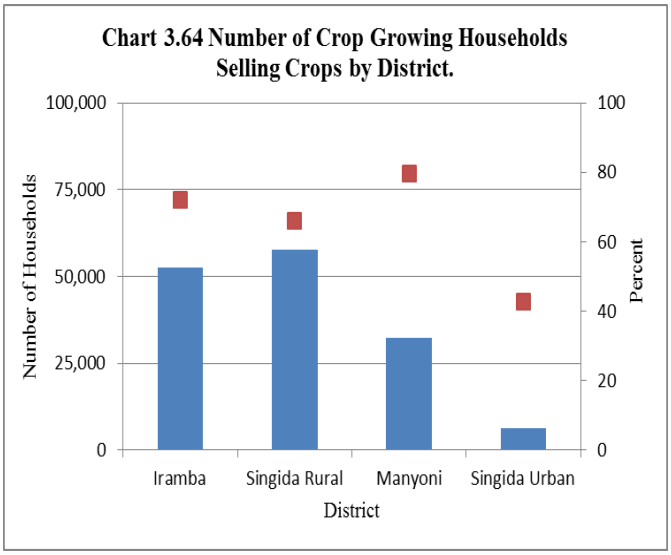


However, about 19 % of the households reported not to have stored crops. In this category, Singida Rural had the largest number of households, followed by Iramba, Manyoni and Singida Urban, in that order, (Chart 3.63).



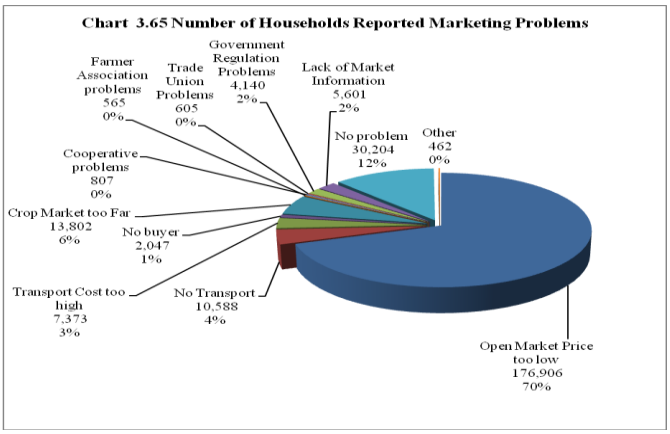
3.7.2 Crop Marketing

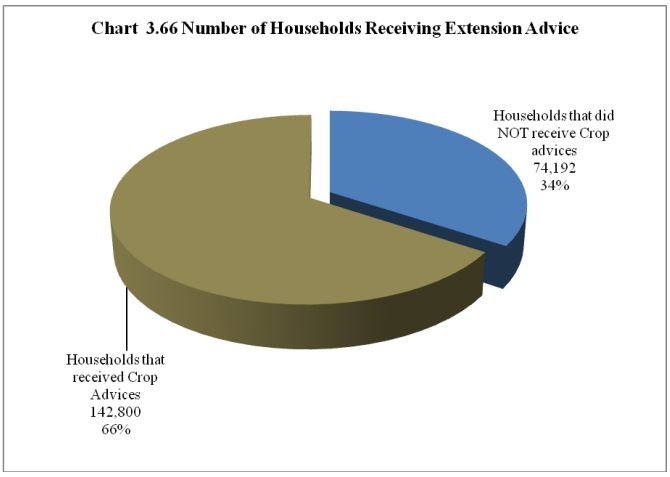
The number of households that reported to have sold crops was 148,886 which represent 69 % of the total number of crop growing households in the region. The sale of crops was conducted in all the districts in varying proportions (Map 3.25). The largest proportion of the households participating in sale of crops was in Manyoni (77%) followed by Iramba (72%), and Singida Rural (66%). Singida Urban district had the lowest proportion of the households which sold crops in the region, (Chart 3.64 and Map 3.25).



3.7.2.1 Marketing Problems

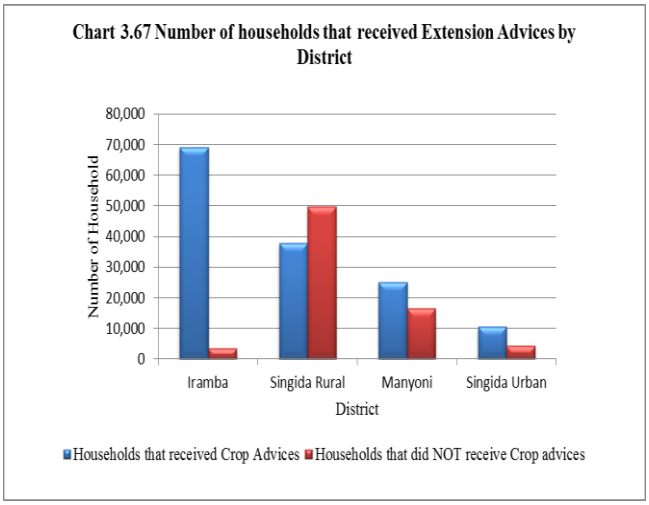
Variable challenges were expressed by the households that participated in the sale of crops. The single most challenging problem cited by the largest proportion of the households (70%) was the low price in the open market, (Chart 3.65). Other marketing problems cited by relatively low proportions of the households were; crop market being too far (6%), lack of transport (3%), transport cost too high (3%), lack of market information (2%) and government regulation (2%). Other marketing problems were cited by very few households comprising less than 1%. However, about 12 % of the households indicated not to have any marketing problems.





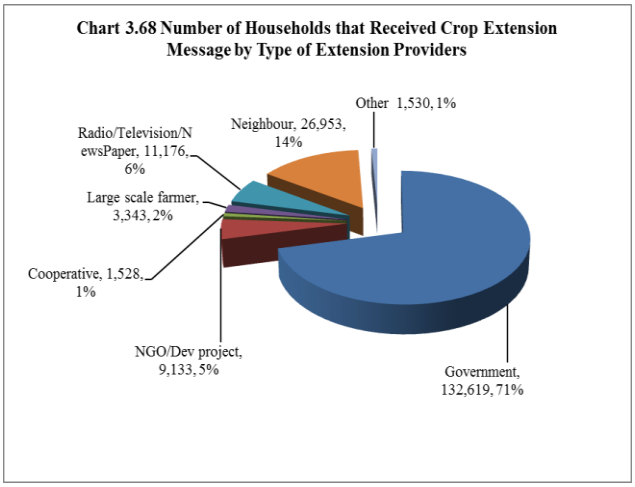
3.8 Access to Crop Extension Services

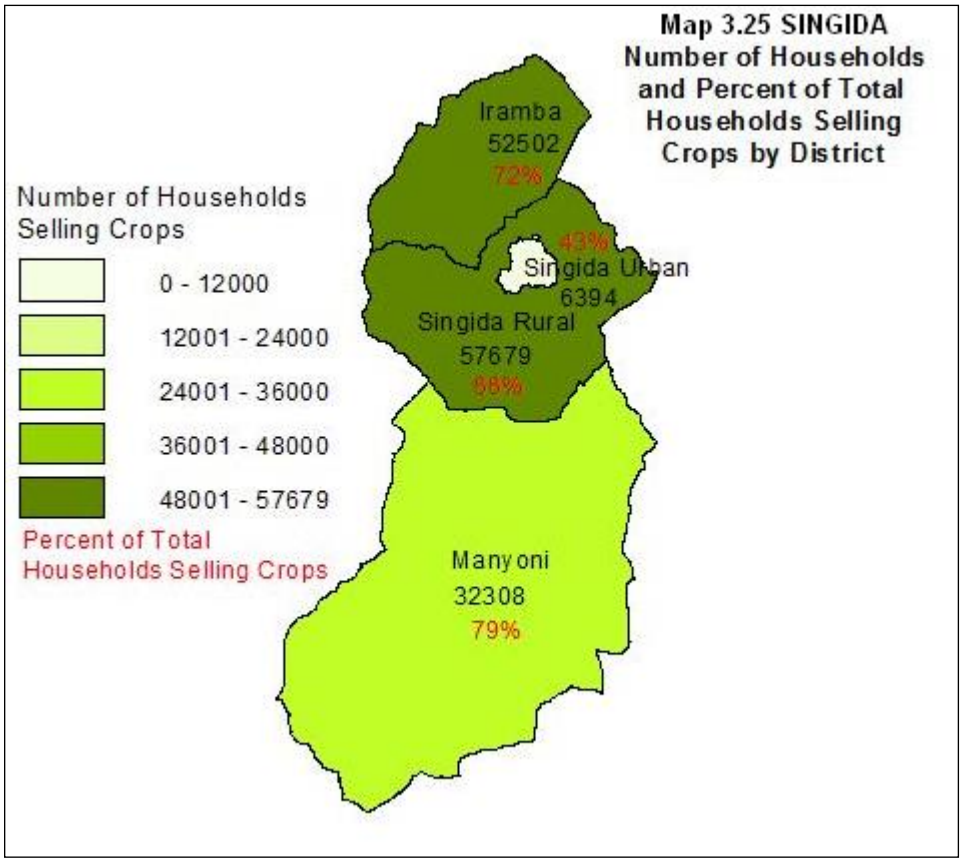
The number of agricultural households that received crop extension services was 142,800 or 66 % of the total crop growing households in the region (Chart 3.66). There were large variations between districts, in the number of agricultural households that received extension services. Extension services were provided most extensively in Iramba district reaching up to 95 % of the targeted households, followed by Singida Urban district (70%) and Manyoni (62%). However, Singida Rural district had the lowest percentage of households that received crop extension services (43%), (Chart 3.67 and Map 3.26). When the region was considered as a unit, extension services were provided to an average of 66 % of the total rural agricultural households.

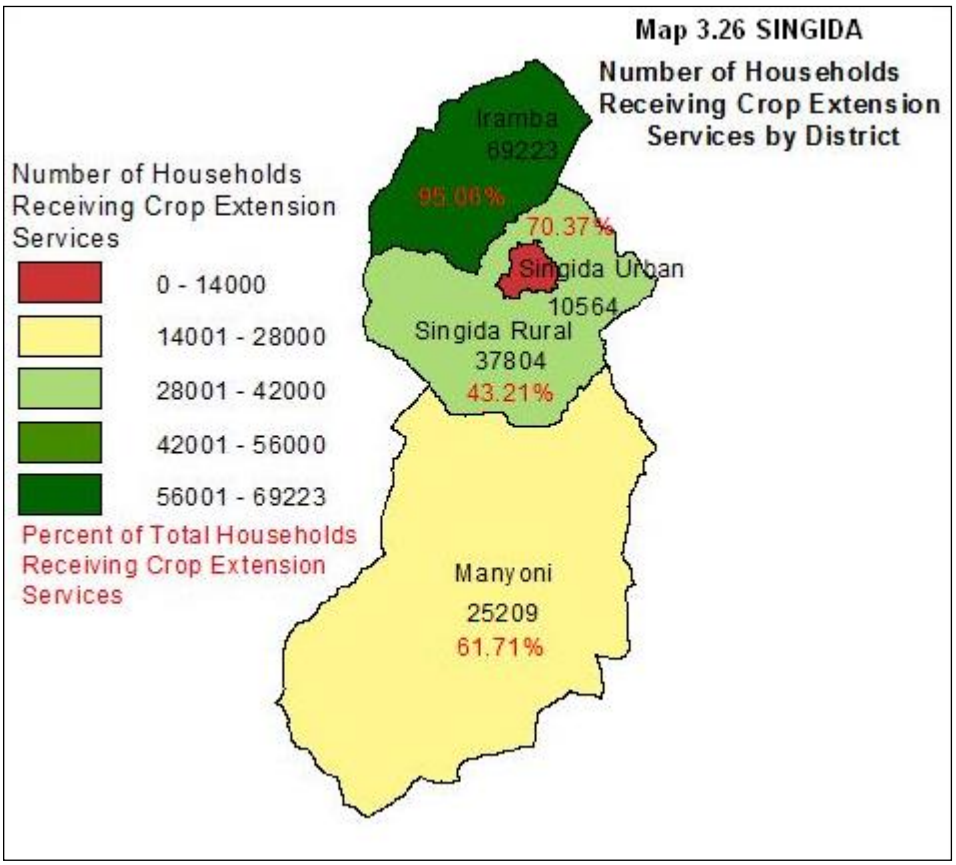


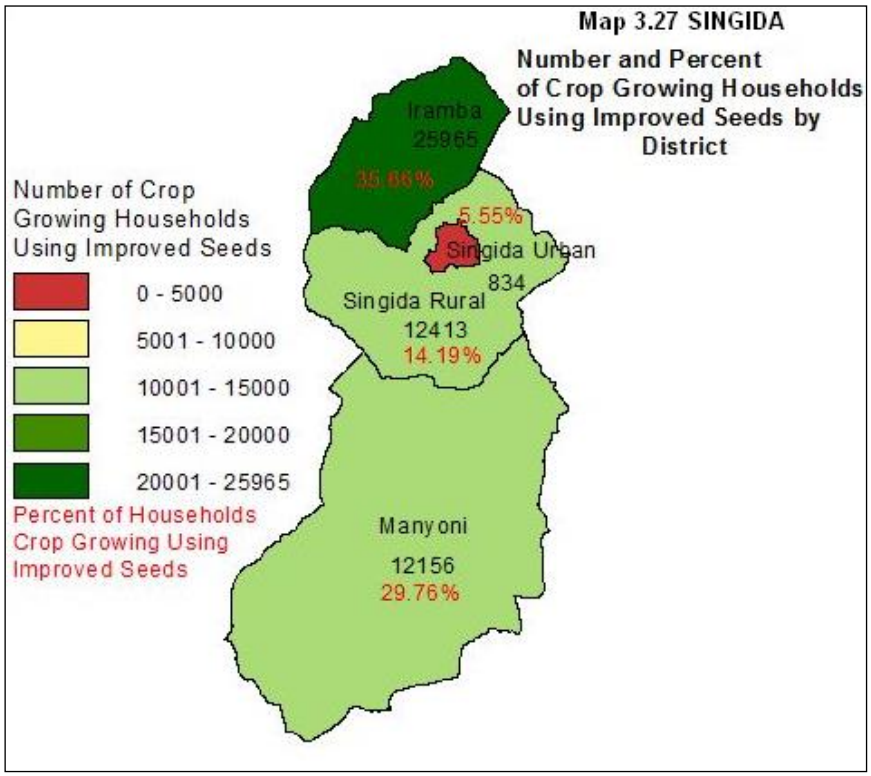
3.8.1 Source of Crop Extension Messages

Of the total households that received extension advices, the government provided. The greatest proportion (132,619 households, 93%), followed by neighbours (26,953 households, 19%), Radio/Television (11,178 households, 8%), NGO/Dev projects (9,133 households, 6%), large scale farmers (3,343 households, 2%) and cooperatives (9,133 households, 1%), Chart 3.68).




Map 3.25 SINGIDA
Number of Households and Percent of Total Households Selling Crops by District
Number of Households Selling Crops
0 - 12000
12001 - 24000
24001 - 36000
36001 - 48000
48001 - 57679
Percent of Total Households Selling Crops
Iramba
52502
72%
43%
Singida Urban
6394
Singida Rural
57679
88%
Manyoni
32308
79%


Map 3.26 SINGIDA
Number of Households Receiving Crop Extension Services by District
Number of Households Receiving Crop Extension Services
0 - 14000
14001 - 28000
28001 - 42000
42001 - 56000
56001 - 69223
Percent of Total Households Receiving Crop Extension Services
Iramba
69223
95.06%
70.37%
Singida Urban
10564
Singida Rural
37804
43.21%
Manyoni
25209
61.71%


Map 3.27 SINGIDA
Number and Percent of Crop Growing Households Using Improved Seeds by District
Iramba
25965
35.86%
5.55%
Singida Urban
834
Singida Rural
12413
14.19%
Manyoni
12156
29.76%
Number of Crop Growing Households Using Improved Seeds
0 - 5000
5001 - 10000
10001 - 15000
15001 - 20000
20001 - 25965
Percent of Households Crop Growing Using Improved Seeds

3.9 Agricultural Credits

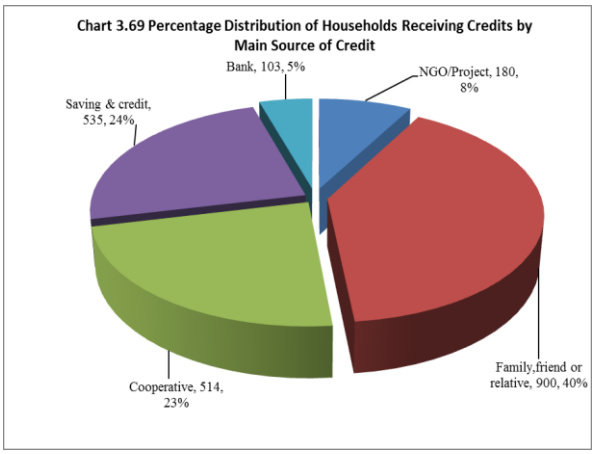
The census results show that, the region had very few agricultural households (3,275households, 1.5%) that accessed credits, out of which (2,345 households, 72%) were male-headed households and (930 households, 28%) were female-headed households. In Iramba, Singida Rural and Manyoni districts, only male-headed households accessed agricultural credits. Moreover, there was no household which received agricultural credit in Singida Urban district, (Table3.7).

Table 3.7 Number of Agricultural Households that Received Credits by Sex of Household Heads and District

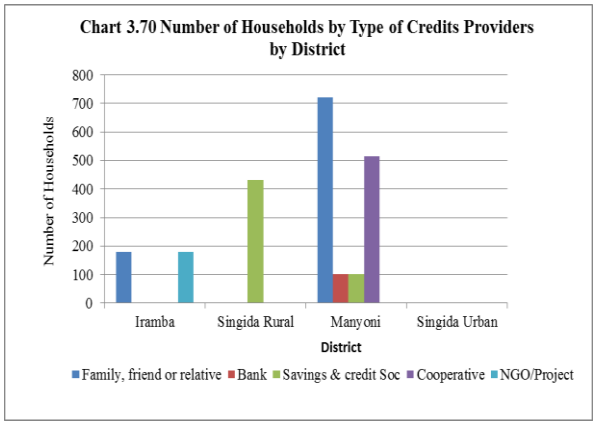
District	Male		Female		Total
	Number	%	Number	%	Number
Iramba	360	50	360	50	719
Singida Rural	648	100	0	0	648
Manyoni	1,338	72	514	28	1,852
Singida Urban	0	0	56	100	56
Total	**2,345**	**72**	**930**	**28**	**3,275**

3.9.1 Credit Sources

The major agricultural credit providers in the region were family, friends or relatives which provided credits to about 900 agricultural households (40% of the total number of households that accessed agricultural credits), followed by savings and credit SCCOS (24%), Cooperatives (23%) and NGO/Projects (8%).The banks provided the lowest proportion of agricultural credits to the households (5%), (Chart 3.69)



Access to agricultural credit was reported in all the districts except Singida Urban, (Chart 3.70). Family, friends and relatives and NGO/Projects were the only sources of credit in Iramba district, whereas savings and credits SACCOS was the major source of agricultural credits in Singida Rural district. In Manyoni district, households

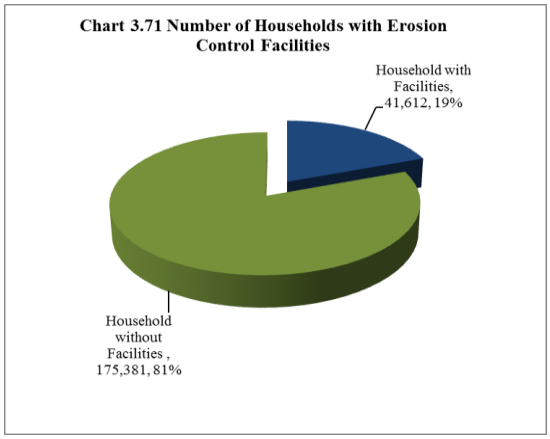


accessed credit through four credit providers namely; family, friends and relatives, savings and credit SACCOS, banks and cooperatives, (Chart 3.70).

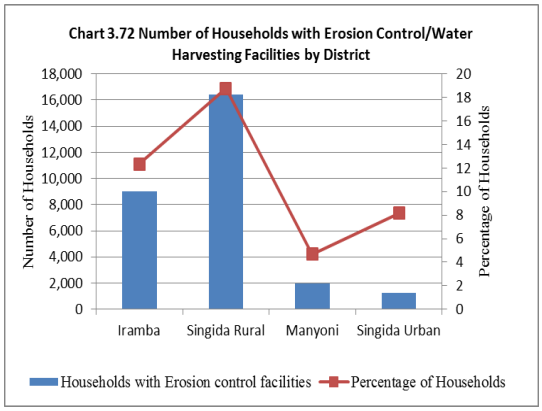
3.10 Soil Erosion Control and Water Harvesting Structures

3.10.1 Soil Erosion Control

Erosion control and water harvesting facilities are grouped together because they normally have dual purposes of reducing erosion and increasing the amount of water available for crop production. The number of agricultural households that had soil erosion control and water harvesting facilities on their farms was 41,612 households which representing 19 % of the number of agricultural households in the region, (Chart 3.71).

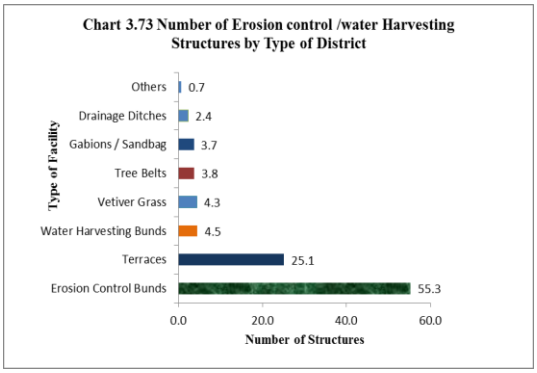


The proportion of households with soil erosion control and water harvesting facilities was the highest in Singida Rural with (16,416 households, 19% of the total agricultural households in the district) followed by Iramba (8,990 households, 12%), Singida Urban (1,223 households, 8%) and Manyoni (1,955 households, 5%), (Chart 3.72).



3.10.2 Erosion Control/Water Harvesting Structures

The most commonly used structures) for erosion control and water harvesting were erosion control bunds (108,018 structures, 55.3% of total number of structures constructed) followed by terraces (49,077 structures, 25.1%). Other minor soil erosion/water harvesting structures were constructed water harvesting bunds (4.5%), vetiver grass bands (4.3%), tree belts (3.8%), gabions/sandbags (3.7%) and drainage ditches (2.4%), (Chart 3.73).

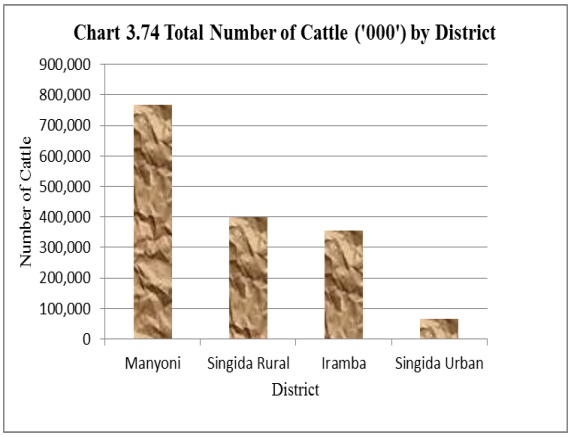


3.11 Livestock Results

This section presents results on livestock comprising of domesticated animals for the purpose of providing milk, meet, hides/skins and other products. The livestock types in the region included the following stock: cattle, goats, sheep, pigs and a small stock of chicken.

3.11.1 Cattle Population

A total of 1,588,837 herds of cattle were recorded in all the districts. Manyoni district had the largest cattle population (767,273, 48.3%) in the region followed by Singida Rural (400,510, 25.5%) and Iramba (356,005, 22.4%). Singida Urban had the lowest cattle population (65,049, 4.1%), (Chart 3.74 and Map 3.28).

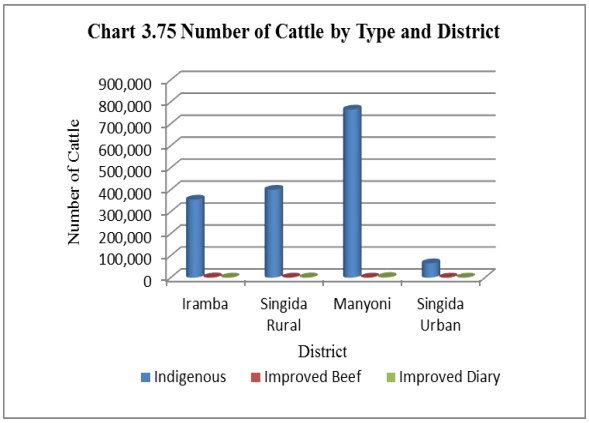


A total of 172,522 households were engaged in livestock production in the region of which 75,177 (43.5 %) were located in Singida Rural, 62,930 (36.5%) were in Iramba, 22,739 (13.2%) were in Manyoni and 11,676 (6.8%) were located in Singida Urban district.

3.11.1.1 Cattle Distribution by Type

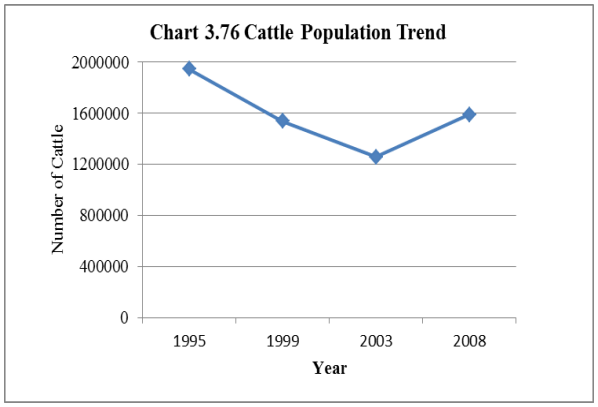
The largest proportion (99.7%) of the total cattle population in the region was the indigenous type. There were a small number of improved beef cattle populations of 1,115 distributed between Iramba (899, 80.6%) and Singida Rural (216, 19.4%). The number of improved dairy cattle was 3,409 cows equivalent to only 0.21 % of the total cattle population in the region.

The improved dairy cattle were in all the districts and most of them were located in Manyoni district (2,469, 72.4%). Other districts had the following population shares; Singida Rural (648, 19%), Iramba (180, 5.3%) and Singida Urban (111 3.3%), (Chart 3.75).



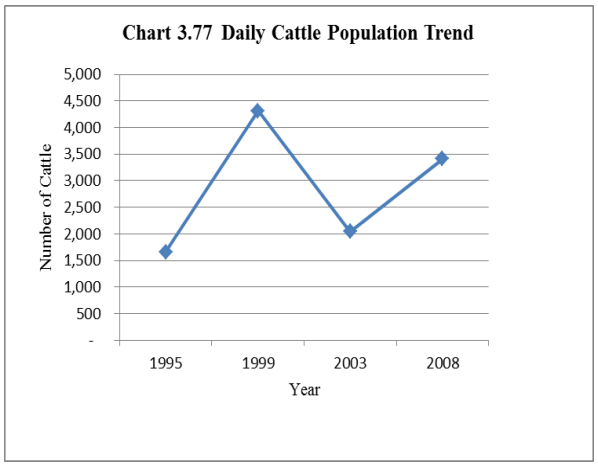
3.11.1.2 Cattle Population Trend

The census results have indicated a general downward trend in the cattle population by 23.1 % between 1995 and 2003 and 18.1 % between 1999 and 2003. For the period between 2003 and 2008, cattle population has increased by 20.9 % (from 1,257,159 in 2003 to 1,588,837 herds in 2008), (Chart 3.76).



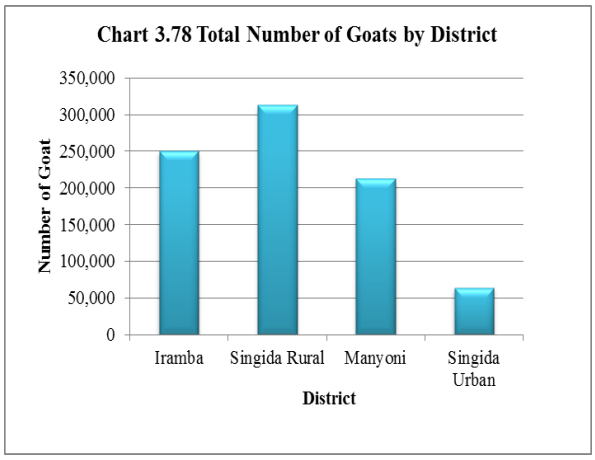
3.11.1.3 Improved Cattle Trend

The improved cattle population in the region was 4,524 (1,115 improved beef and 3,409 improved dairy) has been fluctuating over the years. Between 1995 and 2003, the improved cattle population increased by 159.6% (from 1,662 in 1995 to 4,314 herds in 1999), and then declined to 2,040 herds or by 52.6 % in 2003. However, the population started to increase again to 4.524 or by 61.8 % in 2008, (Chart 3.77).



3.11.2 Goat Production

The total goat (including dairy goats) population in the region was 839,169 distributed in all the districts, (Map 3.29 and Chart 3.78). The goat population included the improved goats for meat 206 (0.02%) and the dairy goats 3,705 (0.4%). The largest population was in Singida Rural (312,804 goats 37.3%), followed by Iramba (249,923 goats, 29.8%) and Manyoni (212,783 goats, 25.4%). Singida Urban had the lowest goat population (63,659 goats, 7.6%).

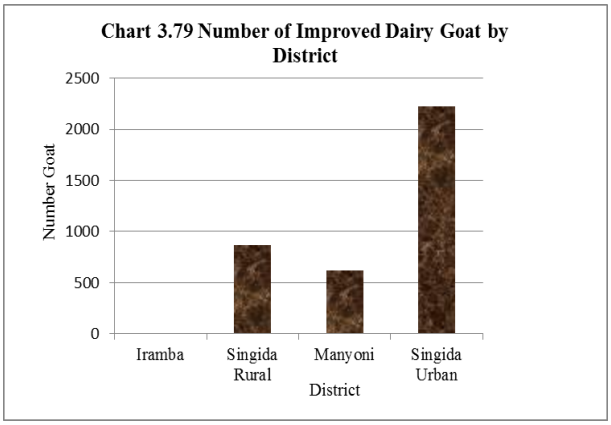


A total of 82,428 households raised goats; most of which 37,156, (45%) were concentrated in Singida Rural followed by Iramba 31,105 (38%), Manyoni 7,717(9%) and Singida Urban with the

least number of households (6,449, 8%). However, the goat density was the highest in Singida Urban with 2,103 goats per sq. km and the lowest in Manyoni district with 1,096 goats per sq. km.

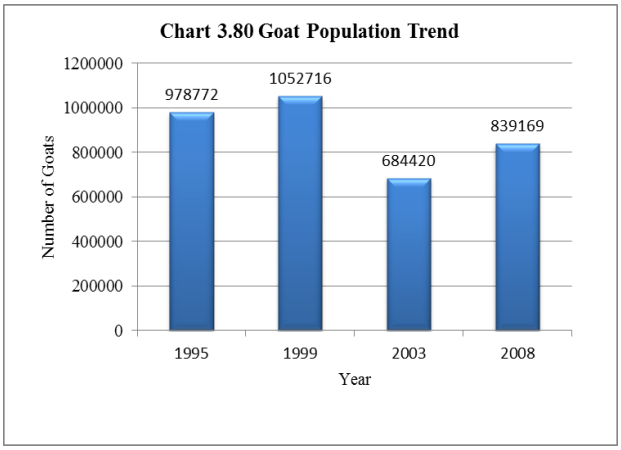
3.11.2.1 Improved Dairy Goat Production

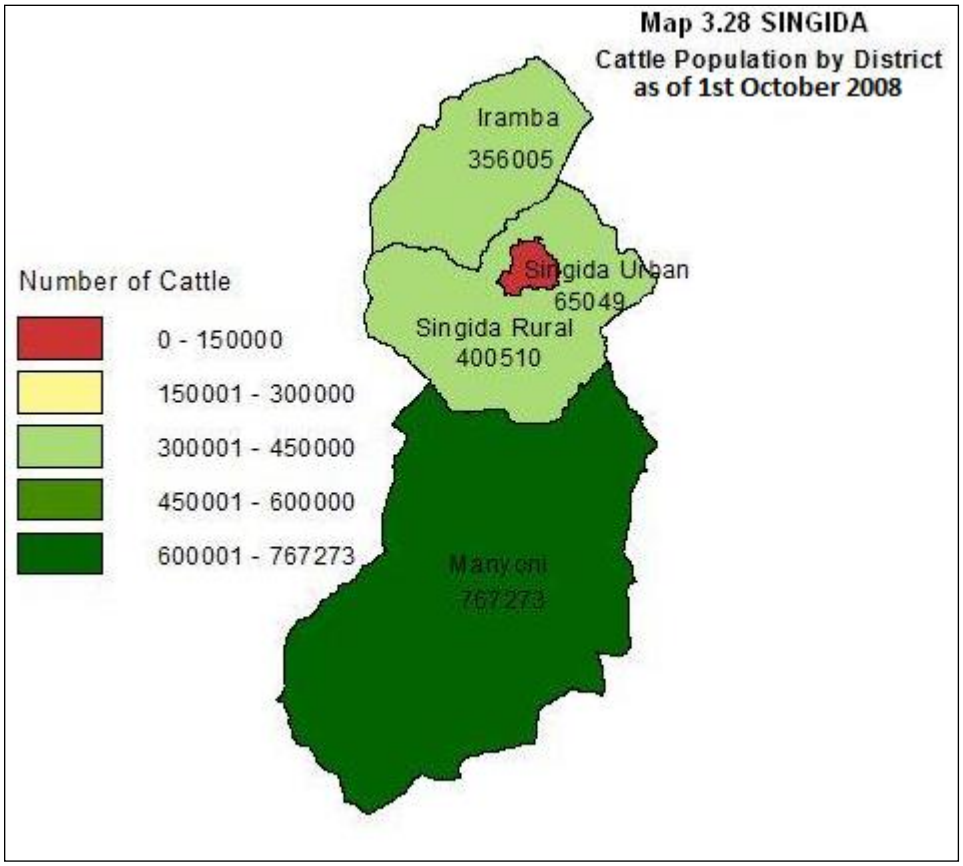
There were 3,705 dairy goats in the region most of which were in Singida Urban district (2,224 60%) followed by, Singida Rural (864, 23%) and Manyoni (63,559, 17%. There were no improved dairy goats in Iramba district, (Chart 3.79).

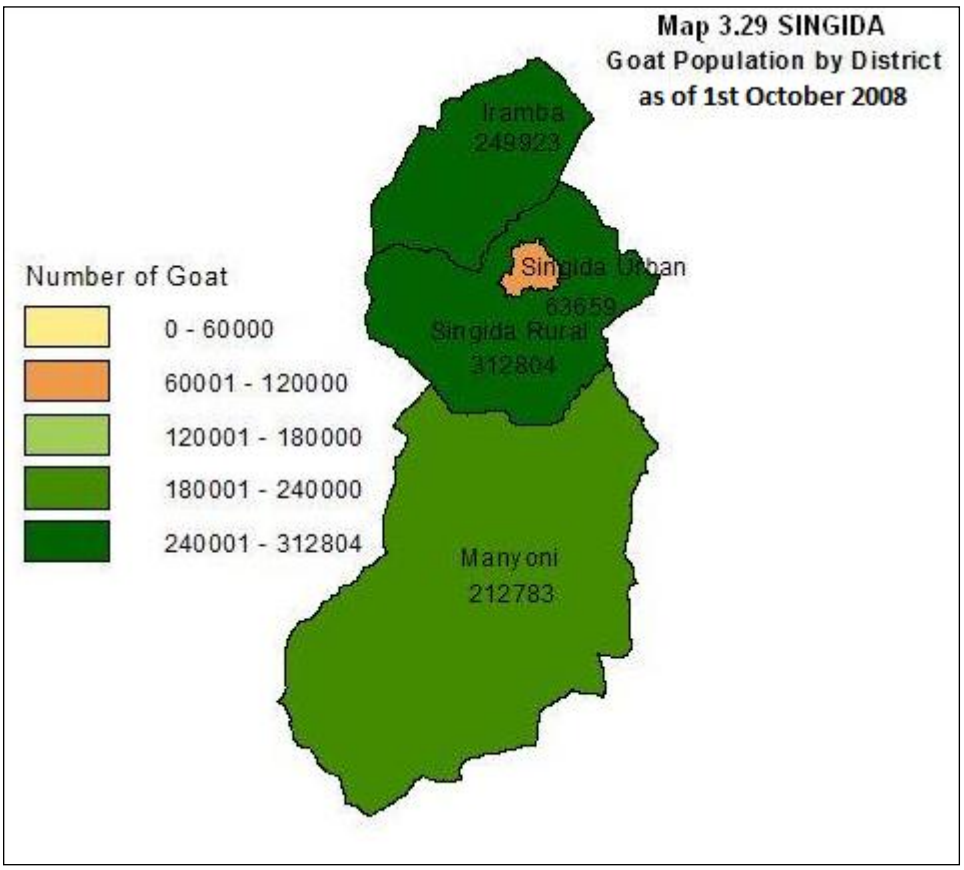


3.11.2.2 Goat Population Trend

The goat population increased by a small margin between 1995 when there were 978,772 goats as compared to 1999 when the number was 1,052,716 goats, an increase of only 7.5 %. Taking into account that the number of goats in 2003 was 684,420 and that of 2008 was 839,169, this gives a decrease of 35 % for the period 1999 to 2003 and an increase of 22.2 % between 2003 and 2008, (Chart 3.80).

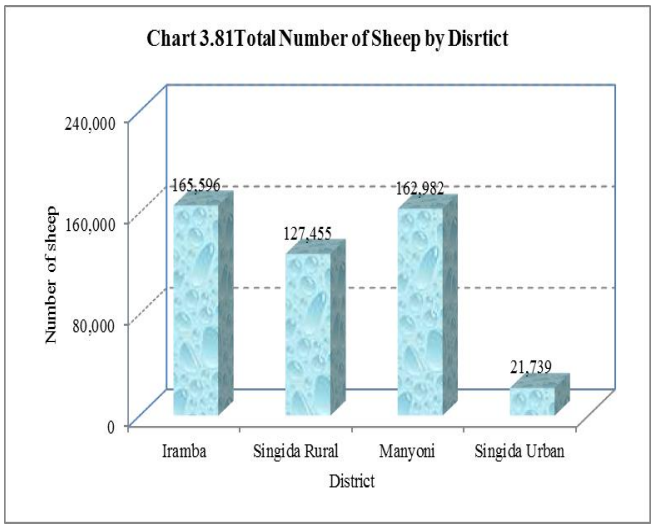



Map 3.28 SINGIDA
Cattle Population by District
as of 1st October 2008
Iramba
356005
Singida Urban
65049
Singida Rural
400510
Manyoni
767273
Number of Cattle
0 - 150000
150001 - 300000
300001 - 450000
450001 - 600000
600001 - 767273


Map 3.29 SINGIDA
Goat Population by District
as of 1st October 2008
Iramba
249923
Singida Urban
63659
Singida Rural
312804
Manyoni
212783
Number of Goat
0 - 60000
60001 - 120000
120001 - 180000
180001 - 240000
240001 - 312804

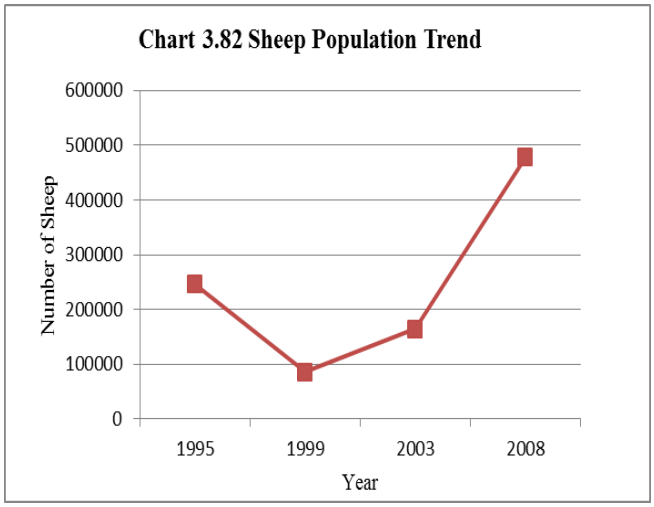
3.11.3 Sheep Production

Sheep were reared mainly in Iramba, Manyoni and Singida Rural districts, (Chart 3.81). Iramba district had the largest sheep population (165,596, 35 %) followed by Manyoni (162,982, 34 %) and Singida Rural (127,455, 27%). The lowest sheep population was in Singida Urban (21,739, 4.6%). Most of the sheep raised in the region were of the indigenous type. The sheep density varied between 597 sheep per sq. km to 841 sheep per sq. km, (Map 3.30).



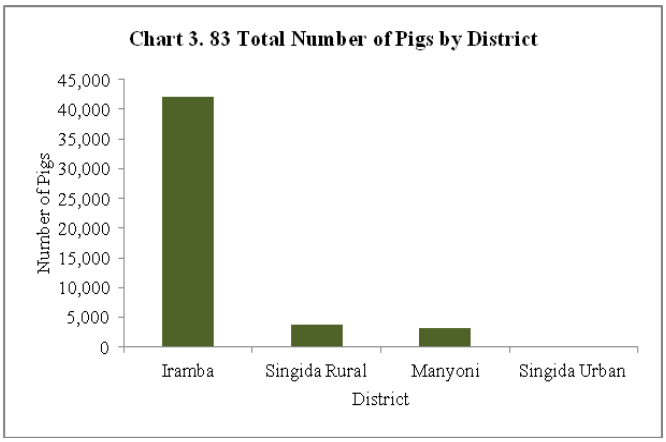
3.11.3.1 Sheep Population Trend

The sheep population trend was as follows: 1995 (246,263), 1999 (85,679), 2003 (164,209) and 2008 (477,772). Therefore, there has been a decline of about 65% for the period 1995 to 1999, an increase of about 92% for the period 1999 to 2003 and a substantial increase of 191 % between 2003 and 2008, (Chart 3.82). The trend from 1999 to 2008 indicates the increasing importance of sheep among the livestock raised in the region.



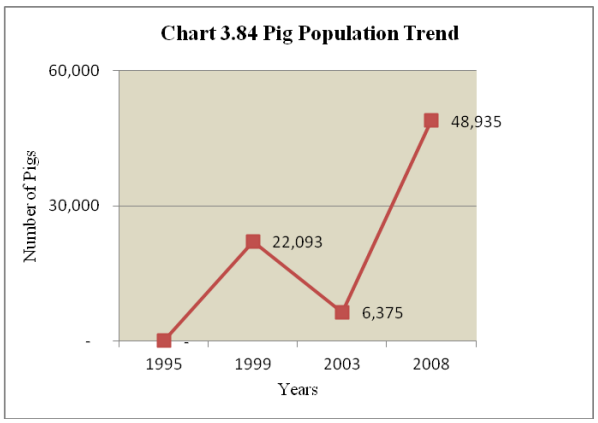
3.11.4 Pig Production

Pigs were reared in all the districts except Singida Urban. The total pig population was 48,935 most of which were in Iramba district (42,073, 86%) followed by Singida Rural (3,672, 7%) and Manyoni (3,190, 7%). However, Singida Urban district did not raise pigs, (Chart 3.83 and Map 3.38). The highest pig density was in Iramba district with 205 pigs per sq. Km.



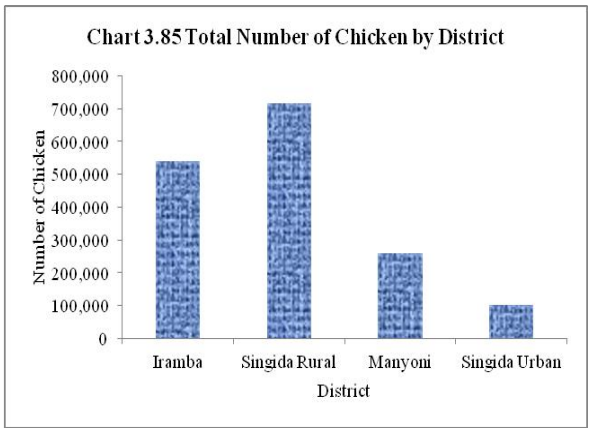
3.11.4.1 Pig Population Trend

The pig population for the period 1995 – 2008 was characterised by large fluctuations from one period to another. However, the largest increase in the pig population was recorded during the period 2003 to 2008, when the population increased from 6,375 in 2003 to 48,935 in 2008, (Chart 3.84).



3.11.5 Chicken Production

The chicken population in the region was 1,615,779 with, Singida Rural district having the largest number (717,202, 44.4%) followed by Iramba (539,761, 33.4%), Manyoni (257,850, 16%) and Singida Urban (100,966, 6.2%), (Chart 3.85 and Map 3.32). The chicken population was predominantly of the indigenous type.

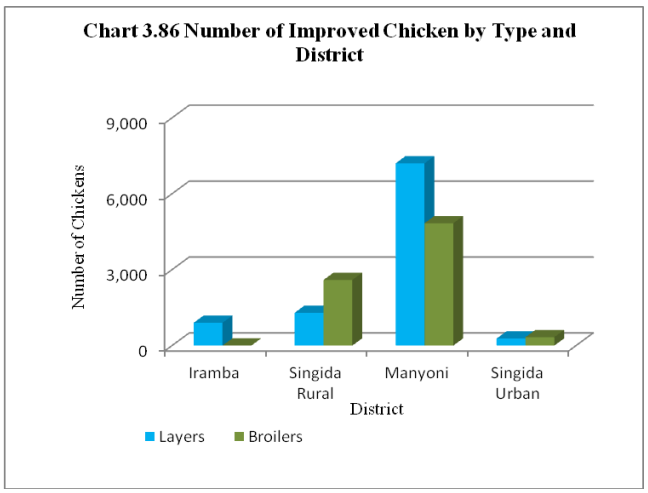


A total of 157,146 households were involved in chicken production of which 71,720 households or 45.6% were in Singida Rural, 55,738 (35.5%) households were in Iramba, 18,624 (11.9%) households were in Manyoni and 11,064 (7%) households were in Singida Urban district. However, chicken density was the highest in Singida Rural with 3,360 chicken per sq. km and the lowest in Manyoni district with 1,331 chicken per sq. km.

3.11.5.1 Improved Chicken

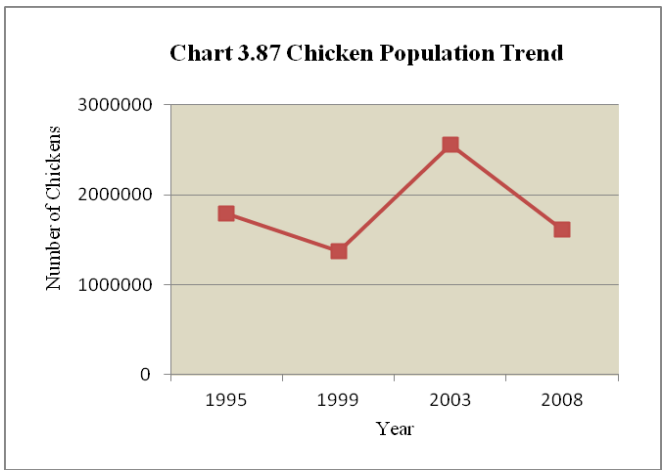
The region had a total of 17,438 improved chickens (layers and broilers), equivalent to 1.1 % of the total chicken population. The number of layers was 9,676 (55.5%) and that of broilers was 7,762 or 44.5 % of the total improved chicken, (Chart 3.75). Manyoni district had the largest number of both broilers (7,203, 62.3%) and layers (4,836, 74.4%). Singida Rural district had the second largest number of both broilers (2,592, 33.4%) and layers (1,296, 13.4%) of the respective improved chicken types in the region. However, the contribution of Singida Urban and Iramba districts to the total improved chicken population was either small or negligible, (Chart 3.86).

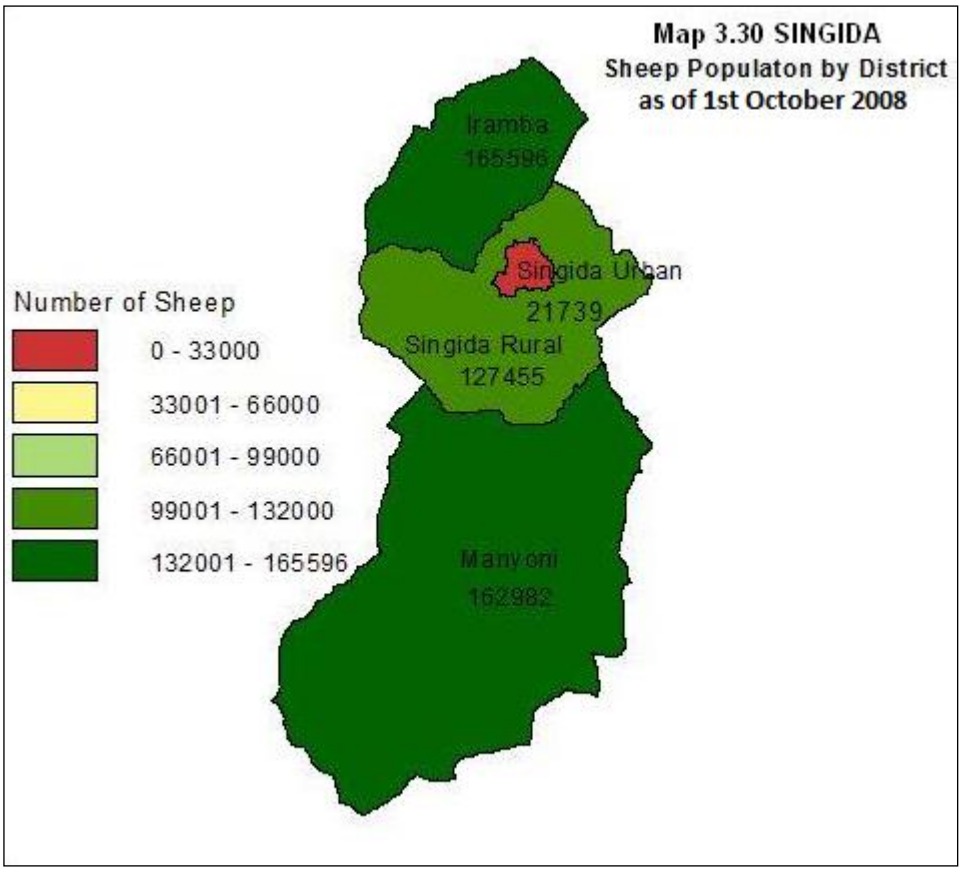
The total number households involved in keeping broilers was about 900 with Singida Rural having 432households, Manyoni 412 household and Singida Urban 56 households. There were no households which kept broilers in Iramba district. The total number of households involved in keeping layers was 816 with Manyoni having 309households, Singida Rural 216households, Iramba 180households and Singida Urban 111 households, (Chart 3.86).

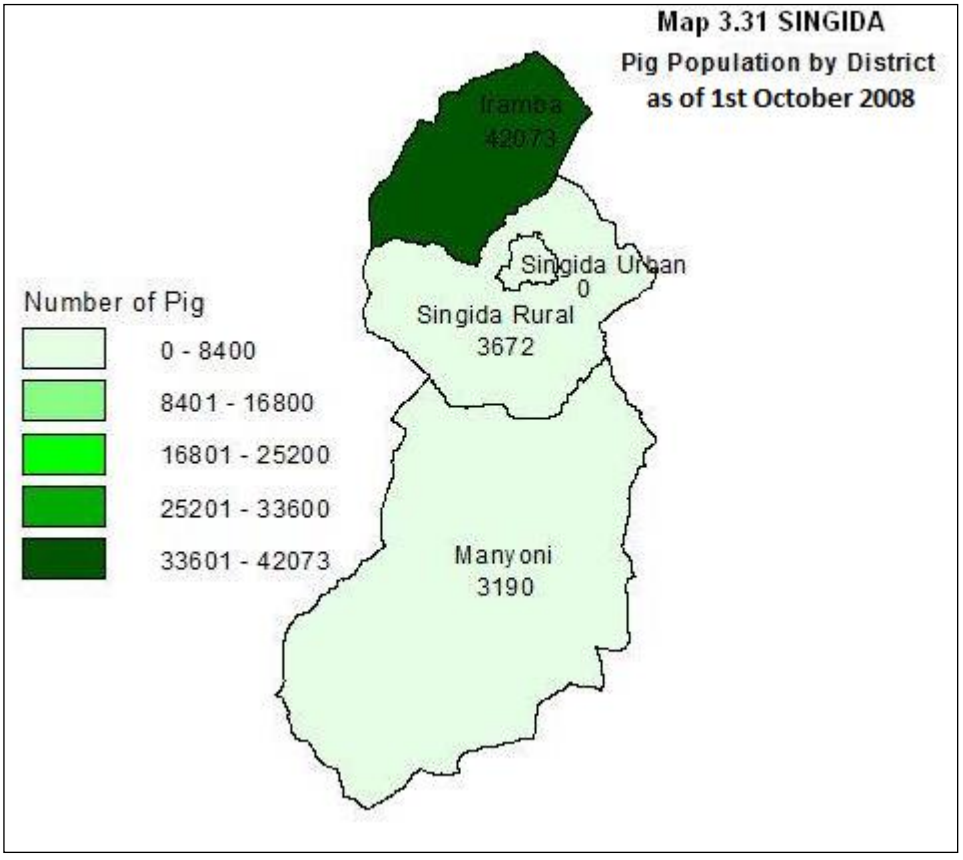


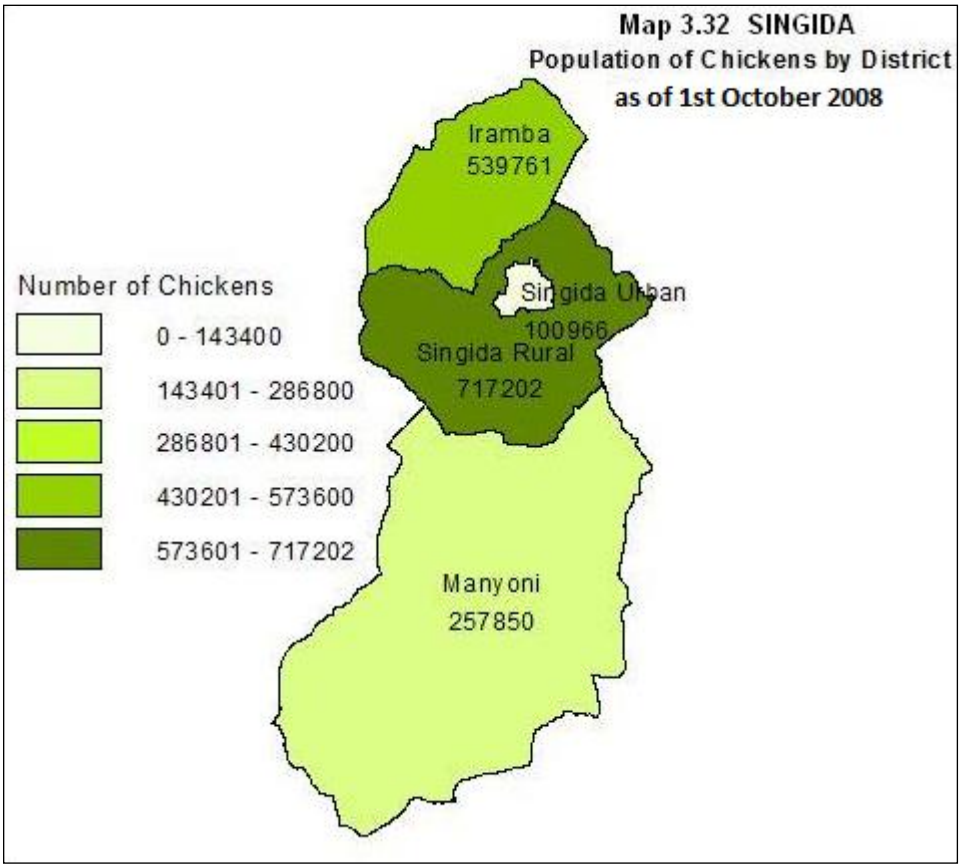
3.11.5.2 Chicken Population Trend

The chicken population trend in Singida region has remained relatively stable over the period 1999 to 2008 reflecting relatively minor changes but with a population above one million during the four census periods, (Chart 3.87). A significant increase in the total chicken population was recorded between 1999 and 2003 when the chicken population increased from 1,247,668 in 1999 to 1,658,178 in 2003, an increase of 33 % which was the highest chicken population recorded in the region during the period 1995 to 2008, (Chart 3.87).




Map 3.30 SINGIDA
Sheep Populaton by District
as of 1st October 2008
Iramba
165596
Singida Urban
21739
Singida Rural
127455
Manyoni
162983
Number of Sheep
0 - 33000
33001 - 66000
66001 - 99000
99001 - 132000
132001 - 165596

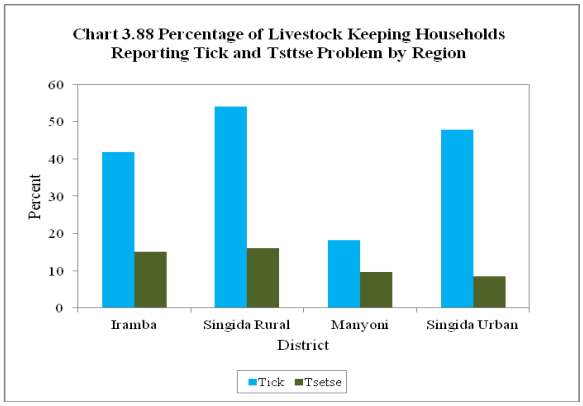

Map 3.31 SINGIDA
Pig Population by District
as of 1st October 2008
Iramba
42073
Singida Urban
0
Singida Rural
3672
Manyoni
3190
Number of Pig
0 - 8400
8401 - 16800
16801 - 25200
25201 - 33600
33601 - 42073


Map 3.32 SINGIDA
Population of Chickens by District
as of 1st October 2008
Iramba
539761
Singida Urban
100966
Singida Rural
717202
Manyoni
257850
Number of Chickens
0 - 143400
143401 - 286800
286801 - 430200
430201 - 573600
573601 - 717202

3.12 Livestock Diseases Pests Control

3.12.1 Incidences of Tick and Tsetse Flies

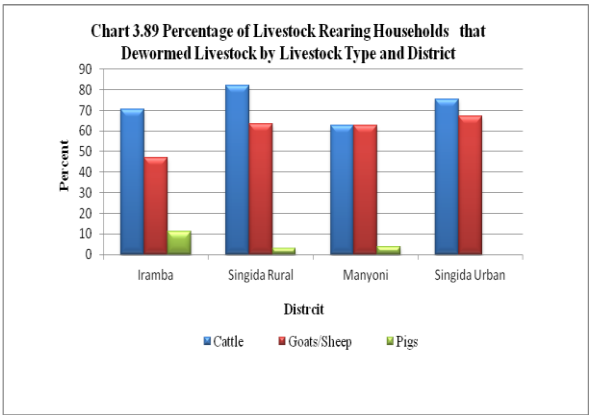
All the districts reported to have problem of tick-borne diseases and tsetse fly infestation. A total of 80,048 households or 43% of the total livestock keeping households reported tick borne problem and 26,161 (14%) households reported tsetse fly problem, (Chart 3.88 and Map 3.33).

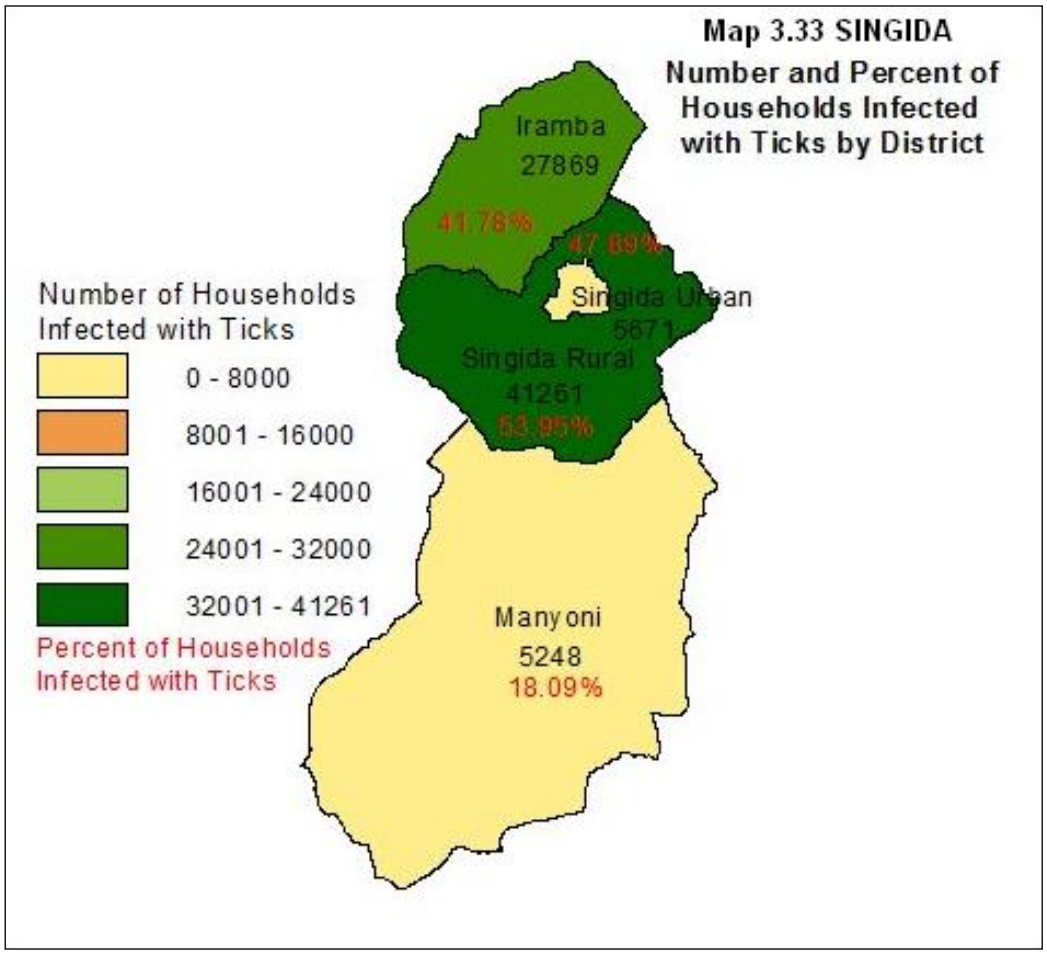


District wise, tick problems were reported by 54% of the livestock keeping households in Singida Rural, 48% in Singida Urban, 42% in Iramba and 18% in Manyoni district. Incidences of tsetse fly infestation were relatively less prevalent compared to tick-related problems. The highest recorded average of 16% was in Singida Rural and the lowest frequency of 8% was in Singida Urban district.

3.12.2 Livestock Deworming

Deworming of cattle, goats, sheep and pigs was reported in all the districts at varying proportions. The number of livestock rearing households that dewormed their livestock was 71,523 (39% of the total livestock rearing households in the region). The percentage of the households that dewormed their cattle was 82% in Singida Rural, 70% in Iramba, 75% in Singida Urban and 63% in Manyoni. Those which dewormed their goats/sheep were; Singida Urban (67%), Manyoni (63%), Singida Rural (61%) and Iramba (41%). The percentage of the households that dewormed pigs was 11% in Iramba, 4% in Manyoni, 3% in Singida Rural. However, de-worming of pigs was not practiced in Singida Urban district. Relatively, cattle were dewormed by the largest proportion of the households in all the districts followed by goats and sheep. Pigs were hardly dewormed, (Chart 3.89).

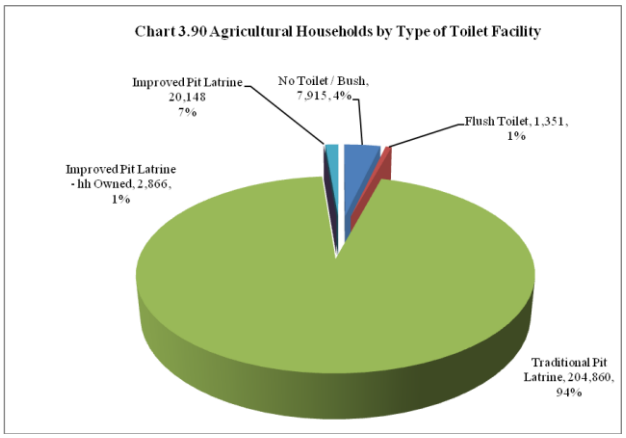



Map 3.33 SINGIDA
Number and Percent of Households Infected with Ticks by District
Iramba
27869
41.78%
47.89%
Singida Urban
5671
Singida Rural
41261
53.95%
Manyoni
5248
18.09%
Number of Households Infected with Ticks
0 - 8000
8001 - 16000
16001 - 24000
24001 - 32000
32001 - 41261
Percent of Households Infected with Ticks

3.13 Poverty Indicators

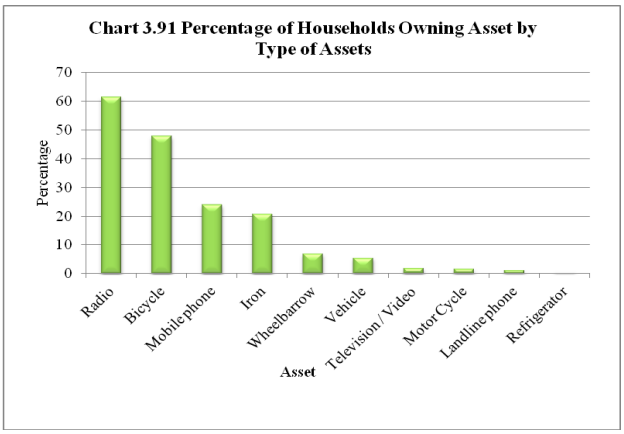
The analysis provided in this report relates to poverty indicators for agricultural households as captured in 2007/08 using proxies to help assist the process of tracking poverty levels throughout the country. This is part of implementation of MKUKUTA, a Poverty Reduction Strategy, and Tanzania Mainland.

3.13.1 Toilet Facilities



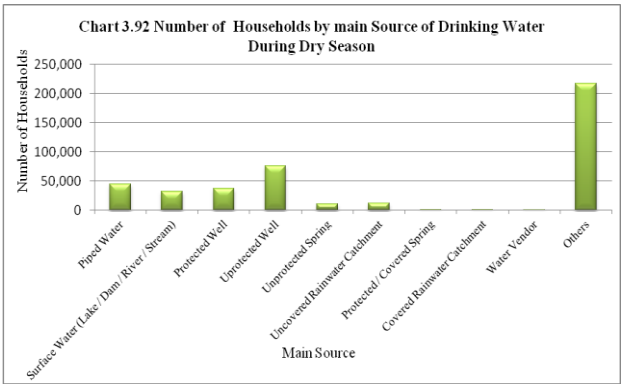
The majority of the agricultural households in Singida region used the traditional pit latrine (204,860, 94.4% of the sampled households) with a limited use of other types of toilet facilities. The improved pit latrine was used by 1.3 % of the households while the flush toilet was used by only 0.6 % of the households. The proportion of households that did not have toilet facilities at all was 3.6%, (Chart 3.90 and Map 3.34)

3.13.2 Household Assets



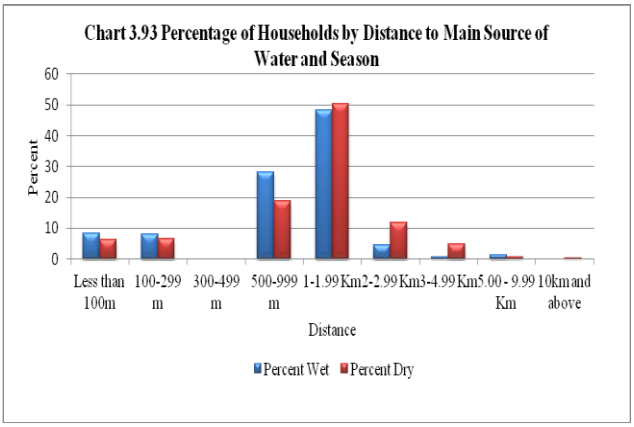
Most of the rural agricultural households (61.5%) owned radios followed by bicycles (48%), mobile phones (24.1%), iron (20.8%), wheelbarrows (7%), vehicles (5.6%), television/videos (1.9%), motorcycles (1.6%), landline phones (1.1%) and refrigerators (0.6%), Chart 3.91

3.13.3 Access to Drinking Water



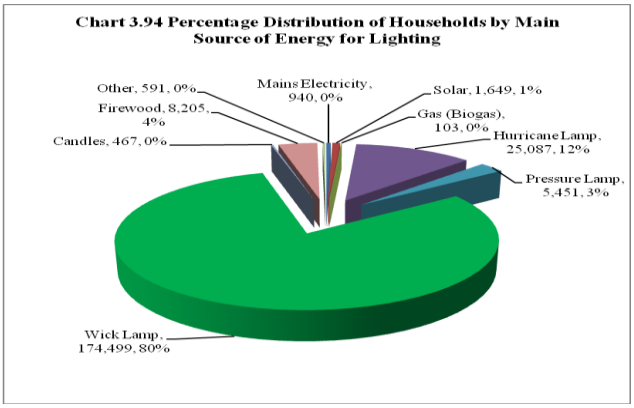
The main source of drinking water for the rural agricultural households was the unprotected well/spring (35%), followed by piped water (16.6%), protected well (16.1%) and surface water (such as dams or lakes) (18.6%). Very few households had access to drinking water from other sources, (Chart 3.92).

The distance to the main source of drinking water varied but for the majority (48%) of the households, the distance was between one and two kilometres followed by 500m up to a kilometre (28%). Very few households sourced their drinking water from a distance less than one kilometre or more than three kilometres, (Chart 3.93).



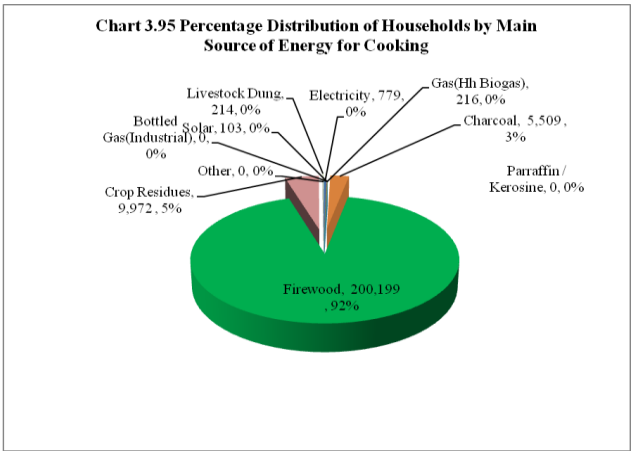
3.13.4 Sources of Energy for Lighting

Wick lamp was the most common source of energy for lighting used by 80.1% of the households in the region followed by hurricane lamp (11.6%), firewood (3.8%) and pressure lamp (2.5%). Other sources were of minor importance, (Chart 3.94).



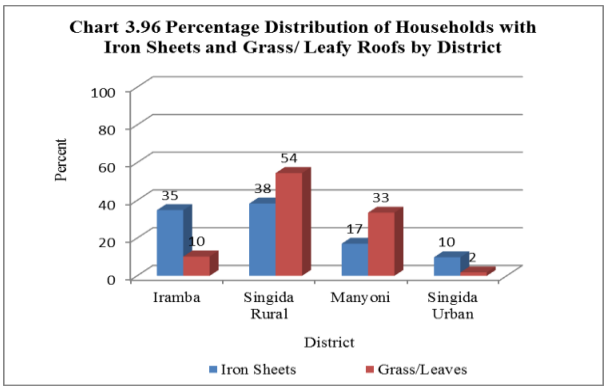
3.13.5 Sources of Energy for Cooking

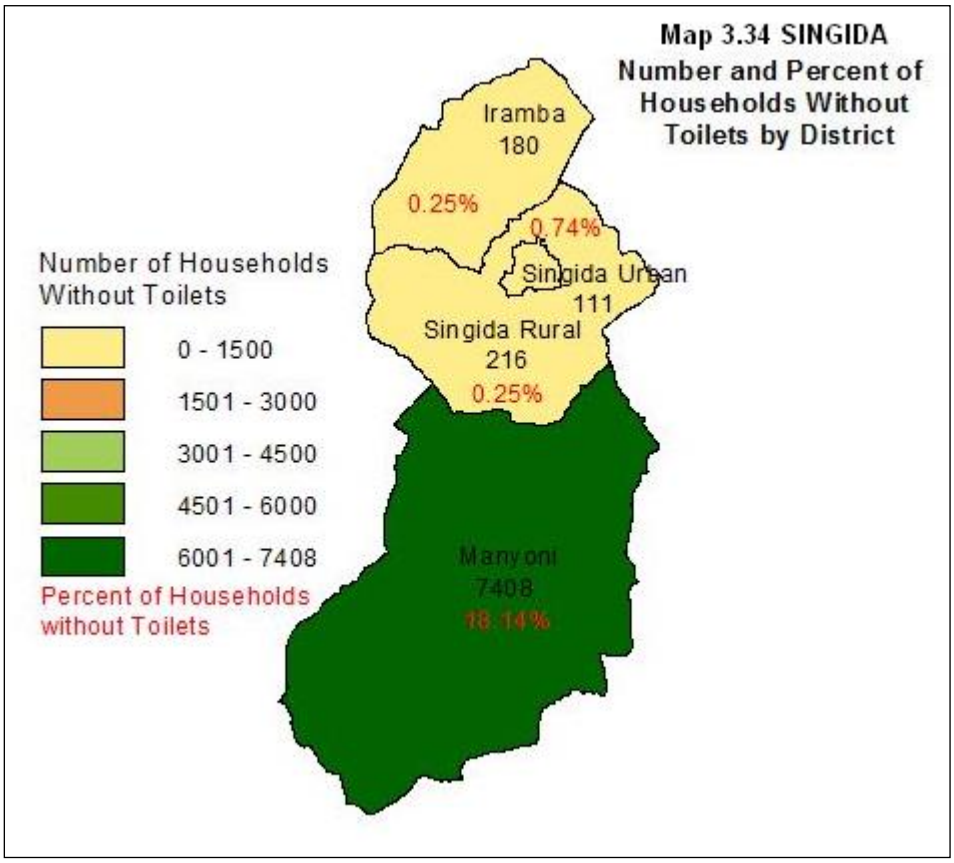
The most common source of energy for cooking was firewood used by 92.3% of the rural agricultural households in the region. The second common source was crop residues (4.6%) followed by charcoal (2.5%). Other sources were minor. (Chart 3.95)

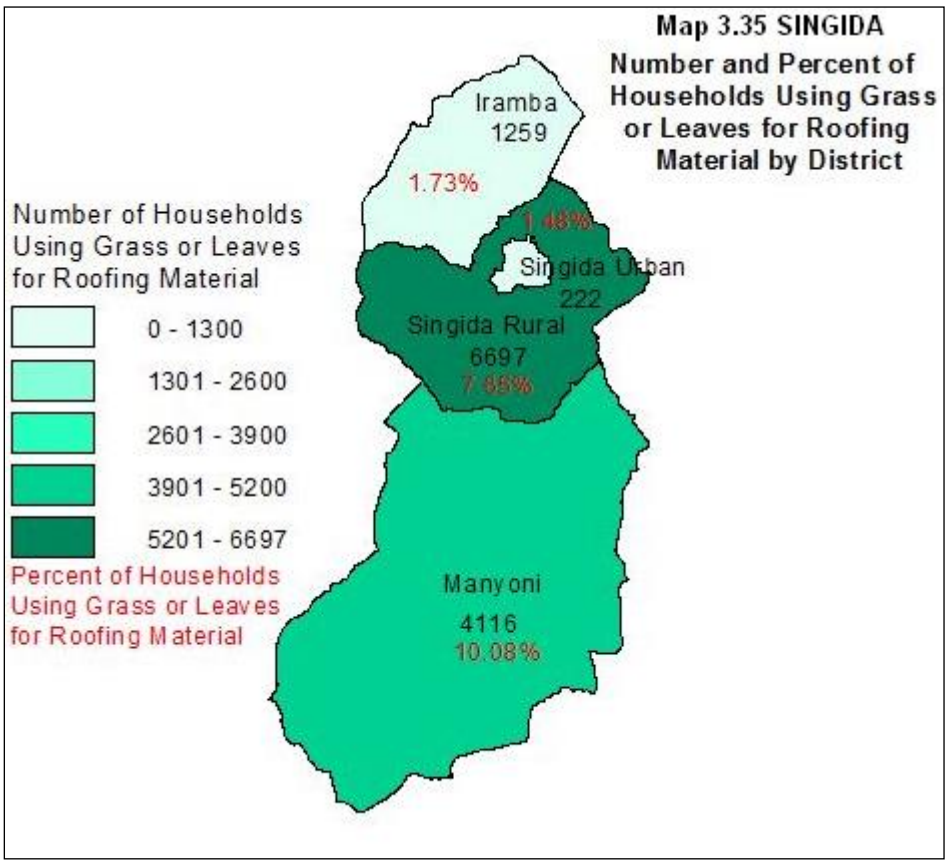


3.13.6 Roofing Material

Grass roofing was used in all the districts, by between 1.5% and 7.6% of the total households in the region (Chart 3.96). Singida Urban district had the lowest proportion of houses roofed with grasses or leaves (2.0%). The highest proportion (10.1%) of the households roofed with grass or leaves was in Manyoni district.



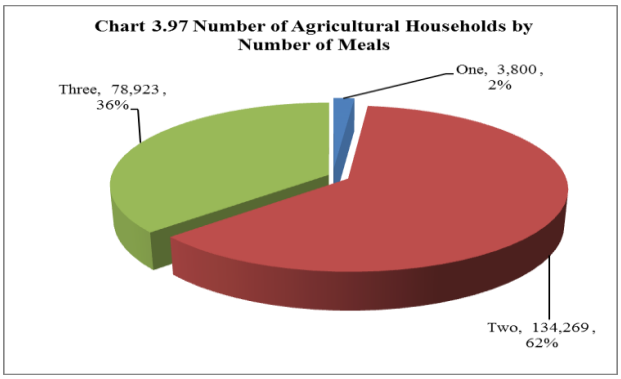

Map 3.34 SINGIDA
Number and Percent of Households Without Toilets by District
Iramba
180
0.25%
0.74%
Singida Urban
111
Singida Rural
216
0.25%
Manyoni
7408
18.14%
Number of Households Without Toilets
0 - 1500
1501 - 3000
3001 - 4500
4501 - 6000
6001 - 7408
Percent of Households without Toilets

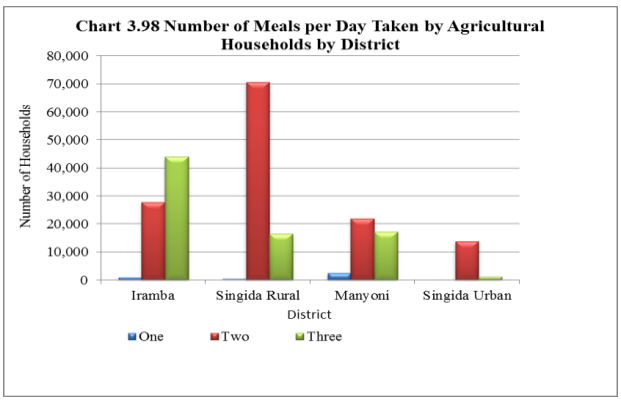

Map 3.35 SINGIDA
Number and Percent of Households Using Grass or Leaves for Roofing Material by District
Iramba
1259
1.73%
1.48%
Singida Urban
222
Singida Rural
6697
7.88%
Manyoni
4116
10.08%
Number of Households Using Grass or Leaves for Roofing Material
0 - 1300
1301 - 2600
2601 - 3900
3901 - 5200
5201 - 6697
Percent of Households Using Grass or Leaves for Roofing Material

3.14 Food Consumption Pattern

3.14.1 Number of Meals per Day

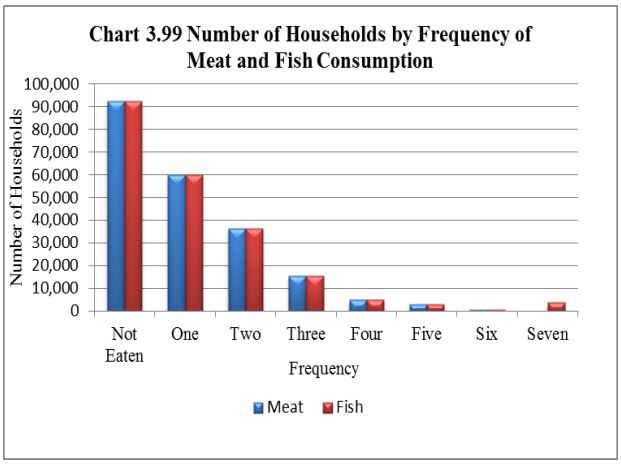
On average, the majority (62%) of the households in the region took two meals per day and 36 % of the households took an average of three meals per day. A relatively small proportion (2%) survived on one meal per day, (Chart 3.97). The number of households that took one meal per day was the smallest in all the districts but there were some variations between districts on other meal frequencies. District wise, the number of meals taken by the majority of the households was three per day in Iramba district and two per day in other districts, (Chart 3.98 and Map 3.36).





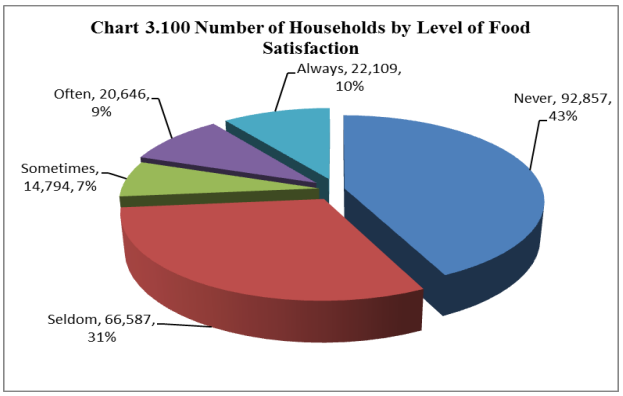
3.14.2 Meat and Fish Consumption Frequency

The frequency of consumption of meat and fish was almost similar in all the districts. Relatively, a large number of households (about 90,000) did not eat meat or fish at all. Those which consumed meat or fish once a week were about 60,000 households, (Chart 3.99). However, the proportion of households that ate meat once a week was the same as that of the households that ate fish once a week in the respective districts. The percentages ranged between 17.4% in Manyoni to 32.4% in Iramba district, (Maps 3.37 and 3.38).



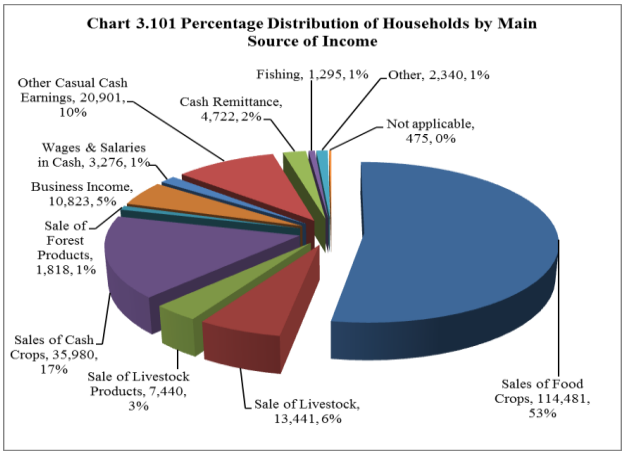
3.15 Food Security

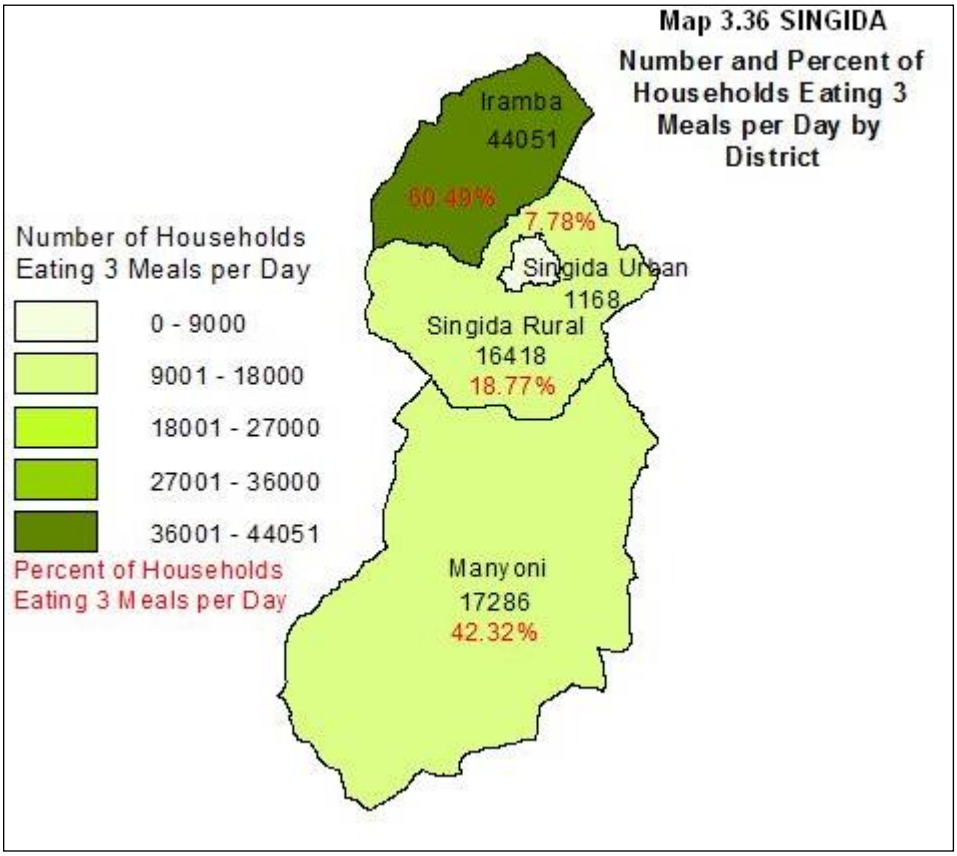
The status of household food sufficiency at different times of the agricultural year is used in this report, as a proxy for food security status. The percentage of households that reported to have never experience food satisfaction was 43%, followed by those who reported to seldom experience food satisfaction (31%), and those who always experience the problem of satisfying food (10%). The percentage of those who often or sometimes have the problem of food satisfaction was 9 and 7 respectively, (Chart 3.100).

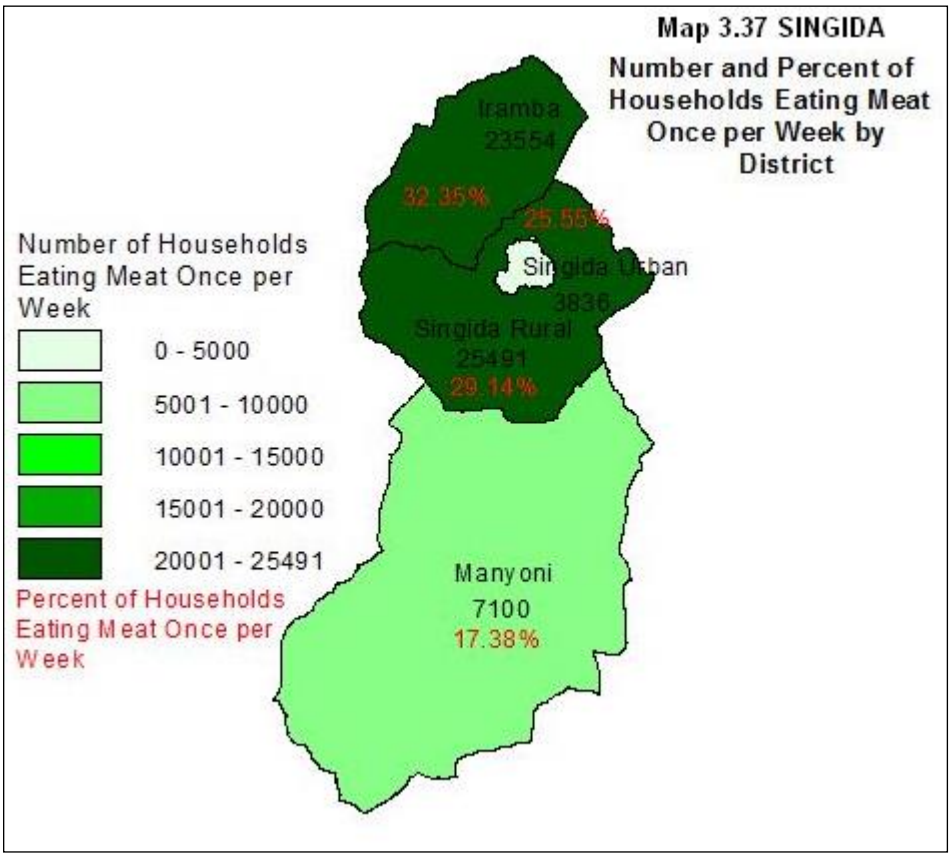


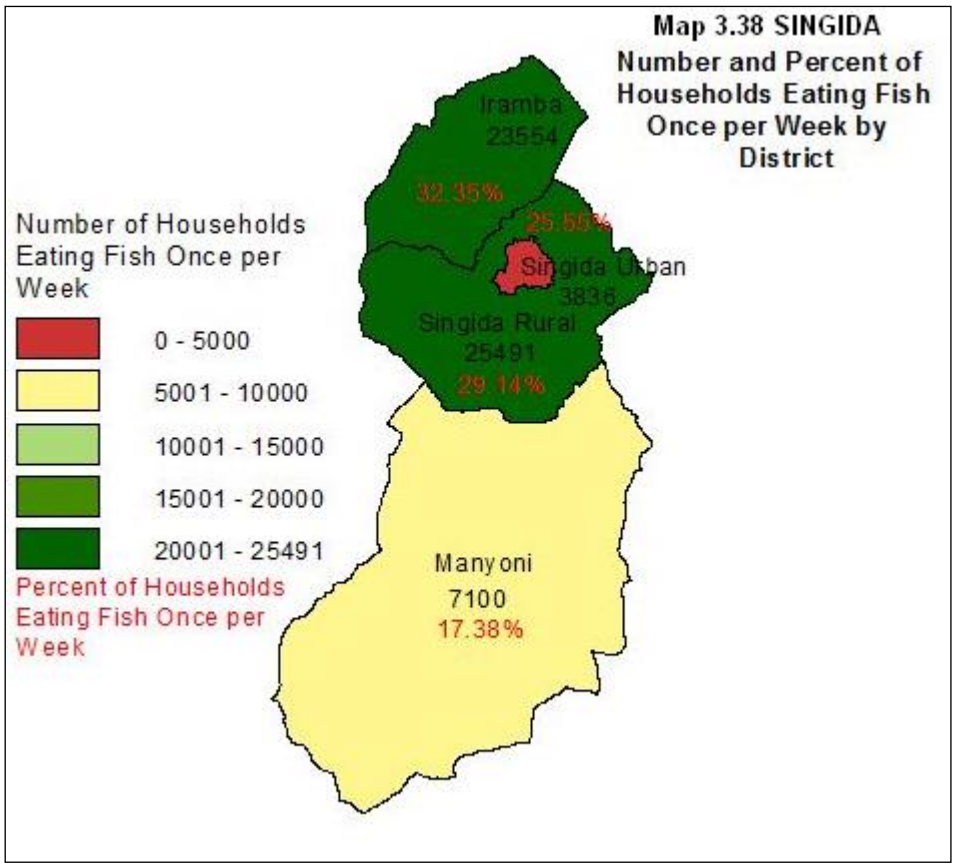
3.16 Sources of Cash Income

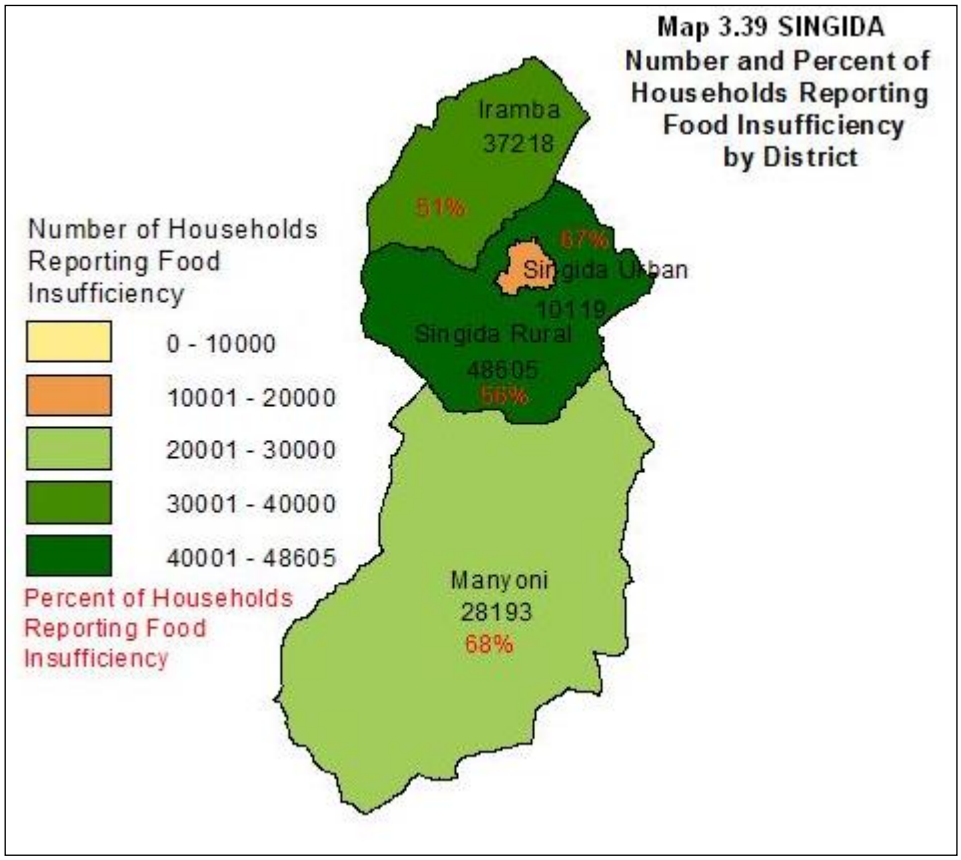
The main source of cash income for most of the rural households in the region was the sale of food crops (52.8%) followed by sale of cash crops (16.6%), other casual cash earnings (9.6%), sale of livestock (6.2%), business income (5%), sale of livestock products (3.4%), cash remittance (2.2%). Wages and salaries category had only 1.5 % of the rural households. Other sources were minor, (Chart 3.101).




Map 3.36 SINGIDA
Number and Percent of Households Eating 3 Meals per Day by District
Iramba
44051
60.49%
7.78%
Singida Urban
1168
Singida Rural
16418
18.77%
Manyoni
17286
42.32%
Number of Households Eating 3 Meals per Day
0 - 9000
9001 - 18000
18001 - 27000
27001 - 36000
36001 - 44051
Percent of Households Eating 3 Meals per Day


Map 3.37 SINGIDA
Number and Percent of Households Eating Meat Once per Week by District
Iramba
23554
32.35%
25.55%
Singida Urban
3836
Singida Rural
25491
29.14%
Manyoni
7100
17.38%
Number of Households Eating Meat Once per Week
0 - 5000
5001 - 10000
10001 - 15000
15001 - 20000
20001 - 25491
Percent of Households Eating Meat Once per Week


Map 3.38 SINGIDA
Number and Percent of Households Eating Fish Once per Week by District
Iramba
23554
32.35%
25.55%
Singida Urban
3836
Singida Rural
25491
29.14%
Manyoni
7100
17.38%
Number of Households Eating Fish Once per Week
0 - 5000
5001 - 10000
10001 - 15000
15001 - 20000
20001 - 25491
Percent of Households Eating Fish Once per Week


Map 3.39 SINGIDA
Number and Percent of Households Reporting Food Insufficiency by District
Iramba
37218
51%
67%
Singida Urban
10119
Singida Rural
48605
56%
Manyoni
28193
68%
Number of Households Reporting Food Insufficiency
0 - 10000
10001 - 20000
20001 - 30000
30001 - 40000
40001 - 48605
Percent of Households Reporting Food Insufficiency

4 DISTRICT PROFILES

The following district profiles highlight the characteristics of each district and compare them in relation to population, main crops and livestock, production and productivity, access to services and resources and levels of poverty.

4.1 Iramba

Iramba district had the second largest number of agricultural households (72,819) in the region and had the third highest density of agricultural households in the region. About 61.2% of the households in the district (44,591) were engaged in mixed crop and livestock farming as the main activity though most of them (53%) consider crop farming as the main activity. The female population was more prevalent in the younger age bracket of 26-39 while the male population was more prevalent in the older age brackets of 50-54, and 75-84 years. The average literacy rate in the district was 73.5% and had the lowest proportion of the population in the region (42%) of persons aged 5 years or older, that completed school.

The district had the second largest usable land area (204,223 ha, 31.9% of the 639,999 total usable land in the region). The district had the second largest usable land area per household (2.4 ha/household). Iramba district had a planted area of 192,521 ha (35.4% of the total 544,565 ha planted area in the region) with a land utilization rate of 94%, which was the highest in the region.

All annual crops are planted during the long rainy season. Iramba is a major maize production district in the region with 38.8% of the total area planted with maize and has the largest proportion of households (38.6%) growing the crop in the region. The district is also the second most important area for bulrush millet production and the third in paddy production.

Iramba district had the largest area, in the region, planted with sunflower (52,793 ha, 53.1%) and the second most important district for groundnut production. In other crops, the district had the second largest area planted with beans (2,155 ha, 33.6%) and had the highest yields averaging at 2 t/ha. For other pulses, Iramba had the second largest proportion of area planted with chick peas in the region (45.3%) and bambaranuts were planted to a much lesser extent compared to other districts.

Iramba was the leading district in the area planted with sweet potato (37.5% of the planted area), with sweet potato productivity (3.0 t/ha), and had the largest production (41.3%) of the total harvested sweet potatoes. In the case of fruits and vegetables, Iramba had the second largest

planted area per household (0.4 ha), after Singida Rural, and tomato was the major vegetable crop which accounted for 48.2% of the total area planted with tomatoes in the district.

For other annual crops, Iramba district was the major producer of cotton, out of the two districts producing the crop in the region, with 75.4% of the planted area, 57.6% of the households growing the crop and 85.8% of the total harvested seed cotton.

Iramba district accounted for 23.2% of the households that planted permanent crops in the region, with an average planted area per household of 0.81 ha. The district accounted for the largest area planted with mango (50.2%) and was the third in the area planted with banana (21.1%).

The district was leading in the use of animal-drawn equipment using both castrated and uncast rated bulls. The district was also a leading in the use of ox-carts using donkeys. Iramba district had the second largest planted area (19,692 ha, 36.1%) applied with organic fertilizers in the region but had the smallest proportion of the planted area (0.52%) under irrigated farming , Tap water was the main source of irrigation, and other sources were rivers and canals.

The district practiced crop storage and majority of the households used locally made structures sacks or open drums. About 62% of the agricultural households sold crops to generate cash and the major challenge faced by 70% of the households was the low price in the open market. Family, friends and relatives were the only sources of credit in the district.

About 95% of the households, received extension services, the highest level in the region. The district had the largest area planted with improved seeds (49.8% of the total area planted) in the region.

Iramba district had the largest planted area applied with insecticides (46.9%) and the third largest planted area applied with fungicides (23.0%). However, herbicides were hardly applied in this district

About 8,990 households (12.3% of the households with water harvesting structures in the region) were in Iramba district, there were no households with planted trees in the district.

The district had the third largest cattle population (356,005, 22.4%) after Manyoni and Singinda Rural Cattle density was the lowest in the region. Most of the cattle in the district were of the indigenous type for milk and beef. Iramba district had the largest number of sheep (165,596, 34.7%) and pig population (86%) in the region. The district also had the second largest proportion of goats (29.8%) and chicken (33.4%) in the region. However, broiler chickens were not kept in the district.

With regard to livestock diseases, Iramba district was the third in tick-related incidences reported by 42% of the cattle owning households and second in tsetse related problems reported by 15% of the livestock keeping households. The district had the highest level of deworming chicken (11%); was third highest in the region in deworming cattle (70%) and at the lowest level for goats and sheep (47%).

The majority of agricultural households in the district used the traditional pit latrines and only about 0.25% of the households had no toilets, unprotected wells were the major sources of drinking water (35.2%) followed by piped water (20.8%). Roofing of houses is mostly corrugated iron sheets with only about 1.73% using grasses or leaves for roofing. The majority of the households (60.5%) took three meals per day and the district had the highest proportion of the households eating meat or fish at least once a week (32.4%) compared to all other districts. Iramba was the most food secured district having the lowest proportion of households (51%) which reported food insufficiency.

4.2 Manyoni

Manyoni district had the third largest number of agricultural households (41,671) and the least density of agricultural households in the region (211 households/sq. km). Manyoni was the only district in the region with livestock-only households (617) as well as pastoralist households (206). About 28% of the households in the district were engaged in mixed crop and livestock farming as the main activity though most of them (72%) had crop farming as the main activity. The female population was more prevalent in the younger age bracket of 26-39 while the male population was more prevalent in the older age brackets of 50-54, and 75-84 years.

Manyoni district had the lowest literacy level (71%) and the lowest proportion of the population attending school (29%) but had the largest proportion of households (11.5%) able to read and write in both Kiswahili and English and the highest literacy rate (21%) for female heads of household

Manyoni had the third largest usable land in the region (192,870 ha, 30.1%) and accounted for 25.6% of the total planted area (544,565 ha) in the region. The district had the largest usable land area available to households (3.7 ha/household) and maintained a land utilization rate of about 72%, the lowest in the region.

All annual crops were planted during the long rainy season. The land area planted per household was (2.4 ha/household), second to Iramba district. Manyoni was the third most important district for maize production (41,472 ha, 27.6%) with 31,485 households (21.9%) involved in maize production and the third most important area for bulrush millet production. In paddy production, Manyoni was the second most important district (3,292 ha, 25.2%), after Singida Rural, but the production of bulrush millet was on a limited scale representing about 9.9% of the total area planted with bulrush millet in the region.

For oil seed and oil nut crops, sunflower was planted on about 8% of the total planted area in the district with an average planted area of one hectare per household, However, productivity of sunflower in the district (0.52 t/ha) was the lowest in the region. On the other hand, the district had the largest proportion of district land planted with groundnuts 6.5% in the region and accounted for the largest area planted with groundnuts (9,105 ha, 58.6%) of the total area planted with groundnut, in the region.

Manyoni district had the largest area planted with beans (92,910 ha), equivalent to 45.3% of the total area planted with beans but growing households planted small areas (0.42 ha/hh), the smallest in the region. Manyoni district also had the largest area planted with chick peas (51.3% of the total area planted with chick peas) and the largest planted area per household (3.71 ha/hh).

Manyoni district had the largest proportion (84.4%) of the total area planted with cassava by 11.6% of the growing households in the region. The district had 35.9% of the total area planted with sweet potato.

The district did not make much contribution in the planting and production of fruit and vegetable crops. For other annual crops, Manyoni was the major producing district accounting for 96.7% of the area planted with tobacco and 90.7% of the growing households in the region.

Manyoni was the most important district for permanent crops production in the region by having the largest area planted with permanent crops (6,535 ha, 60.3% of total area under permanent crops in the region). It was the second most important district for mango production in the region (36.3% of total planted area) and had the largest planted area under banana (62.8%) and largest planted area per household (1.48 ha/hh).

On draft animal power, agricultural households in the district used mostly the cow but at a relatively low level as the households that used this type of animal were less than 5,000. The use of other animal-drown equipment or other means of mechanization was insignificant.

Manyoni district had the smallest planted area applied with organic fertilizers (1,658 ha, 3.0%) and the largest planted area applied with inorganic fertilizers (6,019 ha, 90.4%).

Irrigation farming was insignificant as only 0.78% of the planted area in the district was irrigated and dams were used only in this district by 4% of the households who irrigated. Water was obtained predominantly by gravity (73.5%).

Crop storage was practiced by the majority using locally made structures and many others used sacks or open drums. Agricultural households sold crops to generate cash and Manyoni district had the largest proportion of households participating in this activity (79%). The major challenge was the low price in the open market. Family, friends and relatives were the only sources of credit in the district.

About 60.5% of the agricultural households in Manyoni district received extension services and the district had the second largest area planted with improved seeds (12.4%) in the region, after Iramba district.

The district was leading in the application of herbicides (58.2% of the total area applied) and fungicides (40.1%) and was the third, after Iramba and Singida Rural, in the application of insecticides with 12% of the planted area treated with insecticides.

Water harvesting structures (soil bunds) were constructed by very few households (4.7% of households with water harvesting structures in the region) and general soil erosion control included tree planting though the number of households involved in the district was the lowest, equivalent to

0.4%. Manyoni district had the largest cattle population (767,273, 48.3% of the total cattle population in the region) kept by relatively fewer households (9% of total households with cattle) making the district the one with the highest cattle density in the region 93,691 herds/sq. km Most of the cattle were predominantly of the indigenous type. Pig production was almost insignificant.

The district had 25.4% of the goat population in the region, including 16.7% of the improved dairy goats, and the second largest sheep population (34.1% of the regional total) and chicken (16%), most of which were indigenous. For the improved chicken, Manyoni district had the largest proportion of both broiler (62.3%) and layer chicken (74.4%) in the region.

With regard to livestock diseases, Manyoni district was the least affected by tick-related incidences (reported by 18% cattle owning households) and was the third in tsetse related problems reported by only 10% of livestock keeping households. The extent of de-worming was highest comparable for cattle, goats and sheep, both at 63%.

The majority of agricultural households in the district used the traditional pit latrine but the district had the largest proportion of households without toilets (18.1%). Unprotected wells were the major source of drinking water (35.2%) followed by piped water (20.8%). Manyoni district had the highest proportion (10.1%) of households roofed with grass or leaves.

The majority of the households (52.6%) took two meals per day but the district had the lowest (17.4%). Manyoni district was the most food insecure district in the region having the highest proportion of households (68%) which reported food insufficiency.

4.3 Singida Rural

The district had the largest number of agricultural households (87,490) in the region of which the majority (51,414 households, 58.8%) were engaged in mixed crop and livestock production. The majority of the populations (97%) in the district considered crop farming as the main activity.

The average literacy rate in the district was 80%, the second highest in the region with rates of male heads of households generally higher (83 years) compared to that of their female counterparts (56 years). An average of 43% of persons 5 years or older had completed school, 38% were attending while 19% had never attended school.

The district had the largest usable land (212,811 ha, 33.3% of the total available usable land in the region). The total planted area in the district was the second largest in the region (139,162 ha, 65.4% of the usable land in the district) while the land area available per household (2 ha/household) was the third largest after Manyoni and Iramba districts.

All annual crops were planted during the long rainy season. The planted land area per household in Singida Rural was 1.9 hectares. Singida Rural had the second largest area (48,407 ha, 32.2%) planted with maize which involved 53,358 households (37.1% of the crop growing households in the region) and the second most important district for sorghum production (38,859 ha, 40% of the planted area).

Singida Rural was the district with the largest area planted with bulrush millet (23,743 ha, 48.6% of the total crop planted area) though the planted area per growing household was the smallest in the region (0.7 hectare per household). The district was also the most important district for paddy production having the largest planted area in the region (8,396 ha, 64.3%) with the largest planted area per household (1.9 ha/household). Finger millet was predominantly grown in this district with 5,308 ha (77.7% of the total 6,830 hectares planted) and by the largest number of growing households (6,913 households, 76.2%).

Singida Rural had the second largest area planted with sunflower (32,019 ha, 32%). However, despite the district having the smallest planted area per growing household (0.9 ha/hh), yields were one of the highest in the region at 0.7 t/ha which was similar to Iramba district. In groundnut production the planted area in the district (2,723 ha) accounted for about 17.7% of the total area planted with groundnuts in the region and 14.7% of the groundnut growing households. The district had the largest groundnut planted area per household (0.6 ha/hh) but yields were similar to other districts in the region at, an average of 0.6 t/ha

For pulse crops, the district had the second largest area planted with beans (1,356 ha, 21.1%) with intermediate yields averaging 1.4 t/ha. Chick peas were the only other pulse crop which was also planted on much smaller areas.

The cassava planted area in Singida Rural accounted for 5.3% of the total 3,216 hectares planted in the region involving 1,782 households (36.4%). However, the district produced 717 tons of cassava roots equivalents to 51.3%of the total of 1,399 tons harvested in the region. Singida Rural

was third in sweet potato production with 20.9% of the planted area (750 ha) representing a mere 0.4% of the total planted area in the district. Sweet potato productivity was at an average 2.8 t/ha. In vegetable crops, Singida Rural district was the largest onion producing district in the region with 1,224 hectares (78.3% of the total area planted with onion in the region) and had the largest harvest (1,841 tons)of onions.The onion planted was 0.52 ha/household. Onion yields were the lowest (1.5 t/ha) in the region but the district contributed 66.7% of the total 1,840.5 tons harvested onions. The district was also the single most important area for okra production. The okra planted area in the district 1,312 ha was equivalent to 98.7% of the total area planted with okra in the region and had the largest planted area per household (3.04 ha/hh).

The area planted with permanent crops in Singida Rural district accounted for about 14.8% of the total 10,830 ha under permanent crops in the region. However, the district had the largest number of households growing perennial crops (2,592 households, 33.4%) with the smallest planted area per households (0.62 ha/hh). The permanent crops grown were mango (21.9% of the 2,354 ha planted in the region) and banana (21.1% of the 1,450 ha planted in the region.)

The farm animals used to operate animal-drawn equipment in the district were mostly cows and donkeys. On the use of inputs, the district had the largest planted area applied with fertilizers (26,566 ha, 43% of the total planted area applied with fertilizers in the region) and the largest planted area applied with irrigation (5,160 ha, 61% of the total irrigated area in the region) but this represented only 3.1% of the total planted area in the district. All the water used for irrigation was drawn from wells drawn mostly using hand pumps (69.6% of total households that used this technology in the region). Improved seeds were used on 25.8% of the planted area in the district

Agricultural households in Singida Rural district practiced crop storage and the majority used sacks or open drums. However, Singida Rural had the largest number of households, among the 19 % of the households in the region that reported not to have stored crops. About 66% of the agricultural households sold crops to generate cash, but the major challenge, reported by about 70% of the households in the region, was the low price in the open market.

Only male headed households received credit in the district and savings and credits SACCOS were the major sources of credit in the district

Singida Rural district had the lowest percentage of households that received crop extension services (43%). The district had the second largest planted area applied with insecticides ((2,602 ha, 38%) and fungicides (525 ha, 27%) and herbicides (350 ha, 41%).

The district was leading in the proportion of households with soil erosion control and water harvesting facilities (16,416 households, 19% of the total agricultural households in the district) which were predominantly water erosion control bunds and terraces.

The district had the second largest cattle population (400,510 herds, 25.5%), after Manyoni, involving 36.5% of the total agricultural households in the district. Most of the cattle in the district were the indigenous dual purpose type for milk and beef but the district also had a small proportion of improved dairy animals (648 cows, 19%).

Singida Urban district had the largest goat population (312,804, 37.3%) involving the largest proportion of households keeping goats (37,156 households, 45%). Improved goats constituted a small proportion of the goat population in the district (864, 23%). Sheep population in the district was (127, 455, or 27%) of the total population in the region and a small population of pigs (3,672, 7%).

The district had the largest chicken population in the region (717,202, 44.4%) involving 55,738households (35.5% of households in the district). Singida Rural district had the second largest number of both broilers (2,592, 33.4%) and layers (1,296, 13.4%) of the respective improved chicken types in the region. The district also had 432 households out of the 900 that kept broiler chicken in the region. As with the other districts, fish farming was not practiced.

Both tsetse infestation and tick borne diseases were highest in this district. Tick borne diseases were reported by 54% of the livestock keeping households while incidences of tsetse fly infestation were reported by an average of 16% of the livestock keeping households.

The district had the highest level of de-worming cattle (82% of households with cattle) in , the third in de-worming of goats and sheep (61%) and pigs (3%), though the latter depicted the practice as being uncommon. The majority of agricultural households in the district, as is the case for the entire region, used the traditional pit latrine and the major sources of drinking water were unprotected wells/springs.

Grass or leaves roofing was used by the majority (54%) of the households in the district with another 38% using corrugated iron sheets. The main source of energy was the wick lamp and the majority owned radios.

District wise, the majority (70%) of the households took two meals per day and majority of the households ate meat or fish once a week and food insufficiency in the district was reported by about 56% of the households.

4.4 Singida Urban

The district had the smallest number of agricultural households (15,011hh, 10%) in the region of which the majority (8,173 households, 54.4%) were engaged in mixed crop and livestock production. There were neither pastoralist nor livestock only households and the majority of the households (93%) considered crop farming as the main occupation.

Literacy was at an average of 82% which was the highest in the region. The literacy rate for male heads of household was the highest in the region at 88%. The district had the highest population aged 5 years or older that completed school (46%); the lowest in the category of never attended school (15%) and the highest in the population that was attending school (40%).

Singida Urban had the smallest usable land area available (30,096 ha, 4.7%) with a usable land area per household averaging less than 2 hectares per household the smallest among all the districts. The total planted area in the region was 544,565 ha of which 25,960 ha (4.8%), the smallest in the region, the district also had the smallest planted area per household (1.4 ha/hh).

The main rainy season was the main crop production season. The district had the smallest planted area with maize (2,095 ha, 1.4%) and the smallest planted area per household (0.6 ha/hh). Singida Urban also had the smallest planted area with sorghum (4,617 ha, 4.7%); the third largest planted area with bulrush millet (9,353 ha, 19.1%) and had the smallest land area planted with paddy (111 household, 1%) at an average 0.9 ha per household.

Singida Urban had the smallest area planted with sunflower (3,161 ha, 3%) and the smallest number of growing households (3,225hh, 3.6%). However, the planted area per growing household was the second largest, after Iramba, at 0.98 ha/household. The district accounted for about 2.7% of

the total 68,297 tons of sunflower harvested in the region groundnuts were not planted in the district.

Cassava was planted on a total of 3,216 hectares in the region most of which was planted in Manyoni district (2,729 ha, 84.4% of the total area planted with cassava) followed by Singida Urban (6.5%), The cassava planted area in Singida Urban district was the second largest in the region, it accounted for 6.5% of the total 3,216 hectares planted in the region and the growing households constituted 21.8% of cassava growers in the region.

The district had the smallest area planted with sweet potatoes (208 ha, 5.8% of the planted area in the region); had the smallest number of growing households (723 hh, 7.4%) and the smallest planted area per household (0.3 ha/hh). However, sweet potato productivity was the highest in this district (3.3 t/ha).

For vegetable crops, Singida Urban district was the second least important in onion production with a planted area equivalent to 7.6% of the total 1,564 ha planted with onion in the region with an average 0.35 ha planted area per household. Singida Urban was the only other district where okra was planted on the remaining 1.3% of the planted area (17 ha) of the total 1,329 hectares planted in the region. However, despite the small planted area, okra yields was the highest in this district (2.3 t/ha).

Singida Urban district was one of the two districts (together with Iramba district) that planted tomatoes on 58 hectares (51.8% of the planted area). However, proportionally, Singida Urban district allocated more land for tomato production (0.22%) as compared to the other tomato producing district. Out of the 749 tomato growers in the region, 52 % were in Singida Urban district with an average of 0.15 ha per household. Tomato yield was at an average 23 t/ha and the 1,337 tons produced in the district accounted for 51.5 % of the total tomato harvested in the region.

Planted area under permanent crops was the smallest in Singida Urban with 809 hectares (7.5% of the area planted with permanent crops in the region). Singida Urban had the smallest proportion of the households (12.9%) with an intermediate planted area per growing household (0.81 ha/hh).

The major permanent crops grown were mango (7.9% of the total planted area) with 13.1% of the mango growing households. Banana was a minor crop planted on just about 11 ha.

The use of farm animals, mostly the cow, in the district was reported by less than 5,000 households while the use of power tillers and ox-ridger was almost insignificant. Singida Urban district had the smallest planted area applied with fertilizers (6,692 ha, 11% of the total planted area applied with fertilizers in the region) and the smallest area applied with inorganic fertilizers (23 ha, 0.3% of the area applied).

The irrigated planted area was 662 ha (8% of the planted area with irrigation) and hand buckets were used 11.8% while the hand pump was used by 14.9% of the households which applied irrigation. Agricultural households in Singida Urban district practiced crop storage and the majority used sacks or open drums.

Singida Urban district had the lowest proportion (less than 10%) of the households which sold crops in the region and the major challenge, reported by about 70% of the households in the region, was the low price in the open market.

None of the households in the district received agricultural credit during the census year. About 70% of the agricultural households in the district received crop extension services mostly through government agents, neighbours and radio/television.

Singida Urban district had the smallest area planted with improved seeds (3.7%), the least use of insecticides (222 ha, 3% of the total area applied with insecticides in the region), had the smallest area applied with fungicide (204 ha, 10%) and did not apply herbicides.

The proportion of households with soil erosion control and water harvesting facilities in the district was 8% (1,223 households) and the structures used were mostly water erosion control bunds and terraces.

The district had the lowest cattle population (65,049, 4.1%), mostly indigenous, which accounted for about 3.3% of the improved dairy cattle in the region. The district had the lowest goat population (63,659, 7.6%) but with the highest goat density (2,103 goats per sq. km). A total of 6,449 households (8%) were involved in raising goats.

Sheep population was the lowest in this district (21,739 sheep 4.6%) as opposed to improved goats, which were predominantly located in the district (2,224 improved dairy goats, 60%). Pigs were not kept in Singida Urban district.

The district had the smallest chicken population in the region (100,966 chicken, 6.2%), involving 11,064 (7% of chicken rearing households in the district) but the engagement of the district raising improved chicken population was almost negligible.

Both tsetse infestation and tick borne diseases were prevalent in this district. Tick problems were reported by 48% of the households with livestock in Singida Urban district while another 8% reported incidences of tsetse fly infestation. The district was third in de-worming cattle (75% of the households which reported problems) and was the leading district in the de-worming of goats and sheep (67%).

The majority of agricultural households in the district, as is the case for the entire region, used the traditional pit latrine and major sources of drinking water were the unprotected wells/springs. Singida Urban district had the lowest proportion of houses roofed with dry grasses or leaves (1.5%) and about 10% of the houses were roofed with iron sheets. The main source of energy was the wick lamp and the majority owned radios.

District wise, the majority of the households took two meals per day and majority of the households ate meat or fish once a week. The district was the second, after Manyoni, most affected by food insufficiency as reported by about 67% of the households.

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TYPE OF AGRICULTURE HOUSEHOLD

2.2.1 Number of Households by type of Household and District during 2007/08 Agriculture 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
Iramba	72,819	99.5	334	0.5	73,153	87.1	10,838	12.90	83,991
Singida Rural	87,490	99.9	89	0.1	87,579	96.0	3,666	4.0	91,245
Manyoni	41,672	97.5	1,056	2.5	42,728	82.9	8,800	17.1	51,528
Singida Urban	15,011	99.3	99	0.7	15,110	46.3	17,559	53.7	32,669
Total	**216,992**	**99.3**	**1,578**	**0.7**	**218,570**	**84.2**	**40,863**	**15.8**	**259,434**

2.1.2 Number of Agriculture Households by type of Holding by 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	%			
Iramba	28,229	39	0	0	0	0	44,591	61	72,819	72,819	44,591
Singida Rural	36,076	41	0	0	0	0	51,414	59	87,490	87,490	51,414
Manyoni	29,324	70	617	1	206	0	11,524	28	41,672	40,848	12,141
Singida Urban	6,839	46	0	0	0	0	8,173	54	15,011	15,011	8,173
Total	**100,468**	**46**	**617**	**0**	**206**	**0**	**115,701**	**53**	**216,992**	**216,169**	**116,319**

HOUSEHOLDS DEMOGRAPHICS

3 1 Number of Household Members classified by District and Sex for the 2007/08 Agricultural Year

	Sex					
	Male		Female			
District	**Number**	**%**	**Number**	**%**	**Total**	**%**
Iramba	223,852	52	208,928	48	432,780	100
Singida Rural	247,996	51	236,331	49	484,328	100
Manyoni	98,777	51	94,250	49	193,027	100
Singida Urban	39,141	51	38,251	49	77,392	100
Total	**609,766**	**51**	**577,760**	**49**	**1,187,527**	100

3.2 Number of Agricultural Household Members By Sex and Age Group for 2007/08 Agricultural Year (Row %)

	Sex					
	Male		Female		Total	
Age Group	Number	%	Number	%	Number	%
Less than 4	79,940	56	62,296	44	142,236	100
5 - 9	95,598	50	95,580	50	191,178	100
10 - 14	91,217	50	90,286	50	181,503	100
15 - 19	80,688	56	64,137	44	144,824	100
20 - 24	43,609	51	42,550	49	86,159	100
25 - 29	32,764	45	40,045	55	72,809	100
30 - 34	31,338	45	38,031	55	69,369	100
35 - 39	28,581	43	37,124	57	65,704	100
40 - 44	24,928	51	23,768	49	48,696	100
45 - 49	26,765	55	21,833	45	48,598	100
50 - 54	20,533	62	12,514	38	33,048	100
55 - 59	13,022	55	10,839	45	23,861	100
60 - 64	11,015	47	12,293	53	23,308	100
65 - 69	8,729	47	9,902	53	18,631	100
70 - 74	7,640	48	8,242	52	15,882	100
75 - 79	7,565	69	3,467	31	11,032	100
80 - 84	3,603	69	1,605	31	5,208	100
Above 85	2,231	41	3,249	59	5,480	100
Total	**609,766**	**51**	**577,760**	**49**	**1187527**	**100**

3.3 Number of Agricultural Household Members By Sex and Age Group for 2007/08 Agricultural Year (Column %)

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	79,940	13	62,296	11	142,236	12
5 - 9	95,598	16	95,580	17	191,178	16
10 - 14	91,217	15	90,286	16	181,503	15
15 - 19	80,688	13	64,137	11	144,824	12
20 - 24	43,609	7	42,550	7	86,159	7
25 - 29	32,764	5	40,045	7	72,809	6
30 - 34	31,338	5	38,031	7	69,369	6
35 - 39	28,581	5	37,124	6	65,704	6
40 - 44	24,928	4	23,768	4	48,696	4
45 - 49	26,765	4	21,833	4	48,598	4
50 - 54	20,533	3	12,514	2	33,048	3
55 - 59	13,022	2	10,839	2	23,861	2
60 - 64	11,015	2	12,293	2	23,308	2
65 - 69	8,729	1	9,902	2	18,631	2
70 - 74	7,640	1	8,242	1	15,882	1
75 - 79	7,565	1	3,467	1	11,032	1
80 - 84	3,603	1	1,605	0	5,208	0
Above 85	2,231	0	3,249	1	5,480	0
Total	**609,766**	**100**	**577,760**	**100**	**1187527**	**100**

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	
Iramba	57,536	97	1,798	3	59,334	100	1,259	50	1,259	50	2,517	100
Singida Rural	70,856	91	7,129	9	77,985	100	1,512	88	216	13	1,728	100
Manyoni	30,045	90	3,293	10	33,337	100	926	47	1,029	53	1,955	100
Singida Urban	11,731	91	1,223	9	12,954	100	56	20	222	80	278	100
Total	**170,168**	**93**	**13,443**	**7**	**183,611**	**100**	**3,752**	**58**	**2,726**	**42**	**6,478**	**100**

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	
Iramba	0	0	0	0	0	0	1,259	22	4,495	78	5,754	100
Singida Rural	0	0	432	100	432	100	216	8	2,376	92	2,592	100
Manyoni	103	25	309	75	412	100	720	27	1,955	73	2,675	100
Singida Urban	0	0	0	0	0	0	222	50	222	50	445	100
Total	**103**	**12**	**741**	**88**	**844**	**100**	**2,417**	**21**	**9,049**	**79**	**11,466**	**100**

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	
Iramba	719	14	4,495	86	5,214	100	60,773	83	12,047	17	72,819	100
Singida Rural	1,080	23	3,672	77	4,753	100	73,664	84	13,826	16	87,490	100
Manyoni	1,029	31	2,264	69	3,293	100	32,823	79	8,849	21	41,672	100
Singida Urban	222	17	1,112	83	1,334	100	12,232	81	2,780	19	15,011	100
Total	**3,051**	**21**	**11,543**	**79**	**14,594**	**100**	**179,491**	**83**	**37,501**	**17**	**216,992**	**100**

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	
Iramba	28,768	93	2,158	7	30,926	100	32,004	76	9,889	24	41,894	100
Singida Rural	24,627	88	3,456	12	28,083	100	49,038	83	10,369	17	59,407	100
Manyoni	16,051	80	4,116	20	20,167	100	16,669	78	4,733	22	21,402	100
Singida Urban	5,171	86	834	14	6,005	100	7,061	78	1,946	22	9,007	100
Total	**74,617**	**88**	**10,564**	**12**	**85,180**	**100**	**104,772**	**80**	**26,937**	**20**	**131,709**	**100**

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	
Iramba	0	0	0	0	0	0	60,773	83	12,047	17	72,819	100
Singida Rural	0	0	0	0	0	0	73,664	84	13,826	16	87,490	100
Manyoni	103	100	0	0	103	100	32,823	79	8,849	21	41,672	100
Singida Urban	0	0	0	0	0	0	12,232	81	2,780	19	15,011	100
Total	**103**	**100**	**0**	**0**	**103**	**100**	**179,491**	**83**	**37,501**	**17**	**216,992**	**100**

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	%
Iramba	37,938	88	5,034	12	42,972	100	22,655	76	7,012	24	29,667	100
Singida Rural	41,909	86	6,697	14	48,606	100	31,756	82	7,129	18	38,884	100
Manyoni	21,916	80	5,350	20	27,267	100	10,907	76	3,498	24	14,405	100
Singida Urban	7,672	86	1,279	14	8,951	100	4,559	75	1,501	25	6,060	100
Total	109,435	86	18,360	14	127,796	100	69,876	78	19,141	22	89,017	100

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	%
Iramba	180	100	0	0	180	100	60,773	83	12,047	17	72,819	100
Singida Rural	0	0	0	0	0	0	73,664	84	13,826	16	87,490	100
Manyoni	0	0	0	0	0	0	32,823	79	8,849	21	41,672	100
Singida Urban	0	0	0	0	0	0	12,232	81	2,780	19	15,011	100
Total	**180**	**100**	**0**	**0**	**180**	**100**	**179,491**	**83**	**37,501**	**17**	**216,992**	**100**

3 .7 Number of Household Members Who Can Read and Write languages by type of language and District, Agricultural Year

District	Read and Write								
	Swahili		Swahili & English		Any Other Language		Don't Read / Write		
	Number	%	Number	%	Number	%	Number	%	Total
Iramba	263,228	69	16,901	4.4	0	0	99,789	26	379,918
Singida Rural	303,731	71	28299	6.6	216	0	95,699	22	427,945
Manyoni	106,185	63	13891	8.2	617	0	49,183	29	169,876
Singida Urban	48,759	72	5226	7.7	0	0	13,566	20	67,551
Total	721,903	69	64317	6.2	833	0	258,237	25	1045291

3.8 Number of Heads of Agricultural Households by Main Activity and District , 2007/08 Agricultural Year

	Crop/Seaweed Farming		Livestock Keeping / Herding		Fishing		Employment		Other		Total	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	68,504	94	180	0	180	0	2,337	3	1,618	2	72,819	100
Singida Rural	84,898	97	0	0	648	1	1,728	2	216	0	87,490	100
Manyoni	38,276	92	1,441	3	103	0	1,543	4	309	1	41,672	100
Singida Urban	13,955	93	334	2	0	0	612	4	111	1	15,011	100
Total	205,633	95	1,954	1	931	0	6,221	3	2,254	1	216,992	100

3.9 Number of Household Members by Education Status and District, 2007/08 Agricultural

	School Attendance						
District	Attending School	%	Completed	%	Never Attended to School	%	Total
Iramba	129,456	34	158,224	42	92,238	24	379,918
Singida Rural	161,803	38	184,485	43	81,657	19	427,945
Manyoni	49,903	29	76,861	45	43,112	25	169,876
Singida Urban	26,687	40	30,857	46	10,008	15	67,551
Total	**367,849**	**35**	**450,427**	**43**	**227,015**	**22**	**1045291**

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	
Iramba	180	100	0	0	180	100	48,007	89	5,754	11	53,760	100
Singida Rural	864	100	0	0	864	100	60,487	89	7,561	11	68,048	100
Manyoni	309	75	103	25	412	100	25,209	82	5,350	18	30,559	100
Singida Urban	111	67	56	33	167	100	10,842	88	1,501	12	12,343	100
Total	**1,464**	**90**	**158**	**10**	**1,622**	**100**	**144,544**	**88**	**20,166**	**12**	**164,710**	**100**

3.11 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**	
Iramba	12,586	67	6,293	33	18,879	100	60,773	83	12,047	17	72,819	100
Singida Rural	12,313	66	6,265	34	18,578	100	73,664	84	13,826	16	87,490	100
Manyoni	7,305	68	3,395	32	10,701	100	32,823	79	8,849	21	41,672	100
Singida Urban	1,279	51	1,223	49	2,502	100	12,232	81	2,780	19	15,011	100
Total	**33,484**	**66**	**17,176**	**34**	**50,660**	**100**	**179,491**	**83**	**37,501**	**17**	**216,992**	**100**

3.12 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	%
Iramba	180	0	719	0	1,618	1	1,798	1	9,889	6	2,697	2
Singida Rural	216	0	1,728	1	3,240	2	2,808	2	18,578	10	2,160	1
Manyoni	0	0	412	1	1,749	2	1,955	3	5,145	7	1,852	2
Singida Urban	0	0	167	1	389	1	500	2	2,835	9	778	3
Total	**396**	**0**	**3,026**	**1**	**6,997**	**2**	**7,062**	**2**	**36,447**	**8**	**7,488**	**2**

cont 3.12 Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year

	Education Level											
	Form Two		Form Three		Form Four		Form Five		Form Six		Training After Secondary Education	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	899	1	180	0	899	1	0	0	180	0	0	0
Singida Rural	432	0	216	0	2,592	1	0	0	0	0	216	0
Manyoni	514	1	823	1	2,469	3	0	0	309	0	309	0
Singida Urban	56	0	0	0	334	1	0	0	0	0	0	0
Total	**1,901**	**0**	**1,219**	**0**	**6,294**	**1**	**0**	**0**	**488**	**0**	**525**	**0**

cont 3.12 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	%
Iramba	0	0	1,079	1	539	0	158,224	100
Singida Rural	0	0	1,512	1	216	0	184,485	100
Manyoni	206	0	309	0	926	1	76,861	100
Singida Urban	0	0	167	1	0	0	30,857	100
Total	**206**	**0**	**3,066**	**1**	**1,681**	**0**	**450,427**	**100**

cont 3.12 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	%
Iramba	2,877	2	132,333	84	1,618	1	360	0	360	0	0	0
Singida Rural	1,944	1	146,033	79	1,512	1	648	0	216	0	216	0
Manyoni	1,441	2	57,106	74	412	1	617	1	0	0	309	0
Singida Urban	389	1	25,130	81	0	0	111	0	0	0	0	0
Total	**6,651**	**1**	**360,602**	**80**	**3,542**	**1**	**1,736**	**0**	**576**	**0**	**525**	**0**

3.13 Literacy Level of Hoseholds Members by District

District	Swahili		Swahili & English		Any Other Language		Don't Read / Write		Read and Write		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	
Iramba	263,228	69	16,901	6.0	0	0	99,789	26	280,129	73.7	379,918
Singida Rural	303,731	71	28299	8.5	216	0	95,699	22	332,246	77.6	427,945
Manyoni	106,185	63	13891	11.5	617	0	49,183	29	120,693	71.0	169,876
Singida Urban	48,759	72	5226	9.7	0	0	13,566	20	53,985	79.9	67,551
Total	**721,903**	**69**	**64317**	**8.2**	**833**	**0**	**258,237**	**25**	787,054	75.3	1,045,291

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	%
Iramba	197,960	52	8,810	2	70,662	19	102,486	27	379,918	100
Singida Rural	224,882	53	5,617	1	78,201	18	119,246	28	427,945	100
Manyoni	97,645	57	11,112	7	23,254	14	37,865	22	169,876	100
Singida Urban	32,858	49	3,113	5	10,786	16	20,794	31	67,551	100
Total	**553,346**	**53**	**28,653**	**3**	**182,902**	**17**	**280,390**	**27**	**1045291**	**100**

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		Unpaid Family Helper (Non Agriculture)	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	1,079	0	1,259	0	180	0	719	0	180	0
Singida Rural	1,296	0	216	0	216	0	0	0	216	0
Manyoni	1,852	1	309	0	514	0	206	0	412	0
Singida Urban	167	0	334	0	278	0	0	0	56	0
Total	**4,394**	**0**	**2,117**	**0**	**1,188**	**0**	**925**	**0**	**863**	**0**

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

District	Main Activity													
	Not Working & Available		Not Working & Unavailable		Housemaker / Housewife		Student		Unable to Work / Too Old / Retired / Sick / Disabled		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	0	0	719	0	1,978	1	129,816	34	39,556	10	180	0	379,918	100
Singida Rural	0	0	864	0	648	0	163,315	38	33,916	8	0	0	427,945	100
Manyoni	206	0	617	0	1,646	1	46,302	27	16,566	10	617	0	169,876	100
Singida Urban	0	0	56	0	222	0	26,576	39	4,837	7	111	0	67,551	100
Total	**206**	**0**	**2,256**	**0**	**4,495**	**0**	**366,008**	**35**	**94,875**	**9**	**908**	**0**	**1,045,291**	**100**

LAND ACCESS/ OWNERSHIP

4.1 Number of Agriculture Households by Type of Land Use and District for the 2007/08 agriculture year

District	Type of land use												
	Households under Temporary Mono Crops	Households under Temporary Mixed Crops	Households under Permanent Mono Crops	Households under Permanent Mixed Crops	Households under Permanent / Annual Mix	Households under Pasture	Households under Fallow	Households under Natural Bush	Households under Planted Trees	Households Rented to Others	Households Unusable	Households of Uncultivated Usable Land	Total number of households
Iramba	63,110	14,923	719	0	1,438	2,517	8,271	180	0	1,079	719	1,079	94,036
Singida Rural	57,895	37,372	1,512	1,296	432	6,697	10,585	2,376	1,080	2,376	1,080	3,888	126,591
Manyoni	29,016	16,566	412	103	1,852	2,778	9,981	4,939	206	720	617	9,363	76,552
Singida Urban	12,954	2,780	612	0	278	1,334	1,835	278	111	111	111	890	21,294
Total	**162,975**	**71,641**	**3,255**	**1,399**	**4,001**	**13,326**	**30,671**	**7,773**	**1,397**	**4,287**	**2,528**	**15,220**	**318,472**

4.2 Area of Land (ha) by land use and District for the 2007/08 agriculture 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)
Iramba	145,547	34,148	400	0	2,329	4,673	9,882	218	0	5,423	874	1,601	205,096
Singida Rural	111,786	54,815	402	525	481	13,994	17,885	4,985	1,071	3,848	634	3,017	213,445
Manyoni	62,134	35,617	837	42	4,624	34,804	20,220	13,361	104	1,000	833	20,127	193,703
Singida Urban	17,423	3,241	642	0	225	4,356	1,801	304	17	56	180	2,031	30,276
Total	**336,891**	**127,821**	**2,281**	**566**	**7,659**	**57,827**	**49,788**	**18,869**	**1,192**	**10,327**	**2,521**	**26,777**	**642,520**

4.3 Area of land (ha) by Ownership/Tenure and District for the 2007/08 agriculture year

District	Land Ownership/Tenure							
	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	Total area
Iramba	9,354	130,028	32,521	14,486	5,787	0	12,921	205,096
Singida Rural	35,071	152,048	14,824	8,396	1,050	262	1,793	213,445
Manyoni	19,548	91,171	21,583	2,229	2,666	7,165	49,343	193,703
Singida Urban	90	26,433	1,947	743	79	0	985	30,276
Total	**64,063**	**399,679**	**70,875**	**25,854**	**9,581**	**7,427**	**65,041**	**642,520**

LAND USE

4.4 Area of land (ha) by Ownership/Tenure and District for the 2007/08 agriculture year

District	Land Ownership/Tenure							
	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	Total area
Iramba	9,354	130,028	32,521	14,486	5,787	0	12,921	205,096
Singida Rural	35,071	152,048	14,824	8,396	1,050	262	1,793	213,445
Manyoni	19,548	91,171	21,583	2,229	2,666	7,165	49,343	193,703
Singida Urban	90	26,433	1,947	743	79	0	985	30,276
Total	**64,063**	**399,679**	**70,875**	**25,854**	**9,581**	**7,427**	**65,041**	**642,520**

4.5 Number of Agriculture Households by Type of Land Use and District for the 2007/08 agriculture year

District	Type of land use												
	Households under Temporary Mono Crops	Households under Temporary Mixed Crops	Households under Permanent Mono Crops	Households under Permanent Mixed Crops	Households under Permanent / Annual Mix	Households under Pasture	Households under Fallow	Households under Natural Bush	Households under Planted Trees	Households Rented to Others	Households Unusable	Households of Uncultivated Usable Land	Total number of households
Iramba	63,110	14,923	719	0	1,438	2,517	8,271	180	0	1,079	719	1,079	94,036
Singida Rural	57,895	37,372	1,512	1,296	432	6,697	10,585	2,376	1,080	2,376	1,080	3,888	126,591
Manyoni	29,016	16,566	412	103	1,852	2,778	9,981	4,939	206	720	617	9,363	76,552
Singida Urban	12,954	2,780	612	0	278	1,334	1,835	278	111	111	111	890	21,294
Total	**162,975**	**71,641**	**3,255**	**1,399**	**4,001**	**13,326**	**30,671**	**7,773**	**1,397**	**4,287**	**2,528**	**15,220**	**318,472**

4.6 Area of Land (ha) by land use and District for the 2007/08 agriculture 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)
Iramba	145,547	34,148	400	0	2,329	4,673	9,882	218	0	5,423	874	1,601	205,096
Singida Rural	111,786	54,815	402	525	481	13,994	17,885	4,985	1,071	3,848	634	3,017	213,445
Manyoni	62,134	35,617	837	42	4,624	34,804	20,220	13,361	104	1,000	833	20,127	193,703
Singida Urban	17,423	3,241	642	0	225	4,356	1,801	304	17	56	180	2,031	30,276
Total	**336,891**	**127,821**	**2,281**	**566**	**7,659**	**57,827**	**49,788**	**18,869**	**1,192**	**10,327**	**2,521**	**26,777**	**642,520**

4.7 Number of Agriculture Households by Whether All Land Available to the Household Was Used during 2007/08 agriculture year and District

District	Was all Land Available to the Hh Used During 2007/08?				
	Yes		No		Total
	Number	%	Number	%	Number
Iramba	57,896	80	14,923	20	72,819
Singida Rural	70,856	81	16,634	19	87,490
Manyoni	15,537	37	26,135	63	41,672
Singida Urban	11,008	73	4,003	27	15,011
Total	**155,297**	**72**	**61,695**	**28**	**216,992**

4.8 Number of Agriculture Households By Whether Female Members of the Household Own or Have Customary Right to Land By District during 2007/08 Agriculture year

District	Do any Female Members of the Hh own or have customary right to Land				
	Yes		No		Total
	Number	%	Number	%	Number
Iramba	13,845	19	58,975	81	72,819
Singida Rural	22,683	26	64,807	74	87,490
Manyoni	8,746	21	32,926	79	41,672
Singida Urban	2,446	16	12,565	84	15,011
Total	**47,719**	**22**	**169,273**	**78**	**216,992**

INPUT USE BY DISTRICT

5.1 Total Number of Agriculture Households and Planted Area by Irrigation Use and District for the 2007/08 agriculture

District	Number of Households using Irrigation	Planted Area with Irrigation	Number of Households NOT using Irrigation	Planted Area with no Irrigation	Total Number of Households	Total Planted Area (ha)	% planted area under Irrigation in wet season
Iramba	1,978	1,074	72,460	179,409	72,819	180,483	1
Singida Rural	2,808	5,160	86,410	160,476	87,490	165,636	3
Manyoni	3,498	1,506	39,922	96,856	40,643	98,362	2
Singida Urban	1,001	662	14,678	19,765	14,956	20,427	3
Total	9,285	8,402	213,470	456,505	215,908	464,907	2
%	4.3	1.8	98.9	95.7	100	100	

5.2 Total Number of Agriculture Households and Planted Area by Herbicide Use and District for the 2007/08 agriculture year

District	Number of Households using Herbicide	Planted Area with Herbicide	Number of Households NOT using Herbicide	Planted Area with no Herbicide	Total Number of Households	Total Planted Area (ha)	% planted area under Herbicide in wet season
Iramba	180	9	72,819	180,473	72,819	180,483	39
Singida Rural	216	350	87,490	165,286	87,490	165,636	36
Manyoni	617	500	40,643	97,862	40,643	98,362	21
Singida Urban	0	.	14,956	20,427	14,956	20,427	4
Total	1,013	859	215,908	464,049	215,908	464,907	100
%	0.5	0.2	99.5	98.8	100	100	

5.3 Total Number of Agriculture Households and Planted Area by Fungicide Use and District for the 2007/08 agriculture

District	Number of Households using Fungicide	Planted Area with Fungicide	Number of Households NOT using Fungicide	Planted Area with no Fungicide	Total Number of Households	Total Planted Area (ha)	% planted area under Fungicide
Iramba	899	455	72,819	180,028	72,819	180,483	39
Singida Rural	648	525	87,490	165,111	87,490	165,636	36
Manyoni	514	791	40,643	97,571	40,643	98,362	21
Singida Urban	389	204	14,956	20,223	14,956	20,427	4
Total	**2,451**	**1,975**	**215,908**	**462,932**	**215,908**	**464,907**	100
%	**1.1**	**0.4**	**88.9**	**99.6**	**100**	**100**	

TOTAL ANNUAL CROP AND VEGETABLE PRODUCTION BY DISTRICT

5.4 Number of Agriculture Households, Area Planted (ha) and Quantity of Sorghum Harvested (tonnes) Agricultural Year 2007/08

District	Sorghum			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	36,859	42,121	60,004	1.4
Singida Rural	50,766	38,859	34,768	0.9
Manyoni	12,965	11,916	14,044	1.2
Singida Urban	7,617	4,616	3,143	0.7
Total	**108,206**	**97,513**	**111,959**	**1.1**

5.5 Number of Agriculture Households, Area Planted (ha) and Quantity of Maize Harvested (tonnes) Agricultural Year 2007/08

District	Maize			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	55,558	58,267	82,898	1.4
Singida Rural	53,358	48,407	48,729	1.0
Manyoni	31,485	41,472	56,723	1.4
Singida Urban	3,614	2,095	2,141	1.0
Total	**144,016**	**150,240**	**190,491**	**1.3**

5.6 Number of Agriculture Households, Area Planted (ha) and Quantity of Paddy Harvested (tonnes) Agricultural Year 2007/08

District	Paddy			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	2158	1274	4088	3.2
Singida Rural	4320	8396	6079	0.7
Manyoni	4836	3292	4834	1.5
Singida Urban	111	104	50	0.5
Total	**11425**	**13066**	**15051**	**1.2**

5.7 Number of Agriculture Households, Area Planted (ha) and Quantity of Bulrush Millet Harvested (tonnes) Agricultural Year 2007/08

District	Bulrush Millet			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	12,226.43	13,557.83	7,085.94	
Singida Rural	32,619.74	23,743.48	20,476.12	0.86
Manyoni	2,160.75	2,236.98	2,549.17	1.14
Singida Urban	11,953.52	9,353.03	6,791.82	0.73
Total	**58,960.44**	**48,891.33**	**36,903.06**	**0.75**

5.8 Number of Agriculture Households, Area Planted (ha) and Quantity of Cowpeas Harvested (tonnes) Agricultural Year 2007/08

District	Cowpeas			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	719	142	148	1
Singida Rural	2,592	490	138	0.3
Manyoni	1,646	614	265	0.4
Singida Urban	111	18	4	0.2
Total	**5,069**	**1,264**	**555**	**0.4**

5.9 Number of Agriculture Households, Area Planted (ha) and Quantity of Finger Millet Harvested (tonnes) Agricultural Year 2007/08

District	Finger Millet			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	539	237	115	0.5
Singida Rural	6,913	5,308	4,552	0.9
Manyoni	617	675	1,105	1.6
Singida Urban	1,001	611	455	0.7
Total	**9,070**	**6,830**	**6,227**	**0.9**

5.10 Number of Agriculture Households, Area Planted (ha) and Quantity of Cassava Harvested (tonnes) Agricultural Year 2007/08

District	Cassava			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	360	106	379	3.6
Singida Rural	648	170	717	4.2
Manyoni	206	2,729	67	0.0
Singida Urban	389	212	146	0.7
Total	**1,603**	**3,216**	**1,309**	**0.4**

5.11 Number of Agriculture Households, Area Planted (ha) and Quantity of Cassava Harvested (tonnes) Agricultural Year 2007/08

District	Sweet Potato			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	3,956	1,347	4,007	3.0
Singida Rural	1,944	750	2,090	2.8
Manyoni	3,190	1,288	2,909	2.3
Singida Urban	723	208	689	3.3
Total	**9,812**	**3,591**	**9,695**	**2.7**

5.12 Number of Agriculture Households, Area Planted (ha) and Quantity of Beans Harvested (tonnes) Agricultural Year 2007/08

District	Beans			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	4,495	2,155	4,254	2.0
Singida Rural	2,592	1,356	1,901	1.4
Manyoni	6,997	2,910	2,810	1.0
Singida Urban	0	0		0.0
Total	**14,084**	**6,420**	**8,965**	**1.4**

5.13 Number of Agriculture Households, Area Planted (ha) and Quantity of Green Gram Harvested (tonnes) Agricultural Year 2007/08

District	Green gram			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	0	0	.00	0.0
Singida Rural	216	262	43.20	0.2
Manyoni	1,955	1,264	1,545.97	1.2
Singida Urban	0	0	.00	0.0
Total	**2,171**	**1,527**	**1,589**	**1**

5.14 Number of Agriculture Households, Area Planted (ha) and Quantity of Bambaranuts Harvested (tonnes) Agricultural Year 2007/08

District	Bambaranuts			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	539	218	220	1
Singida Rural	1,080	262	232	0.9
Manyoni	2,161	920	1,324	1.4
Singida Urban	0	0	0	0
Total	**3,780**	**1,401**	**1,776**	**1.3**

5.15 Number of Agriculture Households, Area Planted (ha) and Quantity of Chick Peas Harvested (tonnes) Agricultural Year 2007/08

District	Chick peas			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	2,697	2548	1576	0.6
Singida Rural	648	350	119	0.3
Manyoni	823	3051	1575	0.5
Singida Urban	0	0	0	0.0
Total	**4,168**	**5949**	**3270**	**0.5**

5.16 Number of Agriculture Households, Area Planted (ha) and Quantity of Sunflower Harvested (tonnes) Agricultural Year 2007/08

District	Sunflower			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	39,376	52,793	38,048.66	0.7
Singida Rural	35,644	32,019	22,430.71	0.7
Manyoni	11,730	11,389	5,940.83	0.5
Singida Urban	3,225	3,161	1,876.81	0.6
Total	**89,975**	**99,363**	**68,297.02**	**0.7**

5.17 Number of Agriculture Households, Area Planted (ha) and Quantity of Groundnuts Harvested (tonnes) Agricultural Year 2007/08

District	Groundnut			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	7,731	3,549	2,176	0.6
Singida Rural	4,537	2,723	1,721	0.6
Manyoni	18,624	9,105	5,717	0.6
Singida Urban	0	0		0
Total	**30,892**	**15,376**	**9,614**	**0.6**

5.18 Number of Agriculture Households, Area Planted (ha) and Quantity of Simsim Harvested (tonnes) Agricultural Year 2007/08

District	Simsim			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	719	291	153	0.5
Singida Rural	0	0		0.0
Manyoni	6,276	5,207	2,636	0.5
Singida Urban	0	0		0.0
Total	**6,996**	**5,498**	**2,789**	**0.5**

5.19 Number of Agriculture Households, Area Planted (ha) and Quantity of Tumeric Harvested (tonnes) Agricultural Year 2007/08

District	Turmeric			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	0	0	.00	0.0
Singida Rural	216	175	129.61	0.7
Manyoni	0	0	.00	0.0
Singida Urban	0	0	0	0
Total	**216**	**175**	**130**	**0.74**

5.20 Number of Agriculture Households, Area Planted (ha) and Quantity of Bitter Aubergine Harvested (tonnes) Agricultural Year 2007/08

District	Bitteer Aubergine			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	180	36	64.73	1.8
Singida Rural	0	0	.00	0.0
Manyoni	0	0	.00	0.0
Singida Urban	0	0	.00	0.0
Total	**180**	**36**	**64.73**	**1.8**

5.21 Number of Agriculture Households, Area Planted (ha) and Quantity of Onion Harvested (tonnes) Agricultural Year 2007/08

District	Onion			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	539	127	356.72	2.8
Singida Rural	2,376	1,224	1,840.53	1.5
Manyoni	206	94	257.23	2.7
Singida Urban	334	118	305.12	2.6
Total	**3,455**	**1,564**	**2,759.61**	**1.8**

5.22 Number of Agriculture Households, Area Planted (ha) and Quantity of Tumeric Harvested (tonnes) Agricultural Year 2007/08

District	Turmeric			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	0	0	.00	0.0
Singida Rural	216	175	129.61	0.7
Manyoni	0	0	.00	0.0
Singida Urban	0	0	0	0
Total	**216**	**175**	**130**	**0.74**

5.23 Number of Agriculture Households, Area Planted (ha) and Quantity of Tomatoes Harvested (tonnes) Agricultural Year 2007/08

District	Tomatoes			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	360	55	1259	23
Singida Rural	0	0	0	0
Manyoni	0	0	0	0
Singida Urban	389	58	1337	23
Total	**749**	**112**	**2596**	**23**

5.24 Number of Agriculture Households, Area Planted (ha) and Quantity of Cabbage Harvested (tonnes) Agricultural Year 2007/08

District	Cabbage			
	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	0	0	0	0
Singida Rural	0	0	0	0
Manyoni	0	0	0	0
Singida Urban	167	42	866	20
Total	**167**	**42**	**866**	**20**

5.25 Number of Agriculture Households, Area Planted (ha) and Quantity of Chillies Harvested (tonnes) Agricultural Year 2007/08

	Chillies			
District	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	0	0	0	0
Singida Rural	0	0	0	0
Manyoni	206	250	2161	9
Singida Urban	111	8	26	3
Total	317	**258**	2187	8

5.26 Number of Agriculture Households, Area Planted (ha) and Quantity of Spinach Harvested (tonnes) Agricultural Year 2007/08

	Spinach			
District	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	0	0	0	0
Singida Rural	0	0	0	0
Manyoni	0	0	0	0
Singida Urban	56	6	22	4
Total	56	6	22	4

5.27 Number of Agriculture Households, Area Planted (ha) and Quantity of Cotton Harvested (tonnes) Agricultural Year 2007/08

	Cotton			
District	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	1,259	1601	1375	1
Singida Rural	0	0	0	0
Manyoni	926	521	227	0
Singida Rural	0	0	0	0
Total	**2,185**	**2122**	**1603**	**1**

5.28 Number of Agriculture Households, Area Planted (ha) and Quantity of Tobacco Harvested (tonnes) Agricultural Year 2007/08

	Tobacco			
District	Number of Household	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iramba	180	73	65	1
Singida Rural	0	0	0	0
Manyoni	1,749	2158	2214	1
Singida Rural	0	0	0	0
Total	1,929	2231	2279	1

PERMANENT CROPS

5.29 Production of Permanent Crops By Crop Type and District.

District/Crop		Area Planted (ha)	Area Harvested (ha)	Quantity Harvested (tons)	Yields (Kgs)
Iramba	Cashewnut	0	0	0	0
	Banana	222	222	40	18
	Mango	1,181	325	223	69
	Orange	0	0	0	0
	Sugarcane	71	71	3,596	5080
	Total	**1,474**	617	**3,858**	
Singida Rural	Cashewnut	0	0	0	0
	Banana	306	224	869	388
	Mango	132	47	2,820	6,029
	Orange	0	0	0	0
	Sugarcane	0	0	0	0
	Total	**438**	**271**	**3,689**	
Manyoni	Cashewnut				
	Banana	911	900	18,890	21
	Mango	855	256	1,001	392
	Orange	1,174	15	348	2,252
	Sugarcane	81	10	617	6,000
	Total	**3,021**	**1,181**	**20,856**	
Singida Urban	Cashewnut	88	88	3	0
	Banana	0	0	0	0
	Mango	186	110	201	182
	Orange	0	0	0	0
	Sugarcane	0	0	0	0
	Total	**274**	**198**	**203**	
Total	Cashewnut	88	88	3	0
	Banana	1,439	1,346	19,798	15
	Mango	2,354	737	4,245	6
	Orange	1,174	15	348	23
	Sugarcane	152	81	4,213	52
	Total	5,206	2,267	28607	13

5.30 Production of Permanent Crops By Crop Type – SINGIDA

Crop	Area Planted (ha)	%
Mango	2,354	45
Banana	1,439	28
Orange	1,174	23
Sugarcane	152	3
Cashewnut	88	2
Total	**5,206**	**100**

INPUT USE BY CROP

5.31 Planted Area & Number of Crop growing Households by Fungicide Use and Crop for the 2007/08 agriculture year - LONG RAINY SEASON

Total

Crops	Fungicide use							% of Planted area using Fungicide
	Number of Households using Fungicide	Planted Area Fungicide Used	Number of Households NOT using Fungicide	Planted Area Fungicide not Used	Cost of Fungicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	319	423	144,016	149,818	2,160,248	144,334	150,240	0.3
Paddy	0	0	11,425	13,066	0	11,425	13,066	0.0
Sorghum	56	34	108,151	97,479	166,793	108,206	97,513	0.0
Bulrush Millet	56	45	58,905	48,846	166,793	58,960	48,891	0.1
Finger Millet	56	11	9,015	6,819	111,196	9,070	6,830	**0.2**
Wheat	0	0	180	73	0	180	73	0.0
CEREALS		**513**		**316,101**	**2,605,030**		**316,614**	**0.2**
Cassava	0	0	180	18	0	180	18	0.0
Sweet Potato	0	0	9,812	3,591	0	9,812	3,591	0.0
ROOTS & TUBERS		**0**		**3,610**	**0**		**3,610**	**0.0**
Beans	612	302	13,472	6,118	8,815,508	14,084	**6,420**	**4.7**
Cowpeas	0	0	5,069	1,264	0	5,069	*1,264*	0.0
Green gram	0	0	2,171	1,527	0	2,171	1,527	0.0
Chick peas	180	146	3,988	5,803	2,697,008	4,168	5,949	2.4
Bambaranuts	0	0	3,780	1,401	0	3,780	1,401	0.0
PULSES		**448**		**16,113**	**11,512,516**		**16,560**	**2.7**
Sunflower	0	0	89,975	99,363	0	89,975	**99,363**	**0.0**
Simsim	0	0	6,996	5,498	0	6,996	5,498	0.0
Groundnut	0	0	30,892	15,376	0	30,892	15,376	0.0
OIL SEEDS & OIL NUTS		**0**		**120,237**	**0**		**120,237**	**0.0**
Okra	216	219	543	1,110	8,640,990	759	**1,329**	**16.5**
Turmeric	0	0	216	175	0	216	175	0.0
Bitteer Aubergine	0	0	180	36	0	180	36	0.0
Onion	817	201	2,638	1,363	5,507,630	3,455	1,564	12.8
Cabbage	0	0	167	42	0	167	42	0.0
Tomatoes	638	95	111	17	5,905,677	749	112	85.0
Spinach	0	0	56	6	0	56	6	0.0
Chillies	0	0	317	258	0	317	258	0.0
Amaranths	0	0	56	11	0	56	11	0.0
FRUITS & VEGETABLES		**515**		**3,019**	**20,054,297**		**3,534**	**14.6**
Cotton	0	0	2,185	2,122	0	2,185	2,122	0.0
Tobacco	412	500	1,517	1,731	16,977,332	1,929	2,231	22.4
CASH CROPS		**500**		**3,853**	**16,977,332**		**4,353**	**11.5**
Total		**1,975**		**462,932**	**51,149,174**		**464,907**	**0.4**

5.32 Planted Area & Number of Crop Growing Households by Insecticide use and Crop for the 2007/08 agriculture year - LONG RAINY SEASON (MASIKA)

Total

Crops	Insecticide use							% of Planted area using Insecticide
	Number of Households using Insecticide	Planted Area Insecticide Used	Number of Households NOT using Insecticide	Planted Area Insecticide not Used	Cost of Insecticide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	3,512	3,335	141,183	146,906	42,932,634	3,614	150,240	2.2
Paddy	0	0	11,425	13,066	0	111	13,066	0.0
Sorghum	451	128	107,971	97,384	944,994	7,617	97,513	0.1
Bulrush Millet	56	45	58,905	48,846	166,793	11,954	1,548	2.9
Finger Millet	56	11	9,015	6,819	55,598	1,001	237	**4.8**
Wheat	0	0	180	73	0	0	73	0.0
CEREALS		**3,519**		**313,094**	**44,100,019**		**316,614**	**1.1**
Cassava	0	0	180	18	0	0	0	0.0
Sweet Potato	0	0	9,812	3,591	0	723	1,347	0.0
ROOTS & TUBERS		**0**		**3,610**	**0**		**1,365**	**0.0**
Beans	535	196	13,549	6,224	3,651,943	0	**6,420**	**0.0**
Cowpeas	180	55	4,889	1,210	539,402	111	*1,264*	4.3
Green gram	0	0	2,171	1,527	0	0	1,527	0.0
Chick peas	719	1,092	3,449	4,857	28,228,680	0	5,949	0.0
Bambaranuts	0	0	3,780	1,401	0	0	1,401	0.0
PULSES		**1,342**		**15,218**	**32,420,025**		**16,560**	**8.1**
Sunflower	180	73	89,795	99,290	143,840	3,225	**99,363**	**0.1**
Simsim	0	0	6,996	5,498	0	0	5,498	0.0
Groundnut	0	0	30,892	15,376	0	0	15,376	0.0
OIL SEEDS & OIL NUTS		**73**		**120,164**	**143,840**		**3,161**	**2.3**
Okra	0	0	543	1,329	0	111	**1,329**	**0.0**
Turmeric	0	0	216	175	0	0	0	0.0
Bitteer Aubergine	0	0	180	36	0	0	36	0.0
Onion	1,106	496	2,349	1,068	17,899,126	334	1,564	31.7
Cabbage	111	31	56	11	639,374	167	42	73.4
Tomatoes	402	65	347	48	4,385,086	389	112	57.5
Spinach	0	0	56	6	0	56	6	0.0
Chillies	0	0	317	258	0	111	258	0.0
Amaranths	0	0	56	11	0	56	11	0.0
FRUITS & VEGETABLES		**591**		**2,942**	**22,923,586**		**3,534**	**16.7**
Cotton	539	801	1,645	1,321	9,529,427	0	2,122	0.0
Tobacco	514	542	1,415	1,689	5,226,960	0	2,231	0.0
CASH CROPS		**1,342**		**3,011**	**14,756,387**		**4,353**	**0.0**
Total		**6,868**		**458,039**	**114,343,858**		**464,907**	**1.5**

5.33 Planted Area & Number of Crop Growing Households by Herbicide use and Crop for the 2007/08 agriculture year - LONG RAINY SEASON (MASIKA)

Total

Crops	Herbicide use							% of Planted area using Herbicide
	Number of Households using Herbicide	Planted Area Herbicide Used	Number of Households NOT using Herbicide	Planted Area Herbicide not Used	Cost of Herbicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	525	512	143,594	149,728	10,236,838	3,614	150,240	0.3
Paddy	0	0	11,425	13,066	0	111	13,066	0.0
Sorghum	0	0	108,206	97,513	0	7,617	97,513	0.0
Bulrush Millet	0	0	58,960	48,891	0	11,954	1,548	0.0
Finger Millet	0	0	9,070	6,830	0	1,001	611	**0.0**
Wheat	0	0	180	73	0	0	73	0.0
CEREALS		**512**		**316,102**	**10,236,838**		**316,614**	**0.2**
Cassava	0	0	180	18	0	0	0	0.0
Sweet Potato	0	0	9,812	3,591	0	723	1,347	0.0
ROOTS & TUBERS		**0**		**3,610**	**0**		**1,365**	**0.0**
Beans	216	87	13,868	6,333	2,160,248	3,614	**6,420**	**1.4**
Cowpeas	0	0	5,069	1,264	0	111	*1,264*	0.0
Green gram	0	0	2,171	1,527	0	0	1,527	0.0
Chick peas	0	0	4,168	5,949	0	0	5,949	0.0
Bambaranuts	0	0	3,780	1,401	0	0	1,401	0.0
PULSES		**87**		**16,473**	**2,160,248**		**16,560**	**0.5**
Sunflower	180	9	89,975	99,354	0	3,614	**99,363**	**0.0**
Simsim	0	0	6,996	5,498	0	0	5,498	0.0
Groundnut	0	0	30,892	15,376	0	0	15,376	0.0
OIL SEEDS & OIL NUTS		**9**		**120,228**	**0**		**581**	**1.6**
Okra	0	0	543	1,329	0	111	**1,329**	**0.0**
Turmeric	0	0	216	175	0	0	0	0.0
Bitteer Aubergine	0	0	180	36	0	0	0	0.0
Onion	0	0	3,455	1,564	0	334	1,564	0.0
Cabbage	0	0	167	42	0	167	42	0.0
Tomatoes	0	0	749	112	0	389	112	0.0
Spinach	0	0	56	6	0	56	6	0.0
Chillies	0	0	317	258	0	111	258	0.0
Amaranths	0	0	56	11	0	56	11	0.0
FRUITS & VEGETABLES		**0**		**3,534**	**0**		**3,534**	**0.0**
Cotton	0	0	2,185	2,122	0	0	2,122	0.0
Tobacco	412	250	1,723	1,981	14,919,474	3,614	2,231	11.2
CASH CROPS		**250**		**4,103**	**14,919,474**		**4,353**	**0.0**
Total		**859**		**464,049**	**27,316,559**		**464,907**	**0.2**

5.34 Planted Area & Number of Crop Growing Households by Irrigation Use and Crop for the 2007/08agriculture year - LONG SEASON

Crops	Irrigation use						% of Planted area using Irrigation
	Number of Households using Irrigation	Planted Area Irrigation Used	Number of Households NOT using Irrigation	Planted Area Irrigation not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	2,266	1,979	142,109	148,261	144,375	150,240	1.3
Paddy	3,806	1,501	7,619	11,565	11,425	13,066	11.5
Sorghum	1,461	1,578	106,745	95,935	108,206	97,513	1.6
Bulrush Millet	1,630	1,997	57,442	46,895	59,072	48,891	4.1
Finger Millet	0	0	9,070	6,830	9,070	6,830	0.0
Wheat	0	0	180	73	180	73	0.0
CEREALS	**9,163**	**7,055**	**323,165**	**309,559**	**332,329**	**316614**	**2.2**
Cassava	0	0	180	18	180	18	0.0
Sweet Potato	432	131	9,596	3,460	10,028	3,591	3.7
ROOTS & TUBERS	**432**	**131**	**9,776**	**3,478**	**10,208**	**3,610**	**3.6**
Beans	103	42	13,981	6,378	14,084	6420.06049	0.6
Cowpeas	0	0	5,069	1,264	5,069	1,264	0.0
Green gram	0	0	2,171	1,527	2,171	1,527	0.0
Chick peas	0	0	4,168	5,949	4,168	5,949	0.0
Bambaranuts	0	0	3,780	1,401	3,780	1,401	0.0
PULSES	**103**	**42**	**29,170**	**16,519**	**29,273**	**16560**	**0.3**
Sunflower	272	821	89,703	98,542	89,975	99,363	0.8
Simsim	103	42	6,893	5,457	6,996	5,498	0.8
Groundnut	103	18	30,892	15,358	30,994	15,376	0.1
OIL SEEDS & OIL NUTS	**477**	**881**	**127,488**	**119,357**	**127,965**	**120237**	**0.7**
Okra	56	6	488	1,323	543	1,329	0.4
Turmeric	0	0	216	175	216	175	0.0
Bitteer Aubergine	0	0	180	36	180	36	0.0
Onion	458	114	2,997	1,450	3,455	1,564	7.3
Cabbage	167	42	0	0	167	42	100.0
Tomatoes	693	107	56	6	749	112	95.0
Spinach	56	6	0	0	56	6	100.0
Chillies	111	8	206	250	317	258	3.2
Amaranths	56	11	0	0	56	11	100.0
FRUITS & VEGETABLES	**1,596**	**294**	**4,142**	**3,240**	**5,738**	**3534**	**8.3**
Cotton	0	0	2,185	2,122	2,185	2,122	0.0
Tobacco	0	0	1,929	2,231	1,929	2,231	0.0
CASH CROPS	**0**	**0**	**4,114**	**4,353**	**4,114**	**4353**	**0.0**
Total	**11,771**	**8,402**	**497,854**	**456,505**	**509,626**	**464,907**	**1.8**

5.35 Planted Area & Number of Crop Growing Households by Improved seed Use and Crop for the 2007/08 agriculture year - LONG RAINY SEASON

Crops	Improved seed use							% of Planted area using Improved seed
	Number of Households using Improved seed	Planted Area Improved seed Used	Number of Households NOT using Improved seed	Planted Area without Improved seed	Cost of Improved seed	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	23,238	25,419	125,825	124,822	669,902,016	149,063	150,240	16.9
Paddy	1,007	685	10,624	12,381	18,516,604	11,631	13,066	5.2
Sorghum	4,037	3,823	104,585	93,690	39,036,190	108,622	97,513	3.9
Bulrush Millet	971	1,668	57,989	47,223	4,977,352	58,960	48,891	3.4
Finger Millet	111	34	8,959	6,797	194,592	9,070	6,830	**0.5**
Wheat	0	0	180	73	0	180	73	0.0
CEREALS		**31,628**		**284,985**	**732,626,753**		**316,614**	**10.0**
Cassava	0	0	180	18	0	180	18	0.0
Sweet Potato	580	172	9,448	3,420	3,948,346	10,028	3,591	4.8
ROOTS & TUBERS		**172**		**3,438**	**3,948,346**		**3,610**	**4.8**
Beans	2,847	822	11,632	5,598	137,887,609	14,480	**6,420**	**12.8**
Cowpeas	997	249	4,251	1,015	4,067,382	5,249	*1,264*	19.7
Green gram	309	271	1,862	1,256	3,035,341	2,171	1,527	17.7
Chick peas	180	364	3,988	5,585	12,586,036	4,168	5,949	6.1
Bambaranuts	422	325	3,461	1,076	3,950,887	3,883	1,401	23.2
PULSES		**2,030**		**14,530**	**161,527,254**		**16,560**	**12.3**
Sunflower	10,980	12,658	80,651	86,704	255,843,846	91,631	**99,363**	**12.7**
Simsim	926	698	6,070	4,801	3,241,127	6,996	5,498	12.7
Groundnut	2,875	1,624	28,222	13,752	68,101,226	31,097	15,376	10.6
OIL SEEDS & OIL NUTS		**14,981**		**105,257**	**327,186,199**		**120,237**	**12.5**
Okra	0	0	543	1,329	0	543	**1,329**	**0.0**
Turmeric	0	0	216	175	0	216	175	0.0
Bitteer Aubergine	180	36	0	0	719,202	180	36	100.0
Onion	471	76	3,040	1,488	4,655,937	3,511	1,564	4.8
Cabbage	111	31	56	11	611,575	167	42	73.4
Tomatoes	638	94	167	18	5,369,269	804	112	83.7
Spinach	56	6	0	0	55,598	56	6	100.0
Chillies	111	8	206	250	88,956	317	258	3.2
Amaranths	56	11	0	0	115,087	56	11	100.0
FRUITS & VEGETABLES		**262**		**3,271**	**11,615,625**		**3,534**	**7.4**
Cotton	1,105	1,378	1,260	744	8,191,800	2,364	2,122	64.9
Tobacco	720	916	1,209	1,314	15,814,642	1,929	2,231	41.1
CASH CROPS		**2,294**		**2,058**	**24,006,442**		**4,353**	**52.7**
Total		**51,368**		**413,540**	**1,260,910,620**		**464,907**	**11.0**
Cucumber	212	10	0	0	253,816	212	10	100.0
Egg Plant	0	0	0	0	0	0	0	0.0
Water Mellon	0	0	0	0	0	0	0	0.0
FRUITS & VEGETABLES		**471**		**21**	**23,647,235**	**4,442**	**492**	**95.7**
Tobacco	0	0	0	0	**0**	0	0	0.0
CASH CROPS		**0**		**0**	**0**	**0**	**0**	**0.0**
Total		**14,459**		**14,988**	**804,119,356**	**77,837**	**29,447**	**49.1**

5.36 Planted Area & Number of Crop Growing Households by Local seed Use and Crop for the 2007/08 agriculture year - LONG RAINY SEASON

Crops	Local seed use							% of Planted area using Local seed
	Number of Households using Local seed	Planted Area Local seed Used	Number of Households NOT using Local seed	Planted Area Local seed not Used	Cost of Local seed	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	120,958	118,789	26,377	31,506	985,316,270	147,334	150,295	79.0
Paddy	10,419	12,298	1,007	768	117,676,363	11,425	13,066	94.1
Sorghum	104,170	93,357	5,192	4,156	683,737,141	109,361	97,513	95.7
Bulrush Millet	57,989	46,922	1,842	1,969	297,264,971	59,831	48,891	96.0
Finger Millet	8,959	6,797	111	34	62,243,375	9,070	6,830	99.5
Wheat	180	73	0	0	899,003	180	73	100.0
CEREALS		**278,235**		**38,433**	**2,147,137,122**		**316,668**	**87.9**
Cassava	180	18	0	0	2,697,008	180	18	100.0
Sweet Potato	9,232	3,385	580	206	348,247,436	9,812	3,591	94.3
ROOTS & TUBERS		**3,404**		**206**	**350,944,444**		**3,610**	**94.3**
Beans	11,237	5,534	3,053	886	151,853,629	14,290	**6,420**	**86.2**
Cowpeas	4,072	945	1,429	319	26,893,891	5,501	*1,264*	74.8
Green gram	1,862	1,256	309	271	9,980,160	2,171	1,527	82.3
Chick peas	3,988	5,585	180	364	86,745,751	4,168	5,949	93.9
Bambaranuts	3,358	1,018	525	382	57,989,338	3,883	1,401	72.7
PULSES		**14,339**		**2,221**	**333,462,768**		**16,560**	**86.6**
Sunflower	78,995	84,038	12,249	15,324	1,025,888,226	91,244	**99,363**	**84.6**
Simsim	6,070	4,801	926	698	33,064,543	6,996	5,498	87.3
Groundnut	28,016	13,562	3,092	1,814	267,380,293	31,108	15,376	88.2
OIL SEEDS & OIL NUTS		**102,401**		**17,836**	**1,326,333,061**		**120,237**	**85.2**
Okra	543	1,329	0	0	14,333,498	543	**1,329**	**100.0**
Turmeric	216	175	0	0	259,230	216	175	100.0
Bitteer Aubergine	0	0	180	36	0	180	36	0.0
Onion	2,984	1,487	471	77	37,451,782	3,455	1,564	95.1
Cabbage	56	11	111	31	27,799	167	42	26.6
Tomatoes	111	17	638	95	2,335,106	749	112	15.0
Spinach	0	0	56	6	0	56	6	0.0
Chillies	206	250	111	8	1,183,269	317	258	96.8
Amaranths	0	0	56	11	0	56	11	0.0
FRUITS & VEGETABLES		**3,268**		**265**	**55,590,683**		**3,534**	**92.5**
Cotton	1,080	708	1,105	1,414	4,700,110	2,185	2,122	33.4
Tobacco	1,209	1,314	720	916	40,789,016	1,929	2,231	58.9
CASH CROPS		**2,022**		**2,331**	**45,489,125**		**4,353**	**46.5**
Total		**403,669**		**61,293**	**4,258,957,204**		**464,962**	**86.8**

5.37 Planted Area & Number of Crop Growing Households by Organic Fertilizers Use and Crop for the 2007/08 agriculture year - LONG RAINY SEASON

Total

Crops	Organic Fertilizers							% of Planted area using Organic Fertilizers
	Number of Households Organic Fertilizersl seed	Planted Area Organic Fertilizers Used	Number of Households NOT using Organic Fertilizers	Planted Area Organic Fertilizers not Used	Cost of Organic Fertilizers	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	33,415	23,973	121,468	126,267	1,021,418,145	144,016	150,240	16.0
Paddy	488	220	10,938	12,846	1,898,175	11,425	13,066	1.7
Sorghum	15,891	9,111	97,243	88,402	237,138,773	108,206	97,513	9.3
Bulrush Millet	17,563	12,974	45,091	35,917	753,661,164	58,960	1,548	838.2
Finger Millet	821	480	8,416	6,351	7,193,545	9,070	237	**202.7**
Wheat	0	0	180	73	0	180	73	0.0
CEREALS		**46,757**		**269,856**	**2,021,309,802**		**316,614**	**14.8**
Cassava	0	0	180	18	0	180	18	0.0
Sweet Potato	0	0	9,812	3,591	0	9,812	1,347	0.0
ROOTS & TUBERS		**0**		**3,610**	**0**		**1,365**	**0.0**
Beans	3,007	1,008	11,653	5,412	214,004,001	14,084	**6,420**	**15.7**
Cowpeas	895	155	4,390	1,110	13,899,578	5,069	*1,264*	12.2
Green gram	0	0	2,171	1,527	0	2,171	1,527	0.0
Chick peas	0	0	4,168	5,949	0	4,168	5,949	0.0
Bambaranuts	0	0	3,780	1,401	0	3,780	1,401	0.0
PULSES		**1,162**		**15,398**	**227,903,579**		**16,560**	**7.0**
Sunflower	4,531	5,802	85,715	93,561	145,858,582	89,975	**99,363**	**5.8**
Simsim	0	0	6,996	5,498	0	6,996	5,498	0.0
Groundnut	755	328	30,316	15,049	3,146,509	30,892	15,376	2.1
OIL SEEDS & OIL NUTS		**6,129**		**114,108**	**149,005,091**		**581**	**1055.5**
Okra	0	0	543	1,329	0	543	**1,329**	**0.0**
Turmeric	0	0	216	175	0	216	0	0.0
Bitteer Aubergine	0	0	180	36	0	180	36	0.0
Onion	674	236	2,781	1,327	6,913,617	3,455	1,564	15.1
Cabbage	111	31	56	11	400,304	167	0	0.0
Tomatoes	513	88	235	24	26,985,159	749	0	0.0
Spinach	0	0	56	6	0	56	6	0.0
Chillies	56	3	261	256	44,478	317	250	0.0
Amaranths	56	11	0	0	222,391	56	11	0.0
FRUITS & VEGETABLES		**370**		**3,164**	**34,565,950**		**3,534**	**10.5**
Cotton	0	0	2,185	2,122	0	2,185	2,122	0.0
Tobacco	103	167	1,826	2,064	24,694,301	1,929	2,231	7.5
CASH CROPS		**167**		**4,186**	**24,694,301**		**4,353**	**3.8**
Total		**54,586**		**410,322**	**2,457,478,723**		**464,907**	**11.7**

5.38 Planted Area & Number of Crop Growing Households by Inorganic Fertilizers Use and Crop for the 2007/08 agriculture year - LONG RAINY SEASON

Crops	Inorganic Fertilizers							% of Planted area using Inrganic Fertilizers
	Number of Households using Inrganic Fertilizers	Planted Area Inrganic Fertilizers Used	Number of Households NOT using Inrganic Fertilizers	Planted Area Inrganic Fertilizers not Used	Cost of Inrganic Fertilizers	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Maize	2,443	3,238	141,572	147,002	275,947,123	144,016	150,240	2.2
Paddy	0	0	11,425	13,066	0	11,425	13,066	0.0
Sorghum	0	0	108,206	97,513	0	108,206	97,513	0.0
Bulrush Millet	56	23	58,905	48,869	833,967	58,960	48,891	0.0
Finger Millet	0	0	9,070	6,830	0	9,070	6,830	**0.0**
Wheat	0	0	180	73	0	180	73	0.0
CEREALS		**3,260**		**313,353**	**276,781,090**		**316,614**	**1.0**
Cassava	0	0	180	18	0	180	18	0.0
Sweet Potato	0	0	9,812	3,591	0	9,812	3,591	0.0
ROOTS & TUBERS		**0**		**3,610**	**0**		**3,610**	**0.0**
Beans	0	0	14,084	6,420	0	14,084	**6,420**	**0.0**
Cowpeas	0	0	5,069	1,264	0	5,069	*1,264*	0.0
Green gram	0	0	2,171	1,527	0	2,171	1,527	0.0
Chick peas	0	0	4,168	5,949	0	4,168	5,949	0.0
Bambaranuts	0	0	3,780	1,401	0	3,780	1,401	0.0
PULSES		**0**		**16,560**	**0**		**16,560**	**0.0**
Sunflower	103	1,416	89,872	97,946	10,361,317	89,975	**99,363**	**1.4**
Simsim	0	0	6,996	5,498	0	6,996	5,498	0.0
Groundnut	0	0	30,892	15,376	0	30,892	15,376	0.0
OIL SEEDS & OIL NUTS		**1,416**		**118,821**	**10,361,317**		**120,237**	**1.2**
Okra	0	0	543	1,329	0	543	**1,329**	**0.0**
Turmeric	0	0	216	175	0	216	175	0.0
Bitteer Aubergine	0	0	180	36	0	180	36	0.0
Onion	180	18	3,275	1,546	1,258,604	3,455	1,564	1.2
Cabbage	0	0	167	42	0	167	42	0.0
Tomatoes	180	18	569	94	539,402	749	112	16.2
Spinach	0	0	56	6	0	56	6	0.0
Chillies	0	0	317	258	0	317	258	0.0
Amaranths	0	0	56	11	0	56	11	0.0
FRUITS & VEGETABLES		**36**		**3,497**	**1,798,005**		**3,534**	**1.0**
Cotton	0	0	2,185	2,122	0	2,185	2,122	0.0
Tobacco	1,543	1,947	488	283	562,825,723	2,032	2,231	87.3
CASH CROPS		**1,947**		**2,405**	**562,825,723**		**4,353**	**44.7**
Total		**6,661**		**458,247**	**851,766,135**		**464,907**	**1.4**

MARKETING

5.39 Number of Households Reporting Marketing Problems for agricultural products by Crop , LONG RAINY SEASON- IRAMBA

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	13,485	1,618	1,259	0	1,438	0	0	0	180	719	2,517	180	34,162
Paddy	1,079	180	0	0	0	0	0	0	0	0	180	0	719
Sorghum	9,709	180	0	180	1,079	0	0	0	0	360	1,978	180	23,194
Bulrush Millet	3,776	180	180	0	0	0	0	0	180	0	0	0	7,911
Finger Millet	180	0	0	0	0	0	0	0	0	0	0	0	360
Wheat	180	0	0	0	0	0	0	0	0	0	0	0	0
CEREALS	**28,408**	**2,158**	**1,438**	**180**	**2,517**	**0**	**0**	**0**	**360**	**1,079**	**4,675**	**360**	**66,346**
Cassava	0	0	0	0	0	0	0	0	0	0	0	0	180
Sweet Potato	539	0	0	0	0	0	0	0	0	180	360	0	2,877
ROOTS & TUBERS	**539**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**180**	**360**	**0**	**3,057**
Beans	1,079	0	0	0	180	0	0	0	0	0	180	0	3,057
Cowpeas	180	0	0	0	0	0	0	0	0	0	180	0	360
Green gram	0	0	0	0	0	0	0	0	0	0	0	0	0
Chick peas	1,618	0	180	0	180	0	0	0	0	0	360	0	360
Bambaranuts	180	180	0	0	0	0	0	0	0	0	0	0	180
PULSES	**3,057**	**180**	**180**	**0**	**360**	**0**	**0**	**0**	**0**	**0**	**719**	**0**	**3,956**
Sunflower	24,453	1,438	719	180	2,697	180	0	0	180	1,618	5,394	0	2,517
Simsim	719	0	0	0	0	0	0	0	0	0	0	0	0
Groundnut	3,416	180	0	0	0	0	0	0	0	180	180	0	3,776
OIL SEEDS & OIL NUTS	**28,588**	**1,618**	**719**	**180**	**2,697**	**180**	**0**	**0**	**180**	**1,798**	**5,574**	**0**	**6,293**
Okra	0	0	0	0	0	0	0	0	0	0	0	0	0
Turmeric	0	0	0	0	0	0	0	0	0	0	0	0	0
Bitteer Aubergine	180	0	0	0	0	0	0	0	0	0	0	0	0
Onion	539	0	0	0	0	0	0	0	0	0	0	0	0
Cabbage	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes	180	0	0	0	0	0	0	0	0	180	0	0	0
Spinach	0	0	0	0	0	0	0	0	0	0	0	0	0
Chillies	0	0	0	0	0	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**899**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**180**	**0**	**0**	**0**
Cotton	899	0	0	0	0	180	0	0	0	180	0	0	0
Tobacco	180	0	0	0	0	0	0	0	0	0	0	0	0
CASH CROPS	**1,079**	**0**	**0**	**0**	**0**	**180**	**0**	**0**	**0**	**180**	**0**	**0**	**0**
Total	**62,571**	**3,956**	**2,337**	**360**	**5,574**	**360**	**0**	**0**	**539**	**3,416**	**11,327**	**360**	**79,652**

5.42 Number of Households Reporting Marketing Problems for agricultural products by Crop, LONG RAINY SEASON- MANYONI

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	Goernment Rugulatory Problems	Lack of Market Information	No problem	Other	Not Applicable
Maize	8,026	1,441	1,132	206	103	0	0	0	0	103	5,145	103	15,228
Paddy	4,013	0	103	0	0	0	0	0	0	0	0	0	720
Sorghum	3,293	412	103	103	0	0	0	0	0	206	2,264	0	6,585
Bulrush Millet	206	206	0	0	0	0	0	0	0	0	103	0	1,646
Finger Millet	412	0	103	0	0	0	0	0	0	0	0	0	103
Wheat	0	0	0	0	0	0	0	0	0	0	0	0	0
CEREALS	**15,948**	**2,058**	**1,441**	**309**	**103**	**0**	**0**	**0**	**0**	**309**	**7,511**	**103**	**24,283**
Cassava	0	0	0	0	0	0	0	0	0	0	0	0	0
Sweet Potato	309	103	0	206	0	0	0	0	0	0	206	0	2,367
ROOTS & TUBERS	**309**	**103**	**0**	**206**	**0**	**0**	**0**	**0**	**0**	**0**	**206**	**0**	**2,367**
Beans	1,955	514	412	0	0	0	0	0	206	0	1,749	0	2,161
Cowpeas	103	0	0	0	103	103	0	0	0	0	617	0	720
Green gram	1,029	103	0	0	309	0	0	0	0	0	206	0	309
Chick peas	309	0	103	0	206	0	0	0	0	0	0	0	206
Bambaranuts	514	0	0	0	103	0	0	0	0	0	206	0	1,338
PULSES	**3,910**	**617**	**514**	**0**	**720**	**103**	**0**	**0**	**206**	**0**	**2,778**	**0**	**4,733**
Sunflower	6,894	412	617	0	617	0	0	0	103	0	1,852	0	1,235
Simsim	4,836	0	103	0	206	0	0	0	0	103	309	0	720
Groundnut	7,511	309	206	309	206	0	0	0	206	206	1,852	0	7,820
OIL SEEDS & OIL NUTS	**19,241**	**720**	**926**	**309**	**1,029**	**0**	**0**	**0**	**309**	**309**	**4,013**	**0**	**9,775**
Okra	0	0	0	0	0	0	0	0	0	0	0	0	0
Turmeric	0	0	0	0	0	0	0	0	0	0	0	0	0
Bitteer Aubergine	0	0	0	0	0	0	0	0	0	0	0	0	0
Onion	103	0	0	0	0	0	0	0	0	0	0	0	103
Cabbage	0	0	0	0	0	0	0	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0	0	0	0	0	0
Chillies	206	0	0	0	0	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**309**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**103**
Cotton	926	0	0	0	0	0	0	0	0	0	0	0	0
Tobacco	103	103	309	0	0	103	103	0	0	0	720	0	309
CASH CROPS	**1,029**	**103**	**309**	**0**	**0**	**103**	**103**	**0**	**0**	**0**	**720**	**0**	**309**
Total	**40,746**	**3,601**	**3,190**	**823**	**1,852**	**206**	**103**	**0**	**514**	**617**	**15,228**	**103**	**41,569**

ACCESS TO EQUIPMENTS

6.1 Number of Agriculture Households that used Agricultural Equipment/Asset by type and District for 2007/08 agriculture year

District	Equipment/Asset Name											
	Sword		Hand Hoe		Hand Sprayer		Grater, Chiper, Oil Press na Oil Mill		Oxplough		Oxplanter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	66,526	23.0	71,381	24.7	4,495	1.6	5,394	1.9	35,960	12.5	1,618	.6
Singida Rural	73,664	26.7	86,194	31.3	2,376	.9	1,728	.6	24,843	9.0	1,296	.5
Manyoni	36,424	37.7	39,511	40.9	1,749	1.8	309	.3	4,836	5.0	309	.3
Singida Urban	13,121	31.2	14,789	35.2	445	1.1	111	.3	2,113	5.0	111	.3
Total	**189,736**		**211,875**		**9,065**		**7,542**		**67,752**	**9.64**	**3,334**	

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

District	Equipment/Asset Name											
	Ox cart		Tractor		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	16,182	5.6	360	.1	360	.1	3,416	1.2	35,241	12.2	21,576	7.5
Singida Rural	7,993	2.9	864	.3	0	.0	1,944	.7	28,515	10.3	18,146	6.6
Manyoni	1,029	1.1	103	.1	0	.0	309	.3	5,350	5.5	2,778	2.9
Singida Urban	556	1.3	0	.0	0	.0	278	.7	2,724	6.5	3,336	7.9
Total	**25,760**		**1,327**		**360**		**5,947**		**71,831**		**45,836**	**6.52**

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

District	Equipment/Asset Name										Total number of Agricultural Households
	Cow		Donkey		Shellers/Threshers		Power tiller		Ox Ridger		
	Number of Household	%	Number of Household	%	Number of Household	%	Number of Household	%	Number of Household	%	
Iramba	17,261	6.0	8,810	3.1	180	.1	0	.0	0	.0	72,819
Singida Rural	21,602	7.8	5,401	2.0	216	.1	432	.2	432	.2	87,490
Manyoni	2,572	2.7	206	.2	103	.1	103	.1	1,029	1.1	41,672
Singida Urban	4,059	9.7	334	.8	56	.1	0	.0	0	.0	15,011
Total	**45,494**		**14,750**		**554**		**535**		**1,461**		**216,992**

6.2 Number of Agricultural Equipment/Asset owned by type and District for 2007/08 agriculture year

District	Equipment/Asset Name											
	Sword		Hand Hoe		Hand Sprayer		Grater, Chiper, Oil Press na Oil Mill		Oxplough		Oxplanter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	112,915	15.4	238,415	32.5	7,911	1.1	7,552	1.0	48,546	6.6	5,394	.7
Singida Rural	134,151	18.0	304,163	40.9	3,240	.4	3,672	.5	34,132	4.6	1,512	.2
Manyoni	93,735	28.8	134,275	41.3	1,955	.6	1,029	.3	8,952	2.8	514	.2
Singida Urban	21,739	18.9	51,706	44.9	445	.4	111	.1	3,391	2.9	111	.1
Total	**362,540**		**728,560**		**13,551**		**12,364**		**95,021**		**7,532**	

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

District	Equipment/Asset Name											
	Ox cart		Trekta		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	26,071	3.6	360	.0	360	.0	8,990	1.2	129,816	17.7	50,344	6.9
Singida Rural	8,209	1.1	2,160	.3	0	0	16,202	2.2	86,626	11.6	39,533	5.3
Manyoni	1,132	.3	103	.0	0	0	720	.2	33,440	10.3	11,318	3.5
Singida Urban	556	.5	0	0	0	0	445	.4	7,728	6.7	7,784	6.8
Total	**35,968**		**2,623**		**360**		**26,357**		**257,610**		**108,979**	

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

District	Equipment/Asset Name									
	Cow		Donkey		Thrasher		Power tiller		Rigder	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	70,482	9.6	26,790	3.6	180	.0	0	0	0	0
Singida Rural	86,626	11.6	12,097	1.6	432	.1	6,913	.9	4,537	.6
Manyoni	32,308	9.9	617	.2	2,264	.7	309	.1	2,264	.7
Singida Urban	20,238	17.6	890	.8	111	.1	0	0	0	0
Total	**209,654**		**40,395**		**2,987**		**7,221**		**6,800**	

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

District	Oxen		Bulls		Cows		Donkeys		Tractor		Power Tiller	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	53,581	65.5	19,958	24.4	1,978	2.4	5,214	6.4	899	1.1	180	.2
Singida Rural	35,644	76.4	6,265	13.4	1,512	3.2	2,592	5.6	432	.9	216	.5
Manyoni	7,717	83.3	926	10.0	103	1.1	206	2.2	309	3.3	0	.0
Singida Urban	3,447	75.6	723	15.9	278	6.1	111	2.4	0	.0	0	.0
Total	**100,389**		**27,871**		**3,871**	**2.7**	**8,123**		**1,640**		**396**	

6.4 Number of Tractors/Draft animals Owned by Type and District for 2007/08 agriculture year

District	Oxen		Bulls		Cows		Donkeys		Tractor		Power Tiller	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iramba	117,050	49.8	33982	14	64,009	27.2	19059	8.1	539	.2	539	0
Singida Rural	90,730	50.7	19,442	10.9	45,365	25.4	7129	4	1,080	.6	15122	8
Manyoni	32926	48.41	11112	16	23562	34.6	412	.6	0	.0	0	0
Singida Urban	7,005	52.5	2,002	15.0	3,892	29.2	445	3.3	0	.0	0	.0
Total	247,712		66,538		136,829	27.6	27,044		1,620		15,661	

IRRIGATION

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
Iramba	2,337	3.2	70,482	96.8	72,819
Singida Rural	1,296	1.5	86,194	98.5	87,490
Manyoni	5,145	12.3	36,527	87.7	41,672
Singida Urban	500	3.3	14,511	96.7	15,011
Total	**9,279**	**4.3**	**207,714**	**95.7**	**216,992**

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
Iramba	1,618	0	0	360	0	0	0	1,978
Singida Rural	0	0	0	648	0	0	216	864
Manyoni	617	0	0	514	309	3,601	0	5,042
Singida Urban	56	0	0	334	0	111	0	500
Total	**2,291**	**0**	**0**	**1,856**	**309**	**3,712**	**216**	**8,384**

6.7 Number of Agriculture Households by method of used to obtain water and District during 2007/08 agriculture year

District	Main method of Obtaining Water					
	Gravity	Hand bucket	Hand pump	motor pump	Other	Total
Iramba	1,259	719	0	0	0	1,978
Singida Rural	0	648	216	0	0	864
Manyoni	3,807	1,132	103	0	0	5,042
Singida Urban	111	334	56	0	0	500
Total	**5,177**	**2,833**	**375**	**0**	**0**	**8,384**

SOIL EROSION CONTROL

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
Iramba	13,305	18	59,514	82	72,819
Singida Rural	21,602	25	65,888	75	87,490
Manyoni	4,424	11	37,247	89	41,672
Singida Urban	2,280	15	12,732	85	15,011
Total	**41,612**	**19**	**175,381**	**81**	**216,992**

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

	Presence of Erosion Control/Water Harvesting Facilities				
	Have any erosion control/water harvesting facilities		Do not have have any erosion control/water harvesting facilities		Total
District	Number	%	Number	%	Number
Iramba	8,990	12.3	63,829	87.7	72,819
Singida Rural	16,418	18.8	71,072	81.2	87,490
Manyoni	1,955	4.7	39,717	95.3	41,672
Singida Urban	1,223	8.1	13,788	91.9	15,011
Total	**28,586**	**13.2**	**188,406**	**86.8**	**216,992**

6.10 Number of Erosion Control/Water Harvesting Structures by Type and District as of 2007/08agriculture year

District	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Others
Iramba	19,418	18,699	6,832	0	1,978	5,394	539	0
Singida Rural	24,627	58,543	432	8,425	5,185	3,456	1,512	1,080
Manyoni	1,029	23,048	0	0	309	0	2,367	309
Singida Urban	4,003	7,728	0	56	0	0	278	0
Total	**49,077**	**108,018**	**7,264**	**8,481**	**7,471**	**8,850**	**4,696**	**1,389**

AGRICULTURAL CREDIT

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

strict	Households Receiving Credit				
	borrowed money for agriculture		Did not borrow money for agriculture		Total
	Number	%	Number	%	Number
Iramba	360	.5	72,460	99.5	72,819
Singida Rural	432	.5	87,058	99.5	87,490
Manyoni	1,441	3.5	40,231	96.5	41,672
Singida Urban	0	.0	15,011	100.0	15,011
Total	**2,232**	**1.0**	**214,760**	**99.0**	**216,992**

7.2 Number of Households receiving Credits by Main Source of credit and District During the 2007/08 Agriculture Year

District	Family, friend or relative		Bank		Savings & credit Soc		Cooperative		NGO/Project		Trader/trade store		Private individual		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Iramba	180	50.0	0	0.0	0	0.0	0	0.0	180.0	50	0	0.0	0	0.0	360
Singida Rural	0	0.0	0	0.0	432	100.0		0.0			0	0.0	0	0.0	432
Manyoni	720	50.0	103	7.1	103	7.2	514	35.7			0	0.0	0	0.0	1,441
Singida Urban	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0	0	0.0	0	0.0	0
Total	**900**	**40.3**	**103**	**4.6**	**535**	**24.0**	**514**	**23.0**	**180.0**	**8.1**	**0**	**0.0**	**180**	**0.0**	**2,232**

7.3 Number of Households Reporting the Main reasons for Not Using Credit by District During the 2007/08 Agriculture 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		Difficult bureaucratic procedure		Credit granted too late		Other (specify)		Dont know about credit		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Iramba	4,135	5.7	14,204	19.6	10,608	14.6	2,337	3.2	17,620	24.3	1,438	2.0	1,259	1.7	360	0.5	20,497	28.3	72,460
Singida Rural	4,969	5.7	12,097	13.9	6,265	7.2	1,944	2.2	29,379	33.7	2,808	3.2	1,296	1.5	0	0.0	28,299	32.5	87,058
Manyoni	3,601	9.0	4,527	11.3	6,071	15.1	2,264	5.6	13,273	33.0	1,441	3.6	412	1.0	412	1.0	8,231	20.5	40,231
Singida Urban	3,058	20.4	1,112	7.4	2,057	13.7	389	2.6	4,448	29.6	389	2.6	111	0.7	222	1.5	3,225	21.5	15,011
Total	**15,763**	**7.3**	**31,941**	**14.9**	**25,001**	**11.6**	**6,934**	**3.2**	**64,721**	**30.1**	**6,076**	**2.8**	**3,078**	**1.4**	**994**	**0.5**	**60,253**	**28.1**	**214,760**

7.4 Number of Households receiving Credits by Main Source of credit B and District During the 2007/08 Agriculture Year

District	Family, friend or relative		Bank		Trade/trade store		Cooperative		Total
	Number	%	Number	%	Number	%	Number	%	Number
Iramba	0	0.0	0	0.0	0	0.0	0	0.0	0
Singida Rural	0	0.0	0	0.0	0	0.0	0	0.0	0
Manyoni	206	66.7	0	0.0	103	33.3	0	0.0	309
Singida Urban	0	0.0	0	0.0	0	0.0	0	0.0	0
Total	**206**	**66.7**	**0**	**0.0**	**103**	**33.3**	**0**	**0.0**	**309**

7.5 Number of Households receiving Credits by Main Source of credit C and District During the 2007/08 Agriculture Year

District	Family, friend or relative		Bank		Savings & credit Soc		Cooperative		Total
	Number	%	Number	%	Number	%	Number	%	Number
Iramba	0	0.0	0	0.0	0	0.0	0	0.0	0
Singida Rural	0	0.0	0	0.0	0	0.0	0	0.0	0
Manyoni	206	100.0	0	0.0	0	0.0	0	0.0	206
Singida Urban	0	0.0	0	0.0	0	0.0	0	0.0	0
Total	**206**	**100.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**206**

7.6 Provision of credit A by sex and District During the 2007/08 Agriculture Year

District	Male		Female		Total
	Number	%	Number	%	Number
Iramba	360	100.0	0	.0	360
Singida Rural	432	100.0	0	.0	432
Manyoni	1,132	78.6	309	21.4	1,441
Singida Urban	0	.0	0	.0	0
Total	**1,923**	**86.2**	**309**	**13.8**	**2,232**

7.7 Provision of credit A by sex and District During the 2007/08 Agriculture Year

District	Male		Female		Total
	Number	%	Number	%	Number
Iramba	360	100.0	0	.0	360
Singida Rural	432	100.0	0	.0	432
Manyoni	1,132	78.6	309	21.4	1,441
Singida Urban	0	.0	0	.0	0
Total	**1,923**	**86.2**	**309**	**13.8**	**2,232**

7.8 Provision of credit B by sex and District During the 2007/08 Agriculture Year

District	Male		Female		Total
	Number	%	Number	%	Number
Iramba	0		180	100	180
Singida Rural	0		0		0
Manyoni	103	50	103	50	206
Singida Urban	0		0		0
Total	**103**	**27**	**283**	**73**	**386**

7.9 Provision of credit C by sex and District During the 2007/08 Agriculture Year

District	Male		Female		Total
	Number	%	Number	%	Number
Iramba	0	.0	180	100.0	180
Singida Rural	216	100.0	0	.0	216
Manyoni	103	50.0	103	50.0	206
Singida Urban	0	.0	56	100.0	56
Total	**319**	**48.5**	**338**	**51.5**	**657**

CROP EXTENSION

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

District	Households that received Crop Advices		Households that did NOT receive Crop advices		Total Number of Households
	Number	%	Number	%	
Iramba	69,223	95.1	3,596	4.9	72,819
Singida Rural	37,804	43.2	49,686	56.8	87,490
Manyoni	25,209	60.5	16,463	39.5	41,672
Singida Urban	10,564	70.4	4,448	29.6	15,011
Total	**142,800**	**65.8**	**74,192**	**34.2**	**216,992**

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

District	**Number of Households Participated in Out Grower Agreement**				
	Number	%	Number	%	Number
Iramba	4,675	6	68,144	94	72,819
Singida Rural	432	0	87,058	100	87,490
Manyoni	823	2	40,848	98	41,672
Singida Urban	278	2	14,733	98	15,011
Total	**6,208**	**3**	**210,784**	**97**	**216,992**

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
Iramba	539	1	72,280	99	72,819
Singida Rural	0	0	87,490	100	87,490
Manyoni	617	1	41,054	99	41,672
Singida Urban	111	1	14,900	99	15,011
Total	**1,268**	**1**	**215,724**	**99**	**216,992**

8.4 Number of Agriculture Households Participated in Contract Production Agreement During the 2007/08 Agricultural Year

District	Number of Hholds Participated in Production Agreement		Number of Hholds NOT Participated in Production Agreement		Total Number of Households
	Number	%	Number	%	Number
Iramba	539	1	72,280	99	72,819
Singida Rural	0	0	87,490	100	87,490
Manyoni	617	1	41,054	99	41,672
Singida Urban	111	1	14,900	99	15,011
Total	**1,268**	**1**	**215,724**	**99**	**216,992**

8.5 Number of Agriculture Households By Source of Extension Messages By District During the 2007/08 Agriculture Year

District	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Newspapers		Neighbour		Other (Specify)		Total Households that received advices
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iramba	67,605	98	4,855	7	180	0	1,259	2	2,517	4	6,653	10	360	1	69,223
Singida Rural	34,564	91	1,728	5	216	1	216	1	3,456	9	11,881	31	648	2	37,804
Manyoni	20,887	83	2,161	9	1,132	4	1,646	7	4,424	18	4,527	18	412	2	25,209
Singida Urban	9,563	91	389	4	0	0	222	2	778	7	3,892	37	111	1	10,564
Total	**132,619**	**93**	**9,133**	**6**	**1,528**	**1**	**3,343**	**2**	**11,176**	**8**	**26,953**	**19**	**1,530**	**1**	**142,800**

8.6 Number of households receiving extension advice on Spacing by District during the 2007/08 agriculture year

District	Source of Crop Extension																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total	Total number of households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number		
Iramba	60,952	97.7	719	1.2	0	.0	0	.0	0	.0	539	.9	180	.3	62,391	72,819	86
Singida Rural	25,275	91.4	216	.8	0	.0	216	.8	432	1.6	1,512	5.5	0	.0	27,651	87,490	32
Manyoni	11,215	81.3	206	1.5	206	1.5	309	2.2	823	6.0	1,029	7.5	0	.0	13,788	41,672	33
Singida Urban	8,451	84.9	167	1.7	0	.0	0	.0	222	2.2	1,112	11.2	0	.0	9,952	15,011	66
Total	**105,893**	**93.1**	**1,308**	**1.1**	**206**	**.2**	**525**	**.5**	**1,478**	**1.3**	**4,192**	**3.7**	**180**	**.2**	**113,782**	**216,992**	52

8.7 Number of households receiving extension advice on Use of Agrochemicals by Source and District during the 2007/08 agriculture year

District	Use of Agro-Chemicals																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number		
Iramba	46,029	97.0	0	.0	0	.0	0	.0	180	.4	1,079	2.3	180	.4	47,467	72,819	65
Singida Rural	9,289	87.8	432	4.1	0	.0	0	.0	648	6.1	216	2.0	0	.0	10,585	87,490	12
Manyoni	7,408	85.7	206	2.4	103	1.2	103	1.2	103	1.2	617	7.1	103	1.2	8,643	41,672	21
Singida Urban	4,615	94.3	0	.0	0	.0	0	.0	222	4.5	56	1.1	0	.0	4,893	15,011	33
Total	**67,341**	**94.1**	**638**	**.9**	**103**	**.1**	**103**	**.1**	**1,153**	**1.6**	**1,968**	**2.7**	**283**	**.4**	**71,588**	**216,992**	**33**

8.8 Number of households receiving extension advice on Erosion Control by Source and District during the 2007/08 agriculture year

District	**Erosion Control**																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number		
Iramba	44,770	95.0	0	.0	180	.4	0	.0	360	.8	1,618	3.4	180	.4	47,108	72,819	65
Singida Rural	13,178	81.3	432	2.7	0	.0	0	.0	216	1.3	2,160	13.3	216	1.3	16,202	87,490	19
Manyoni	6,174	87.0	103	1.4	206	2.9	103	1.4	206	2.9	206	2.9	103	1.4	7,100	41,672	17
Singida Urban	5,949	84.9	56	.8	0	.0	56	.8	222	3.2	723	10.3	0	.0	7,005	15,011	47
Total	**70,070**	**90.5**	**591**	**.8**	**386**	**.5**	**158**	**.2**	**1,004**	**1.3**	**4,707**	**6.1**	**499**	**.6**	77,415	**216,992**	36

8.9 Number of households receiving extension advice on Organic Fertilizer use by Source and District during the 2007/08 agriculture year

District	Use of Organic Fertilizers																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television /NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number		
Iramba	52,682	94.5	180	.3	0	.0	360	.6	360	.6	1,978	3.5	180	.3	55,738	72,819	77
Singida Rural	21,170	71.0	216	.7	216	.7	0	.0	432	1.4	7,777	26.1	0	.0	29,811	87,490	34
Manyoni	9,569	79.5	309	2.6	103	.9	309	2.6	617	5.1	1,132	9.4	0	.0	12,038	41,672	29
Singida Urban	6,561	74.2	111	1.3	0	.0	56	.6	167	1.9	1,890	21.4	56	.6	8,840	15,011	59
Total	**89,982**	**84.5**	**816**	**.8**	**319**	**.3**	**724**	**.7**	**1,576**	**1.5**	**12,777**	**12.0**	**235**	**.2**	**106,428**	**216,992**	49

8.10 Number of households receiving extension advice on use of Inorganic Fertilizer by District during the 2007/08 agriculture year

District	Use of Inorganic Fertilizers																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Iramba	32,364	94.2	539	1.6	0	.0	0	.0	719	2.1	539	1.6	180	.5	34,342	72,819	47
Singida Rural	8,209	80.9	216	2.1	0	.0	0	.0	864	8.5	864	8.5	0	.0	10,153	87,490	12
Manyoni	7,305	79.8	206	2.2	514	5.6	206	2.2	309	3.4	617	6.7	0	.0	9,157	41,672	22
Singida Urban	4,059	88.0	0	.0	0	.0	56	1.2	389	8.4	111	2.4	0	.0	4,615	15,011	31
Total	**51,937**	**89.1**	**961**	**1.6**	**514**	**.9**	**261**	**.4**	**2,281**	**3.9**	**2,132**	**3.7**	**180**	**.3**	**58,267**	**216,992**	**27**

8.11 Number of households receiving extension advice on Use of Improved Seeds by Source and District during the 2007/08 agriculture year

District	Use of Improved Seeds																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/ Newspaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Iramba	48,366	94.4	899	1.8	0	.0	0	.0	539	1.1	1,079	2.1	360	.7	51,243	72,819	70
Singida Rural	24,627	89.1	432	1.6	0	.0	0	.0	864	3.1	1,728	6.2	0	.0	27,651	87,490	32
Manyoni	10,392	77.1	720	5.3	617	4.6	514	3.8	823	6.1	412	3.1	0	.0	13,479	41,672	32
Singida Urban	7,672	90.2	0	.0	0	.0	111	1.3	334	3.9	389	4.6	0	.0	8,506	15,011	57
Total	**91,058**	**90.3**	**2,051**	**2.0**	**617**	**.6**	**626**	**.6**	**2,560**	**2.5**	**3,608**	**3.6**	**360**	**.4**	**100,880**	**216,992**	46

8.12 Number of households receiving extension advice on Mechanization and Labor Saving Technologies by Source and District during the 2007/08 Agriculture year

District	Use of Mechanization and Labour Saving Technology (LST)Source of Crop Extension																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/ NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Iramba	49,086	92.5	1,079	2.0	0	.0	180	.3	360	.7	2,158	4.1	180	.3	53,041	72,819	73
Singida Rural	16,634	72.0	432	1.9	0	.0	0	.0	1,728	7.5	4,320	18.7	0	.0	23,115	87,490	26
Manyoni	9,569	76.9	309	2.5	206	1.7	309	2.5	1,338	10.7	720	5.8	0	.0	12,450	41,672	30
Singida Urban	5,171	91.2	0	.0	0	.0	0	.0	222	3.9	278	4.9	0	.0	5,671	15,011	38
Total	**80,459**	**85.3**	**1,820**	**1.9**	**206**	**.2**	**488**	**.5**	**3,648**	**3.9**	**7,476**	**7.9**	**180**	**.2**	**94,277**	**216,992**	43

8.13 Number of households receiving extension advice on Irrigation Technologies by Source and District during the 2007/08 agriculture year

District	Use of Irrigation Technology																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Iramba	31,465	92.1	539	1.6	0	.0	0	.0	899	2.6	1,079	3.2	180	.5	34,162	72,819	47
Singida Rural	5,617	74.3	216	2.9	0	.0	0	.0	432	5.7	864	11.4	432	5.7	7,561	87,490	9
Manyoni	6,276	75.3	412	4.9	103	1.2	206	2.5	617	7.4	617	7.4	103	1.2	8,334	41,672	20
Singida Urban	2,835	72.9	0	.0	0	.0	56	1.4	111	2.9	890	22.9	0	.0	3,892	15,011	26
Total	**46,194**	**85.6**	**1,167**	**2.2**	**103**	**.2**	**261**	**.5**	**2,060**	**3.8**	**3,450**	**6.4**	**715**	**1.3**	**53,949**	**216,992**	25

8.14 Number of households receiving extension advice on Crop Storage by Source and District during the 2007/08 agriculture year

District	Use of Crop Storage																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/Newspaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Iramba	42,433	92.9	180	.4	0	.0	180	.4	1,079	2.4	1,618	3.5	180	.4	45,669	72,819	63
Singida Rural	23,331	90.8	864	3.4	0	.0	0	.0	432	1.7	1,080	4.2	0	.0	25,707	87,490	29
Manyoni	9,981	73.5	514	3.8	206	1.5	206	1.5	1,646	12.1	1,029	7.6	0	.0	13,582	41,672	33
Singida Urban	4,837	87.0	0	.0	0	.0	56	1.0	56	1.0	612	11.0	0	.0	5,560	15,011	37
Total	**80,581**	**89.0**	**1,558**	**1.7**	**206**	**.2**	**441**	**.5**	**3,213**	**3.5**	**4,339**	**4.8**	**180**	**.2**	**90,518**	**216,992**	42

8.16 Number of households receiving extension advice on Vermin Control by Source and District during the 2007/08 agriculture year

	Use of Vermin Control																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%			
Iramba	37,399	93.7	360	0.9	0	0	360	0.9	180	0.5	1,438	3.6	180	0.5	39,916	72,819	55
Singida Rural	11,017	85	432	3.3	0	0	0	0	0	0	1,080	8.3	432	3.3	12,961	87,490	15
Manyoni	8,437	74.5	309	2.7	103	0.9	103	0.9	617	5.5	1,749	15.5	0	0	11,318	41,672	27
Singida Urban	3,725	74.4	56	1.1	0	0	0	0	167	3.3	1,001	20	56	1.1	5,004	15,011	33
Total	**60,578**	**87.5**	**1,156**	**1.7**	**103**	**0.1**	**462**	**0.7**	**964**	**1.4**	**5,268**	**7.6**	**667**	**1**	**69,199**	**216,992**	**32**

8.17 Number of households receiving extension Other advice Control by Source and District during the 2007/08 agriculture year

	Use of Other Advice Control																
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total	Total Number of Households	% of total number of households
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number		
Iramba	13,665	85.4	1,079	6.7	0	0	360	2.2	180	1.1	539	3.4	180	1.1	16,002	72,819	22
Singida Rural	1,512	77.8	432	22.2	0	0	0	0	0	0	0	0	0	0	1,944	87,490	2
Manyoni	3,087	73.2	309	7.3	103	2.4	0	0	103	2.4	514	12.2	103	2.4	4,219	41,672	10
Singida Urban	1,001	100	0	0	0	0	0	0	0	0	0	0	0	0	1,001	15,011	7
Total	**19,265**	**83.2**	**1,820**	**7.9**	**103**	**0.4**	**360**	**1.6**	**283**	**1.2**	**1,054**	**4.5**	**283**	**1.2**	**23,166**	**216,992**	11

CATTLE PRODUCTION

9.1 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
Iramba	37,578	354,926	99.7	180	899	0.3	180	180	0.1	37,938	356,005
Singida Rural	45,149	399,646	99.8	216	216	0.1	216	648	0.2	45,581	400,510
Manyoni	8,746	764,803	99.7	0	0	0.0	206	2,469	0.3	8,952	767,273
Singida Urban	7,228	64,938	99.8	0	0	0.0	56	111	0.2	7,283	65,049
Total	**98,701**	**1,584,313**	**99.7**	**396**	**1,115**	**0.1**	**657**	**3,409**	**0.2**	**99,754**	**1,588,837**

9.2 Number of Households Rearing Cattle, Herd of Cattle and Average Number of Cattle per Household by Herd size on 1st October 2008

Heard Size	Cattle Rearing Households	%	Heard of Cattle	Average Number of Cattle Per Houseold
1 - 5	33,900	34	121,683	4
6 - 10	37,208	38	286,773	8
11 - 15	12,773	13	161,805	13
16 - 20	5,463	6	97,591	18
21 - 30	4,035	4	101,728	25
31 - 40	1,479	1	53,745	36
41 - 50	900	1	40,169	45
61 -100	1,399	1	107,356	77
101 -150	591	1	80,783	137
151+	1,132	1	537,204	475
Total	**98,881**	**100**	**1,588,837**	**16**

9.3 Total Number of Cattle by Cattle Types and Category, on 1st October 2008

Cattle Types	**Indigeneous**	**Improved Beef**	**Improved Diary**	**Total Cattle**
Castrated Bulls (Oxen)	294,662	899	2,469	298,030
Uncastrated Bulls	178,205	0	180	178,385
Cows	597,208	216	759	598,183
Steers	53,194	0	0	53,194
Heifers	128,893	0	0	128,893
Male Calves	172,413	0	0	172,413
Female Calves	159,740	0	0	159,740
Total	**1,584,313**	**1,115**	**3,409**	**1,588,837**

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

District	Category Indigenous							
	Castrated Bulls (Oxen)	Uncastrated Bulls	Cows	Steers	Heifers	Male Calves	Female Calves	Total
Iramba	120,646	48,546	102,486	2,697	31,465	24,093	24,992	354,926
Singida Rural	98,075	40,829	133,287	4,969	36,940	38,020	47,525	399,646
Manyoni	67,601	81,491	335,637	44,861	53,093	104,128	77,993	764,803
Singida Urban	8,340	7,339	25,797	667	7,395	6,171	9,229	64,938
Total	**294,662**	**178,205**	**597,208**	**53,194**	**128,893**	**172,413**	**159,740**	**1584313**

9.5 Total Number Households rearing Cattle and Method of Cattle Identification by District as of 1st October, 2008

District	Branding	Cattle Clan	Ear notching	Colour	Earings	Others	Total
	Total	Total	Total	Total	Total	Total	
Iramba	32,004	4,315	719	2,877	180	1,978	42,073
Singida Rural	25,923	6,697	10,369	3,672	648	5,833	53,142
Manyoni	4,836	2,469	2,778	412	309	4,013	14,817
Singida Urban	2,557	1,168	2,557	1,223	334	334	8,173
Total	**65,321**	**14,649**	**16,424**	**8,184**	**1,470**	**12,157**	**118,205**

9.6 Number of Milked Cow by Category of Cattle, Season type and District during 2007/08 Agriculture Year

District	Wet Season			Dry Season		
	Improved	Indigenous	Total	Improved	Indigenous	Total
Iramba	.	58,615	58,615	1,079	53,940	55,019
Singida Rural	216	93,755	93,971	2,160	103,908	106,068
Manyoni	.	191,690	191,690	.	159,998	159,998
Singida Urban	167	16,902	17,069	167	12,009	12,176
Total	**383**	**360,961**	**361,344**	**3,406**	**329,856**	**333,262**

GOAT PRODUCTION

9.7 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
Iramba	31,105	249,923	0	0	0	0	31,105	249,923
Singida Rural	36,724	311,940	0	0	432	864	37,156	312,804
Manyoni	7,408	211,959	103	206	206	617	7,717	212,783
Singida Urban	6,394	61,436	0	0	56	2,224	6,449	63,659
Total	**81,632**	**835,257**	**103**	**206**	**693**	**3,705**	**82,428**	**839,169**

9.8 Number of Households rearing Goat, Head of Goat and Average Head per Household by Herd size on 1st. October, 2008

District	Goat Rearing Households	%	Heard of Goat	Average Per Houseold
1 - 4	209,968	78.03	431,471	2.05
5 - 9	42,341	15.74	264,427	6.25
10 - 14	10,701	3.98	118,899	11.11
15 - 19	3,078	1.14	48,848	15.87
20 - 24	1,292	.48	27,226	21.07
25 - 29	823	.31	21,023	25.55
30 - 39	615	.23	19,202	31.24
40+	260	.10	11,830	45.44
Total	**269,078**	**100.00**	**942,926**	**3.50**

9.9 Total Number of Goat by Type as of 1st. October, 2008

District	Indigenous	Improved Beef	Improved Beef	Total Goat
Billy Goat	167,518	40	0	167,558
Castrated Goat	43,110	0	0	43,110
She Goat	462,391	0	0	462,391
Male Kid	127,707	0	0	127,707
She Kid	142,160	0	0	142,160
Total	**942,887**	**40**	**0**	**942,926**

9.10 Number of Milked Goat by Category of Goat, Season type on 1st. October, 2008

	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	Total	Wet Season	Dry Season	Total	Wet Season	Dry Season	Total	Wet Season	Dry Season	Total
District	Sum	Sum	Sum	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Iramba	539	.	539	0	.	0	29	.	29	300	.	300
Singida Rural	.	.	.	.	.	.	.	.	.	.	940	940
Manyoni	.	.	.	.	.	.	90	.	90	1,000	.	1,000
Singida Urban	167	.	167	5	.	5	20	.	20	560	.	560
Total	**706**	**.**	**706**	**1**	**.**	**1**	**38**	**.**	**38**	**556**	**940**	**692**

9.11 Number of Milked Goat by Category of Goat, Season type and District, as of 1st October,2008

	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	Total	Wet Season	Dry Season	Total	Wet Season	Dry Season	Total	Wet Season	Dry Season	Total
District	Sum	Sum	Sum	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean
Iramba	539	.	539	.3	.	.3	29	.	29	300	.	300
Singida Rural	.	.	.	.	.	.	.	.	.	.	940	940
Manyoni	.	.	.	.	.	.	90	.	90	1000	.	1000
Singida Urban	167	.	167	5.0	.	5.0	20	.	20	560	.	560
Total	**706**	**.**	**706**	**.9**	**.**	**.9**	**38**	**.**	**38**	**556**	**940**	**692**

SHEEP PRODUCTION

9.12 Number of Sheep by Type and District as of 1st October 2008

Districts	Number of Households	Total Sheep
Iramba	21,037	165,596
Singida Rural	21,602	127,455
Manyoni	4,322	162,982
Singida Urban	3,892	21,739
Total	**50,852**	**477,772**

9.13 Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October 2007/08 Agriculture year

	Category of Indigenous Sheep					
Districts	Ram	Castrated Sheep	She Sheep	Male Lamb	Female Lamb	Total
Iramba	21,216	5,394	117,050	7,552	14,384	165,596
Singida Rural	19,442	1,512	68,480	14,258	23,763	127,455
Manyoni	10,598	34,160	83,035	15,022	20,167	162,982
Singida Urban	2,557	667	14,177	2,057	2,280	21,739
Total	**53,814**	**41,734**	**282,742**	**38,889**	**60,593**	**477,772**

9.14 Number of Households rearing Sheep, Head of Sheep and Average Head per Household by Herd size as of 1st. October, 2008

Herd size	Sheep Rearing Households	%	Herd of sheep	Average Per Houseold
1 - 4	26,434	52	70,300	3
5 - 9	14,819	29.1	94,962	6
10 - 14	5,268	10.4	59,303	11
15 - 19	2,585	5.1	41,422	16
20 - 24	499	1	11,394	23
25 - 29	396	0.8	10,112	26
30 - 34	158	0.3	4,922	31
40+	694	1.4	185,359	267
Total	**50,852**	**100**	**477,772**	**9**

PIG PRODUCTION

9.15 Number of Households Raising Pigs by District on 1st. October, 2008

District	During the 2007/2008 Agriculture Year				
	rearing Pigs		Not rearing pigs		Total
	Number of households raising Pigs	%	Number of households not raising pigs	%	Total
Iramba	8,990	12	63,829	88	72,819
Singida Rural	1,512	2	85,978	98	87,490
Manyoni	617	1	41,054	99	41,672
Singida Urban	0		15,011	100	15,011
Total	**11,120**	**5**	**205,873**	**95**	**216,992**

9.16 Number of Households Rearing Pigs, Head of Pigs and Average Head per Household by Herd Size as of 1st October 2008.

Herd Size	Pig rearing households		Herd of pigs		Average per household
	Number	%	Number	%	
1 - 4	7,215	64.9	16,080	32.9	2.2
5 - 9	2,903	26.1	16,980	34.7	5.8
10 - 14	462	4.2	5,267	10.8	11.4
15 - 19	180	1.6	2,697	5.5	15
20 - 24	360	3.2	7,911	16.2	22
Total	**11,120**	**100**	**48,935**	**100**	**4.4**

9.17 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
Iramba	8,451	5,754	17,441	1,978	8,451	42,073
Singida Rural	1,296	0	2,160	216	0	3,672
Manyoni	309	103	1,338	720	720	3,190
Singida Urban	0	0	0	0	0	0
Total	**10,055**	**5,857**	**20,939**	**2,914**	**9,171**	**48,935**

9.18 Number of Pigs per Household by District as of 1st October 2008

District	Number of households	Number of pigs	Average per household
Iramba	8,990	42,073	5
Singida Rural	1,512	3,672	2
Manyoni	617	3,190	5
Singida Urban	.	.	.
Total	**11,120**	**48,935**	**4**

CHICKEN AND OTHER LIVESTOCK PRODUCTION

9.19 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
Iramba	55,558	538,862	180	899	0	0	55,738	539,761
Singida Rural	71,072	713,314	216	1,296	432	2,592	71,720	717,202
Manyoni	17,903	245,811	309	7,203	412	4,836	18,624	257,850
Singida Urban	10,897	100,354	111	278	56	334	11,064	100,966
Total	**155,431**	**1,598,341**	**816**	**9,676**	**899**	**7,762**	**157,146**	**1,615,779**

9.20 Number of Households Keeping Chickens and Average Number of Chickens per Household by Flock Size as of 1st October 2008.

Heard Size	**Indigenous chicken**			**Layers**			**Broilers**		
	Number of Households	Number of Indigenous 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	153,369	1,457,136	10	816	9,676	12	899	7,762	9
50-99	1,419	76,616	54	.	.	.	.	.	.
100-299	642	64,589	101	.	.	.	.	.	.
Total	**155,431**	**1,598,341**	**10**	**816**	**9,676**	**12**	**899**	**7,762**	**9**

9.21 Number of Other Livestock by Type of livestock and District as of 1st October 2008

District	Ducks	Guine pigs	Turkeys	Rabbits	Donkeys	Horses	Dogs
Iramba	1,730	4,108	432	5,837	540	.	3,135
Singida Rural	3,662	.	0	0	0	.	2,940
Manyoni	3,521	88	0	704	3,257	.	5,281
Singida Urban	15,652	2,115	3,173	9,518	0	.	16,075
Total	1,910	2,864	0	1,476	781	.	4,861

9.22 Total Number of Other Livestock by Type as of 1st October 2008

Type	**Chicken**	**Others**	
Indigenous Chicken	1,598,341	Ducks	26,537
Layer	9,676	Guine pigs	9,175
Broiler	7,762	Turkeys	3,918
	.	Rabbits	20,724
	.	Donkeys	8,143
	.	Horses	.
	.	Dogs	**35,981**
TOTAL	**1,615,779**		**104,478**

PESTS AND PARASITES CONTROL

9.23 Number of Livestock Rearing households De-worming Livestock by District during 2007/08 Agriculture Year

	Deworming Livestock		Not Deworm Livestock		Total
District	No. of hh	%	No. of hh	%	No. of hh
Iramba	25,711	39	40,635	61	66,346
Singida Rural	34,996	47	39,749	53	74,745
Manyoni	5,145	18	23,562	82	28,707
Singida Urban	5,671	48	6,171	52	11,842
Total	**71,523**	**39**	**110,117**	**61**	**181,640**

9.24 Number of Livestock Rearing households that De-wormed Livestock by type of livestock and District, 2007/08 Agricultural Year

District	**Cattles**		**Goats/Sheep**		**Pigs**	
	No. of hh	%	No. of hh	%	No. of hh	%
Iramba	18,340	32	12,226	28	2,877	69
Singida Rural	31,756	55	23,979	55	1,080	26
Manyoni	3,293	6	3,293	8	206	5
Singida Urban	4,225	7	3,725	9	0	0
Total	**57,613**	**100**	**43,223**	**100**	**4,163**	**100**

9.25 Number of Livestock Rearing Households Normally Encountering Tick Problems by District during 2007/08 Agriculture Year

	Tick Problem		No Tick Problem		Not Applicable		Total
District	Number	%	Number	%	Number	%	Number
Iramba	27,869	42	15,283	23	23,554	35	66,706
Singida Rural	41,261	54	10,585	14	24,627	32	76,473
Manyoni	5,248	18	5,042	17	18,727	65	29,016
Singida Urban	5,671	48	2,780	23	3,391	29	11,842
Total	**80,048**	**43**	**33,690**	**18**	**70,299**	**38**	**184,037**

9.26 Number of Livestock Rearing Households by Method of Tick Control and District during 2007/08 Agriculture Year

	Dipping		Spraying		Smearing		None		Other		Total
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Iramba	4,135	6	19,418	29	5,933	9	37,039	56	180	0	66,706
Singida Rural	11,449	15	27,003	35	3,024	4	34,780	45	216	0	76,473
Manyoni	2,881	10	3,293	11	5,762	20	16,977	59	103	0	29,016
Singida Urban	1,279	11	4,225	36	278	2	5,949	50	111	1	11,842
Total	**19,744**	**11**	**53,940**	**29**	**14,998**	**8**	**94,745**	**51**	**610**	**0**	**184,037**

9.27 Number of Livestock Rearing Households normally Encountering Tsetse Flies Problems by District during 2007/08 Agriculture Year

District	Households Encountering Tsetse problems		Households Without Tsetse Problems		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Iramba	10,069	15	32,184	48	24,453	37	66,706	100
Singida Rural	12,313	16	32,836	43	31,324	41	76,473	100
Manyoni	2,778	10	8,129	28	18,109	62	29,016	100
Singida Urban	1,001	8	6,950	59	3,892	33	11,842	100
Total	**26,161**	**14**	**80,098**	**44**	**77,777**	**42**	**184,037**	**100**

9.28 Number of Livestock Rearing Households by Method of Tsetse Flies Control and District during 2007/08 Agriculture Year

District	Dipping		Spraying		Trapping		None		Other		Total
	Number	%	Number	%	Number	%	Number	%	Number	%	Number
Iramba	899	1	5,034	8	6,113	9	52,861	79	1,798	3	66,706
Singida Rural	1,080	1	7,561	10	1,944	3	64,375	84	1,512	2	76,473
Manyoni	617	2	2,367	8	6,585	23	19,344	67	103	0	29,016
Singida Urban	278	2	1,557	13	500	4	9,507	80	0	0	11,842
Total	**2,874**	**2**	**16,519**	**9**	**15,143**	**8**	**146,088**	**79**	**3,413**	**2**	**184,037**

9.29 Number of Livestock Rearing Households normally Encountering Newcastle Disease Problems by District during 2007/08 Agriculture Year

District	Households Encountering Newcastle Disease problems		Households NOT Encountering Newcastle Disease problems		Not Applicable		Total
	Number	%	Number	%	Number	%	Number
Iramba	33,263	50	24,453	37	8,990	13	66,706
Singida Rural	51,846	68	21,602	28	3,024	4	76,473
Manyoni	12,759	44	7,923	27	8,334	29	29,016
Singida Urban	7,061	60	4,170	35	612	5	11,842
Total	**104,929**	**57**	**58,148**	**32**	**20,960**	**11**	**184,037**

9.30 Number of Livestock Rearing Households by Method of Newcastle Disease Control and District during 2007/08 Agriculture Year

District	Vaccination		Local Herbs		None		Total
	Number	%	Number	%	Number	%	Number
Iramba	8,451	13	20,317	30	37,938	57	66,706
Singida Rural	5,833	8	40,829	53	29,811	39	76,473
Manyoni	2,469	9	10,392	36	16,154	56	29,016
Singida Urban	1,557	13	5,560	47	4,726	40	11,842
Total	**18,309**	**10**	**77,098**	**42**	**88,629**	**48**	**184,037**

9.31 Number of Livestock Rearing Households normally Encountering Fowl Typhoid Disease Problems by District during 2007/08 Agriculture Year

District	Households Encountering Fowl Typhoid Disease problems		Households NOT Encountering Fowl Typhoid Disease problems		Not Applicable		Total
	Number	%	Number	%	Number	%	Number
Iramba	20,317	30	37,219	56	9,170	14	66,706
Singida Rural	39,317	51	33,916	44	3,240	4	76,473
Manyoni	7,614	26	12,347	43	9,055	31	29,016
Singida Urban	5,115	43	6,116	52	612	5	11,842
Total	**72,363**	**39**	**89,597**	**49**	**22,076**	**12**	**184,037**

9.32 Number of Livestock Rearing Households by Method of Newcastle Disease Control and District during 2007/08 Agriculture Year

District	Vaccination		Local Herbs		None		Total
	Number	%	Number	%	Number	%	Number
Iramba	539	1	16,002	24	50,164	75	66,706
Singida Rural	1,944	3	33,484	44	41,045	54	76,473
Manyoni	1,749	6	7,820	27	19,447	67	29,016
Singida Urban	667	6	4,281	36	6,894	58	11,842
Total	**4,900**	**3**	**61,587**	**33**	**117,550**	**64**	**184,037**

9.33 Number of Livestock Rearing Households normally Encountering Foot and Mouth Disease Problems by District during 2007/08 Agriculture Year

District	Households Encountering Foot and Mouth Disease		Households NOT Encountering Foot and Mouth Disease		Not Applicable		Total
	Number	%	Number	%	Number	%	Number
Iramba	1,798	3	38,118	57	26,790	40	66,706
Singida Rural	8,209	11	35,860	48	31,324	42	75,393
Manyoni	1,543	5	8,643	30	18,829	65	29,016
Singida Urban	1,501	13	6,116	52	4,225	36	11,842
Total	**13,051**	**7**	**88,737**	**49**	**81,169**	**44**	**182,957**

9.34 Number of Livestock Rearing Households normally Encountering Lympyskin Disease Problems by District during 2007/08 Agriculture Year

District	Households Encountering Lympyskin Disease		Households NOT Encountering Lympyskin Disease		Not Applicable		Total
	Number	%	Number	%	Number	%	Number
Iramba	2,517	4	37,578	56	26,610	40	66,706
Singida Rural	7,993	11	36,292	48	31,108	41	75,393
Manyoni	1,132	4	8,026	28	19,858	68	29,016
Singida Urban	1,501	13	6,227	53	4,059	34	11,787
Total	**13,143**	**7**	**88,123**	**48**	**81,635**	**45**	**182,901**

LIVESTOCK EXTENSION

9.35 Number of households receiving extension advice by District during the 2007/08 agriculture year

District	Receiving Livestock services		Not Receiving Livestock Extension services		Total	Total number of households rearing livestock	%
	Number	%	Number	%			
Iramba	41,354	66	21,576	34	72,819	62,930	86
Singida Rural	30,676	41	44,501	59	87,490	75,177	86
Manyoni	6,997	31	15,743	69	41,672	22,739	55
Singida Urban	5,949	51	5,727	49	15,011	11,676	78
Total	**84,975**	**49**	**87,546**	**51**	**216,992**	**172,522**	**80**

9.36 Number of Households receiving Livestock advice (overall) By Source of Extension and District during the 2007/08 agriculture 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	%	
Iramba	40,096	74.1	2,517	4.7	360	0.7	1,079	2	5,034	9.3	5,034	9.3	54,120
Singida Rural	29,163	80.8	1,512	4.2	432	1.2	0	0	2,592	7.2	2,376	6.6	36,076
Manyoni	6,071	74.7	926	11.4	206	2.5	103	1.3	412	5.1	412	5.1	8,129
Singida Urban	5,671	73.9	222	2.9	111	1.4	222	2.9	723	9.4	723	9.4	7,672
Total	**81,001**	**76.4**	**5,178**	**4.9**	**1,109**	**1**	**1,404**	**1.3**	**8,761**	**8.3**	**8,545**	**8.1**	**105,997**

9.37 Number of households receiving extension advice on Livestock Feeds processing by District during the 2007/08 agriculture 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	%	Other (Specify)	%	
Iramba	12,047	85.9	180	1.3	180	1.3	0	0	1,259	9	360	2.6	0	0	14,024
Singida Rural	4,753	88	0	0	0	0	0	0	432	8	216	4	0	0	5,401
Manyoni	1,543	83.3	206	11.1	103	5.6	0	0	0	0	0	0	0	0	1,852
Singida Urban	2,724	98	0	0	0	0	0	0	56	2	0	0	0	0	2,780
Total	**21,067**	**87.6**	**386**	**1.6**	**283**	**1.2**	**0**	**0**	**1,746**	**7.3**	**576**	**2.4**	**0**	**0**	**24,057**

BEE KEEPING

9.38 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
Iramba	1,798	2	71,021	98	72,819
Singida Rural	8,641	10	78,849	90	87,490
Manyoni	3,293	8	38,379	92	41,672
Singida Urban	556	4	14,455	96	15,011
Total	**14,288**	**7**	**202,705**	**93**	**216,992**

9.39 Number of Bee hives by Type, Size of Bees and District during the 2007/08 Agriculture Year

District	Number of Improved Bee Hives						Number of Local Bee Hives					
	Stingless Bee		Sting Bee		Total		Stingless Bee		Sting Bee		Total	
	No hhds	No Hives	No hhds	No Hives	No hhds	No Hives	No hhds	No Hives	No hhds	No Hives	No hhds	No Hives
Iramba	899	360	1,079	0	1,978	360	899	4,315	1,079	6,113	1,978	10,428
Singida Rural	3,672	0	5,401	432	9,073	432	3,672	31,324	5,401	81,441	9,073	112,765
Manyoni	309	0	3,087	12,244	3,395	12,244	309	2,572	3,087	73,157	3,395	75,729
Singida Urban	167	0	389	667	556	667	167	500	389	945	556	1,446
Total	**5,047**	**360**	**9,955**	**13,343**	**15,002**	**13,703**	**5,047**	**38,712**	**9,955**	**161,657**	**15,002**	**200,368**

9.40 Quantity of Honey Harvested and Sold by Size of Bees and District during the 2007/08 Agriculture Year

District	Stingless Bee				Bee				Total	
	Honey Harvested		Honey Sold		Honey Harvested		Honey Sold			
	Quantity (lts)	%	Quantity (lts)	%	Quantity (lts)	%	Quantity (lts)	%	Honey Sold	Honey Harvested
Iramba	19,418	32	14,384	27	41,354	68	39,197	73	53,581	60,773
Singida Rural	93,107	23	84,034	21	304,163	77	322,957	79	406,991	397,270
Manyoni	26,752	4	24,694	5	705,022	96	470,529	95	495,224	731,774
Singida Urban	3,614	31	1,779	16	8,228	69	9,285	84	11,064	11,842
Total	**142,891**	**12**	**124,891**	**13**	**1,058,768**	**88**	**841,968**	**87**	**966,859**	**1,201,659**

9.41 Average price of Honey (Tshs/litre) by Size of Bees and District during the 2007/08 Agriculture Year

District	Sting Bee (Price per Litre)	Stingless Bee (Price per Litre)	Average Price Per Litre
Iramba	1,968	1,550	1,778
Singida Rural	1,156	1,229	1,186
Manyoni	1,376	2,150	1,424
Singida Urban	1,000	667	900
Total	**1,306**	**1,307**	**1,306**

9.42 Number of Agriculture Households by Location of Selling Honey and District during the 2007/08 Agriculture Year

District	Neighbor		Local market		Secondary market		Trade at farm		Did not sell		Other		Total	
	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee
Iramba	360	899	0	0	0	180	0	0	539	0	0	0	899	1,079
Singida Rural	1,296	3,456	648	648	216	432	216	0	1,080	648	216	216	3,672	5,401
Manyoni	0	1,852	103	206	0	309	103	103	0	617	0	0	206	3,087
Singida Urban	111	111	0	56	0	0	0	0	56	167	0	56	167	389
Total	**1,767**	**6,319**	**751**	**909**	**216**	**921**	**319**	**103**	**1,675**	**1,432**	**216**	**272**	**4,944**	**9,955**

HOUSEHOLD FACILITIES

10.1 Number of households reporting average number of rooms and type of Roofing Materials and District, 2007/08 Agricultural Year

District	Roofing Materials								
	Number of rooms	Iron Sheets	Tiles	Concrete	Asbestos	Grass/Leaves	Grass & Mud	Other	Total
Iramba	3	23,554	360	0	539	1,259	47,108	0	72,819
Singida Rural	2	25,923	1,296	216	432	6,697	52,710	216	87,490
Manyoni	3	11,524	0	103	0	4,116	25,929	0	41,672
Singida Urban	2	6,672	0	0	111	222	7,895	111	15,011
Total	**3**	**67,673**	**1,656**	**319**	**1,083**	**12,293**	**133,642**	**327**	**216,992**

10.2 Number of households reporting average number of rooms and type of Floor Materials and District, 2007/08 Agricultural Year

District	Floor Materials							
	Number of rooms	Earth,Sand, Dung	Wood Planks, Bamboo, Palm	Parquet Or Polished Wood	Ceramic Tiles, Terrazzo	Cement	Other	Total
Iramba	3	67,066	180	180	0	5,394	0	72,819
Singida Rural	2	79,497	1,728	216	0	5,833	216	87,490
Manyoni	3	36,321	514	0	206	4,630	0	41,672
Singida Urban	2	12,676	723	111	0	1,390	111	15,011
Total	**3**	**195,560**	**3,145**	**507**	**206**	**17,247**	**327**	**216,992**

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	Stones	Other	Total
Iramba	5,754	4,495	52,322	8,451	0	899	0	899	72,819
Singida Rural	4,320	23,763	42,989	9,073	864	864	0	5,617	87,490
Manyoni	3,395	16,874	18,829	1,235	514	720	0	103	41,672
Singida Urban	890	2,002	10,897	1,223	0	0	0	0	15,011
Total	**14,359**	**47,134**	**125,037**	**19,982**	**1,379**	**2,483**	**0**	**6,619**	**216,992**

10.4 Number of Agricultural Households reporting ownership of Assets by District, 2007/08 Agricultural Year

District	Radio	Landline phone	Mobile phone	Iron	Wheelbarrow	Bicycle	Vehicle	Television / Video	Refrigerator	Motor Cycle
Iramba	46,209	899	18,160	14,024	68,864	37,039	5,214	1,259	0	899
Singida Rural	51,198	1,296	18,362	19,442	83,602	38,020	1,296	648	432	1,296
Manyoni	27,472	206	11,318	9,260	35,498	23,562	5,248	1,852	514	1,132
Singida Urban	8,562	56	4,392	2,335	13,844	5,449	445	389	278	222
Total	**133,441**	**2,457**	**52,232**	**45,062**	**201,807**	**104,070**	**12,203**	**4,148**	**1,225**	**3,549**

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
Iramba	360	1,079	0	13,125	1,978	55,738	0	360	180	72,819
Singida Rural	216	0	0	5,833	1,944	75,609	0	3,888	0	87,490
Manyoni	309	514	103	5,350	1,029	31,588	412	1,955	412	41,672
Singida Urban	56	56	0	778	500	11,564	56	2,002	0	15,011
Total	**940**	**1,649**	**103**	**25,087**	**5,451**	**174,499**	**467**	**8,205**	**591**	**216,992**

10.6 Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2007/08 Agricultural Year

District	Electricity	Solar	Gas (Hh Biogas)	Charcoal	Firewood	Crop Residues	Livestock Dung	Total
Iramba	360	0	0	1,438	71,021	0	0	72,819
Singida Rural	0	0	216	864	76,905	9,505	0	87,490
Manyoni	309	103	0	2,984	37,762	412	103	41,672
Singida Urban	111	0	0	222	14,511	56	111	15,011
Total	**779**	**103**	**216**	**5,509**	**200,199**	**9,972**	**214**	**216,992**

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
Iramba	16,182	6,653	180	17,800	2,877	15,643	1,079	11,327	180	899	72,819
Singida Rural	11,665	12,961	0	32,620	4,969	17,714	216	7,345	0	0	87,490
Manyoni	5,762	7,408	514	12,244	1,132	6,894	206	7,100	0	412	41,672
Singida Urban	2,391	8,006	389	3,336	556	167	111	56	0	0	15,011
Total	**36,000**	**35,028**	**1,083**	**66,000**	**9,533**	**40,417**	**1,612**	**25,827**	**180**	**1,311**	**216,992**

10.8 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	Above 1 Hour	Total
Iramba	0	2,697	2,697	37,758	2,697	0	26,970	72,819
Singida Rural	0	6,481	3,240	42,125	6,481	3,240	25,923	87,490
Manyoni	7,717	3,087	3,087	9,260	0	0	18,521	41,672
Singida Urban	1,668	0	1,668	5,838	834	2,502	2,502	15,011
Total	**9,385**	**12,265**	**10,692**	**94,981**	**10,012**	**5,742**	**73,916**	**216,992**

10.9 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
Iramba	21,037	7,911	719	22,655	3,057	14,744	899	1,618	180	0	0	72,819
Singida Rural	14,042	12,745	0	36,076	4,753	12,745	216	6,697	216	0	0	87,490
Manyoni	7,923	8,231	412	14,405	2,264	3,910	103	4,219	0	0	206	41,672
Singida Urban	2,168	8,284	334	3,280	500	167	167	56	0	56	0	15,011
Total	45,169	37,172	1,464	76,416	10,573	31,566	1,385	12,589	396	56	206	216,992

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
Iramba	2,697	8,091	0	21,576	21,576	16,182	2,697	0	0	72,819
Singida Rural	6,481	3,240	0	16,202	51,846	3,240	6,481	0	0	87,490
Manyoni	3,087	3,087	0	1,543	24,694	6,174	1,543	1,543	0	41,672
Singida Urban	1,668	0	0	1,668	10,842	0	0	0	834	15,011
Total	**13,932**	**14,418**	**0**	**40,989**	**108,958**	**25,596**	**10,721**	**1,543**	**834**	**216,992**

10.11 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 Minutues	above one Hour	Total
Iramba	5,394	2,697	2,697	21,576	0	0	40,455	72,819
Singida Rural	0	0	0	29,163	3,240	6,481	48,606	87,490
Manyoni	0	0	3,087	9,260	0	0	29,324	41,672
Singida Urban	1,668	0	1,668	4,170	834	0	6,672	15,011
Total	**7,062**	**2,697**	**7,452**	**64,170**	**4,074**	**6,481**	**125,057**	**216,992**

10.12 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
	Number	Number	Number	Number	Number	Number	Number	Number	Number
Iramba	21,037	33,083	11,687	5,394	1,438	0	0	180	72,819
Singida Rural	38,236	33,268	12,313	2,376	864	0	216	216	87,490
Manyoni	20,064	10,804	6,276	2,161	1,132	514	412	309	41,672
Singida Urban	7,950	5,004	1,835	167	0	0	0	56	15,011
Total	87,288	82,159	32,112	10,098	3,434	514	628	760	216,992

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 - hh Owned	Other Type	Total
Iramba	180	180	72,100	360	0	72,819
Singida Rural	216	648	85,546	1,080	0	87,490
Manyoni	7,408	412	32,926	926	0	41,672
Singida Urban	111	111	14,289	500	0	15,011
Total	**7,915**	**1,351**	**204,860**	**2,866**	**0**	**216,992**

10.14 Number of Agricultural Households Reporting the status of food satisfaction of the household during the Preceding Year by District, 2007/08 Agricultural Year

District	Never	Seldom	Sometimes	Often	Always	Total
Iramba	35,601	18,879	4,135	5,394	8,810	72,819
Singida Rural	38,884	29,595	3,456	6,913	8,641	87,490
Manyoni	13,479	12,553	5,145	6,894	3,601	41,672
Singida Urban	4,893	5,560	2,057	1,446	1,056	15,011
Total	92,857	66,587	14,794	20,646	22,109	216,992

10.15 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	Fishing	Other	Not applicable	Total
Iramba	44,051	3,416	1,978	11,148	180	1,618	899	5,933	1,438	1,079	1,079	0	72,819
Singida Rural	37,156	6,697	1,944	20,522	648	6,049	864	10,369	2,808	216	216	0	87,489
Manyoni	26,546	2,161	2,572	3,087	823	1,543	1,235	2,264	309	0	823	309	41,672
Singida Urban	6,727	1,168	945	1,223	167	1,612	278	2,335	167	0	222	167	15,011
Total	**114,481**	**13,441**	**7,440**	**35,980**	**1,818**	**10,823**	**3,276**	**20,901**	**4,722**	**1,295**	**2,340**	**475**	**216,992**

APPENDIX III: QUESTIONNAIRE

United Republic of Tanzania

ACQ1 *CONFIDENTIAL*

Small holder/Small Scale Farmer questionnaire

Identification

Agricultural Sample Census 2007/2008

Enumerator Name ..... Signature .....

Date of Enumeration

d d / m m / y y y y

Start Time

End Time

Hour	Minutes

Field level checking by:

District Supervisor	Name	Signature	Date / /
Regional Supervisor	Name	Signature	Date / /
National Supervisor	Name	Signature	Date / /

! 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

Distric checking in Office

District Supervisor	Name	Signature	Date / /

All questionnaires must be checked at the district office.

For Use at Regional Level Only

Data entered by:	Name	Signature	Date / /
Queried	Name	Signature	Date / /

See the back page for details of queries

Ministry of Agriculturte 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 Governemnet 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 member s of the same household even if they stay in separate dwellings. An individual who lives and east 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

Identification

1.1 **Location**

Na.	Location Name	Codes
1.1.1	Rgion ……	
1.1.2	District ……	
1.1.3	Ward ……	
1.1.4	Village ……	

1.2 Deatails of the respondent or household head

Na.		Codes
1.2.1	Name and number of local leader	
1.2.2	Name and number of household head ……	
1.2.3	**Sex of household head**	
1.2.4	Name of respondent ……	
1.2.5	**Relationship of Respondent to household head**	

Relationship to household head codes (Q 1.2.5)

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	Typeof Agriculture Household	

Household agricultural activities codes(Q 2.1)

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 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 Identification

3.1 Give details of personal particulars of all hh members beginning with hh head

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)	Marital Status	Parental Survival		Not applicable for children under 5 years					
						Mother	Father	Reard and Write	Education status	Levek of education attained	On farm engagements	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													
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30													
31													
32													
33													

Relationship to household head (Col 2)

Head of household.....1
Female/Male…..…..…..2
Son/Daugther…….....3
Father/Mother……...…4
Grandson/daughter….5
Other Relatives….....6

Marrital 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
Dont't know ...…….…….3

Ed.ucation 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
Canno tread or write.....….5

Education Level (Col 10)

Primary education	Secondary Education
Below Standard One.....00	Form One.....11
Standard One 01	Form Two 12
Standard Two.....02	Fomr Three.....13
Standard Three.....03	Form Four 14
Standard Four.....04	Form Five 15
Standard Five.....05	Form Six 16
Standard Six 06	Training after Seo.ondary Ed.....17
Standard Seven.....07	University and other Tertiary Ed...8
Daras Standard Eight ..08	Adult
Education.....19	
Training after Primary Ed...09	Not apllicable 99
Pre Form One.....10	

Involvement in farming activitie (Col 11)

Works on farm full time…...1
Works on farm part time…..2
Rarely works on farm....….3
Never works on farm.....… 4

..... **Main activity (Col 12)**

Crop farming: ……..01.
Livestock farming/herding: ….02.
Pastoralist ……03
Fishing ……..04
Fish farming ……..……05
Paid employment / Government/parastal……06
Private/NGOs ……07
Self employee (Off- farm cativities)
- 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

Off-farm Income (Col 13)

These are income made from activities NOT on the HH's farming activites. This can be from formal employmenbt (e.g. in gpvrenment 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

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 little 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 tougher
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

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)
4.1.1	Area under certificate of ownership			
4.1.2	Area owned under customary law			
4.1.3	Area bought		4.1.9	Do you consider to have enough land for your household? (Yes=1, No=2)
4.1.4	Area rented from others			
4.1.5	Area borrowed from others			
4.1.6	Area share cropped from others		4.1.10	Is there any female who owns land or has customary rights to land ownership in this household? (Yes=1, No=2)
4.1.7	Area under other forms of tenure			
	Total area			

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		
4.2.2	Area planted temporary mixed crops (e.g. maize and beans)		
4.2.3	Area planted permanent moncrops		
4.2.4	Area planted permanent mixed crops (e.g. banana, coffee, trees)		
4.2.5	Area planted permanent and temporary mixed crops (e.g. maize and banana)		
4.2.6	Area under pasture		
4.2.7	Area under fallow		
4.2.8	Area under natural forest		
4.2.9	Area planted trees		
4.2.10	Area rented to others		
4.2.11	Area unsuitable for agricultrure		
4.2.12	Uncultivated arable land (minus area under fallow)		
	Total area		

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		0.00
Permanent crop 2			0.000		0.00
Permanent crop 3			0.000		0.00
Permanent crop 4			0.000		0.00
			Total area for permanent crops		0.00
Total Area for mixed 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		0.00
Permanent crop 2			0.000		0.00
Permanent crop 3			0.000		0.00
Permanent crop 4			0.000		0.00
			Total area for permanent crops		0.00
Total area for mixed 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/ 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(Creal / Tubers/ Roots:

Code	Crop
11	Maizei
12	Paddy
13	Sorghum
14	Buirush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatoes
23	Irish Potatyoes
24	Yams
25	Cocoyamsi
26	Onions
27	Gingeri

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 mellon
96	Cauliflower
06	Melllon
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 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.:

(i) List each of the permanent crop in collumn **b** and enter the ground area per acre for each permanent crop (from instrcutions for page 8) in colum d.

(ii) Enter the number of permanent trees in the mix in collumn e as will be provided to you by the respondent

(iii) Calculate the area occpied by each crop by multiplying collumn 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 tempofrary crops , substract **(-)** the area fro permanent crops from thne total area of crop mix and enter the resulst 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 tenmporary crop.

3. After completing the exrcise 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 , cakIculate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly differentce, check the area and the amouint harvested..

5.0 **PERMANENT AND TEMPORARY CROP PRODUCTION** **Identificatoion**

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: Crop code	Planting: Actual area plnated (acre)	Main crop owner: Enetr the number of the hh member from page 2 on informati on for hh members	Pembejeo: Use of Seeds: The type of seed plant ed	Use of seeds	Quantity: Quant ity	Quantity: Quantity used	Cost (Tshs)	Irriga ted area	Use of fertilisers (If 6 is the answer in col 11 proceed to col 16): Cultiv ated area	Typep of fertili sers used	Quantity of fertilisers: Meas urem ent	Quantity of fertilisers: Quantity used	Coist (Ths)	Use of chemicals agaisnt weeds (If 6 is the answer in col 11 proceed to col 20): Cultiv ated areaE neo lililot umik a	Qunaity of agrochemicals: Quant ity	Qunaity of agrochemicals: Quantity used	Cost
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
.....																		
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 ofd 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 wholrecrop.....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

Type of fertilsers (Col 12)
Organic fertiliser.....1
inorganic fertlisers.....2

Quantity (Col 17)
Kig 1
Litre.....2
Gram.....3
Millilitre.....6

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

5.2 ANNUAL CROPS AND VEGATBLE PRODUCTION-LONG RAINY SEASON CONTINUED …

5.2.1 Provide the following details for each crop planted during the short rainy season for 2007/08 agricultural year

Identification

Name of crop	Crop code	Use of fungicides (If 6 is the answer in col 20 proceed to col 24)				Use of pesticides (If 6 is the answer in col 24 proceed to col 28)				Harvesting and Storage			Marketing		
		Area used	Size		Cost	Area used	Size		Cost	Quantity harvested (kg)	Quantity stored (kg)	Main storage methods	Quantity sold (kg)	Where was the crop mostly sold?	Main problems in crop marketing
			Quantity	Used			Quantity	Used							
(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 wholrecrop.....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

Quantity (Col 21&25)

Kig 1
Litre.....2
Gram.....3
Millilitre.....6

Main Storage mechanisms (Col 30)

Locall storage facilities.....1
Improved Local storage facilitiiies 2
Modern store.....3
Open drums/sacks.. 4
Cealed drums.....5
In heaps.....O.....6
not Stored.....7
Other means ()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
Probloems 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 strcutures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of tradional 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 aiiming 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 5.1.1)

Farm Yard Manure: An organics fertliser made on farm from animal dung. .
Compost: An organic fertiliser made on farm from decomposed plant materials.
Insectcides: 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.

Working area/calculation space

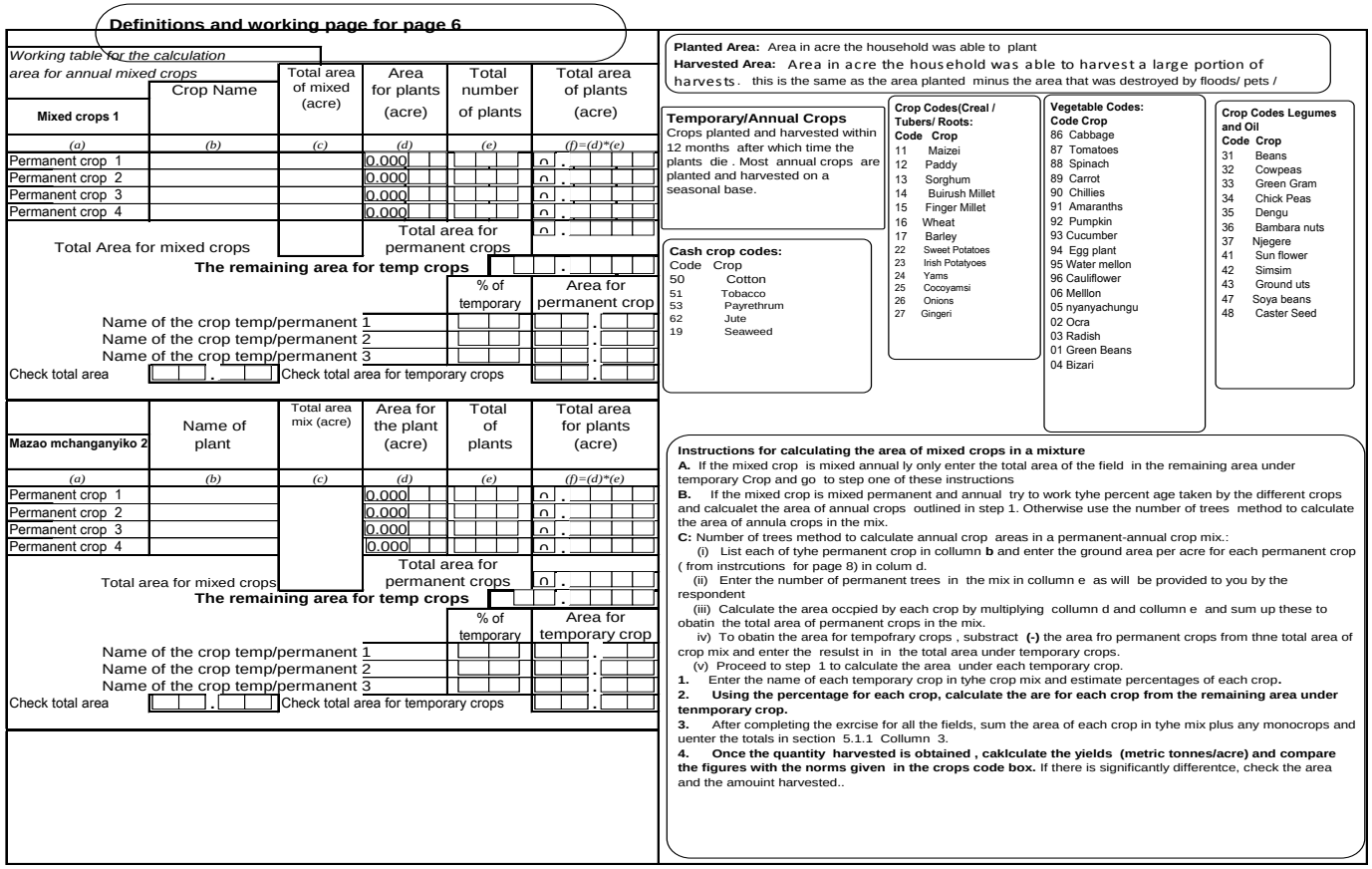
Questions specific definitions

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.



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		0.
Permanent crop 2			0.000		0.
Permanent crop 3			0.000		0.
Permanent crop 4			0.000		0.
			Total area for permanent crops		0.
Total Area for mixed 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		0.
Permanent crop 2			0.000		0.
Permanent crop 3			0.000		0.
Permanent crop 4			0.000		0.
			Total area for permanent crops		0.
Total area for mixed 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/ 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(Creal / Tubers/ Roots:

Code	Crop
11	Maizei
12	Paddy
13	Sorghum
14	Buirush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatoes
23	Irish Potatyoes
24	Yams
25	Cocoyamsi
26	Onions
27	Gingeri

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 mellon
96	Cauliflower
06	Melllon
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 calcualet 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 collumn **b** and enter the ground area per acre for each permanent crop (from instrcutions for page 8) in colum d.

(ii) Enter the number of permanent trees in the mix in collumn e as will be provided to you by the respondent

(iii) Calculate the area occpied by each crop by multiplying collumn 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 tempofrary crops , substract **(-)** the area fro permanent crops from thne total area of crop mix and enter the resulst 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 tenmporary crop.

3. After completing the exrcise 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 , caklculate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly differentce, check the area and the amouint harvested..

5.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION

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)

5.3.1 Give details on permanent/perennial crops or fruit trees

		Production Section				Farm inputs									
		Monocrops	Mixed crops			Uses of seeds					Irrigation	Uses of Fertilisers (If 6 is the answer in col 13 proceed to col. 17)			
Name of permanent/perennial crop	crop code of permanent / perennial crop/fruit trees	Area for trees/seedling/branch/bushes	Are for mixed crops (Acre)	Number of Tplants/ trees in the crop mixh of permanent and perennial crop	Main crop owner: Enetr the number of the hh member from page 2 on information for hh	Type of planted seeds	Cultivated area	Size		Cost (Ths)		Area used	The type of fertiliser used	Quantity of fertiliser (kg)	Cost (Ths)
								Quantity	Used						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
.....															
.....															
.....															
.....															
.....															
.....															
.....															
.....															
.....															

Type of seed planted (Col 7)
Local seeds.....1
Improved seeds.....2
Dont't know/ Not applicable...3

Main crop owner (Col 6):
nter 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 ofd 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 wholrecrop.....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

Type of fertilsers (Col 14)
Organic fertiliser... 1

5.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION CONTINUED .....

Identification

5.3.1 Give details on permanent/perennial crops or fruit trees during 2007/08 agricultural year

Name of crop	Crop code	Uses of weeds control chemical (If 6 is the naswer in col 17 Proceed to col 21)				Use of fungicides (If 6 is the answer in col 20 proceed to col 24)				Use of pesticides (If 6 is the answer in col 25 proceed to col 29)				Crop harvesting and storage					Marketing	
		Area used	Size		Cost	Area used	Size		Cost	Area used	Size		Cost	Harvested area (acre)	Quantity of mature plants	Quantity harvested (kg)	Quantity stored (kg)	Njia Kuu ya kuhifadhi	Quantity sold (kg)	Main marketing problem
			Quantity	Used			Quantity	Used			Quantity	Used								
(1)	(2)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)
.....																				
.....																				
.....																				
.....																				
.....																				
.....																				
.....																				
.....																				
.....																				

Area used (Col 20&24)
For the whole crop.....1
3/4 of the wholrecrop..... 2
1/2 of tyhe whole crop..... 3
1/4 ofd the whole crop..... 4
Under 1/4 of the whole crop...5

Main Storage mechanisms (Col 33)
Locall storage facilities... 1
Improved Local storage facilitiiies 2
Modern store... 3
Open drums/sacks..... 4
Cealed drums.... 5
In heaps.....6
not Stored.....7
Other means ()Specify..... 8

Marketing problems (Col 35)
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
Probloems with cooperative Unions 7
Problems with Businessmen Association ...8
Strigent Government Conditions ...9

Quantity (Col 18, 22, & 26)
Kig 1
Litre.....2
Gram... ...3
Millilitre... ...6

Definitions and working page for page 7

Storage (Col. 30, Q 5.2.1):
- **Traditionally Made strcutures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of tradional storagesrutures 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 puporses of purchasing inputs/selling/storage of crops aiiming 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 fertliser made on farm from animal dung. .
Compost: An organic fertiliser made on farm from decomposed plant materials.
Insectcides: 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 5.2.1. 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

Permanent Crops:
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.

Number of Trees:
These include manure trees and premature trees.

Number of mature plants:
A total of fruit bearing tress (e.g. mango trees, orange trees, avocado trees e.t.c).

Instructions for permanent monocrops and crop mix:
A. For a field with permanent monocrop enter farm size in collumn. 3.
B. For a field with a permanent crop mix or a temporary crop mix, enter the number of trees only in collumn **4**.
C. 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 obatined through calcualtion 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

21 Cassava: 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.

Permanent crops:(crop oils)

Code	Crop	Area per crop
44	Palm Trees	0.00049
45	Coconut tree	0.00037
46	Cashew nut tress	0.00062

Permanent crops (Cash crops)

Code	Crop	Area per crop
53	Sisal	0.00012
54	Coffee	0.00049
55	Tea	0.00037
56	Cocoa	0.00049
57	Rubber	0.00099
58	Wattle	0.00099
59	Kapok	0.00124
60	Sugar-cane	0.00012
61	Cardamon	0.00049
63	Tamarin	0.00099
64	Cinarmon	0.00124
65	Nutmeg	0.00099
66	Clove	0.00074
18	Black pepper	0.00037
34	Pigeon Peas	0.00025
21	Cassava	0.00019
75	Pineapple	0.00006
86	Lemon Grass	

Permanent crops:

Code	Crop	Area per crop
70	Passion Fruit	0.00074
71	Bananas	0.00037
72	Avocado	0.00099
73	Mango	0.00099
74	Pawpaw	0.00037
76	Orange	0.00074
77	Grape fruit	0.00074
78	Grape	0.00012
79	Mandarin	0.00074
80	Guava .	0.00074
81	Plums	0.00074
82	Apples	0.00074
83	Peaches	0.00074
84	**Mifyoksi**	0.00074
85	Lime/lemon	0.00074
68	Pomelo	0.00099
69	Jack Fruit	0.00074
97	Durian	0.00074
98	Bilimbi	0.00074
99	Rambutan	0.00074
67	Bread Fruit	0.00099
38	Malay apple	0.00074
39	Star Fruit (Sakua)	0.00074

Definitions and working page for page 9

Storage (Col. 33, Q 5.3.1):
- **Traditionally Made strcutures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of tradional storagesrutures 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 puporses of purchasing inputs/selling/storage of crops aiiming 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 fertliser made on farm from animal dung. .
Compost: An organic fertiliser made on farm from decomposed plant materials.
Insectcides: 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 5.3.1. 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 conrol 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 acrage
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 nd NOT the cumulative areas recultivated in 2 or more cropping seasons.

Farm Implements (Col. 1):

Machette : Includea all implements use in tree cutting namely cicle, et.c.

Sprimkler: The pump carrued 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 garicultrural 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 agricultural 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.
Insectcides: 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		
Tractor hallow		
Castrated bulls		
Uncastrated bulls		
Cows		
Donkeys		
Shredding Machine		
Power Tiller		
Oxen pulled plough for making terraces		

6.2.6	Power Tiller			

6.3 USE OF ORGANIC FERTILISERS

6.3.1 Give details on the use of organic fertlisers during 2007/08 agriculture year

	Type of fertiliser	Used Yes=1, No=2	Quantity	Quantity used	Area used (Acre)
	(1)	(2)	(3)	(4)	(5)
6.3.2	Manure				
6.3.3	Compost				

ACCES TO INPUTS

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			
Farm yard manure			
Compost			
Insecticides/Fungicide			
Pest and weeds control chemicals			
Improved seeds			

Source (Col.3)
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

KQuantity (Col 3)
Kg.....1
Ton……...2

Distance from the source (Cola 4)
Under 1 kilometre…….....1
Btween One and three kilometres 2
Btween three and 10 killometres3
Between 10 and 20 Kilometres 4
Over 20 Kilometres.....5
Not applicable.....9

Source of irrigation water (Col 1)
River……1 Wells ……..…..4
Lake ……2 Deep wells…… .5
Dams……..3 Cannals …….. .6
Tape water……..…… …7

IRRIGATED FARMING

Did the household use irrigated farming during 2007/08 agriculture year? Yes=1, No = 2

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				

Means of obtaining water(C0l2)
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 contro/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 dowm 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 errosion.

Sand bags: Are used in controlling and preventing gully errosion
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 exetsion 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 farmerswith regards to markets of farm produce and provision of farm inputs

Q 6.6 Number of water harvestin structures and year of construction

1. The number water haversting structures refers to the number of wokring / maintained structures and does not include derelict or iireparable 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 tghe 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 collumn 1, then enter column 2.

2. Complete all columns for every extension officer**.**

6.6 SOIL EROSION Identification

6.6.1 Did the household experience soil erosion during 2007/08 agriculture year? *(Yes=1,No=2)*

6.6.2 Did the household applied any methods for erosion contro/water harvesting during 2007/08 agricultural year? (Yes=1, No =2) (If the answer is No, Proceed to Section *7.0)*

Na.	Mechanisms of controlling erosion/ Water harvesting	Number of water harvesting	Year of construction
	(1)	*(2)*	*(3)*
6.6.3	Terraces		
6.6.4	Bunks for erosion control		
6.6.5	Gabions/sand bags		
6.6.6	Vetiva leaves		

	Type of erosion control/water harvesting	Number of water harvesting	Year of construction
	(1)	*(2)*	*(3)*
6.6.7	Tree belt		
6.6.8	Soil bunks of water harvesting		
6.6.9	Trenches		
6.6.10	Other		

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)*

SELECT UP TO THREE SOURCES AND PROCEED TO QUESTIONA 8.0

(Source of credit Q 7.1.1, 7.1.2, 7.1.3)
Relative..... 1 Saccos....4 NGO/Development projectsi.....7
Bank... .....2 Busineman/Shop.....5
Cooperative Union.....3 Priviate individuaks.....6 Other.....9

		7.1.1a	7.1.2a	7.1.3a
Source of credit				
Credit provided to	(Male=1, Female=2)	7.1.1b	7.1.2b	7.1.3b

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 nott 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	Rceived advice (Yes=1, No=2)	Source of advise
	(1)	(2)	(3)
8.3.1	Spacing		
8.3.2	Use of agrochemicals		
8.3.3	Soil erosion control		
8.3.4	Use of organic manure		
8.3.5	Matumizi ya mbolea za viwandani		
8.3.6	Use of improved seeds		
8.3.7	Use of modern farm implements		
8.3.8	Irrigation		
8.3.9	Crop Storage		
8.3.10	Pest control		
8.3.11	Other (Specify)		

Source of agricultural advice (Cokl. 3)
Government.....1 NGO/Development project.....2 Cooperative....3 Large Scale farmer....4 Ratdio/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 livetsock 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 (sectioin 9.1.1 to 9.1.7)

Bull: Mature uncastrated made cattle used for breeding
Cow: Mature female cattle that has given birth at least once

Ox: Castrated made cattle used for farm work

Steer: Castrated made 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 LIVESTOCK (LIVESTOCK AND FISH)

9.1 **CATTLE** Identification

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	Number of improved cattle		Total
			for meat	Dairy	
		(2)	(3)	(4)	(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?

Cattle idenfificatio methods
Iron stamp (chapa moto)……1 Throat….2 Ear/tail cutting…..3
Colour……..4 Earings…5 Other ……..8

9.2 Milk production: CATTLE

Na.	Season	Type of cattle	Number of milked cows	Average of milk per cow per day (litre)	Average number of days which your cows were milked	Average price per litre per season
	(1)	(2)	(3)	(4)	(5)	(6)
9.2.1	Rainy	Improved				
9.2.2		Indigenous				
9.2.3	Dry	Improved				
9.2.4		Indigenous				

9.3 GOAT

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.	Tyep of goat	Number of indigenous goat	Number of improved		Total
			for meat	Dairy	
	(1)	(2)	(3)	(4)	(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	

Milk Production: GOAT

Na.	Season	Number of ilked goats	Average of milk per goat per day (litre)	Average number of days which your she goats were milked	Average price per litre per season
	(1)	(2)	(3)	(4)	(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 livetsock 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 9.4 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 (Sectioin 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

9.4 SHEEP

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)

Number of sheep as of 1.10.2008

Na.	Type of sheep	Number of indigenous sheep	Number of improved	Total
	(1)	(2)	(3)	(5)
9.4.1	Ram			
9.4.2	Castrated sheep			
9.4.3	She sheep			
9.4.4	Male lamb			
9.4.5	Female lamb			
	Grand total			

9.5 PIGS

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)

Number of pigsp as of 1.10.2008

Na.	Type Pigs	Number of pigs
	(1)	(2)
9.5.1	Boar	
9.5.2	Castrated male	
9.5.3	Sow/Gilt	
9.5.4	Male piglet	
9.5.5	Female piglet	
	Grand total	

9.6 OTHER LIVESTOCK

	Type of animal	Number as of 1 October 2008	Number of eggs 2007/08 agriculture year
	(1)	(2)	(3)
9.6.1	Local chicken		
9.6.2	Layers		
9.6.3	Broilers		
9.6.4	Ducks		
9.6.5	Guinea pigs		

	Type of animal	Number as of 1 October 2008	Number of Eggs 2007/08 agriculture year
	1	(2)	(3)
9.6.6	Turkeys		
9.6.7	Rabbit		
9.6.8	Donkeys		
9.6.9	Horses		
9.6.10	Dogs		

Definitions and working page for page 14

Control of livestock dieases 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 form livestock and transmits animals diseases from one to the other animal.

Tse tse fly: A fly like bug that sucks blood from livetsock and transmits diseases sleewping 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		
9.7.1	Which animals did your deworm? (Yes=1,No =2, Not applicable=3 in the relevant box) Cattle **9.7.2** Goat/Sheep **9.7.3** Pigs **9.7.4** Poutry		
9.7.5	Do you experience tick problem with your livestock? (Yes =1, No = 2, Not applicable 3)		
9.7.6	How did you control tick problem? *Control method (Q. 9.7.6): Dipping……1 Spaying……..2 Application of medicine on back bone……..3 None..4 ..... Other……8*		
9.7.7	Do you experience Tse tse problem with your livestock? (Yes =1, No = 2, Not applicable 3)		
9.7.8	How did you control Tse tse problem with your livestock? *Control method (Q. 9.7.8): Dipping……1 Spaying……..2 Traps……..3 None..4 ..... Other……8*		
9.7.9 9.7.7	Do you experience Newcastle disease problem with your poutry? (Yes =1, No = 2, Not applicable 3)		
9.7.10	How do you control Newcastle disease problem with your poutry? *Control/Curative methods (Q. 9.7.10) Vaccination..1 Herbs….2 None..3*		
9.7.11	Did you experience Fowl Typhoid with your poutry?Yes=1, No=2 , Not applicanblei=3		
9.7.12	How did you cotrol/ cure Fowl Typhoid with your poutry? *Contro/curative methods(Swali 9.7.12 Vaccination..1 Herbs….2 Noe.3*		
9.7.13	Were your cattle vaccinated agaionst the following diseases? (Yes = 1, No = 2, Not applicable=3). **9.7.13 A:** Foot and Mouth diseases **9.7.13B:** Skin disease		

NOTE : If answers to Qs *9.1 to 9.6 is No (THAIS THE HOUSEHOUSE DOES NOT RAISE LIVESTOCK,) Proceed to q 9.9*

9.8 Extenmsion services on livestock

Did you receive the following extension advice on the followingJe? *(IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION*

Na.	**Livestock extension advice**	Received Extension advice (Yes=1, No=2)	Soure of Extension
	(1)	(2)	(3)
9.8.1	Feed and better feeding methods		
9.8.2	Improved livestock shed (Goat, Dairy cattle, Poutry and pigs)		
9.8.3	Milking and hygiene		
9.8.4	Cattle fattening		
9.8.5	Livetsock diseases control		
9.8.6	Livestock keeping in line with land availability		
9.8.7	Pasture establsihment and maintanence		
9.8.8	Forming and strengthening groups/cooperatives		
9.8.9	Calf rearing		
9.8.10	Basics of production and use of improved bulls (AI)		
9.8.11	Animals feed production		
9.8.12	Other extension advice (Specify) ……		

Source of agriculture extesnion(S/wima 3)
SGovernment……1 NGO/Development project…..2 Cooperative Union….3 Large Scale farmer….4 Radio/TV/Newspapere.5 Neighbour……6 Other source …..8

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, tye 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

Did your household practice fish farming? Yes=1, No=2 (*If the answer is no proceed to section 9.10)*

Give details on the fish farming during 2007/08 agriculture year

No.	Number of Ponds	Jina ya ufugaji	Square area of pond (m^2)	Source of fingerings	What is the frequency of stocking during the period?	Kiwango cha Huduma ya bwawa	Total number of stoked fish: Tialpia	Mwatiko	Crabs	Lulu	Total number of fish harvested	Total weight of all fish: waliovuliwa (kg)	waliouzwa (kg)	What is the main fish outlet?
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
9.9.1	1													
9.9.2	2													
9.9.3	3													

Type of farming (SCol 2)
Natural pond……1
Small earth pond…….2
Large pond……3
Other ……8

Standard of servives to the pond (Col6)
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)

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							
9.10.2	Large bees							

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 AGRICULURAL 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	
9.11.2	Priority 2	
9.11.3	Priority 3	

No	Important for	Code
	(1)	(2)
9.11.4	Priority 4	
9.11.5	Prioty 5	

LIST OF CHALLENGES

01 Land availability
02 Land owenership
03 Poor farm implementso
04 Soil fertility
05 Availability of imrpoved 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 transporation costs
21 Destructive animals
22 Crop thefty
23 Pests and diseases
24 Advice from Local government
25 Long dry spells
26 Conflicts between livetsock keepera 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, during 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):
There assets must be functionin. 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 can during 2007/08 agricultural season.

10.0 POVERTY INDICATORS

Idetification

10.1 HOUSE CONSTRUCTION
Specify materials used in the construction of the following
sehemu zifuatazo

10.1.1 Roof **10.1.2** Floor **10.1.3 Wall**

Roofing materials
Iron sheets……..1
Tiles……..2
Concrete……3
Asbestos ….4
GrassiMakuti……..5
Grass and mud….6
Other …….. .8

Floor matrials
Earthen material……..1
Wood……..2
Wooden tiles…3
Tiles……..4
Cement……5
Other……..8

Main materials
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

10.1.4 Number of bedrooms

10.2 Household property
Does your houshold woen the following?, (Yeso=1 No =2)

Number	Property	Yes=1, No=2
	(1)	(2)
10.2.1	Radio (Radio, Radio Casette, music system)	
10.2.2	Land line	
10.2.3	Celkl phone	
10.2.4	Iron	
10.2.5	Trolley	
10.2.6	Bycicle	
10.2.7	Vehicle	
10.2.8	TV/ Video	
10.2.9	Refrigerator	
10.2.10	Motorbike/vespa	

10.3 Energy use and availability in the hsousehold

Main source of energy

10.3.1 Lightining 10.3.2 Cooking

Nishati za Kuangazia
Umeme……..01
Sola……..02
Gesi (biogas) ……03
Taa ya kandili……04
Karabai……..05
Kibatari……..06
Mishumaa……07
kuni……08
Nyingine …….. 98

Nishati za kupikia
Umeme……..01
Sola……..02
Gesi (biogas) ……03
Gesi (Kiwandani)…..04
Mafuta ya taa……05
Mkaa……..06
Kuni ……..07
Mabaki ya Mazao….08
Kinyesi cha
Wanyama……..09
Nyingine ……..98

10.4 Availability of drinking water

	Season	Main source of water	Distance from source (km)	Time spent waitingor going to and from the source (Hours)
	(1)	*(2)*	*(3)*	*(4)*
10.4.1	Rainy		•	•
10.4.2	Dry period		•	•

Main sourece of drinking water
Col. 2
Tape water……..01 Water venders……..09
Arificial well……..02 Boozer……10
Arificial spring… ……..03 Bottled water……..11
Openwell……..04 Other (Specify)……..98
Natural spring……..05
Lake water,piond,river,stream n etc……..06
Covered Rain water harvesting well..07

Note: *Code01,* ***Bomba*** *kwa Zanzibar hujulikana kama Mfereji*

10.5 Toilet facilities

10.5.1 What type of toilet does your hosuehold use?

Tyep of toilet
No toilet/in the buish……1 Pit latrine…..4
Flash toilet……..2 Other type (Specify)……..……..8
Ordinal pit latrine……3

10.6 Eating patterns

10.6.1	**How many meals does your hosue usually get per day** ?	
10.6.2	How days did the household eat meat last week?	
10.6.3	How days did the household eat fish last week?	
10.6.4	How many times did the household experience food shortages last year?	

Food shortage problems
(Swali 10.6.4)
Never ……..1
Few times……..2
Sometimes……..3
Many times……4
Often……..5

10.7 Main source of household cash income?

10.7.1 What are the sources of household income?

Code for source of income
Selling food crops……..01 Sales of foerst products..05 Cash assisnatce…09
Sales of livestock……..02 Business……..06 Fishingl……..10
Sales of livestock products……03 Salaries……..07 Other……..98
Sales of cash crops…04 Casual labour……..08 None……..99

TIME OF FINISHING THE INTERVIEW	Hour	Minutes

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 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				Name of Crop	Kilogram/ha		Kilogram/acre	
		Average	Max	Average	Max				Average	Max	Average	Max
11	Maize	1,150	6,250	466	2,530		86	Cabbage	20,000	50,000	8,097	20,243
12	Paddy	700	4,000	283	1,619		87	Tomatoes	25,000	60,000	10,121	24,291
13	Sorghum	750	3,500	304	1,417		88	Spinach	15,000	17,000	6,073	6,883
14	Bulrush Millet	350	3,000	142	1,215		89	Carrot	25,000	30,000	10,121	12,146
15	Funger Millet	300	2,500	121	1,012		90	Pepper	3,500		1,417	0
16	Wheat	1,150	4,500	466	1,822		91	Amaranthus	20,000	40,000	8,097	16,194
17	Barley	1,400	1,800	567	729		92	Pumpkin	35,000	40,000	14,170	16,194
16	Cassava	3,000	7,000	1,215	2,834		93	Cucumber	5,000	10,000	2,024	4,049
17	Sweet potatoes	600	8,000	243	3,239		94	Egg plant	30,000	60,000	12,146	24,291
18	Irish potatoes	750	8,500	304	3,441		95	Water melon	10,000	20,000	4,049	8,097
19	Yams	4,000	10,000	466	1,822		96	Caouliflower	17,000	20,000	8,097	16,194
25	Coco yams	2,500	5,000	567	729		52	Cotton	800	25,000	14,170	16,194
26	Onions	30,000	50,000	1,215	2,834		54	Coffee	500	100	2,024	4,049
27	Ginger	20,000	30,000	243	3,239		55	Tea	2,500	10,000	12,146	24,291
31	Mahara Beans	400	1,300	304	3,441		56	Cocoa	150	1,000	4,049	8,097
32	Cow peas	300	1,750	121	709		57	Rubber	400	1,400	6,883	8,097
33	Green gram	1,500	1,800	1,012	2,024		58	Wattle			324	10,121
34	Pigeon peas	600	1,500	243	607		59	Kapok			0	0
35	Chick peas	500	1,500	202	607		60	Sugar cane	60,000	150,000	24,291	60,729
36	Bambara nuts	600	4,000	243	1,619		61	Cardamon	3,000		1,215	0
41	Sun flower	600	1,700	243	688		71	Banana	10,000	50,000	4,049	20,243
42	Simsim	300	1,000	121	405		72	Avocado			0	0
43	Gound nuts	600	4,000	243	1,619		73	Mango	10,000	25,000	4,049	10,121
47	Soyabeans	1,300	2,500	526	1,012		74	Pawpaw	50,000	70,000	20,243	28,340
48	Caster seeds	300	750	121	304		76	Orrage	15,000	40,000	6,073	16,194
75	Pineapple	25,000	60,000	10,121	24,291		77	Grape fruit	30,000	50,000	12,146	20,243
50	Cotton	300	1,500	121	607		78	Grapes	5,000	30,000	2,024	12,146
51	Tobacco	500	1,500	202	607		79	Mandarin	15,000	40,000	6,073	16,194
53	Pyrethrum			0	0		80	Quava	7,000	35,000	2,834	14,170
62	Jute	800	3,500	324	1,417		81	Plums			0	0
44	Palm oil	1,150	5,000	466	2,024		82	Tufaha		20,000	0	8,097
45	Cononut	1,500	8,000	607	3,239		83	Pea	15,000	27,000	6,073	10,931
46	Cashw nut	9	60/tree	4	24		84	Pitches	14,000	57,000	5,668	23,077
							66	Clove	4,500	5,000	1,772	1,969
								Black pepper	2,000	3,750		
								Mung'unye				
								Ocra	1,000	1,500		

Appendix V

Community Level Questionnaire

United Republic of Tanzania

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Village/Community Level Formats

Access to and Use of Community Resources

Farmg Gate Prices of commodoties produced by the village

Agricultural Sample Census 2007/2008

NUMBER OF FARMERS HH IN THE VIALLAGE
To be filled by the enumerator after completeing form ACLF2

NUMBER OF HH MEMBERS
To be filled by the enumerator after completeing form ACLF2

Region	.....			Ward	
District	.....			Village	

Enumerator Name ..... Signature .....

Date of Enumeration

d d / m m / y y y y

m

Hour	Minutes
Start Time	
End Time	

Field level checking by:

District Supervisor	Name	Signature	Date / /
Regional Supervisor	Name	Signature	Date / /
National Supervisor	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

Distric checking in Office

District Supervisor	Name	Signature	Date / /

All questionnaires must be checked at the district office.

For Use at Regional Level Only

Data entered by:	Name	Signature	Date / /
Queried	Name	Signature	Date / /

See the back page for details of queries

Ministry of Agriculturte 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 Adminstration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Governemnet 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 influencial farmers in the village Infuencial people can be Village Chairman, Village Governement 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 farners.
Givernment 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/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) ☐

(If the answer is no proceed to 1.2)

	Are of Comminity, Village, Wrad resources	Area in acre	
1.1.1	**Total area of communal land**		Oficial figures from the leader
1.1.2	**Area of squatting famers in communal land**		Key informant (Leader/Extension officer etc.)
1.1.3	**Remaining available communal land**		Key informant (Leader/Extension officer etc.)
1.1.4	**Government reserve land**		Key informant (Leader/Extension officer etc.)

1.2 UPATIKANAJI NA MATUMIZI YA MALIASILI ZA JUMUIYA/KIJIJI/SHEHIA

	Community Resources	Distance from the resource in Km -season Dry	Distance from the resource in Km -season Rainy	Main Use
	(1)	(2)	(3)	(4)
1.2.1	Water for human consumption			
1.2.2	Wtar for livestock			
1.2.3	Communal grazing land			
1.2.4	**Communal firewood**			
1.2.5	Wood for chracoal burning			
1.2.6	**Wood for building poles**			
1.2.7	Forest for bee keeping (honey)			
1.2.8	**Hunting**			
1.2.9	**Fishing**			

Instructions on distance from the resource (Cols 2 and 3):
Distance is estimated from the centre of the village.

If under1 km 1, enter 0
If abover 1 km 1 enter whole number , eg. 1.5km= 2km, 1.25km= 1km

Msin uses (Col. 4)
Home or farm /livetsock consumption...1
Sold to traders in the village.....2
Sold to the village market.....3
Sold to local wholesalers.....4
Sold to Big wholewsalers 5
Not available.....6

2.0 COMMUNITY PLANTED TREES

2.1 Didi your village have community planted trees during 2007/08 agriculture year? (Yeso=1, No=2) ☐

If the answer is no proceed to Section 3.0

Details of the community tree planting scheme

No.	Dustance from the community forest	Forest Area (acre)	Type of Pllanting	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	•							

Type of planting Col. 3)
POlantion planting.....1
Spot planting.... 2

Type of trees (Col. 4)
Indigenous tress.....1
Exotic tree.....2
Both types.....3

Source of seedlings (Col. 5)
Seeds collection and planting.....1
Villlage Nursery.....2
Department of Forestry..... 3
Private Individuals.... 4

Main Uses (Col. 7)
Poles 1
Wood 2
Charcoal 3
Firewoodi 4
Other (Specify) 8

Main use of revenue (Col.8)
Village development fund.1
Household use.....2
Household ilcome.... 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 provceed to Section 4) ☐

Na.	Type of NGO	Visited Y=1,N=2	Number of visits	Distnaice to the Office (km)
3.2	Extension/ Rsearch			
3.3	Service /Input provision			
3.4	Community Development			
3.5	Other			

5.1 Did the village have Field farm schools during 2007/08,agriculture year? (Yes=1,No=2) ☐

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 ☐

5.4 Number of local ironsmiths

4.0 Community Based Organisation

4.1 Didi the village have any CBO during the 2007/08 agricuylture year?(Yes=1, No=2) ☐

Na.	Type of CBO Nd=1,Hap=2	
4.2	Extension/ Rsearch	☐
4.3	Service /Input provision	☐
4.4	Community Development	☐
4.5	Other	☐

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) ☐

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. ☐

5.6 Number of training centres for draft animals

Obtain answers to the following questions from the meeting of enumerator and key informants in the village.Key infomants can be a village chairman, Village Local Government Executive Officer, Councellor, Wrad Chairman, Village extsion officer, or any knowledgeble member in the community. Where possible ask these questions to a group inorder to reach a consensus . **The numebr should be below five people.**

Procedure: Administer this frpom after completing asll 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 livetsock 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 livetsock below.
2. Enter price estimates per kg in col 5 and 6.

Name of crop/livestock	Code of crop/livestock	Name of main crop	Code of Main crop	Type of measure	Price of measure	
					Minimum Per year	Maximamun Per year
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*

Type of livestock(Col 2)
Cattle .....01 Ducks……...07
Goat.....02 Turkey…….08
Sheep.....03 Rabbit……09
Pigs.....04 Kanga……10
Poutry…….05 Simbilisi……11
Donkeys……06

Main poroduct- CROPS (sCol.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

Main product- LIVESTOCK (Col. 4)
Live animals…..01
Meat 02
Milk.....03
Eggs.....04

Quantity (Col.5)

Kg……1
Number.....2
Litre…….3
A portion/piece 4

Appendix V

Village Community Level formats

UNITED REPUBLIC OF TANZANIA

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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)
☐☐☐		☐☐☐☐	☐☐☐☐	
☐☐☐		☐☐☐☐	☐☐☐☐	
☐☐☐		☐☐☐☐	☐☐☐☐	
☐☐☐		☐☐☐☐	☐☐☐☐	

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ACLF 2

Page Number…….. out of……

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	Number of										If the Respondent Qualifies X	Farmer Serial Number
		Fields a	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)
☐☐☐													
☐☐☐													
☐☐☐													
☐☐☐													

ACLF 3

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Household listing for 15 selected farmers

National Agriculture Sample Census 2007/08

Region _____ Code ☐☐ ward : _____ code ☐☐☐ ☐☐ Namba Sawia ☐☐☐

District _____ Code ☐☐ village _____ code ☐☐ ☐ Hatua ☐☐☐

S/N	Sub-village leader Number	Name of sub-village leader	Name of selected head of household	Name of Household a Head	Number of					
					Field	Cattle	Goat	Sheep	Pigs	Poutry
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
☐☐	☐☐☐		☐☐☐☐							
☐☐	☐☐☐		☐☐☐☐							
☐☐	☐☐☐		☐☐☐☐							
☐☐	☐☐☐		☐☐☐☐							