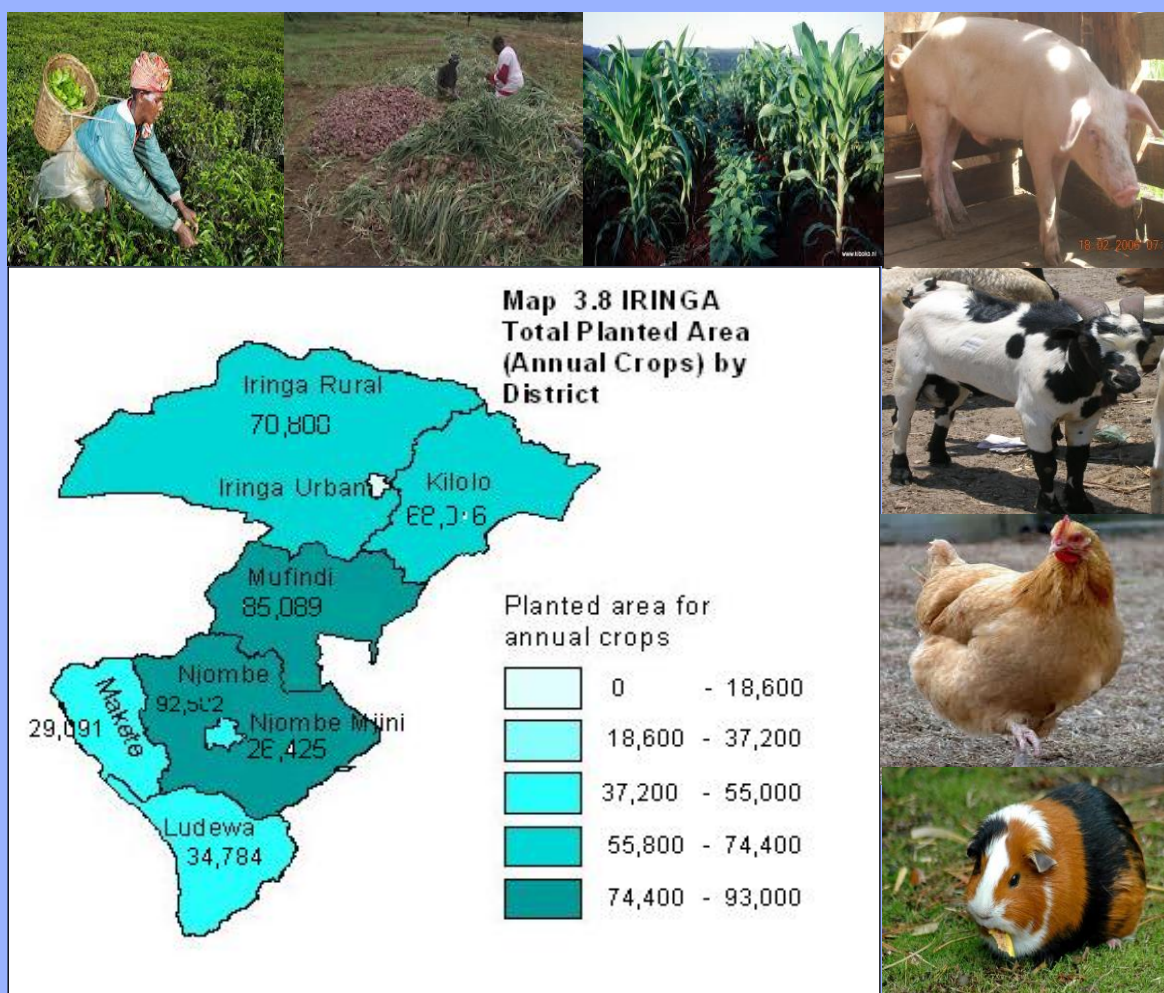




The United Republic of Tanzania

## NATIONAL SAMPLE CENSUS OF AGRICULTURE 2007/2008

### Volume V<sub>k</sub> : REGIONAL REPORT: **IRINGA REGION**



Ministry of Agriculture, Food Security and Cooperatives; Ministry of Livestock Development and Fisheries; Ministry of Water and Irrigation; Ministry of Agriculture, Livestock and Environment, 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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**JULY, 2012**

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**TABLE OF CONTENTS**

ACRONYMS AND ABBREVIATIONS .....	v
PREFACE .....	vii
EXECUTIVE SUMMARY .....	vii
<b>1 BACKGROUND INFORMATION.....</b>	<b>1</b>
1.1 Geographical Location .....	1
1.2 Regional Area and Administrative Units.....	1
1.3 Climate.....	1
1.4 Population Size and Growth .....	1
1.5 Regional Economy .....	2
1.6 Tourism.....	2
1.7 Industrial Activities .....	2
1.8 Economic Infrastructure .....	2
<b>2 INTRODUCTION.....</b>	<b>3</b>
2.1 The Rationale for Conducting the National Sample Census of Agriculture .....	3
2.2 Census Objectives.....	4
2.3 Census Scope and Coverage.....	4
2.4 Census Methodology .....	5
2.4.1 Census Organization .....	6
2.4.2 Tabulation Plan Preparation.....	7
2.4.3 Sample Design .....	7
2.4.4 Questionnaire Design and Other Census Instruments .....	8
2.4.5 Field Pilot-Testing of the Census Instruments.....	9
2.4.6 Training of Trainers, Supervisors and Enumerators .....	9
2.4.7 Information, Education and Communication (IEC) Campaign .....	9
2.4.8 Data Collection .....	9
2.4.9 Field Supervision and Consistency Checks .....	10
2.4.10 Data Processing.....	10
2.5 Funding Arrangements .....	12
<b>3 CENSUS RESULTS .....</b>	<b>13</b>
3.1 Household Characteristics .....	13
3.1.1 Type of Household.....	13
3.1.2 Livelihood Activities .....	14

---

---

3.1.3	Sex and Age of Household Members .....	18
3.1.4	Level of Education.....	18
3.1.4.1	Literacy Level for Household Members .....	18
3.1.4.2	Literacy Rates for Heads of Households .....	19
3.1.4.3	Educational Status .....	19
3.2	Land Use.....	19
3.2.1	Area of Land Utilized .....	20
3.2.2	Types of Land Use.....	22
3.3	Annual Crops and Vegetable Production .....	22
3.3.1	Area Planted.....	22
3.3.2	Crop Importance .....	23
3.3.3	Crop Types.....	25
3.3.3.1	Cereal Crop Production .....	25
3.3.3.2	Roots and Tubers Crop Production .....	31
3.3.3.3	Pulses production .....	34
3.3.3.4	Oil Seed Production.....	38
3.3.3.5	Fruits and Vegetables .....	44
3.3.3.6	Other Annual Crop Production.....	50
3.4	Permanent Crops.....	53
3.4.1	Banana .....	54
3.4.2	Mangoes.....	55
3.4.3	Tea .....	57
3.4.4	Coffee.....	57
3.4.5	Sugarcane.....	58
3.5	Inputs/Implements Use .....	62
3.5.1	Improved Seeds Use .....	63
3.5.2	Fertilizer Use.....	63
3.5.3	Pesticide and Herbicides Use.....	64
3.6	Irrigation .....	65
3.6.1	Area Planted with Annual Crops and Under Irrigation .....	65
3.6.2	Sources of Water Used for Irrigation.....	65
3.6.3	Methods of Obtaining Water for Irrigation.....	66
3.7	Crop Storage, Processing and Marketing .....	66
3.7.1	Crop Storage .....	66

---



---

3.7.2	Methods of Storage.....	67
3.7.3	Crop Marketing.....	67
3.8	Access to Crop Production Services.....	68
3.8.1	Source and Access to Agricultural Credit.....	68
3.8.2	Crop Extension .....	69
3.8.3	Source of crop extension messages .....	70
3.8.4	Type of Crop Extension Messages .....	70
3.9	Irrigation and Erosion Control Facilities.....	71
3.10	LIVESTOCK RESULTS.....	76
3.10.1	Cattle production.....	76
3.10.2	Goat Production .....	77
3.10.3	Sheep Production .....	78
3.10.4	Pig Production.....	82
3.10.5	Chicken Production.....	83
3.11	Pest and Parasite Incidence and Control.....	88
3.11.1	Ticks and Tse tse fly.....	88
3.11.2	De-worming .....	90
3.12	Access to Livestock Extension Services .....	90
3.13	Fish Farming.....	91
3.14	POVERTY INDICATORS.....	94
3.14.1	Type of Toilets.....	94
3.14.2	Access to Drinking Water.....	94
3.14.3	Food Consumption Patterns.....	95
3.14.3.1	Number of Meals per Day .....	95
3.14.3.2	Meat Consumption Frequencies .....	96
3.14.3.3	Fish Consumption Frequencies .....	96
3.14.4	Food satisfaction.....	97
3.14.5	Sources of income.....	97
3.14.6	Sources of energy.....	98
3.14.6.1	Source of lighting energy .....	98
3.14.6.2	Source of cooking energy .....	98
3.14.7	Type of house.....	99
3.14.8	Households assets .....	100
4	IRINGA REGIONAL PROFILE .....	105

---

---

4.1	DISTRICT PROFILES .....	107
4.1.1	Iringa Rural .....	107
4.1.2	Mufindi .....	108
4.1.3	Njombe.....	110
4.1.4	Ludewa.....	112
4.1.5	Makete .....	114
4.1.6	Iringa Urban .....	115
4.1.7	Kilolo .....	116
	APPENDICES .....	118

**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
MITM	Ministry of Industry Trade and Marketing
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 Ministers Office, Regional Administration and Local Government
PPS	Probability Proportional to Size

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

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**PREFACE**

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

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

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

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

Dr. Albina A. Chuwa

Director General

National Bureau of Statistics

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## EXECUTIVE SUMMARY

The executive summary highlights the main census results obtained during the National Sample Census of Agriculture 2007/08. This report covers small-scale agriculture households which were selected using statistical sampling techniques in rural areas of Iringa region. These highlights describe the important findings in relation to agricultural production, productivity, husbandry, access to resources, levels of involvement in agricultural related activities and poverty in Iringa region. It provides an overview of the rural agricultural households and down to district level in Iringa region.

### i) Household Characteristics

The census results for Iringa region indicates that out of most of the agricultural households were involved in crop farming as an activity that provides most of their cash income. In the surveyed districts more household in Njombe (23%), Mufindi (20%) and Iringa rural (18%) were engaged in crop farming. Rudewa, Makete had less than 10% of households in crop. Second in importance was livestock farming where 6,043 household were involved in smallholder livestock faming, the leading districts being Mufindi (25%) followed by Kilolo (25%) and Iringa rural (23%). Fish farming was practiced by about 2,837 households and most of fish keeping were in Ludewa (25%), Iringa rural (24%) and Mufindi (22%).

Iringa region had a total literacy rate of 79.5 percent. The highest literacy rate was found in Njombe town (88%) followed by Iringa urban (84%) Mufindi (82%), Njombe rural and Kilolo (80% each). The literacy rate for the heads of households both male and female in Iringa region was about 50 percent. The literacy level of household head were higher in Mufindi (24%) followed by Njombe (21%), Iringa rural (17%) and Kilolo (16%).

### ii) Crop Production

#### Land Area

The total area of land available to smallholders was 770,180 ha. The regional average land area utilized for crop production per crop growing household was 2.0 ha. This figure is equivalent to that of the national average of 2.0 hectares.



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**Planted Area**

Cereals are the main crops grown in Iringa region. The area planted with cereals was 281,452 hectares which is equivalent to (67%) of the total planted area, this was followed by pulses with 71,309 hectares (17%), oil seeds (40,974 ha, 1%), root and tubers (18,920 ha, 5%), fruit and vegetables (6,036 ha, 1%) and annual cash crops (mainly tobacco) with a planted area of (1,105 ha, 3%)

**iii) Crop Types****Cereal Crops**

Cereals are the main crops grown in the region. The area planted with cereals was 281,452 hectares which is equivalent to (67%) of the total planted area. Maize was the dominant cereal crop whereby, the total area planted with the crop was 246,908 ha compared with wheat 17,562 ha, paddy 6,527 ha, finger millet 6,072 ha. The total production of cereals was 422,332 tons of which maize accounted for 90 % of the total production, followed by paddy 4.2 percent and wheat 2.9 percent.

**▪ Maize**

The area planted with maize constitutes 40 percent of the total area planted with annual crops in the region, a drop of 23 percent from the previous agricultural census of 2002/03 where the total area under maize was 63%. Sorghum 4,365 ha in 2007/08 agricultural year. More households grew maize in Njombe followed by Iringa rural and Kilolo compared with other districts. Njombe also had largest area planted with Maize (53,579 ha), compared with Iringa rural (44,203 ha) and Kilolo (44,113ha).

**▪ Paddy**

Production of paddy has increased from 8,099 tonnes in 2002/03 to 17,711 tonnes in 2007/08, equivalent to 118%, whilst the area under paddy increased from 4,666 ha to 6,527 ha in between the two census period. The district with the largest area planted with paddy was Iringa Rural (4,953 ha), followed by Ludewa (661 ha), and Mufindi (461 ha), and Mufindi (467 ha).

**▪ Wheat**

Wheat is the third most important cereal crop in Iringa region in terms of planted area. There were 17,562 ha planted with wheat during the 2007/08 agricultural year. The number of households that

grew wheat in Iringa region during the wet season was 40,905. This represents 11 percent of the total cereal crop growing households in Iringa region in the wet season.

The total production of wheat was increased from 7,901 tonnes in 2002/03 to 12,662 tonnes in 2007/08 agriculture year giving an average yield of 0.72 t/ha, an increase of 49% between the two census period. The district with the largest area planted with wheat was Kilolo (2,246 ha) followed by Mufindi (1,651 ha), Njombe Urban (841 ha), and Njombe rural and Ludewa with about 550 ha each.

### **Roots and Tuber Crops Production**

The total production of roots and tubers was 84,268 tonnes. The production of Irish potatoes was higher than the production of any other root and tuber crop in the region with a total production of 80,958 tonnes representing 96 percent of the total root and tuber crops production. This was followed by sweet potatoes (2,975 t, 3.5%), coco yams (176 t), cassava (137t) and yams (22 t).

#### **▪ Irish Potatoes**

The number of households growing Irish potatoes in Iringa region was 40,905. This was 80 percent of the total root and tuber crop growing households during the wet season. The area planted with Irish potatoes was larger than any other root and tuber crop in the region accounting for 91 percent of the total planted area of root and tuber crops. Makete District has more households planting Irish potatoes and largest planted area for the crop. The yield of Irish potatoes was highest in Makete, followed by Njombe Urban, Njombe rural, Mufindi, Ludewa and Iringa rural. The average yield of Irish potatoes was 4.6 t/ha and Iringa rural had the highest yield per acre (7.9 t) compared to other districts.

#### **▪ Cassava**

Cassava was among the most important tuber crop grown in Iringa region. There were 8,325 households growing cassava in the region cultivating a total of 3,897 ha. This represents 3 percent of the total crop growing households in the region. The total production of cassava was 7,532 t in 2007/08 agriculture year and was grown on 3,897 ha. Ludewa district had the largest planted area of cassava followed by Mufindi, Ludewa district had the largest proportion of land planted with cassava in Iringa region. The average planted area per cassava growing households was 0.5 hectares.

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## **Pulses**

The total area planted with pulses was 71,309 hectares, of which 56,116 followed by field peas (8,118 ha), cow peas (6,116 ha), bambaranuts (608 ha), Mung bean (294 ha) and green gram (28 ha). The total production of pulses increased from 30,640 tonnes in 2003 to 47,510 tonnes in 2008 equivalent to 55 percent increase. Beans were the most cultivated crop producing 37,518 tonnes which accounted for 78.9 percent of the total pulse production. This was followed by field peas (5,723t, 12%) and cow peas 3,037t, 6.0%). The number of households growing beans in Iringa region was 161,209. The total production of beans in the region was 37,518 tonnes from a planted area of 56,116 hectares resulting in an average yield of 0.67 tonnes/ha.

## **Oil Seed Production**

The number of households growing beans in Iringa region was 161,209. The total production of beans in the region was 37,518 tonnes from a planted area of 56,116 hectares resulting in an average yield of 0.67 t/ha.

The area under simsim has increased from 1245 ha in 2003 to 4,807 (286%) in 2008 and production increased from 822 tonnes to 1,538 (87%) making it number one oil seed crop. In the same period there was a corresponding decrease in area under sunflower from 15,674 ha to 850 ha and the yield declined from 7,366 tonnes to 337 ha.

Groundnuts was grown by 16,662 households. The total production of groundnuts in the region was 5,927 tonnes from a planted area of 7,660 hectares resulting in an average yield of 0.77 tons per hectare. Largest area percent of the area planted with groundnuts in Iringa region was in Njombe District, but the largest planted area per groundnut growing household was found in Mufindi district (0.68 ha).

## **Fruit and Vegetables**

The total production of fruits and vegetables was 50, 847 tonnes. The most cultivated vegetable crop was tomatoes with a production of 32,132 tonnes (63.2% of the total vegetables produced in the region), followed by cabbage (7,222 t, 14.2%) and onions (3,267t, 6.4%). The production of the other fruit and vegetable crops was relatively small. The yield of tomatoes was 14.4t/ha, 9.15t/ha for cabbage, 4.43 t/ha for onions and 6.52 t/ha, for spinach. The number of households growing tomatoes was 7,288. This represents 27 percent of the area under vegetables in the region and

Kilolo district had the largest planted area of tomatoes (51 % of the total area planted with tomatoes in the region).

### **Cash Crops**

Most of the other annual crops are cash crops. An area of 1,106 hectares was planted with other annual crops mainly pyrethrum and tobacco. The area under Pyrethrum was 1,031 ha (93%) while that under tobacco was 75 ha (7%). The two crops were grown by 2,696 households (328 Tobacco; 2696 Pyrethrum).

### **Permanent Crops**

The most important permanent crop in Iringa region was banana which accounted for a planted area of 2,894 hectares (30.5%) planted area with permanent crops), followed by mango (2,476 ha, 26% , Tea (2,042, 21.6%) coffee (882 ha, 9.3%), Oranges (500 a, 5.3%) and Sugarcane (473ha 5.0%). Other permanent crops are grown in small quantities. The acreage under banana has declined from 9,745 ha in 2003 to the current figure of 2,894 ha.

### **Implements Use**

Agricultural implements are a necessity for efficient production. In Iringa region the use of these implement is very minimal. Only 2.6 percent of the household had ox-cart, 0.2 percent tractor, 0.9 percent harrow, 0.2 percent thresher, 0.2 percent power tillers and 0.4 percent rigger. In Njombe and Njombe urban ox-carts dominated the type of agricultural equipment and were mainly used for transport. Iringa urban had higher proportion of tractors (2.2%) and harrows (3.3%) than other districts.

#### **iv) Input use**

##### **▪ Improved Seeds**

The planted area using improved seeds was 59,609 hectares which represents 14 percent of the total area planted with the annual crops and vegetables. Njombe district had the largest area planted with improved seeds (13,522 ha, 15% of total planted area). It was followed by Mufindi (12,396 ha, 15%), Iringa rural (11,898 ha, 17%), Kilolo (10,235, 15%), Makete (5,404 ha, 14%), Njombe urban (4,065 ha, 15%), Ludewa (1,933 ha, 6%) and Iringa urban (154 ha, 14%)

##### **▪ Use of Fertilizers**

The use of fertilisers on annual crops in the region is relatively high compared to other regions with a planted area applied with fertilizer of 135,897 hectares (53 % of the total planted area in the

region). Of the planted area with fertiliser application, organic fertilizers was applied to 32,199 hectares which represents 24% percent of the area using organic or inorganic fertilizers, whilst the area under inorganic fertilizer was 103,697 hectare (76%).

▪ **Use of Pesticides and Herbicides**

Large proportion (87%) of the planted are used insecticides while small proportion use fungicides (11%) and much less (2 percent) use herbicides. Insecticides were applied on 14,383 hectares, while fungicides and herbicides were applied to 17,338 and 2,648 hectares respectively.

**v) Irrigation**

In Iringa region, the area of annual crops under irrigation was 20,061 hectares representing 4.9 percent of the total area planted area in the region. The district with the largest planted area under irrigation with annual crops was Iringa rural with 6,554 ha (32.7% of the total planted area with irrigation in the region). This is followed by Njombe with (4,969 ha, 24.8%), Kilolo (3,978 ha, 19.8%), Mufindi (2,335 ha, 11.6%), Njombe urban (1,175 ha, 5.9%), Ludewa (637 ha, 3.2%), Makete (358 ha, 1.8%) and Iringa Urban (55 ha, 0.3). The main source of water used for irrigation was from rivers (62% of all households with irrigation). This was followed by tap water (33%) and canals (4%).

**vi) Crop Storage**

The results for Iringa region show that there were 302,957 crop growing households that stored various agricultural products in the region (93% of the total crop growing households). Greater percent of households in Njombe (22%) and Mufindi (21%) stored crops compared to Iringa rural (18%), Kilolo (15%), Makete (10%) and Ludewa (8%).

**Crop Marketing**

The number of households that stored their produce in locally made traditional structures was 157,506 (26%). This was followed by: improved locally made structures (5533 households, 1%), and other structures (10,752 households, 2%). Moreover, 13 percent of the households did not store crops in any form.

**vii) Agricultural Credit**

The census results show that in Iringa region very few agricultural households (8,076, 2.6% of all crop growing households) accessed credit. The major agricultural credit provider in Iringa region

was saving and credit societies (36%), followed by family friend and relatives (21%), banks (13%), Cooperatives (9%), Private individuals (12%), and religious organizations/Non governmental organizations/projects (7%).

### **viii) Crop Extension Services**

The number of Agricultural households that received crop extension was 246,400, accounting for 80.4 percent of total crop growing households in the region. Mufindi had a relatively high proportion of households that received crop extension messages (95.8% of the agricultural households in the district), followed by Njombe urban (92.6%), Kilolo (84.7%), Iringa urban (80%0, Iringa rural (77.4%), Ludewa (74.6%), Njombe (71.1%) and Makete (66.4%).

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

The number of agricultural households that had soil erosion and water harvesting facilities on their farms in Iringa region was 45,035 which represent 15 percent of the total number of agricultural households in the region. The largest number of households with erosion control and water harvesting facilities are found in Njombe district followed by Mufindi, Iringa Rural, Kilolo, Njombe urban, Ludewa, 7%), Makete and Iringa Urban.

### **x) Livestock and Poultry Production**

#### **▪ Cattle**

The total number of cattle in the region was 475,031 and it ranked fifteenth in the Mainland in which it held 2.2 percent of the total cattle population on Tanzania Mainland. The number of indigenous cattle in Iringa region was 459,275 (96.7% of the total number of cattle in the region), improved dairy cattle (14,258 cattle, 3%) and beef cattle (1,498 cattle, 0.3%). The district with the largest number of cattle was Njombe which had about 132,919 cattle (28% of the total cattle in the region).

#### **▪ Goats**

The number of goat-rearing-households in Iringa region was 48,188 (15.7% of all agricultural households in the region) with a total of 298,887 goats giving an average of 8 heads of goats per goat-rearing-household. Njombe had the largest number of goats (63,754 goats, 21.3% of all goats in the region), followed by Makete (55,740 goats, 18.6%), Ludewa (47,731 goats, 16%), Iringa Rural (37,255 goats, 12.5%), Kilolo ( 36,626 goats, 12.3%), Mufindi (36,577 goats, 12.20, Njombe urban (19,669 goats, 6.6%) and Iringa Urban (1,535 goats, 0.5%) .

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- **Sheep**

The number of sheep-rearing households was 12,392 (4% of all agricultural households in Iringa region) rearing 56,448 sheep, giving an average of 6 heads of sheep per Sheep-rearing household. The district with the largest number of sheep was Njombe with 17,249 sheep (30.6% of total sheep in Iringa region),

- **Pigs**

Pigs are the least important livestock keeping activity in the region after cattle, goats and sheep. However, the region ranks 2 out of 21 Mainland regions and has 15 percent of the total pigs on the Mainland. The number of pig-rearing agricultural households in Iringa region was 103,865 (33.9% of the total agricultural households in the region) rearing 241,829 pigs. More pigs were raised in Mufindi district (32.3%).

- **Chicken**

The number of households keeping chicken was 236,482, raising about 2,343,579 chicken. This gives an average of 10 chicken per chicken-rearing household. In terms of total number of chicken in the country, Iringa region ranked sixth out of the 21 Mainland regions. Njombe had the largest proportion of chicken compared to other districts (24%).

### **Fish Farming**

The number of households involved in fish farming in Iringa region was 1,821 representing 1 percent of the total agricultural households in Iringa region. Mufindi was the leading district with 795 households (44% of agricultural households) involved in fish farming.

## **xi) Poverty Indicators**

- **Availability of Toilets**

A large number of rural agricultural households in Iringa region use traditional pit latrines (284,343 households, 93% of all rural agricultural households), 3,698 households (1.2%) use flush toilet and 20,148 households (7%) use improved pit latrines. The remaining 1,730 households (1%) have no toilet facilities.

- **Source of Drinking Water**

The main source of drinking water for rural agricultural households in Iringa region was pipe water with 37 percent of households using it as the main source during the dry season. This is followed



by unprotected well (22% of households), Uncovered wells (17%), unprotected spring (17%), surface water (8%) and protected wells (3%).

▪ **Food Consumption Patterns**

About one half of the households in Iringa region normally have 2 meals per day (165,352 households, 54 percent of the households in the region). This is followed by those having 3 meals per day (45%) and 1 meal per day (1%). The proportion of household having two meals has dropped from 60 percent in 2003 to 54 percent in 2008. Seventy seven percent and 65.4 percent of households reported to have had consumed meat or fish at least once during the week preceding the census.

## ILLUSTRATIONS

## LIST OF TABLES

Table 2.1: Census Sample.....	8
Table 3.1: Number of Heads of Agricultural Households by Main Activity and District, 2007/08 Agricultural Year.....	14
Table 3.2: Paddy Planted Area and Planted Area per Household .....	27
Table 3.3: Number of Household, Planted Area and Yield of Major Roots and Tubers.....	32
Table 3.4: Pulse Crops Production .....	34
Table 3.5: Area Planted , Quantity Harvested, Yield, Area Planted and Quantity Harvested per Household by Type of Oil Seed .....	38
Table 3.6: Area Planted, Quantity Harvested, Yield, Area Harvested per Household by Type of Horticultural Crop.....	44
Table 3.7: Number of Households, Planted Area, Quantity Harvested, Yield, and Area Harvested per Household by Type of Cash Crops.....	50
Table 3.8: Area Planted, Area harvested, Quantity Harvested and Yield by Type of Permanent Crop, Iringa Region .....	53
Table 3.9: Comparison of Banana Production Between 2003 and 2008 Census Years .....	55
Table 3.10: Proportion of Area Planted with Pesticides and Herbicides.....	64
Table 3.11: Percentage of Agricultural Household Receiving Credit by Type and District .....	69
Table 3.12: Number of Erosion Control Structures by Type and by District.....	72
Table 3.13: Number of Cattle by District .....	77
Table 3.14: Number of Other Livestock by Type of livestock and District .....	85
Table 3.15: Number of Livestock Rearing Households by Method of Tick and Tsetse Control and District .....	88
Table 3.16: Number of Livestock Rearing Households that Dewormed Livestock by Type of Livestock and District.....	90

## LIST OF CHARTS

3.1	Agricultural Households by Type.....	13
3.2	Distribution of Population by Age and Sex.....	18
3.3	Percent Literacy Level by District.....	18
3.4	Literacy Rates of Household Head by District.....	19
3.5	Education Status for Person Age 5 Years and Above.....	19
3.6	Percent of Individuals Completed School by District.....	19
3.7	Level of Formal Education of Household Members.....	19
3.8	Percent of Land Available Utilized for Agriculture .....	20
3.9	Percentage Usable area, Utilized and Percentage Utilization by District .....	20
3.10	Land Use Types.....	22
3.11	Area Planted with Annual Crops by Season and District.....	22
3.12	Percentage Area Planted During the Long Rainy Season by District.....	23
3.13	Planted area for Main Crop.....	23
3.14	Percent of Planted Area per Household for Main Crops.....	23
3.15	Percentage Distribution Planted with Annual Crops by Crop Type.....	25
3.16	Quantity of Cereal Harvested (tonnes).....	25
3.17	Planted Area and Yield of Cereals Crops (t/ha).....	25
<b>3.18</b>	<b>Number of Households and Area Planted with Maize.....</b>	<b>26</b>
3.19	Time Series Data on Maize Production.....	26
3.20	Paddy Production by District.....	27
<b>3.21</b>	<b>Time Series Data on Paddy Production.....</b>	<b>27</b>
3.22	Wheat Planted Area and Yield (t/ha) by District.....	31
3.23	Wheat Area and Harvest per Household.....	31
3.24	Production of Irish Potatoes by District.....	32
3.25	Irish Potatoes Production per Household.....	32
3.26	Cassava Production by District.....	33
3.27	Cassava Production per Household.....	33
3.28	Beans Production by District.....	34
<b>3.29</b>	<b>Beans Production per Household.....</b>	<b>35</b>
3.30	Production of Major Oil Seed Crops.....	38
3.31	Sunflower Production by District.....	39
3.32	Sunflower Production per Household .....	40

---

3.33	Groundnuts Production by District.....	40
3.34	Groundnuts Produciton per Household.....	41
3.35	Simsim Production by District.....	41
3.36	Simsim Production per Household.....	42
3.37	Fruits and Vegetable Production.....	44
3.38	Tomatoes Production by District.....	45
3.39	Tomatoes Production per Household.....	45
3.40	Cabbage Production by District.....	45
3.41	Cabbage Production per Household.....	46
3.42	Onion Produciton by District.....	46
3.43	Onion Production per Household.....	47
3.44	Pyrethrum Production by District.....	50
3.45	Pyrethrum Production per Household.....	50
3.46	Tobacco Production by District.....	51
3.47	Permanent Crops Production.....	54
3.48	Area Planted/Harvested with Permanent Crops by District.....	54
3.49	Banana Production by District.....	54
3.51	Mangoes Production by District.....	55
3.52	Mangoes Area Planted/Harvested and Quantity Harvested per Household.....	56
3.53	Area Planted/Harvested and Quantity Harvested per Household.....	57
3.54	Tea Production by District.....	57
3.55	Coffee Production by District .....	58
<b>3.56</b>	<b>Number of Household by storage Methods</b>	<b>58</b>
3.56	Area Planted/Harvested and Quantity Harvested per Household.....	58
3.57	Area Planted/Harvested and Quantity Harvested per Household.....	59
3.58	Sugarcane Production by District.....	59
3.59	Equipment use by type.....	62
3.60	Percent of Agricultural Households that used Agricultural Equipments by District.....	62
3.61	Area Planted with Improved Seeds.....	63
3.62	Percent and Area Planted with Iproved Seeds by District.....	63
3.63	Planted Area with Fertilizer.....	63
3.64	Planted Area by Type of Fertilizer Use and District.....	63
3.65	Planted Area with Pesticides.....	64

---

---

3.66	Planted Area using Irrigation by District.....	65
3.67	Source of Irrigation Water.....	65
3.68	Number of Household Using Rivers as Source of Irrigation Water by District.....	65
3.69	Number of Household with Irrigation by Method of Obtaining Water.....	66
3.70	Number of Household Using Gravity and Hand Bucket for Irrigation.....	66
3.71	Number and Percent of Households Storing Crops.....	66
3.72	Number of Households by Storage Methods.....	67
3.73	Number of Households by Storage Structures and District.....	67
3.74	Number and Percent of Crop Growing Households Selling Crops by District.....	67
3.75	Number and Percent of Household Reporting Marketing Problem.....	67
3.76	Number of Household Reporting Marketing Problems by District.....	68
3.77	Percent of Household Receiving Credit by Main Source of Credit.....	68
3.78	Number and Percent of Households Receiving Extension Advice.....	69
3.79	Number of Household by Source of Extension Message.....	70
3.80	Number of Agricultural Household by Source of Extension Message and District.....	70
3.81	Number of Household by Type of Extension Advice.....	70
3.82	Number and Percent of Household with Erosion Control/Water Harvesting Facilities.....	71
3.83	Number of Erosion Control/Water Harvesting Structure by Facility.....	71
3.84	Cattle Population by District.....	76
3.86	Total Number of Goats by District.....	77
3.87	Proportion of Goats by Breed.....	78
3.88	Goat Popualtion Trend.....	78
3.89	Number of Household Rearing Sheep by District.....	78
3.90	Number of Sheep.....	79
3.91	Herd size and comparison to regional total.....	79
3.92	Number of Indigeneous Sheep by Category.....	79
3.93	Number of Households Raising Pigs.....	82
3.94	Number of Indigeneous Pig by Herd Structure and District.....	82
3.95	Number of Pigs per Household.....	82
3.96	Number and Percent of Households Rearing Chicken by District.....	83
3.97	Number of Chicken by Type.....	83
3.98	Number of Chicken per Household by Type and District.....	84

---

---

3.99	Number of Other Livestock in Iringa Region .....	85
3.100	Percent of Other Livestock by type of livestock and District.....	85
3.101	Number and Percentage of Livestock rearing Households Reporting Tick and Tsetse flies Problem.....	88
3.102	Percent of Livestock Rearing Households by Methods of Tick Control.....	89
3.103	Percent of Livestock Rearing Households by Method of Tsetse Flies Control.....	89
3.104	Percent of Livestock Rearing Household that Dewormed Livestock by Type of Livestock and District .....	90
3.105	Number and Percent of Household Receiving Livestock Extension Advice by Type of Advice .....	90
3.106	Number of Households Receiving Livestock Advice (Overall) by Source of Extension and District.....	91
3.107	Number of agricultural Households Receiving Advice on Different Livestock Rearing Techniques by District .....	91
3.108	Number of Households Practicing Fish Farming .....	91
3.109	Number and Percent of Household Using the Dug Out Pond System of Fish Farming by District.....	92
3.110	Number of Agricultural Households by Source of Fingerlings .....	92
3.111	Number of Agricultural Households by Location of Selling Fish.....	92
3.112	Number of Agricultural Households Reporting Type of Toilet the Household normally Use by District.....	94
3.113	Number of agricultural Households Reporting Main Source of Drinking Water During Wet and Dry Seasons.....	94
3.114	Number of Agriculture Households by Distance to Main Source of Drinking Water in Wet and Dry Season.....	95
3.115	Number of agricultural Households Reporting Time Spent to and from the Main Source of Drinking Water in Dry Season.....	95
3.116	Number of Agricultural Households Reporting Number of Meals the Households normally has per Day by District.....	95
3.117	Number of Agricultural Households Reporting Number of Days the Household Consumed Meal during the Preceeding Week by District.....	96
3.118	Number of Agricultural Households Reporting Number of Days the Household Councumed Fish During the Preceeding Week by District.....	96

---

---

3.119	Number and Percent of Agricultural Households Reporting the Status of Food Satisfaction of the Household during the Preceeding Year.....	95
3.120	Number of Agricultural Households Reporting the Status of Food Satisfaction of the Household during the Preceeding Year by District.....	97
3.121	Number of Agricultural Households Reporting Main Source of Income.....	97
3.122	Number of Agricultural Households Reporting Main Source of Income by District.....	98
3.123	Number of Agricultural Households Reporting Main Source of Energy for Lighting.....	98
3.124	Number of Agricultural Households Reporting Firewood as the Source of Energy for Cooking by District.....	98
3.125	Number of Agricultural Households Reporting Main Source of Energy other than Firewood.....	99
3.126	Number of Households by Type of Wall Material and District.....	99
3.127	Number of Households Reporting Type of Roofing Materials by District.....	99
3.128	Number of Households Reporting Type of Floor Materials.....	100
3.129	Number of Agricultural Households Reporting Ownership of Asset by District... ..	101

#### LIST OF MAPS

3.1	Total Number of Agricultural Households by District.....	15
3.2	Number of Agricultural Household per square kilometer of Land by District.....	15
3.3	Number of Crop Growing Households by District.....	16
3.4	Percent of Crop Growing Households by District.....	16
3.5	Number of Crop Growing Households per square kilometer of Land by District.....	17
3.6	Percent of Crop and Livestock Households by District.....	17
3.7	Utilized Land Area Expressed as a Percent of Available Land.....	21
3.8	Total Planted area (Annual Crops) by District.....	21
3.9	Area Planted and Percentage of area Planted During the Dry Season by District.....	24
3.10	Area Planted and Percent of Total Land Planted with Cereals by District.....	24
3.11	Planted Area and Yield of Maize by District.....	29
3.12	Area Planted per Maize Growing Households.....	29
3.13	Planted Area and Yield of Paddy by District .....	30
3.14	Area Planted per Paddy Growing Households.....	30
3.15	Planted Area and Yield of Beans by District .....	36
3.16	Area Planted per Beans Growing Households.....	36

---



---

3.17	Planted Area and Yield of Cowpeas by District.....	37
3.18	Planted Area per Cowpeas Growing Household.....	37
3.19	Planted Area and Yield of Sunflower by District.....	43
3.20	Area Planted per Sunflower Growing Households by District.....	43
3.21	Planted Area and Yield of Tomatoes by District.....	48
3.22	Planted Area per Tomatoes growing Households by District.....	48
3.23	Planted Area and Yield of Cabbage by District.....	49
3.24	Area Planted per Cabbage Growing Household by District.....	49
3.25	Planted Area and Yield of Pyrethrum by District.....	52
3.26	Area Planted per Pyrethrum Growing Households by District.....	52
3.27	Planted Area and Yield of Bananas by District.....	60
3.28	Area Planted per Banana Growing Households by district.....	60
3.29	Planted areas and Yield of Mangoes by District.....	61
3.30	Area Planted per Mangoes Growing Households by District.....	61
3.31	Planted Area and Percent of Planted Area with no Application of Fertilizer by District.....	73
3.32	Number and Percent of Total Households Selling Crops by District.....	73
3.33	Number and Percent of Total Households Receiving Crop Extension Service by District.....	74
3.34	Number and Percent of Crop Growing Households using Improved Seed by District....	74
3.35	Number and Percent of Households with Water Harvesting Bund by District.....	75
3.36	Number and Percent of Smallholder Planted Trees by District.....	75
3.37	Cattle Population by District as of 1st October 2008 .....	80
3.38	Goat Population by district as of 1st Octobers 2008 .....	80
3.39	Sheep Popualtion by District as of 1st October 2008.....	81
3.40	Pig Popualtion by district as of 1st October 2008.....	87
3.41	Chicken Popualtion as of 1st October 2008.....	87
3.42	Number and Percentage of Households Infected by Ticks by District.....	93
3.43	Number and Percentage of Households Practising Fish Farming by Distric.....	93
3.44	Number and Percentage of Households Without Toilets by District.....	102
3.45	Number and Percentage of Households Using Grass or Leaves as Roofing material by District.....	102
3.46	Number and Percentage of Households Eating 3 Meal Per Day by District .....	103

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---

3.47	Number and Percentage of Households Eating Once Meat Per Day by District.....	103
3.48	Number and Percentage of Households Eating Fish Once Per Week by District.....	104

## **1 BACKGROUND INFORMATION**

This part of the report presents a brief description of Iringa region by providing information on geographical location, land area, climate, administrative setup and key socioeconomic indicators. The information will provide the user with a general understanding of the region and its resources.

### **1.1 Geographical Location**

Iringa region lies in the Southern Highlands of Mainland Tanzania. It stretches from the semi-arid central Tanzania in the north to the shores of Lake Nyasa in the South. The region is located between 7°05' - 36°32' South and 33°47' – 36 °32' East. In the North, Iringa region borders Dodoma region, Mbeya region to the West and Morogoro region to the East. To the South, Iringa region partly borders Ruvuma region and partly the Lake Nyasa. The region lies between latitudes 7° and 9° South of Equator, and between longitudes 32° and 35° East of the Greenwich Meridian. Iringa region lies at an altitude of 475 meters above sea level with high peaks of 2,981 meters above level.

### **1.2 Regional Area and Administrative Units**

The region covers an area of 58,936 sq. kms. About seventy-three percent of the area is arable. The Region is formed by eight administrative districts namely Iringa rural, Mufindi, Njombe, Ludewa, Kilolo, Njombe town, Makete and Iringa urban with Iringa Municipal council being the headquarters.

### **1.3 Climate**

Most parts of the region experience temperatures below 15°C for a great part of the year. However, in few instances, temperatures do rise up to 25°C in the Midlands. The rainfall in the region is typical of unimodal type with a single rainy season (Masika) from November through May, and dry conditions during the rest of the year. The amount of rainfall ranges from 500 mm to more than 1,600 mm per year.

### **1.4 Population Size and Growth**

According to the projections that are based on the 2002 population census, the population of Iringa region by the year 2008 was 1,679,828 people. It is among the moderately populated regions with 4.3 percent of the Tanzania Mainland population.

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### **1.5 Regional Economy**

The region's main economic activities are agricultural production, livestock rearing and fishing. The main cash crops in the region are tobacco, tea, pyrethrum, sunflower and coffee. Oil crops are also planted in the region.

The regional Gross Domestic Product (GDP) at current prices for the year 2008 was estimated to be TShs 1,340,063 million. The region held 5<sup>th</sup> position among regions on GDP and contributed about 5.41 percent to the national GDP.

### **1.6 Tourism**

Iringa like few other regions is bestowed with wildlife potential. It has two national parks namely Ruaha and Udzungwa. In addition, the region has two game reserves, which are Lunda/Mkwambi and Kihongosa.

### **1.7 Industrial Activities**

Most rural farmers participate in activities that are related to small-scale industries such as carpentry, weaving, pottery, brick making, skin/hides etc. Potential businessmen are the key players in medium and large-scale industries as they are capital intensive.

### **1.8 Economic Infrastructure**

There is a total of 6 675 kms of road network in the region, which includes Trunk roads, Regional roads, District roads and Feeder roads. Feeder roads, which are true life arteries of the economy, are not very good, especially during rainy season. Apart from road network, the famous TAZARA line runs from Dar es Salaam through the region via Mbeya to Zambia. Also, the region is served by three main air strips namely Nduli, Njombe and Mafinga. There are also other communication networks in the region like postal, telephone, telex, and fax services.

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

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

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

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

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

Following the decentralization of the Government's administration and planning functions, there has been a pressing need for agricultural and rural development data disaggregated at regional and

district level. The provision of district level estimates will provide essential baseline information on the state of agriculture that supports decision making by the Local Government Authorities and in the design of District Agricultural Development and Investment Projects (DADIPS). The increase in investment is an essential element in the national strategy for growth and reduction of poverty.

## **2.2 Census Objectives**

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

The census was carried out in order to:

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

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

The 2007/08 Agricultural Sample Census was conducted for both large and small scale farms. The data was collected from a sample of 52,635 small scale agricultural households of which 48,880 were from the Mainland and 4,755 from Zanzibar. To meet National estimates, data was also collected from 1,006 Large Scale Farms (968 on the Mainland and 38 in Zanzibar) on a complete enumeration basis.

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

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

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

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

The community level questionnaire was designed to collect village data such as access and use of common resources, community tree plantation and seasonal farm gate prices.

Large scale farm questionnaire was administered to all the large scale farms either privately or corporately managed. However, the analysis of Large Scale Farms is presented in a separate report (Volume IV).

## **2.4 Census Methodology**

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

- Census organization;
- Tabulation plan preparation;



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

#### **2.4.1 Census Organization**

The census was conducted by the National Bureau of Statistics (NBS) in collaboration with Ministries of Agriculture, Food Security and Cooperatives, Livestock and Fisheries Development; Water; Industry and Trade; and the Prime Minister's Office, Regional Administration and Local Government in Tanzania Mainland. The Office of the Chief Government Statistician, (OCGS), 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 came from PMO-RALG. As for Zanzibar, implementation of the census activities at the regional level was overseen by the Regional Statistical Officers and Regional Agricultural Officers. At District level, implementation of the census activities 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 1.1 gives the sample size of households, villages and districts for the Mainland and Zanzibar.

**Table 2.1: Census Sample**

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

#### 2.4.4 Questionnaire Design and Other Census Instruments

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

- Where feasible, all variables were extensively coded to reduce post enumeration coding errors;
- The definitions for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the respondent;
- The responses to all the questions were placed in boxes printed on the questionnaire, with one box per character. This feature made it possible to use scanning and Intelligent Character Recognition (ICR) technologies for data capture;
- Skip patterns were used to reduce unnecessary and incorrect coding of sections which do not apply to the respondent; and
- Each section was clearly numbered, which facilitated the use of skip patterns and provide a reference for data type coding for the programming of CPro 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 percent of the trainees were selected for the actual field work. The remaining 50% were assigned the work of listing the households in the villages they belong and they were later terminated. The best trained enumerators were assigned to list the remaining villages. Each enumerator was assigned to enumerate two villages.

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

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

#### **2.4.8 Data Collection**

Data collection activities for the 2007/08 Agricultural Sample Census lasted for three months from June to August 2009. The direct interview method was used to collect data during the enumeration. Data collection was monitored by a hierarchical system of supervisors which included the Mobile Response Team, Regional and District Supervisors. The Mobile Response Team headed by the Manager of Agriculture Statistics Department, provided the overall direction to the field operations

and responded to queries arising outside the scope of the training exercise. Decisions made on the definitions and procedures were then communicated back to all the enumerators via the Regional and District Supervisors. On the Mainland, each region had 2 Regional Supervisors (total of 42) and 2 district supervisors per district, (Total 266).

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

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

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

Enumerators were trained to probe the respondents until they were satisfied with the responses before they recorded them in the questionnaire. The first check on the questionnaire was carried out by the enumerators in the field during enumeration, followed by District, Regional and National supervisors. Supervisory visits at all levels of supervision focused on checking the completeness of the questionnaires and consistency. Inconsistencies encountered were corrected, and where necessary, a call back to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made by the district supervisors.

#### **2.4.10 Data Processing**

Data processing involved the following process:

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

**Data Entry**

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

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

**Data Quality Control**

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

## **2.5 Funding Arrangements**

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

### 3 CENSUS RESULTS

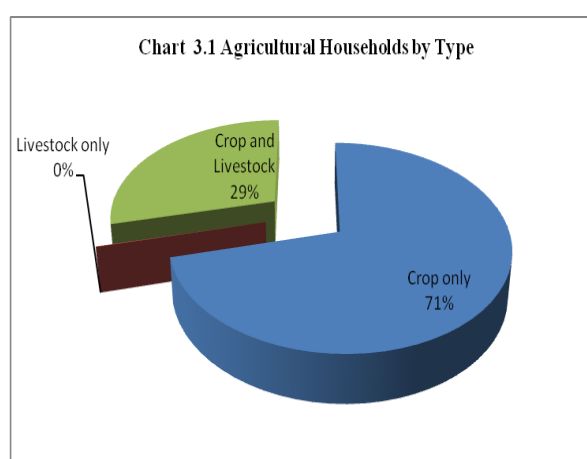
This part of the report presents the results of the census data for Iringa region which are based on the data tables presented in Appendix AII. The results are presented in different forms including brief summaries, charts, text, tables, graphs and maps in order to make it easier for the users to understand. Comparisons are made between related variables and between districts. Comparisons are also made with past censuses/surveys results such as the 2002/03 National Sample Census of Agriculture (NSCA), the 1997/98 Integrated Agricultural Survey, the 1998/99 District Integrated Agricultural Survey and the 1999/00 and Rapid Agricultural Appraisal Survey. The presentation of results is divided into four main sections which are household characteristics, crop results, livestock results and poverty indicators. More effort has been placed in analyzing the results in order to formulate solid conclusions.

#### 3.1 Household Characteristics

##### 3.1.1 Type of Household

The number of agricultural households in Iringa region was 306,629 with 1,334,159 household members and an average household size of 4.4 persons per household. Njombe district had the largest number agricultural households (22%) followed by Mufindi district (21%), Iringa rural (18%), Kilolo (14%), Makete (9%), Ludewa (9%), Njombe mji (5%) and Iringa urban (0.5%).

Of the 306,629 households in Iringa region, 218,110 (71%) were involved in growing crops only and 88,241 (29%) were involved in crop production as well as livestock keeping. There were few (278) agricultural households that were rearing livestock only, (Chart 3.1 and Maps 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6).



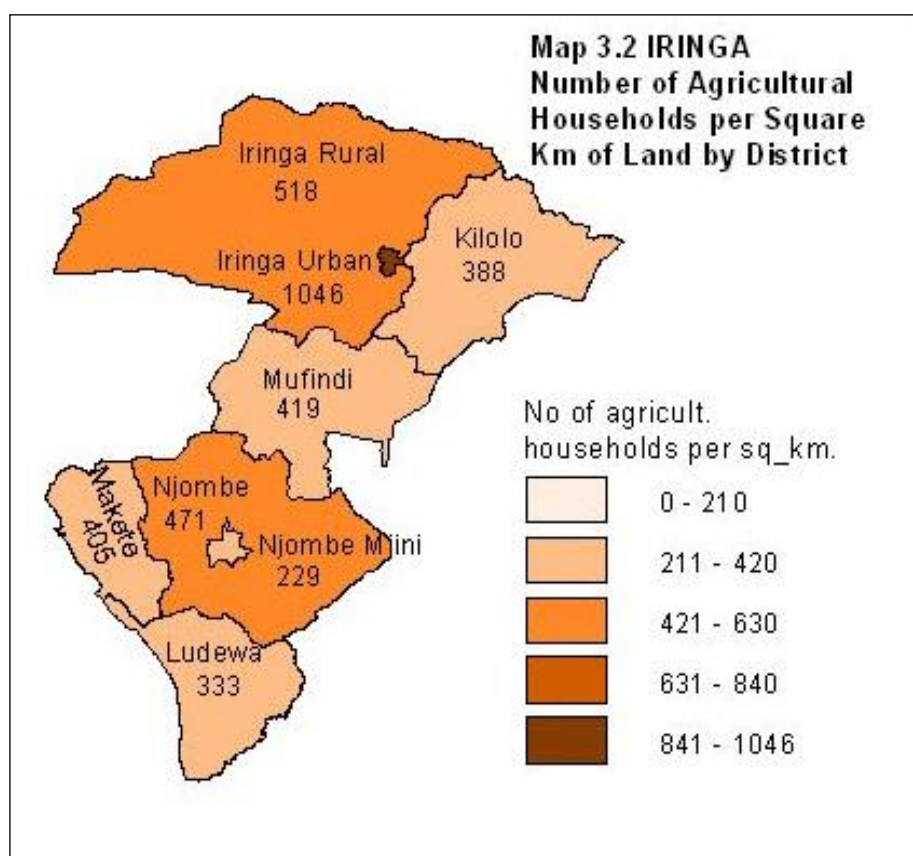
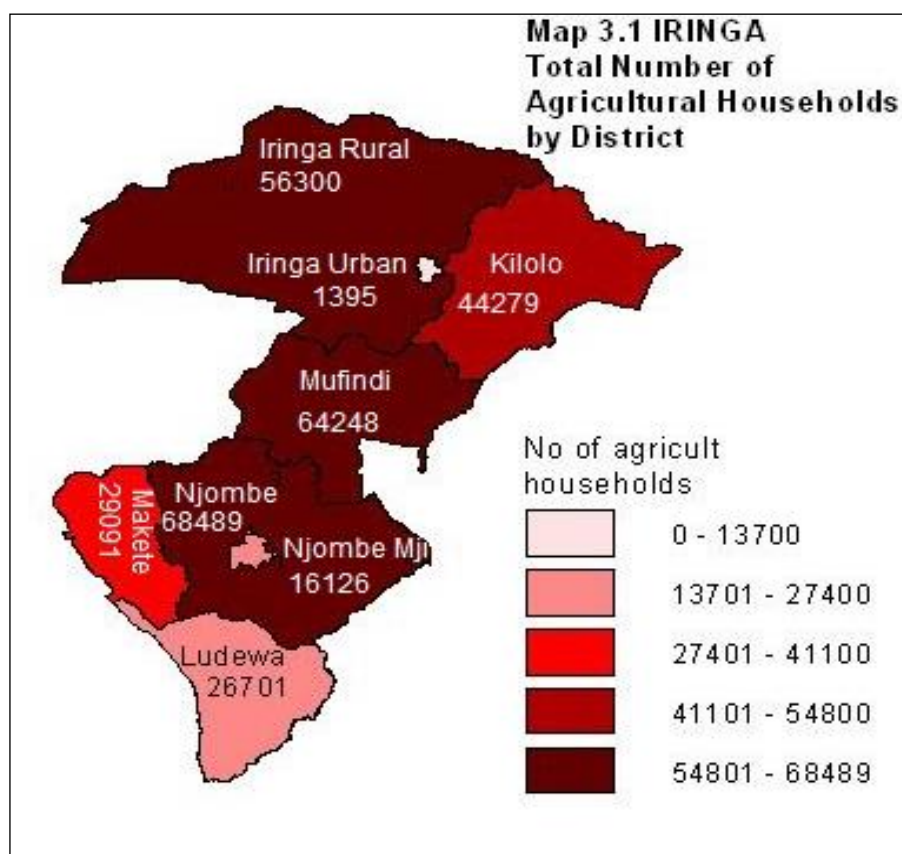


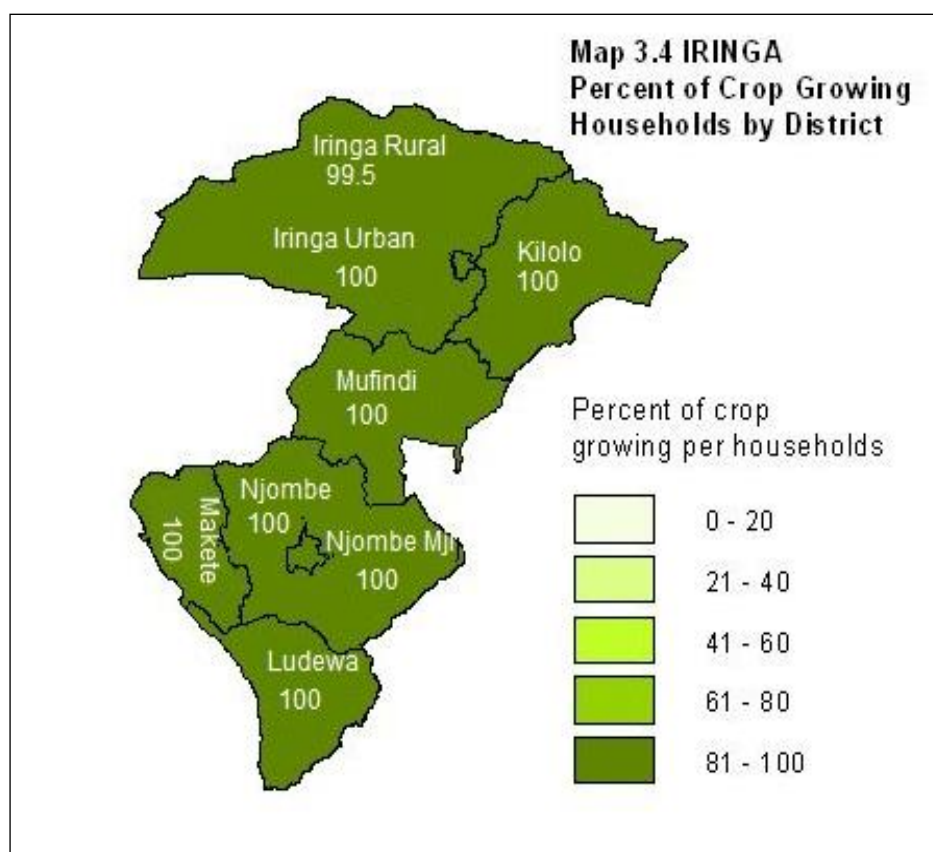
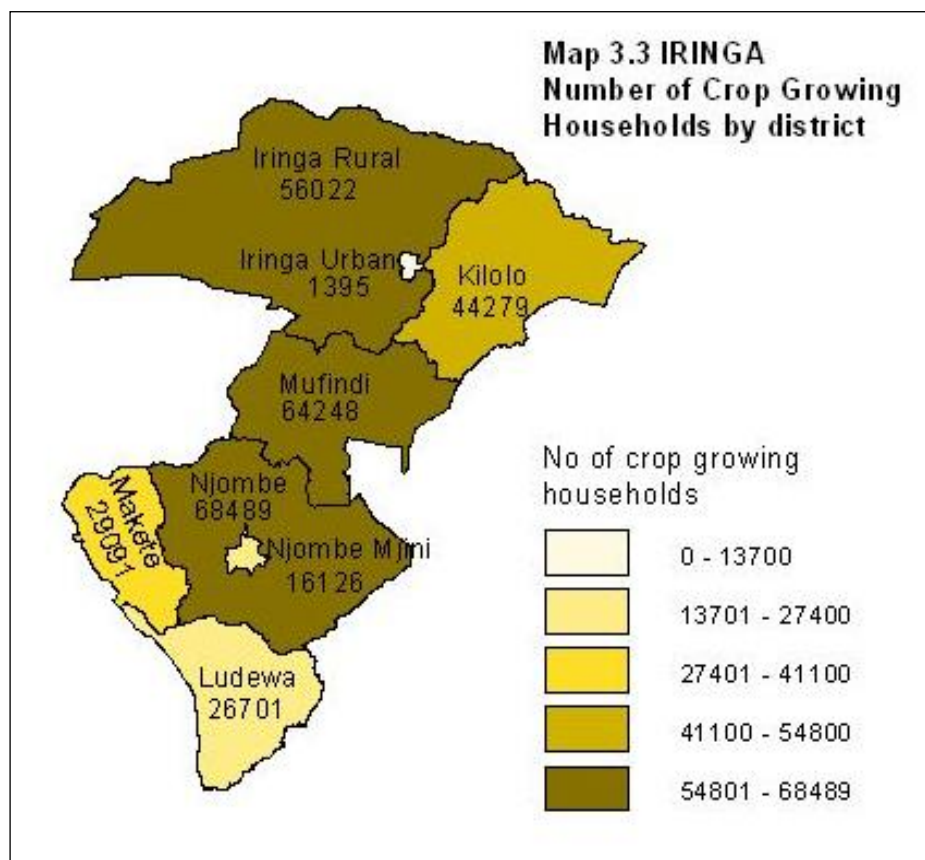
### 3.1.2 Livelihood Activities

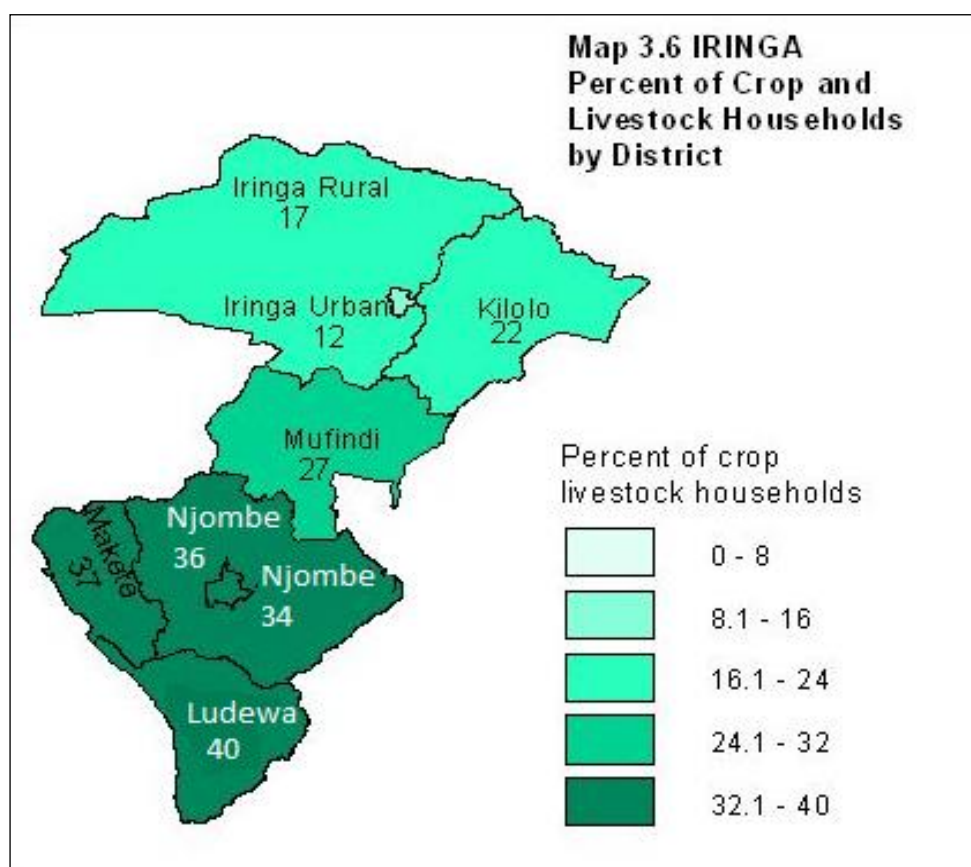
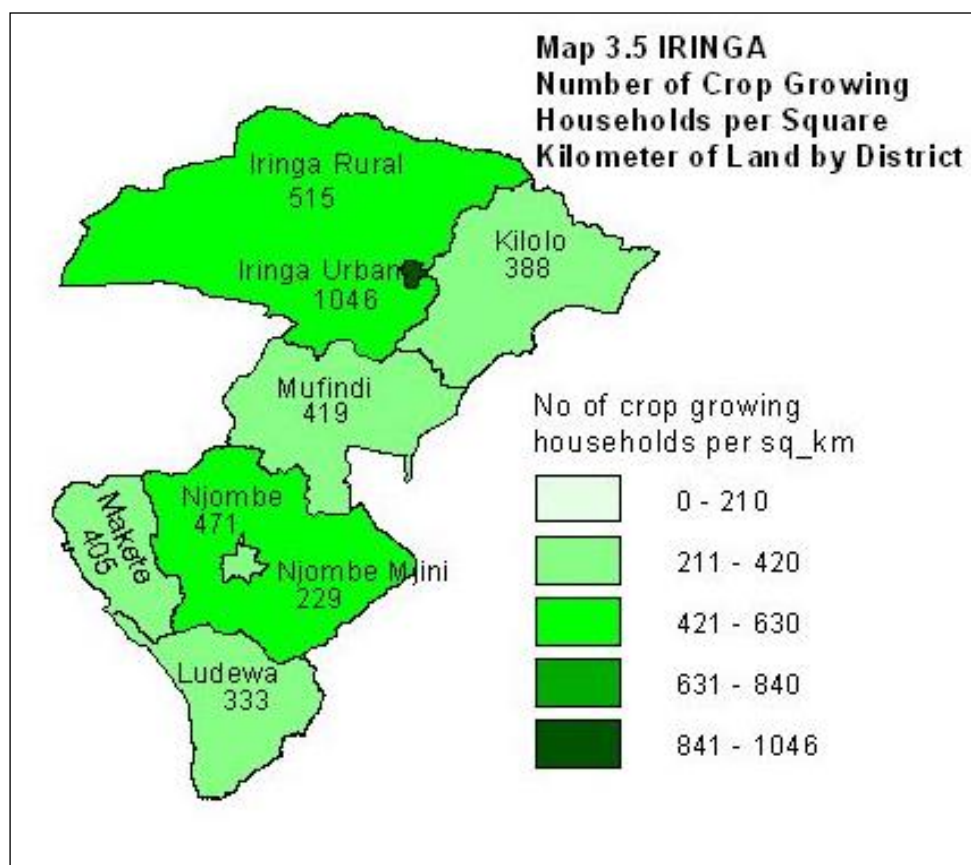
The census results for Iringa region indicates that 88% of the agricultural households were involved in crop farming as the main livelihood activities in Iringa region. Other livelihood activities were herding (1%), employment (9%) and other (2%), (Table 3.1).

**Table 3.1: Number of Heads of Agricultural Households by Main Activity and District, 2007/08 Agricultural Year**

District	Crop/Seaweed Farming		Livestock Keeping/ Herding		Fishing		Employment		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	47,125	84	695	1	139	0	6,534	12	1,807	3	56,300	100
Mufindi	53,752	84	636	1	318	0	7,952	12	1,590	2	64,248	100
Makete	27,008	93	215	1	0	0	1,652	6	215	1	29,091	100
Njombe	62,739	92	338	0	0	0	4,566	7	846	1	68,489	100
Ludewa	24,591	92	198	1	396	1	1,253	5	264	1	26,701	100
Iringa Urban	1,318	94	16	1	0	0	62	4	0	0	1,395	100
Kilolo	39,250	89	547	1	0	0	3,499	8	984	2	44,279	100
Njombe Mji	14,812	92	119	1	40	0	836	5	319	2	16,126	100
Total	270,595	88	2,764	1	892	0	26,352	9	6,025	2	306,629	100

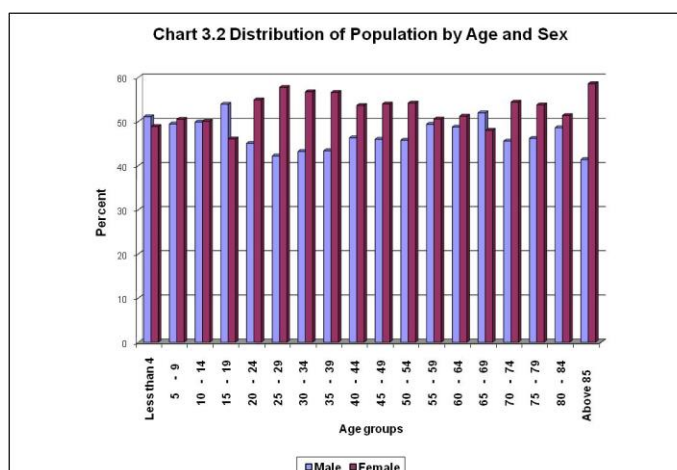






### 3.1.3 Sex and Age of Household Members

Age distribution by sex shows that there were high proportion of males and females in the age category of less than 4 years to 19 years. This group accounted for 56.5 of males and 50.7 of all women. About 37 percent and 43 percent of men and women respectively fell in the most agricultural active group i.e. in the range between 20 years and 59 years (Chart 3.2).



### 3.1.4 Level of Education

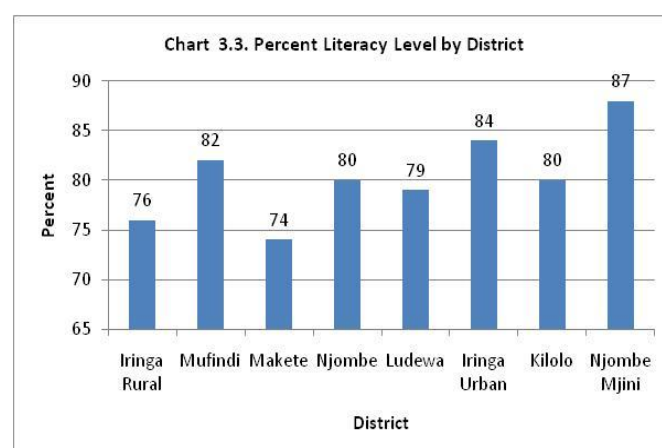
In order to obtain information on the level of education, information on literacy and education attainment were obtained for all persons aged five years and above in all households

#### Literacy

The information on literacy level for family members aged five years and above was obtained by asking individual private households if their respective family members could read and write in Kiswahili only, English only, both English and Swahili or in any other language. Literacy is based on the ability to read and write Swahili, English or both.

#### 3.1.4.1 Literacy Level for Household Members

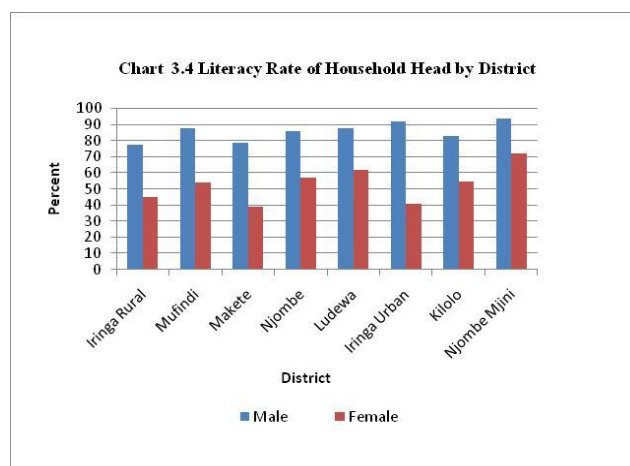
Iringa region had a total literacy rate of 79.5, three percent higher compared to the rate of 76 percent recorded in the 2002/03 Census. The highest literacy rate was found in Njombe Town (87%) followed by Iringa urban (84%) Mufindi (82%), Njombe Rural and Kilolo (80% each). There was a shift in literacy level where by in 2002/03 Mufindi district with 80% followed by Ludewa (78.7%) were the leading districts. Makete district had the lowest literacy rate of 74% compared to other districts (Chart 3.3).





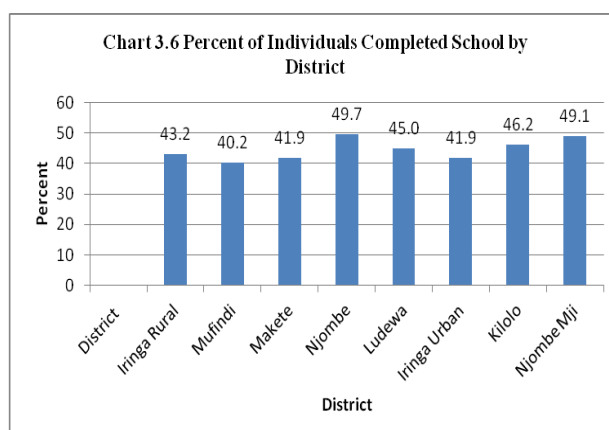
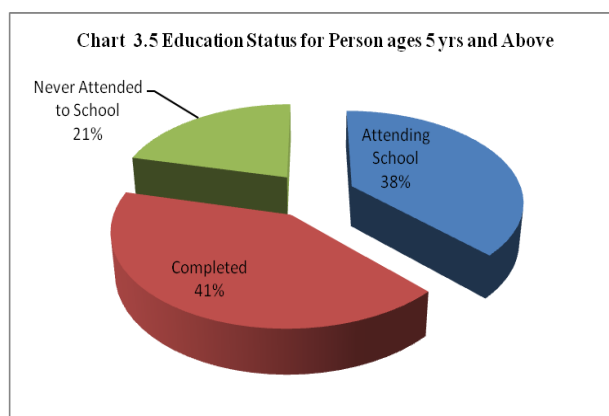
### 3.1.4.2 Literacy Rates for Heads of Households

The literacy rate for the male heads of households was 85 percent and that of female heads was 53 percent. The literacy rate of male heads of households was higher than that of female heads in each district (chart 3.4 ).



### 3.1.4.3 Educational Status

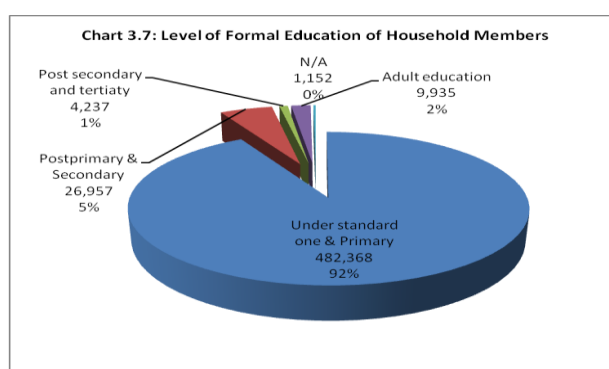
The results show that 41 percent of the population aged 5 years and above in agricultural households in Iringa region had completed different levels of education and 38 percent were still attending school. Those who have never attended school were 21 percent (Chart 3.5). Agricultural households in Njombe district had the highest percentage of population aged 5 years and above who had completed different levels of education (50%). This is followed by Njombe town(49%), Kilolo (46%)and Ludewa (45%). For the remaining districts, the proportion of individuals who have completed schooling ranged from 40 to 43% (Chart 3.6).



Iringa region had 513,563 (97.9%) of its household members who attended formal education. The rest either attended adult education (9,935 or 1.9%) or had no education completely (1,152 or 0.2%). There were 482,368 (92%) of household who had under standard one and primary education. The rest had post-primary and secondary education (26,957 or 5%), adult education (9,936 or 2%), post-secondary and tertiary education (4,237 or 0.81%) (Chart 3.7).

## 3.2 Land Use

Land area and planted area are two different types of area measurements. *Land area* refers to the physical



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

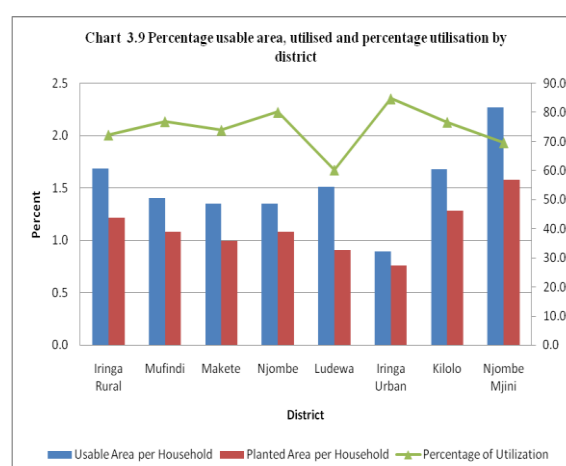
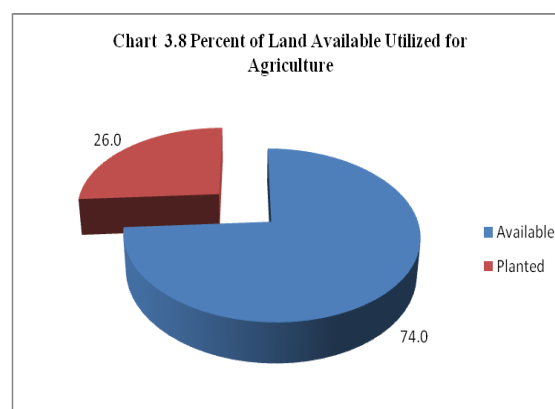
*Land available* refers to the area of land that has been allocated to smallholders through customary law, official title or other forms of ownership. Land available does not mean the total area of land that is designated as agriculture land in the country; however it is the land that is available to smallholders given the location of villages and lack of access to more remote parcels of unused agriculture designated land.

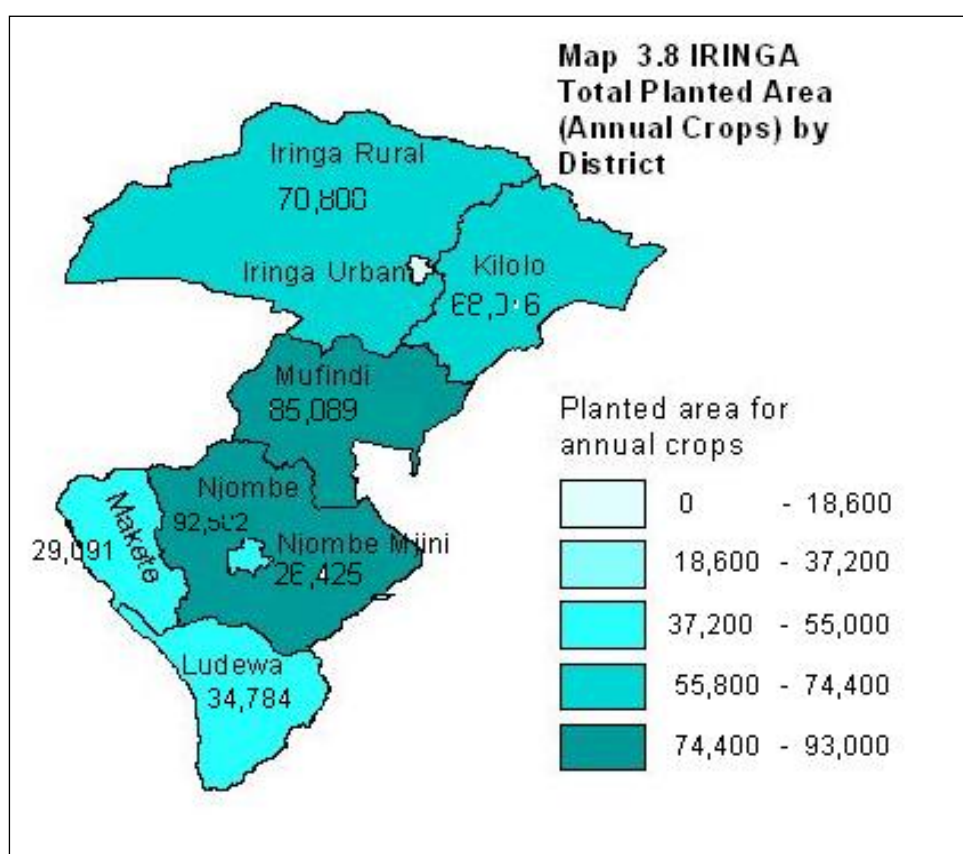
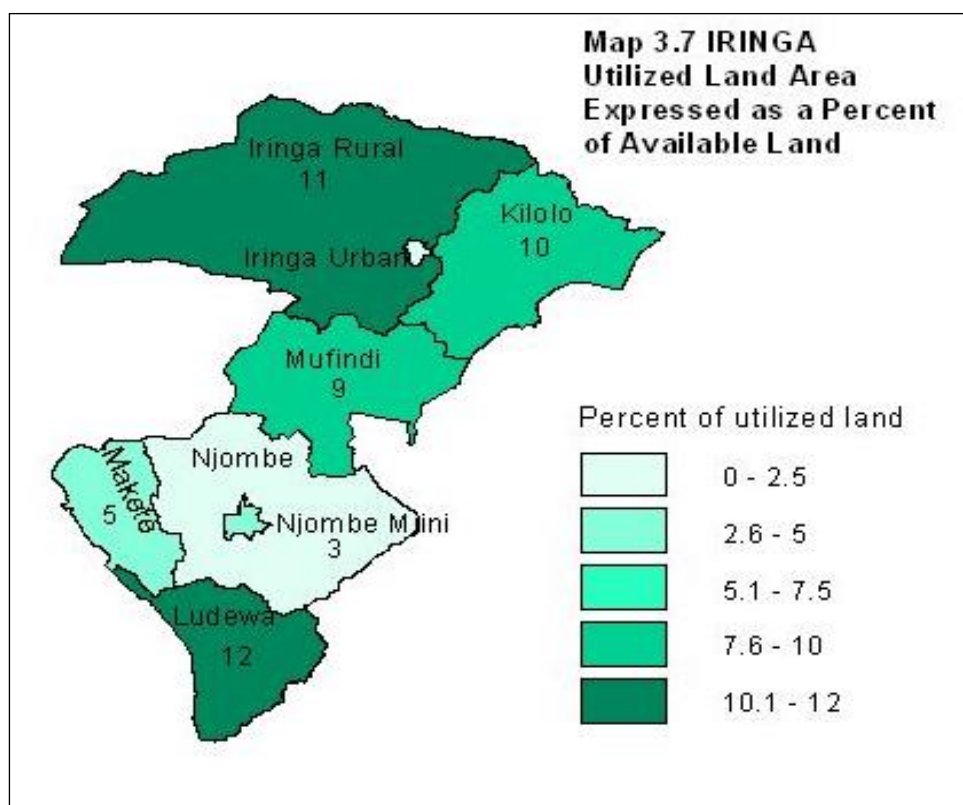
*Usable land* refers to the available land minus the land that cannot be used e.g. bare rock, shallow soils, steep slopes, swamp areas etc. It does however include un-cleared bush. Utilised land refers to the land that was used during the year.

### 3.2.1 Area of Land Utilized

The total area of land available to smallholders in Iringa region was 745,315 hectares. The regional average land area utilised for agriculture per household was 1.13 hectares.

Seventy four percent of the total land available to smallholders was utilized for agriculture activities (Chart 3.8 and Map 3.7). Small variations exist in term of land utilization. Iringa urban leads by having the largest proportion of land area that is utilized (1,130 ha, 84.7%), followed by Njombe (116,453 ha, 80%), Mufindi (117,666 ha or 76.6%), Kilolo (87,477 ha, 76.6%), Makete (53,049 ha, 73.8%), Iringa rural (78,483 ha, 72.2%), Njombe mji (48,969 ha, 69.1%) and Ludewa (48,175 ha, 60.1%), (Chart 3.9).

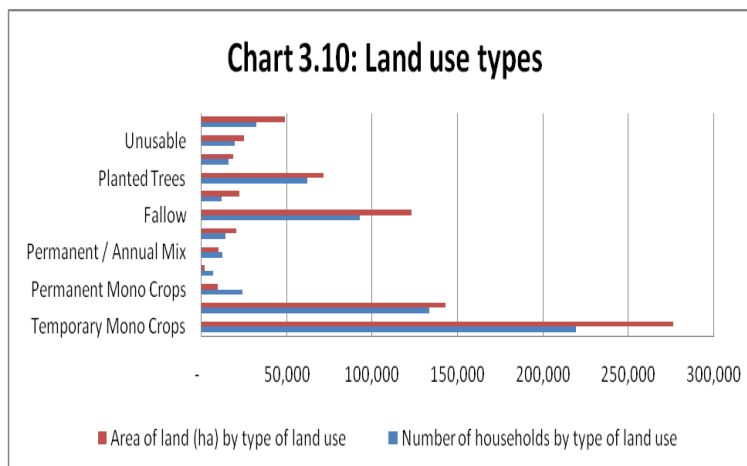






### 3.2.2 Types of Land Use

The area of land under temporary mono crop was 276,382 hectares which is 35.8% of the total land available to smallholders in Iringa region. Temporary mixed crops accounted for 143,085 hectares (18.5%), followed by un-cultivable usable land/fallow (123,097 hectares or 15.9%), planted with trees 71,631 hectares (9.3%), area under pasture 20,501 hectares (2.6%). Area under annual mixed crops, mono crops and mixed crops accounted for 2.7 percent of the total area (Chart 3.10).

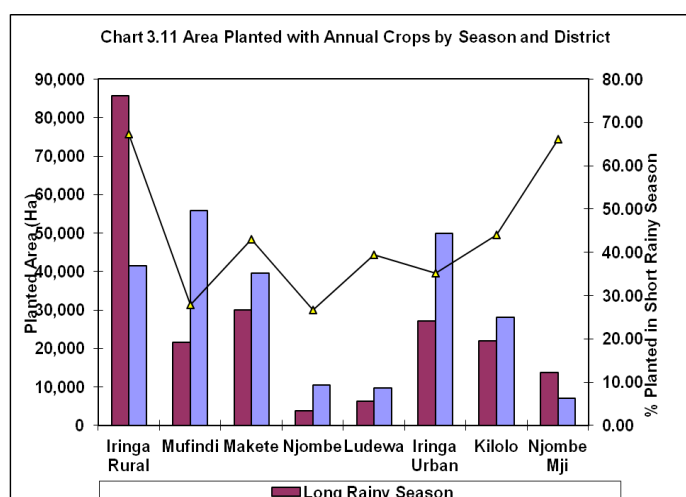


### 3.3 Annual Crops and Vegetable Production

Iringa region has only one main rainy season namely the wet season so the planted area is more or less the same as the area planted in the wet rainy season. During the dry spell, most of the cultivations are done in valley bottoms.

#### 3.3.1 Area Planted

The area planted with annual crops and vegetables in the region 452,682 hectares and most of it was planted during the wet season (Chart 3.11, Map 3.8). Most of the land (70%) was occupied by Temporary mono crops (35%), Temporary mixed crops (18.6%) and Fallow (16.0%). Land with trees, permanent mono crops and permanent mixed crops formed 9.3, 1.2 and 0.2 percent respectively, (Chart 3.11, Map 3.10).



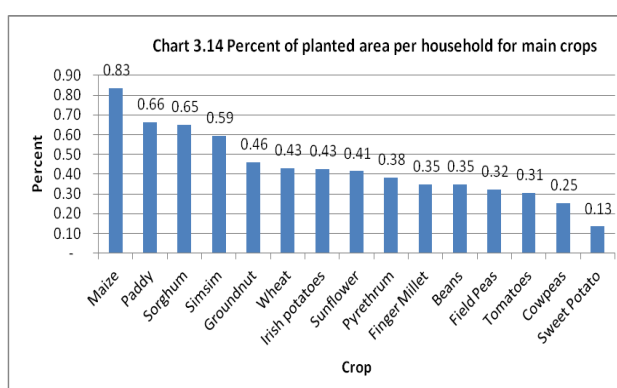
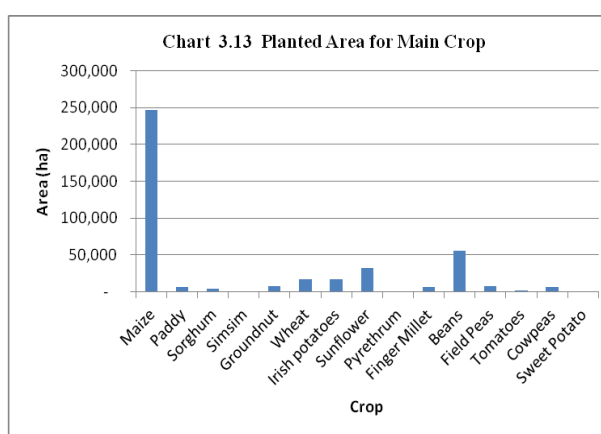
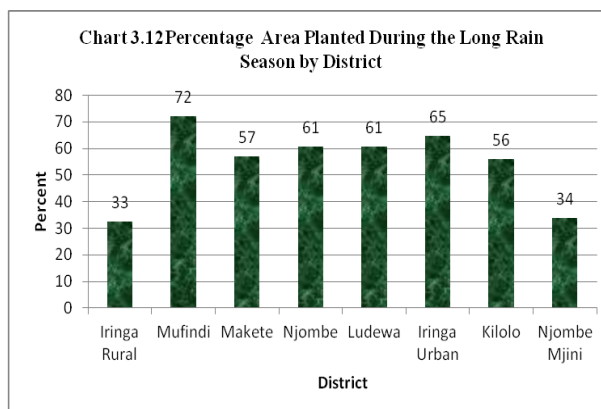
The district with the largest percentage of land area planted with annual crops and vegetables was Mufindi (72% ha) followed by Iringa urban (65%), Njombe and Ludewa. The district with the smallest average area planted were Iringa rural and Njombe Urban (33%) (Chart 3.12). The average area planted per household in the wet season was 0.63 hectares, while it was only 0.28, during the

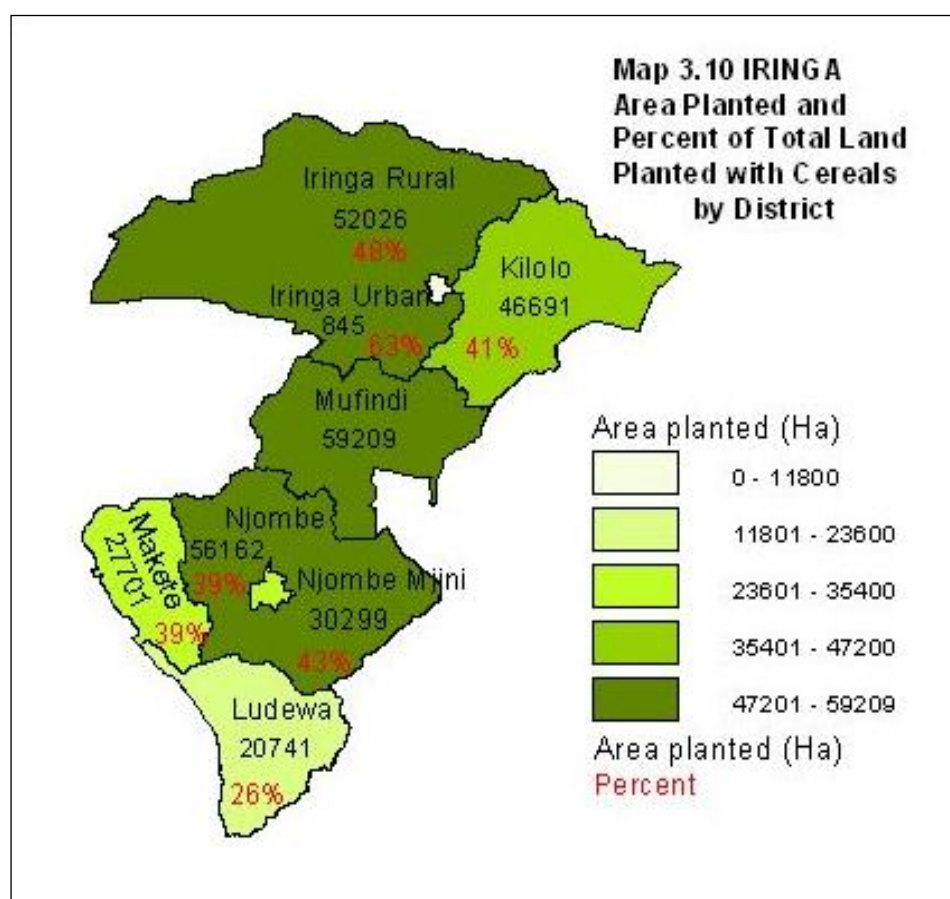
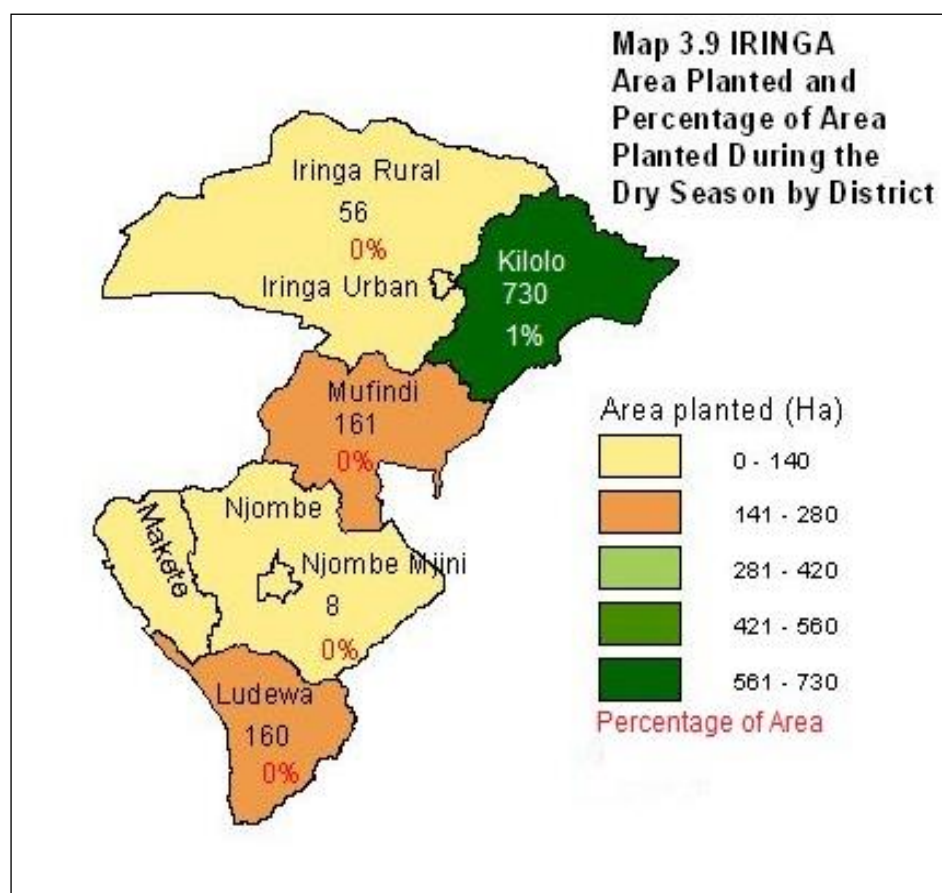
short rain. While, Njombe had the largest area per household (1.19 ha) planted during the wet season followed by Iringa rural (0.7ha) and Kilolo (0.68 ha). In Makete, Njombe and Iringa urban the size of land cultivated during the short rain was nearly zero, while in Kilolo the size of land cultivated during the long rain season and the short rain season was near equal.

### 3.3.2 Crop Importance

Maize is the dominant annual crop grown in Iringa region and has a planted area of 246,908 ha followed by beans 56,116ha. The area planted with maize constitutes 40 percent of the total area planted with annual crops in the region, a drop of 23 percent from the previous agricultural census of 2002/03 where the total area under maize was 63%. Other crops in order of their importance (based on area planted) are sunflower, Irish potatoes, wheat, groundnuts, field peas, paddy, cowpeas, finger millet, tomatoes, sorghum, tomatoes, and simsim. The remaining crops are either not grown or are produced in very small quantities, (Chart 3.13).

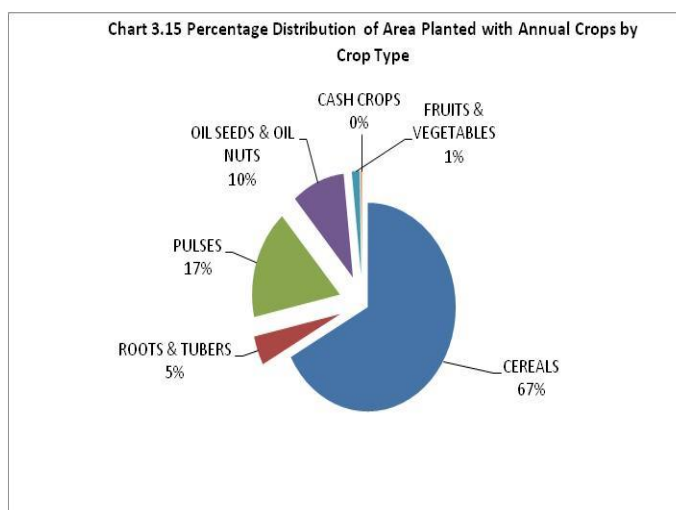
Chart 3.14 shows the area planted per household growing selected crops. Households that grow maize, paddy, sorghum and simsim have larger planted areas per household than households growing other crops.





### 3.3.3 Crop Types

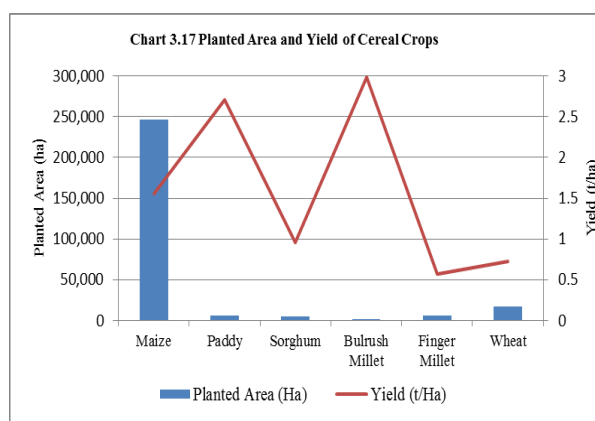
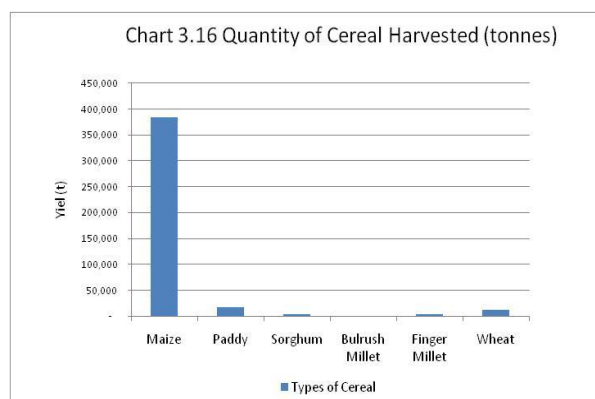
Cereals are the main crops grown in Iringa region. The area planted with cereals was 281,452 hectares which is equivalent to 67% of the total planted area, this was followed by pulses with 71,309 hectares (17%), oil seeds (40,974 ha, 10%), root and tubers (18,920 ha, 5%), fruit and vegetables (6,036 ha, 1%) and annual cash crops (mainly pyrethrum) with a planted area of (1,105 ha, 0.3%) (Charts 3.15, Map 3.10). Area under oil seed and oil nuts doubled in the inter- census period between 2002/03 and 2007/08.



#### 3.3.3.1 Cereal Crop Production

Maize was the dominant cereal crop whereby, the total planted area was 246,908 ha compared with wheat 17,562 ha, paddy 6,527 ha, finger millet 6,072 ha and sorghum 4,365 ha in 2007/08 agricultural year. The total production of cereals was 422,332 tonnes of which maize accounted for 91 % of the total production, followed by paddy 4.2 percent, wheat 2.9 percent. The contribution of sorghum, finger and bulrush millets was very small, (Chart 3.16).

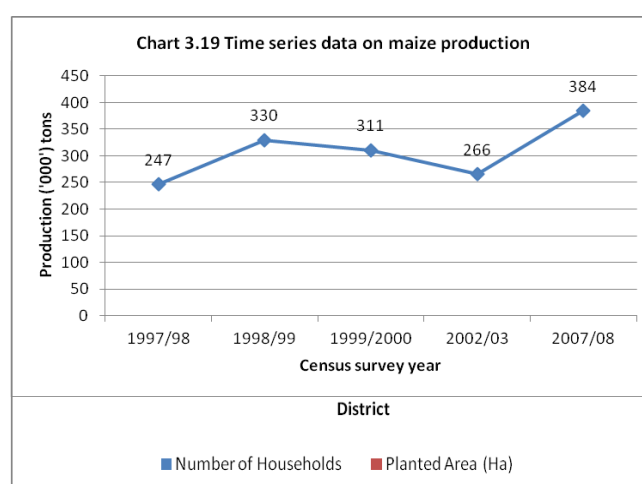
The highest yield per hectare was observed in bulrush millet, (2.99t/ha) followed by paddy (2.71 t/ha), maize (1.56 t/ha), sorghum (0.96 t/ha), wheat (0.72 t/ha) and finger millet (0.57 t/ha), (Chart 3.17).



## Maize

The number of households growing maize in Iringa region was 296,112, representing 97 percent of agricultural households. More households grew maize in Njombe followed by Mufindi, Iringa Rural and Kilolo compared with other districts ( Table 3.3). Njombe also had largest area planted with Maize (53,579 ha), followed by Mufindi (52,609ha) Iringa Rural (44,203 ha) and Kilolo (44,113ha) ( Chart 3.18); On average, the area under maize per household was 0.83 ha. The largest area planted with maize per household was found in Kilolo district (1 ha), followed by Njombe Urban (0.92 ha), Iringa Rural (0.89 ha), Mufindi (0.82 ha), Njombe (0.8), Ludewa (0.72 ha), Makete (0.65 ha) and Iringa Urban (0.62) Despite the decrease in area under maize from 253,874ha to 246,908 ha, there was an increase in total production from 265,941 tonnes to 384,273 tonnes between 2002/03 and 2007/08 census year.

This corresponds to an increased in yield from 1.05 t/ha to 1.56 t/ha between the two periods (49 percent) Over the last ten years, maize production trend has been of an undulating nature (Chart 3.19); having its minimum production of 247,000tonnes in 1997/8 which increased to 330,000tonnes in 1998/9 and then fell to 266,000tonnes in 2002/3 then and attained the maximum production of 384,000 tons in 2007/8 .



## Paddy

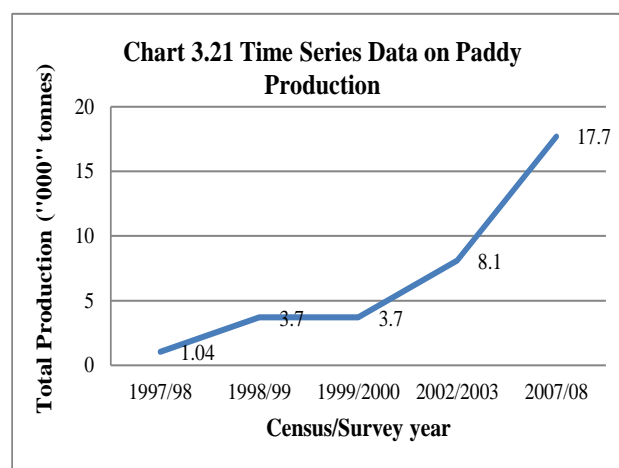
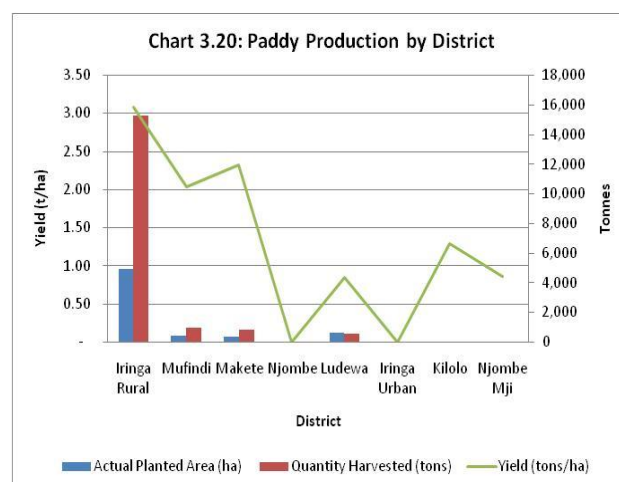
Paddy is the second most important cereal crop in the region in terms of planted area and has overtaken wheat which was second in 2002/03. There were 6,527 hectares under paddy (Chart 3.20, Table 3.2). Iringa Rural district was leading in terms of number of households growing paddy, area planted, quantity harvested and yield.

The number of households that grew paddy in Iringa region during the wet season increased from 8,760 in 2002/03 to 9,698 in 2007/08 census year. This represents 2 percent of the total crop growing households in Iringa region in the wet season. Production of paddy has increased from 8,099 tonnes in 2002/03 to 17,710 tonnes in 2007/08, equivalent to 118%, whilst the area under paddy increased from 4,666 ha to 6,527 ha between the two census period (Chart 3.21).

The yield per hectare increased from 1.74 t/ha to 2.71 t/ha (56% increase). This increase in production was a result an increase in both the planted area and yield. The district with the largest area planted with paddy was Iringa Rural (4,953 ha), followed by Ludewa (661 ha), Mufindi (467 ha), and Makete (371 ha). Njombe Urban and Kilolo had small areas under paddy, while Iringa Urban and Njombe districts did not grow paddy (Table 3.2). There were significant variations in the average area planted per crop growing household among the districts ranging from 0.35 ha in Ludewa to 1.47 ha in Mufindi (Table 3.2 and Map 3.13 & Map 3.14).

**Table 3.2: Paddy Planted Area and Planted Area per Household**

District	Number of Households	Planted Area (Ha)	Planted Area per Households
Iringa Rural	6,812	4,953	0
Mufindi	318	467	1.47
Makete	646	371	0.57
Njombe	0	0	0
Ludewa	1,912	661	0.35
Iringa Urban	0	0	0
Kilolo	109	44	0.4
Njombe urban	40	32	0.81
<b>Total</b>	<b>9,837</b>	<b>6,527</b>	<b>0.66</b>

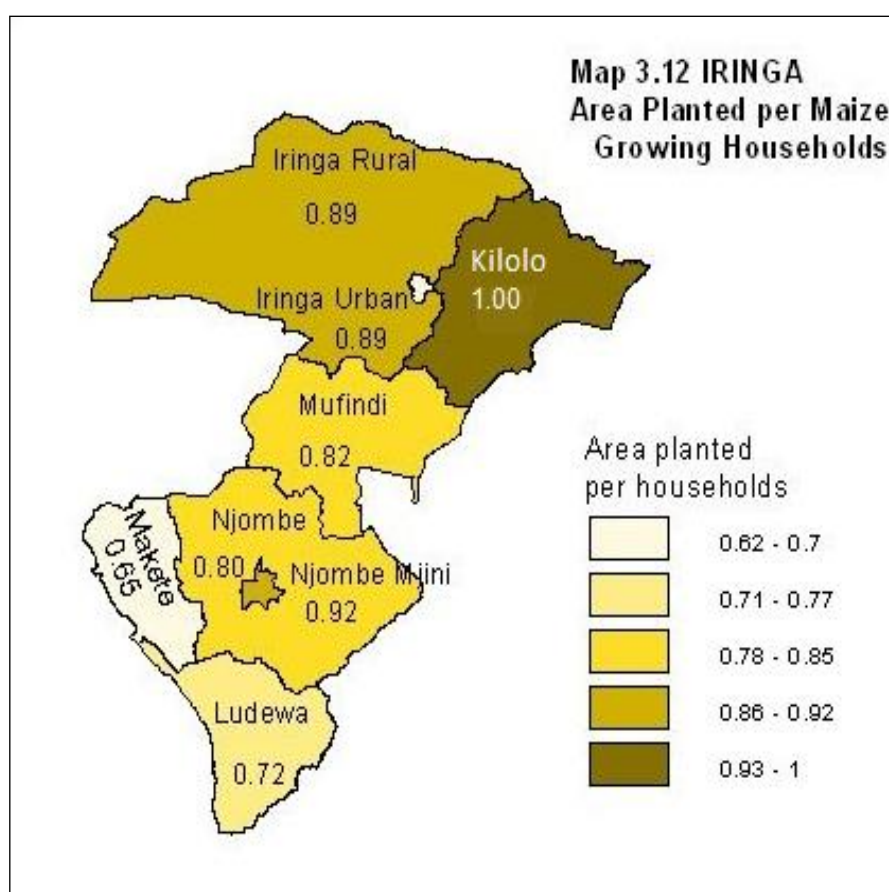
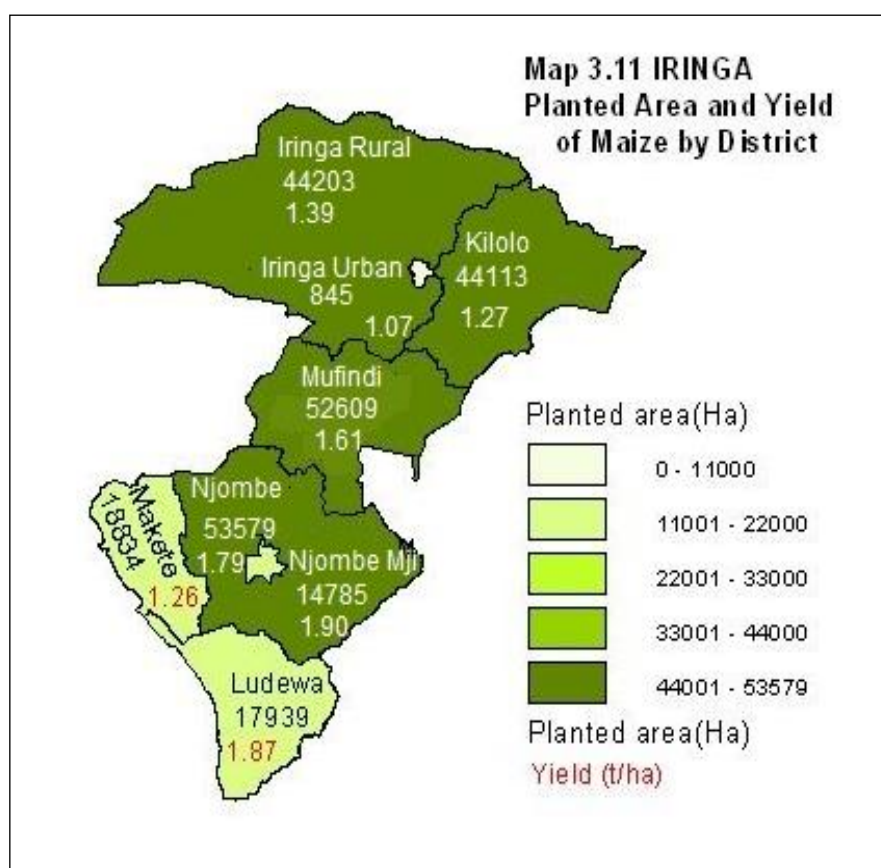


**Wheat**

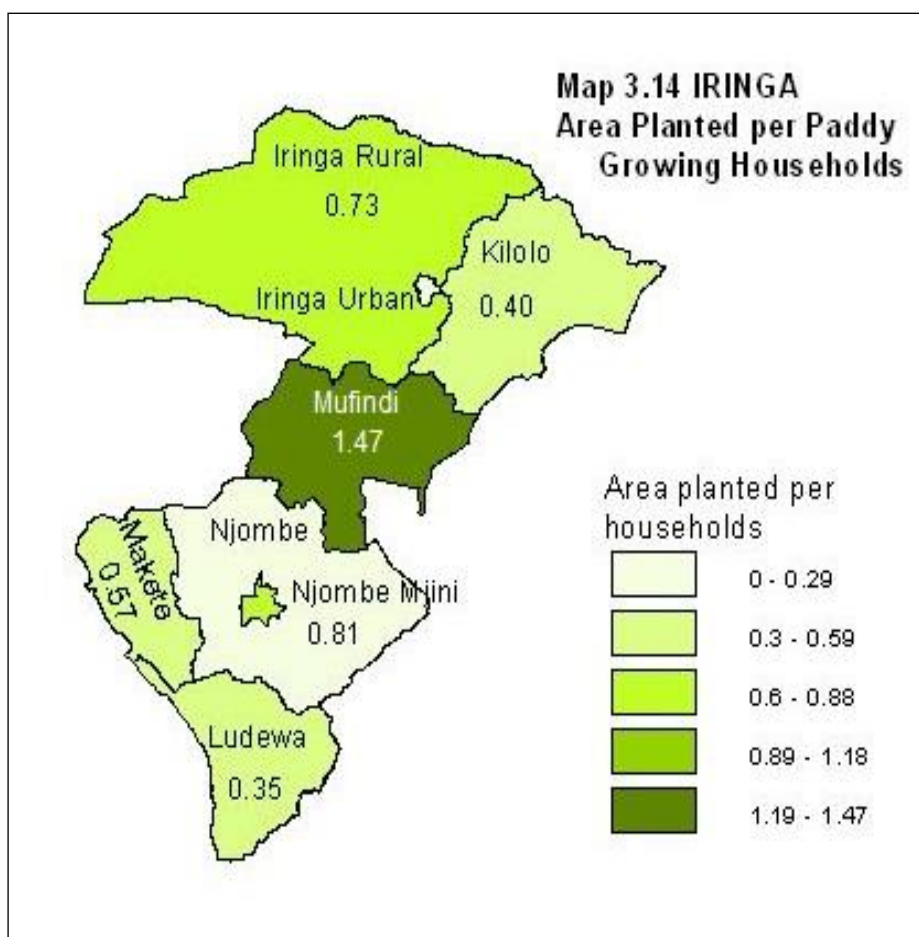
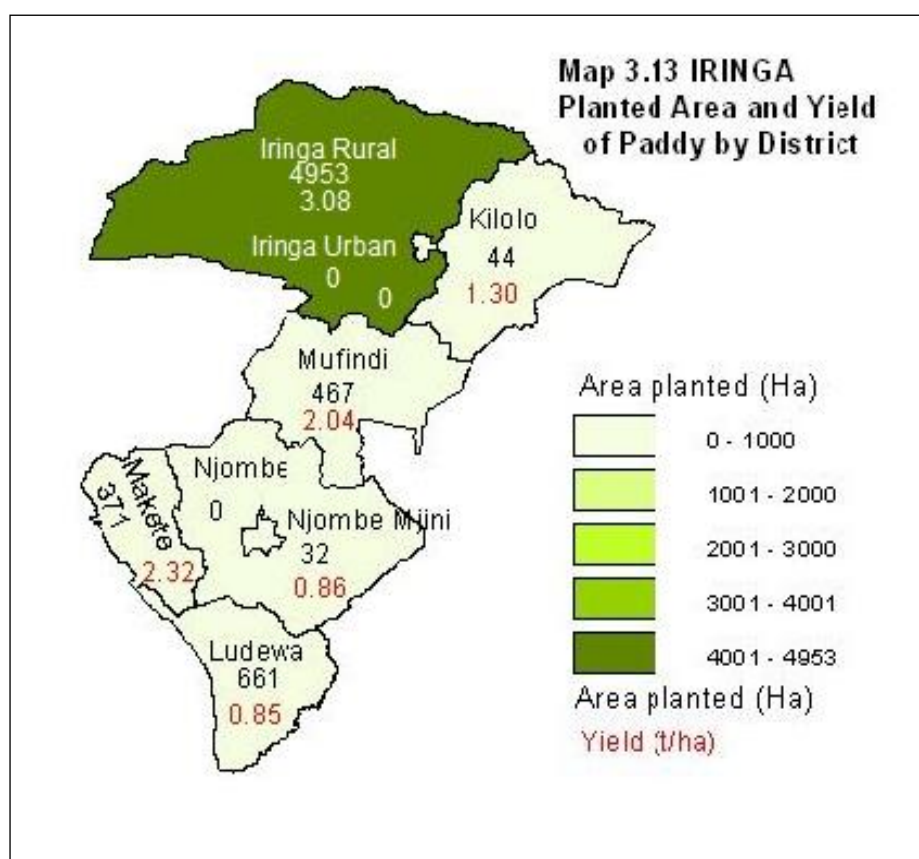
Wheat is the third most important cereal crop in Iringa region in terms of planted area. There were 17, 562 ha planted with wheat during the 2007/08 agricultural year. The number of households that grew wheat in Iringa region during the wet season was 40,590. This represents 11 percent of the total cereal crop growing households in Iringa region in the wet season.

The total production of wheat increased from 7,901 tonnes in 2002/03 to 12,662 tonnes in 2007/08 agriculture year giving an average yield of 0.72 t/ha, an increase of 49% between the two census period.

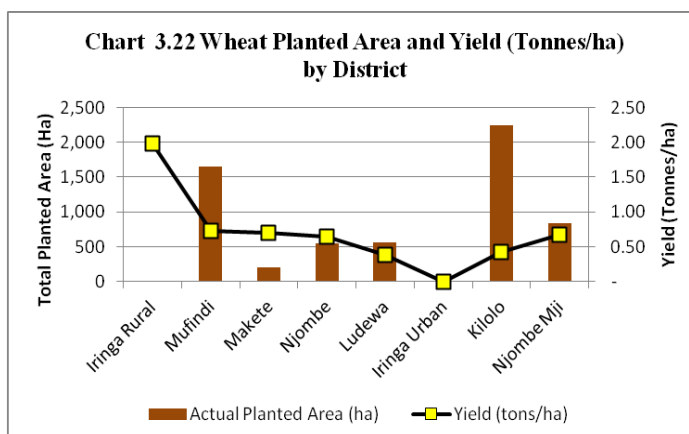




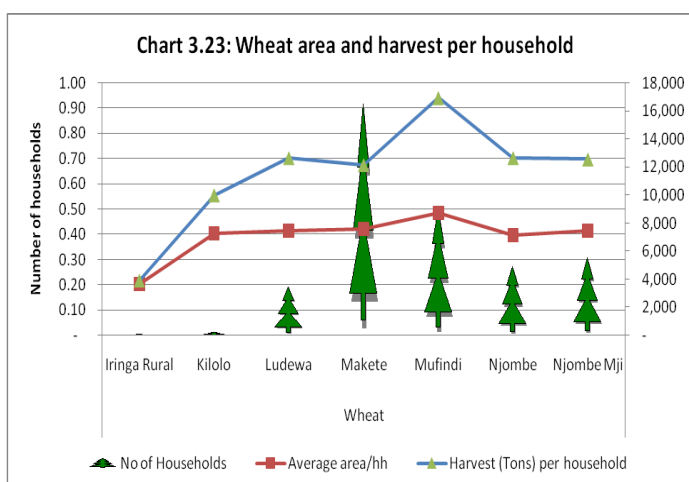




The following were the areas planted with wheat together with yields by district: Makete (7,129 ha, 0.60 t/ha), Mufindi (4,482 ha, 0.94 t/ha), Njombe Urban (2,345 ha, 0.68 t/ha), Njombe (2,014 ha, 0.77 t/ha), Ludewa (1,475 ha, 0.69 t/ha), Kilolo (89 ha, 0.37 t/ha), and Iringa Rural (28 ha, 0.07 t/ha) (Chart 3.22).



In terms of area and harvest per household, Mufindi was leading by having the largest area planted (0.49 ha) and harvest (0.45 t) per household. Makete had the second largest planted area per household (0.42 ha) and harvest of 0.25 tonnes per household (Chart 3.23).



## Other Cereals

Finger millet and sorghum were the fourth and fifth most important cereal crops grown in Iringa region during the rainy season. Sorghum was planted in Iringa Rural and Makete, the two districts accounting for 91% of the area under sorghum and 92% of the total production in Iringa. The total acreage under sorghum in the two districts was 3,990. A very small quantity of bulrush millet was produced in Njombe district.

### 3.3.3.2 Roots and Tubers Crop Production

The total production of roots and tubers was 84,268 tonnes. The production of Irish potatoes was the highest in the region with a total production of 80,958 tonnes representing 96 percent of the total root and tuber crops production. This was followed by cassava (137 t, 0.16%), sweet potatoes (2,975 t, 4%), coco yams (176 t, 0.21%), cassava (137 t, 0.16%) and yams (22 t, 0.03%). The Irish potatoes, sweet potatoes and coco yams gave higher yield per hectare compared to cassava and yams, (Table 3.3).

**Table 3.3: Number of Household, Planted Area and Yield of Major Roots and Tubers**

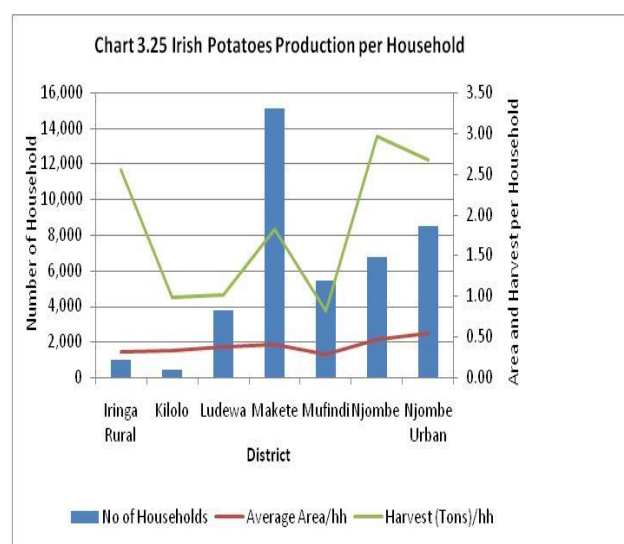
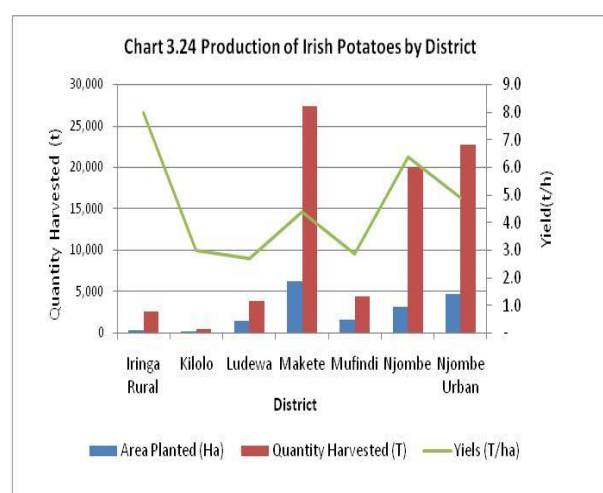
Crop	No. of Household	Actual Planted Area	Quantity Harvested	Yield (t/ha)	Area per Household (ha)	Harvest per Household (T)
Irish potatoes	40,905	17,394	80,958	4.65	0.43	1.98
Cassava	8,325	3,897	7,532	1.31	0.47	0.90
Sweet potatoes	8,431	1,135	2,975	2.62	0.13	0.35
Coco yams	562	124	176	1.41	0.22	0.31
Yams	181	28	22	0.79	0.15	0.12
<b>Total</b>		<b>22,579</b>	<b>91,663</b>	<b>1.54</b>		

### Irish Potatoes

The number of households growing Irish potatoes in Iringa region was 40,905. This was 80 percent of the total root and tuber crop growing households during the wet season. The area planted with Irish potatoes was larger than any other root and tuber crop in the region accounting for 91 percent of the total planted area of root and tuber crops.

The area under Irish potatoes have slightly dropped from 18,178 ha in 2003 to 17,394 in 2007/08 while, the number of Irish potatoes growing household have increased from 18,178 to 40,905 between the two censuses. The crop is in most cases planted in an area less than half an ha. Makete District had the largest planted area for the crop (6,284 ha, 35% of the total Irish potato planted area in the region), followed by Njombe Urban (4,627 ha, 26%), Njombe rural (3,132 ha, 18%) and Mufindi (1,532 ha, 8.8%) and Ludewa (1,401 ha, 8%). The remaining districts had very small planted areas. Iringa Rural (310 ha, 1.8%) and Kilolo (144 ha, 0.8%), (chart 3.24). Irish potatoes are not grown in Iringa Urban district, (Chart 3.24).

The production of Irish potatoes were highest in Makete (27,305 t, 34%), followed by Njombe Urban (22,622t, 28%), Njombe Rural (19,983 t, 25%), Mufindi (4,368 t, 5.4%), Ludewa (3,784 t, 4.8%) and

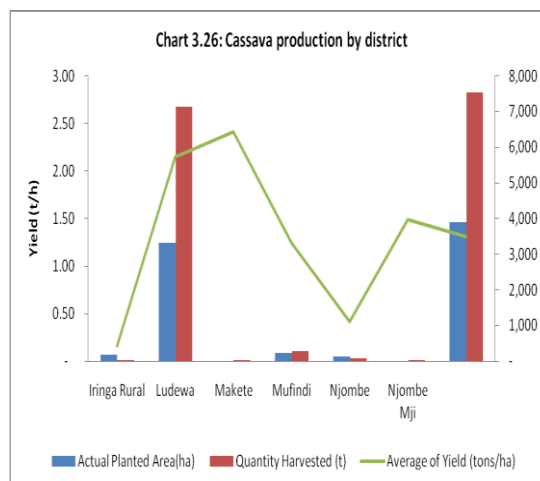


Iringa Rural (2,468 t, 3%). The average yield of Irish potatoes was 4.6 t/ha and Iringa Rural had the highest yield per acre (7.9 t) compared to other districts. Higher yields per hectare was also observed in Njombe (6.3 t/ha), while Makete produced about 4.8 t/ha and Ludewa was the last by producing about 2.7 t/ha, (Chart 3.25).

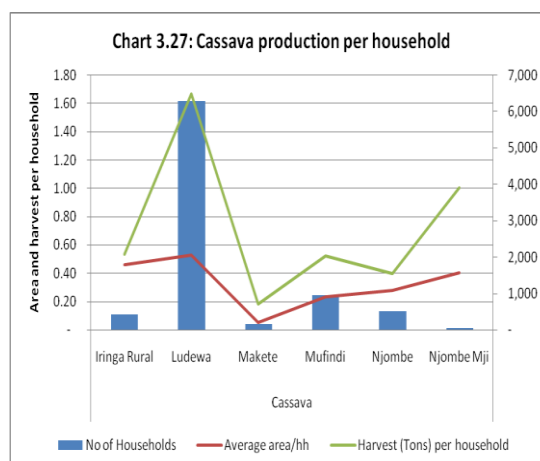
There are variations in the average area planted per Irish potato growing household among the districts ranging from 0.28 ha per household in Mufindi to 0.55 ha in Njombe district growing households in the region, Makete district ranks the third in having biggest area per household after Njombe mji and Njombe. In terms of harvest per household, Njombe mji and rural lead by harvesting 2.95t/hh and 2.67t/ha respectively, (Chart 3.25).

### Cassava

Cassava was one of the most important tuber crops grown in Iringa region. There were 8,325 households growing cassava in the region cultivating a total of 3,897 ha. This represents 2 percent of the total crop growing households in the region, a drop from 4 percent in 2002/03 census results. The total production of cassava during the census year increased from 7,124 t in 2002/03 to 7,532 t in 2007/08 agriculture year (6% increase), while the area was reduced from 4,737 ha in 2002/03 to only 3,897 ha or 18% drop, (Chart 3.26). Ludewa district had the largest planted area of cassava with the largest harvest (3,318 ha and 7,127 t) respectively.



Ludewa district had the biggest area land planted with cassava per household in Iringa region (0.47 ha/hh) with the biggest harvest per household (1.14 t/hh) followed by Njombe mji (0.4 h/hh, 0.6 t/hh), Mufindi (0.23 h/hha, 0.29 t/hh), Njombe (0.28 h/hh, 0.12 t/hh) and Makete (0.05 h/hh, 0.13 t/hh, (Chart 2.27). The average planted area per cassava growing households was 0.43 hectares; however, there were significant variations between one district and another.



### 3.3.3.3 Pulses production

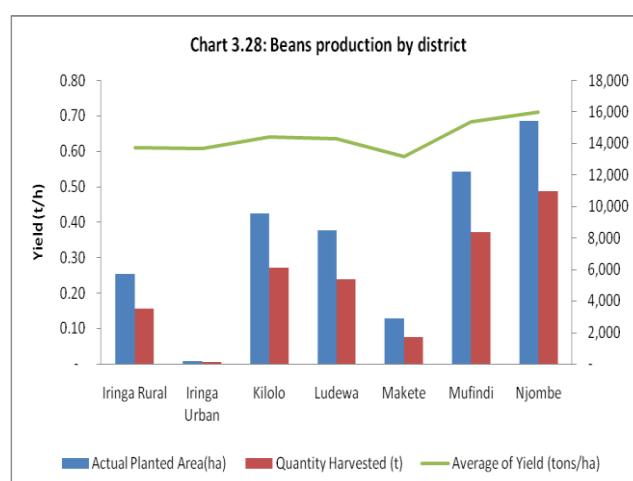
The total area planted with pulses was 71,309 hectares, of which 56,116 was planted with beans followed by field peas (8,118 ha), cow peas (6,146 ha), bambaranuts (608 ha), Mung bean (294 ha) and green gram (28 ha). The total production of pulses increased from 30,640 tonnes in 2002/3 to 47,509 tonnes in 2008 equivalent to 55 percent increase (Table 3.6). Beans were the most cultivated crop producing 37,504 tonnes which accounted for 78.9 percent of the total pulse production. This was followed by field peas (5,723 t, 12%) and cow peas 3,037 t, 6.0%). Mung beans, green gram and bambaranuts were produced in small quantities. Green gram and Mung beans had relatively high yields of 2.5 t/ha and 2.4 t/ha respectively compared to beans with a yield of 0.67 t/ha. Yield of Mung beans increased from 0 in 2003 to 710 tonnes in 2008 while, that of beans increased from 23,479 tonnes to 37,518 tonnes. Yield of green gram and bambaranuts also increased but the contribution of these crops to the total pulse production was only 1.1 percent, (Table 3.4).

**Table 3.4: Pulse Crops Production**

Crop	No. of Household	Actual Planted Area	Quantity harvested	Yield (t/ha)	Area per Household	Harvest per Household (T)
Bambaranuts	1,997	608	451	0.74	0.30	0.23
Beans	161,209	56,116	37,514	0.67	0.35	0.23
Cowpeas	24,146	6,146	3,037	0.49	0.25	0.13
Field peas	25,050	8,118	5,723	0.70	0.32	0.23
Green gram	139	28	70	2.50	0.20	0.50
Mung bean	1,025	294	710	2.41	0.29	0.69
<b>TOTAL</b>	<b>213,566</b>	<b>71,309</b>	<b>47,509</b>	<b>0.67</b>	<b>0.33</b>	<b>0.22</b>

### Beans

Beans dominate the production of pulse crops in the region. The number of households growing beans in Iringa region was 161,209. The total production of beans in the region was 37,518 tonnes from a planted area of 56,116 hectares resulting in an average yield of 0.67 t/ha. Njombe District had the largest area planted with beans in the region (15,422 ha, 27.8%) followed by Mufindi (12,200 ha), Kilolo (9,510 ha), Ludewa (8,454 ha) and Iringa rural (5,727 ha). Makete, Iringa Urban and Njombe Urban were the least in terms of area under beans, (Charts 3.28, Map 3.15 & 3.16).



Njombe district produced the largest amount of beans (10,972 t or 29% of total bean produced) in Iringa region (Chart 3.28). It was followed by Mufindi (8,340 t or 22%), Kilolo (6,100 t or 16%), Ludewa (5,378 t or 14%) and Iringa rural (3,494 t or 9%). The yield of beans per hectare was highest in Njombe Urban (0.83 t/ha) while in Njombe and Mufindi yield were 0.7 and 0.68 t/ha respectively. Overall the average yield of beans was 0.67 tonnes per hectare.

There are significant variations in terms of land per household in terms of area (0.21-0.50 ha/hh) and harvest (0.13-0.32 t/hh), (Table 2.27). Ludewa district leads by having 0.5 ha/hh and 0.32 t/hh followed by Kilolo (0.4 ha/hh and 0.25 t/hh), Iringa rural (0.36 ha/hh and 0.22 t/hh), Njombe (0.32 ha/hh and 0.23 t/hh), Mufindi (0.32 ha/hh and 0.22 t/hh), Njombe urban (0.28 ha/hh and 0.23 t/hh), Makete (0.27 ha/hh and 0.16 t/hh) and Iringa urban (0.2 ha/hh and 0.1 t/hh), (Chart 3.29).

Bean production in Iringa region increased dramatically by 60 percent from 23,479 tonnes in 2003 to 37,514 tonnes in 2008. The area planted with beans has increased rapidly from 1997 to 1998, after which it increased steadily from 1998 to 2003. Over the period 2003 to 2008 the area under beans remained constant while the yield increased from at around 0.4 t/ha to 0.67 t/ha

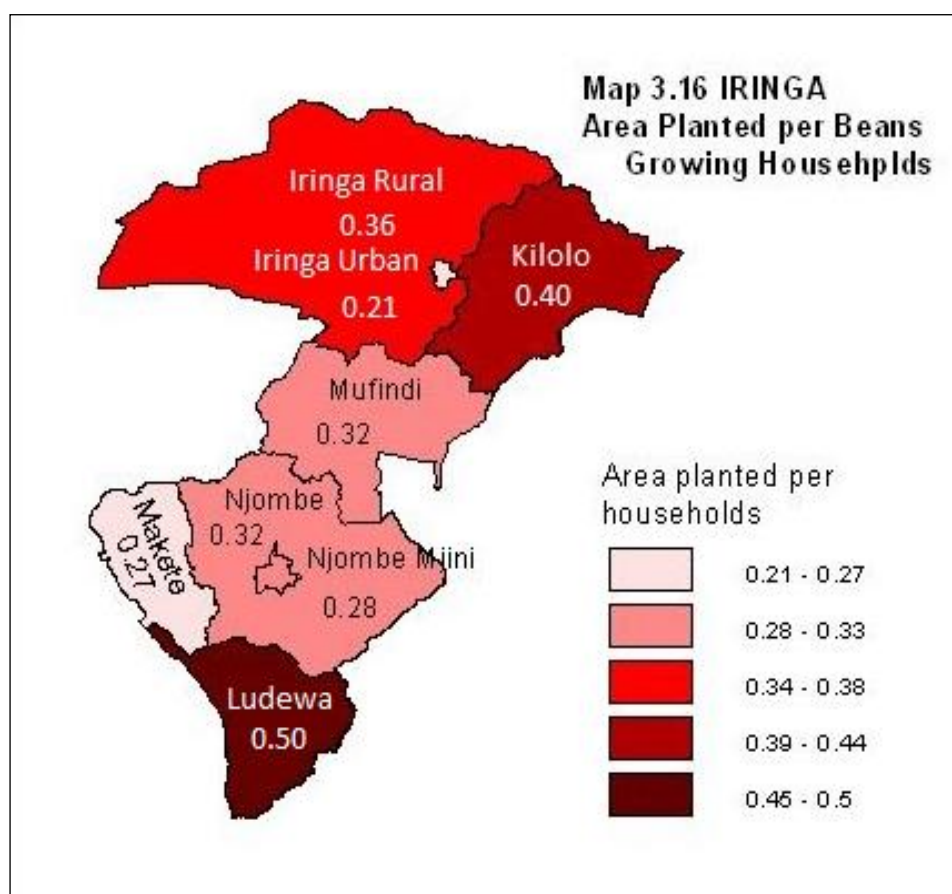
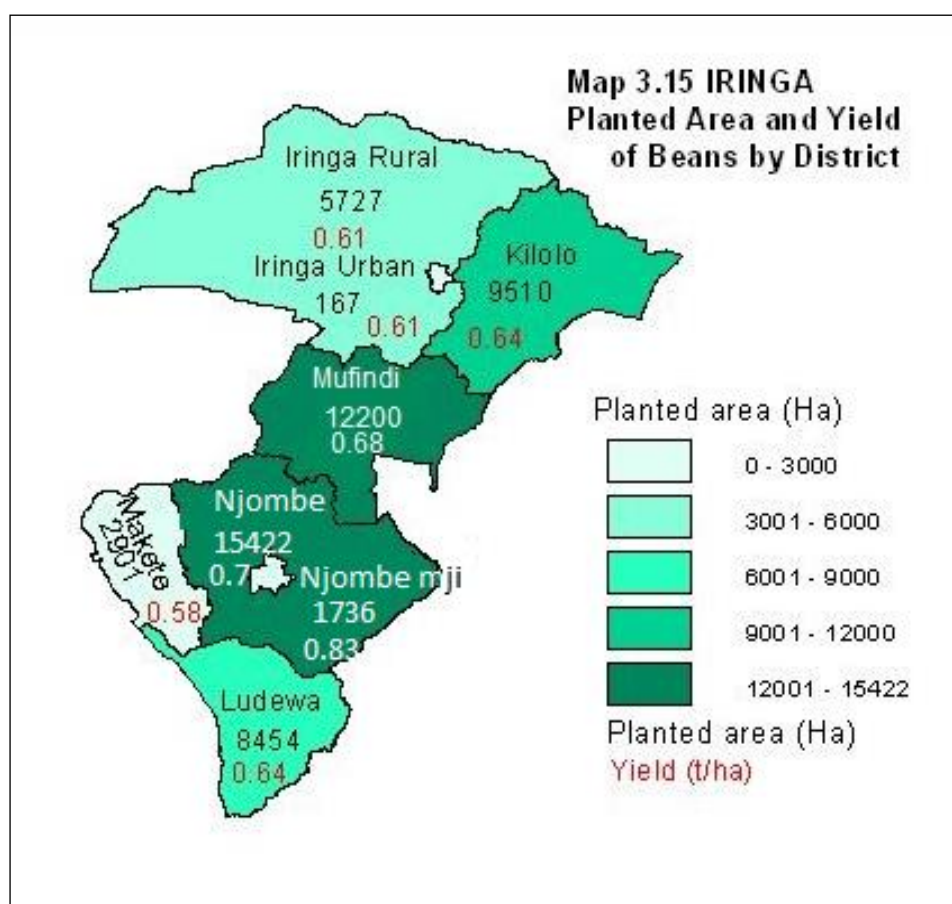
### **Field peas**

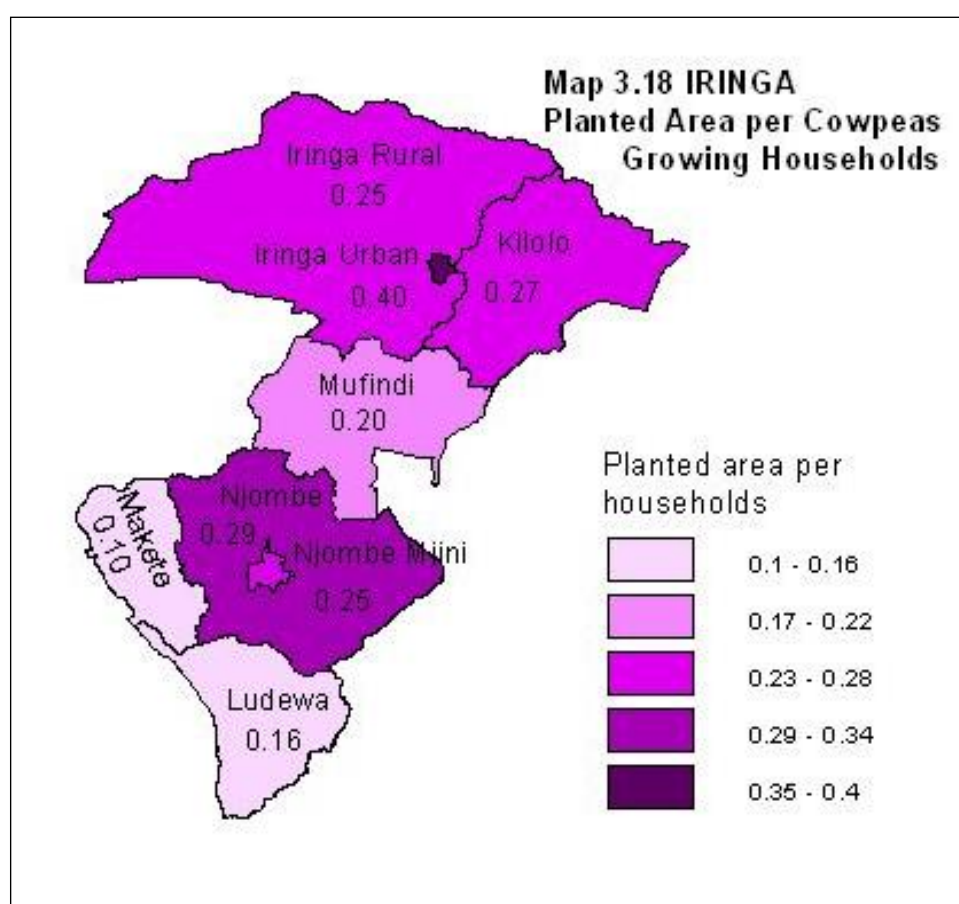
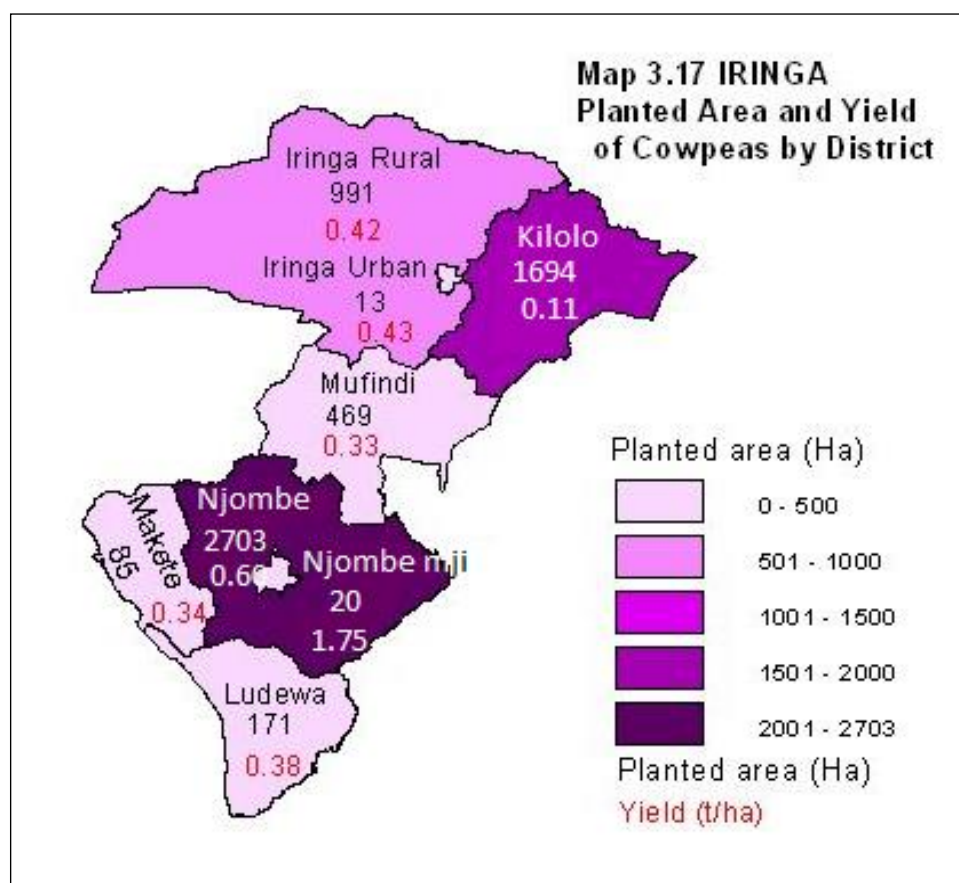
Field peas was the second important pulse grown in Iringa. It was planted on 8,118 ha by 25,050 households giving a total production of 5,723 tonnes. On average the yield of peas was 0.70 t/ha. The average peas planted area per household was 0.32 ha. Field peas were mostly planted in Mufindi, Njombe Mjini, Kilolo and Ludewa

### **Cowpeas**

Cowpeas was the third most dominant pulse crop in Iringa region. The number of households growing cowpeas in Iringa region was 24,146. The total production of cowpeas in the region was 3,037 tonnes from a planted area of 6,146 hectares resulting in an average yield of 0.49 tonnes per hectare. Cowpeas were mostly planted in Njombe and Kilolo districts (Map 3.17)









### 3.3.3.4 Oil Seed Production

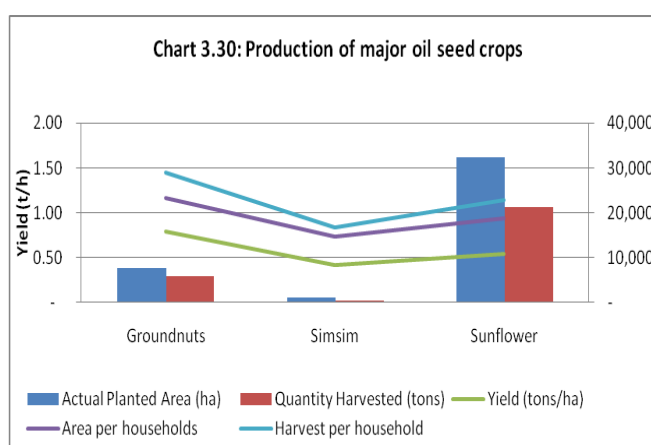
The most common oil seeds grown in Iringa region by a total of 96,213 farming households were groundnuts, simsim and sunflower.

The total production of oilseed crops was 27,513 tonnes from a planted area of 40,974 hectares. Sunflower was the most dominant oil seed crop grown by 81% of farming households on a planted area of 32,270 hectares (79% of the total area under oil seed crops), followed by groundnuts grown by 17% of households on 7,660 ha (19%) with a harvest of 5,928 tonnes (22%), and simsim grown by 2% households on a planted area of, 1,044 ha (3%) with harvest of 425 tonnes (2%). Groundnuts had the highest yield of 0.77 t/h followed by sunflower (0.66 t/ha) and simsim (0.41 t/ha).

**Table 3.5: Area Planted, Quantity Harvested, Yield, Area Planted and Quantity Harvested per Household by Type of Oil Seed**

Crop Name	No of Hholds	Actual Planted Area(ha)	Quantity Harvested(tonnes)	Yield(tonnes/ha)	Area per Households	Harvested per Household
Groundnuts	16,662	7,660	5,928	0.77	0.46	0.36
Simsim	1,757	1,044	425	0.41	0.59	0.24
Sunflower	77,795	32,270	21,161	0.66	0.41	0.27
<b>TOTAL</b>	<b>96,214</b>	<b>40,974</b>	<b>27,514</b>	<b>0.61</b>	<b>0.49</b>	<b>0.29</b>

Simsim was leading in terms of the area per household (0.59 ha/hh) followed by groundnuts (0.46 ha/hh) and Sunflower (0.41 ha/hh). Groundnuts was leading in terms of harvest per household (0.36 t/hh) followed by sunflower (0.27 t/hh) and simsim (0.24 t/hh), (Table 3.5 and chart 3.30).



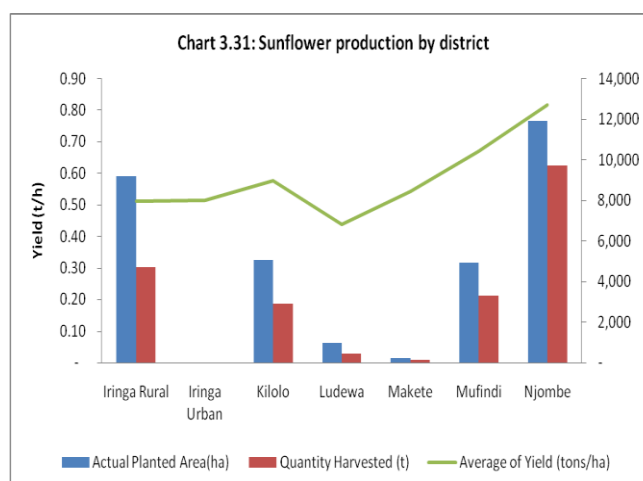
Compared to 2002/3 statistics, the area under simsim has decreased from 1,245 ha in 2003 to 1,044ha (-16%) in 2007/8 and production decreased from 822 tonnes in 2002/3 to 425 tonnes (-48%). In the same period there was an increase in area the under sunflower from 15,674 ha to 32,270 ha (106%), production increased from 7,366 tons in 2002/3 to 21,161 tons in 2007/8 (187%) and the yield increased from 0.47 tonnes/ha to 0.66 tonnes/

ha. As for groundnuts, the area increased by 0.13% from 7,650 ha to 7,660 ha, production increased by 159% from 2,285 to 5,928 tonnes and yield by 158% from 0.299 – 0.77 t/h.

### Sunflower

Sunflower was the most dominant oil bearing crop in Iringa region. The number of households growing Sunflower in Iringa region was 32,270. The total production of sunflower in the region was 21,161 tonnes from a planted area of 21,161 hectares resulting in an average yield of 0.66 tonnes per hectare.

The Largest area planted with Sunflower in Iringa region was located in Njombe District with 11,877 hectares which is 37% of all the area planted with sunflower in Iringa region followed by Iringa Rural (9,157 ha, 28%), Kilolo (5,062 ha, 16%), Mufindi (4,901 ha, 15%), Ludewa (993ha, 3%), Makete (234ha, 0.7%), Njombe Mji (36 ha, 0.1%) and Iringa Urban (9 ha, 0.02%), (Chart 3.31).



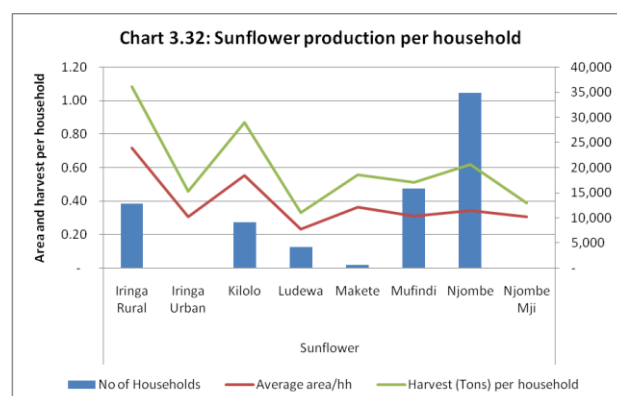
Njombe district had the largest harvest of sunflower estimated at 9,693 tonnes which accounted for 46% of all sunflower harvested in Iringa region. This harvest was followed by that of Iringa Rural (4,686 t, 22%), Kilolo (2,921t, 14%), Mufindi (3,283 t, 16%), Ludewa (993 t, 2%), Makete (127t, 0.6%), Njombe urban (11 t, 0.05%) and Iringa Urban (5 t, 0.02%).

There were also large differences in quantity harvested per hectare. Highest production per hectare was observed in Njombe rural district which had 0.82t/h followed by Mufindi (0.67 t/h), Kilolo (0.58 t/h), Makete (0.54 t/h), Iringa Urban (0.56 t/h), Iringa Rural (0.51 t/h), Ludewa (0.44 t/h) and Njombe Urban (0.31 t/h).

There are large variations in the area planted per sunflower growing household among districts in Iringa region. The largest planted area per sunflower growing household was found in Iringa Rural district (0.72 ha/hh) followed by Kilolo (0.55 ha/hh), Makete (0.36 ha/hh), Njombe Rural

(0.34 ha/hh), Mufindi (0.31 ha), Iringa Urban (0.29 ha/hh), Njombe urban (0.30h/hh) and Ludewa (0.23ha/hh), (Chart 3.32).

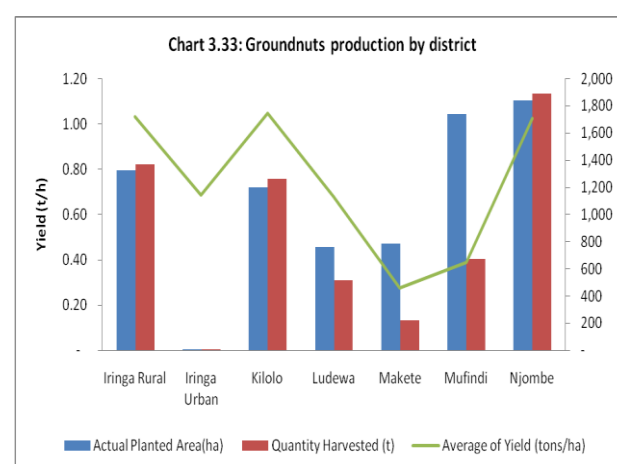
In the same way, there are large variations in household among districts in Iringa region. The largest harvested area per sunflower growing household was found in Iringa Rural district (0.37 t/hh) followed by Kilolo (0.32 t/hh), Njombe rural (0.28 t/hh), Mufindi (0.21 t/hh), Makete (0.20 t/hh), Iringa Urban (0.16 t/hh), Ludewa (0.10 t/hh) and Njombe urban (0.09 t/hh), (Chart 3.32).



## Groundnuts

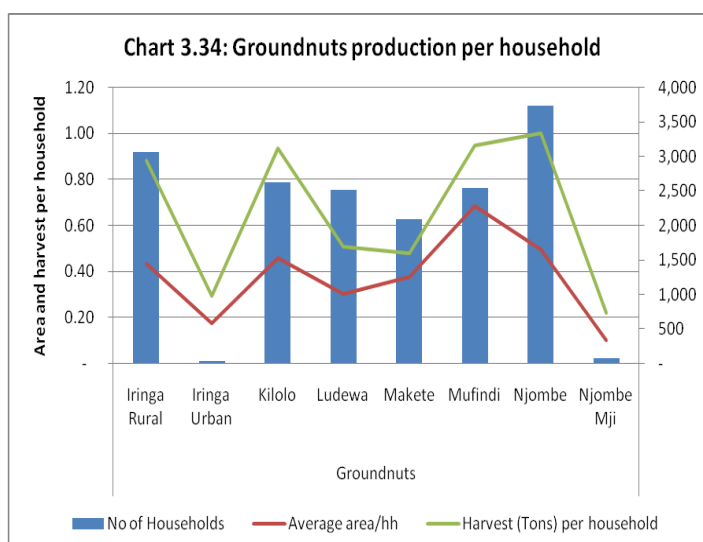
The number of households growing groundnuts in Iringa region was 16,662. The total production of groundnuts in the region was 5,928 tonnes from a planted area of 7,660 hectares resulting in an average yield of 0.77 tonnes per hectare.

The Largest area planted with groundnuts in Iringa region was located in Njombe District with 1,836 hectares (24.0 percent of the total area under groundnuts) followed by Mufindi (1,740 ha, 22.7%), Iringa Rural (1,324 ha, 17.3%), Kilolo (1,200 ha, 15.7%), Makete (787 ha, 10.3%), Ludewa (757 ha, 9.9%) and Iringa Urban and Njombe Mjini (8 ha, 0.1%).each, (Chart 3.33). Njombe district had the largest



production of groundnuts estimated at 1,885 tonnes.(32% of the total production). It was followed by Iringa Rural (1,368 t, 23%), Kilolo (1,257 t, 21%), Mufindi (671 t, 11%), Ludewa (514 t, 8.6%) and Makete (215 t, 3.6%). There were also large differences in the quantity harvested per hectare. Highest yield was observed in Njombe Urban, Kilolo, Njombe Rural and Iringa Rural with about one tonne per hectare. Ludewa and Iringa Urban had moderate yield of 0.68 and 0.75 tonnes per hectare, respectively whilst Makete had the least yield of 0.27 tonnes per hectare.

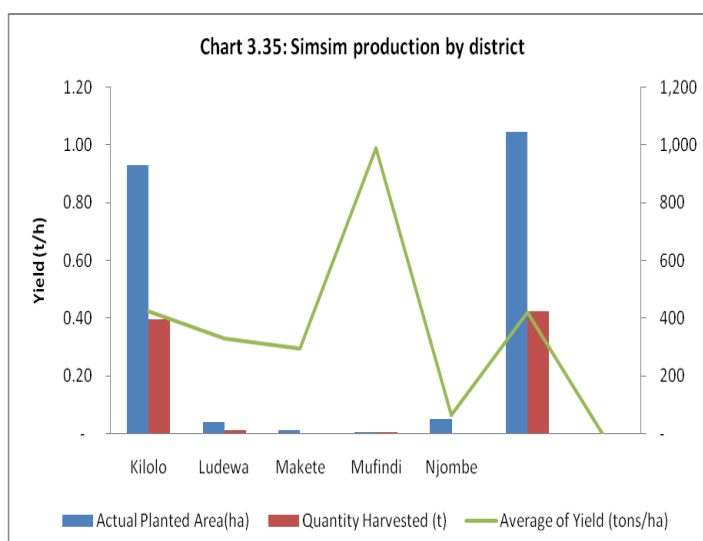
There are large variations in the area planted per groundnut growing household among districts in Iringa region. The largest planted area per groundnut growing household was found in Mufindi district (0.68 ha) followed by Njombe (0.49 ha), Kilolo (0.46 ha), Iringa Rural (0.43 ha), Makete (0.38 ha), Ludewa (0.30 ha) Iringa Urban (0.18 ha) and Njombe Mji (0.10 ha), (Chart 3.34).



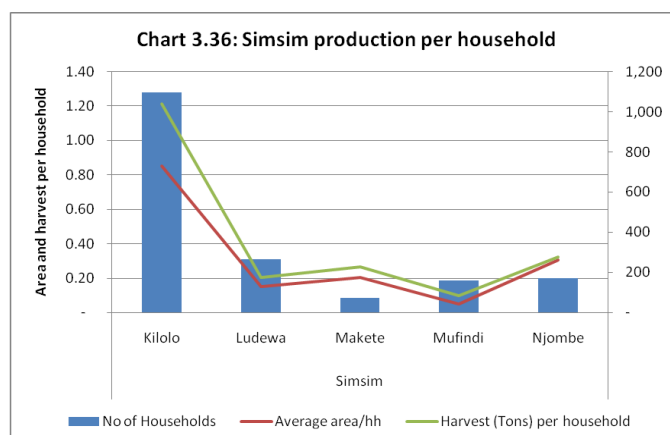
### Simsim

Simsim was the least dominant oil bearing crop in Iringa region. The number of households growing Simsim in Iringa region was 1,757. The total production of simsim in the region was 425 tonnes from a planted area of 1,044 hectares resulting in an average yield of 0.41 tonnes per hectare.

The largest area planted with Simsim in Iringa region was located in Kilolo District with 930 hectares which is 89% of all the area planted with Simsim in Iringa region followed by Njombe (51 ha, 5%), Ludewa (40 ha, 3.8%), Makete (15 ha, 1.4%) and Mufindi (8ha, 0.8%), (Chart 3.35).



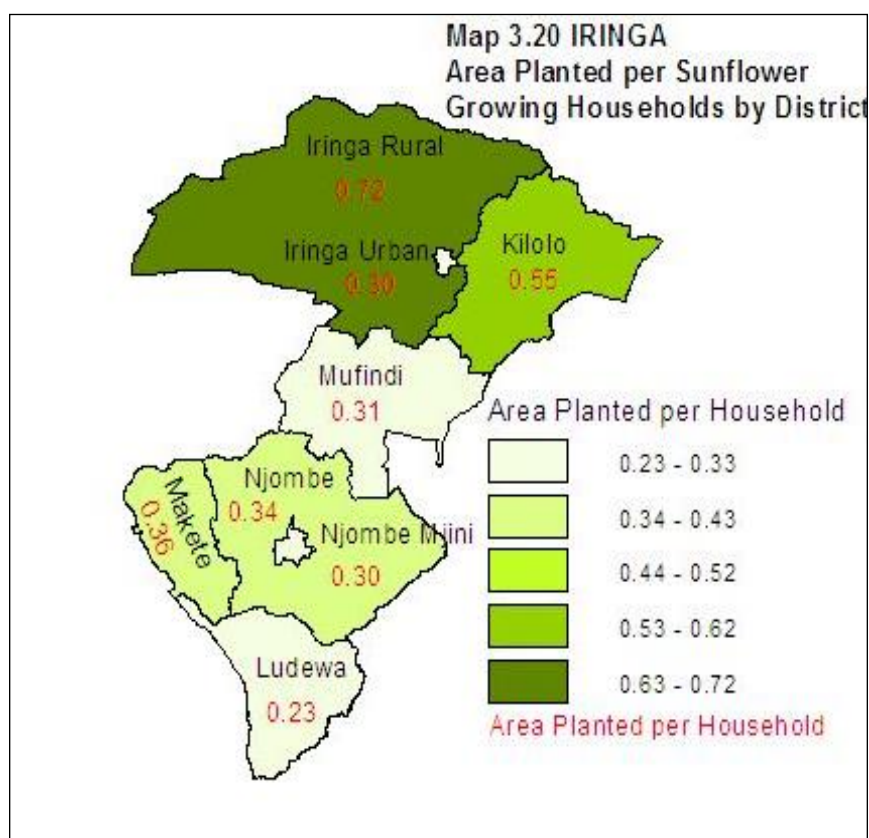
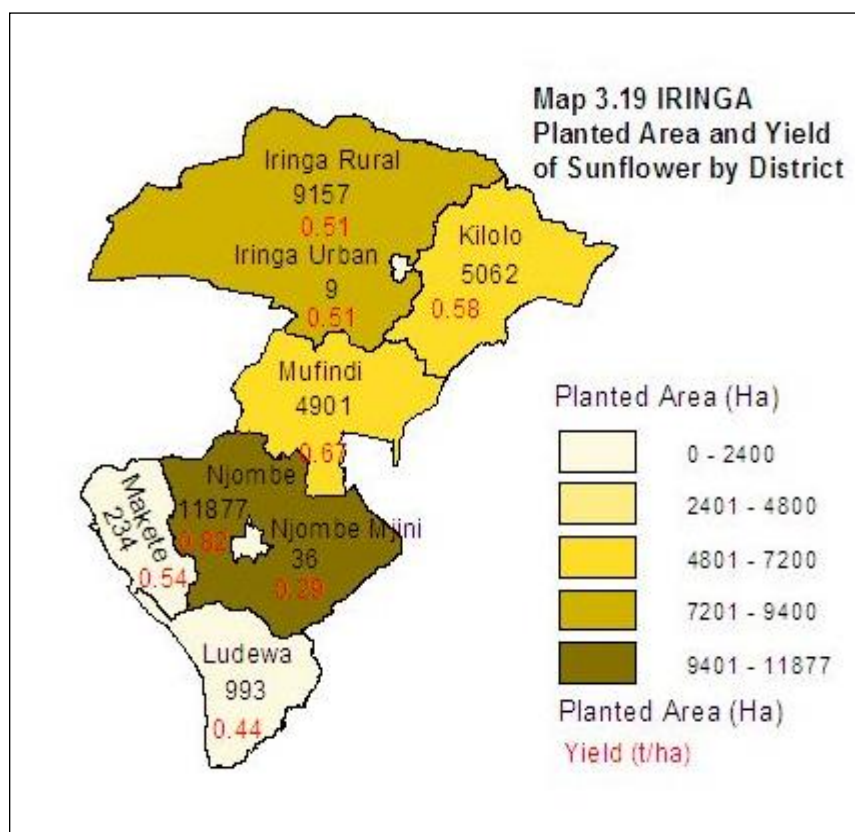
Kilolo district had the largest harvest of Simsim estimated at 396 tonnes which accounted for 93% of all Simsim harvested in Iringa region. This harvest was followed by Ludewa (13 t, 3%), Mufindi (8 t, 1.9%), Makete (4 t, 1%) and Njombe (3 t, 0.7%).



There were also large differences in amount harvested per hectare. Highest production per hectare was observed in Mufindi district which had 1.0 t/h followed by Kilolo (0.43 t/ha), Ludewa (0.33 t/ha), Makete (0.27 t/ha) and Njombe (0.06 t/ha).

There are large variations in the area planted per Simsim growing household among districts in Iringa region. The largest planted area per Simsim growing household was found in Kilolo district (0.85 ha/hh) followed by Njombe (0.3 ha/hh), Makete (0.2 ha/hh), Ludewa (0.15 ha/hh) and Mufindi (0.05 ha/hh).

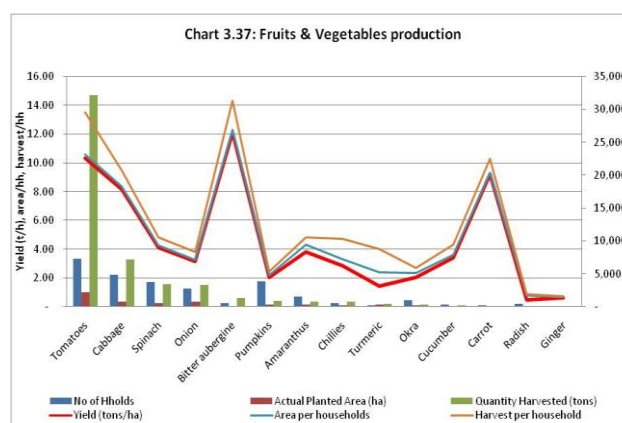
In the same way, there are large variations in the quantity harvested per Simsim growing household among districts in Iringa region. The largest harvested area per Simsim growing household was recorded in Kilolo district (0.36 t/hh) followed by Makete (0.06 t/hh), Ludewa (0.05t/hh), Mufindi (0.05 t/hh) and Njombe (0.02 t/hh), (Chart 3.36).



### 3.3.3.5 Fruits and Vegetables

The collection of fruits and vegetables production data was difficult due to the small quantities produced per household. Most of the data presented here gives the production of smallholders who grew these crops as cash crops and not merely for household consumption.

The total production of fruits and vegetables was 50,849 tonnes. The most cultivated vegetable crop was tomatoes with a production of 32,132 tonnes (63% of the total vegetables produced in the region), followed by cabbage (7,222 t, 14%), spinach (3,454 tonnes or 7%) and onions (3,267 t, 6.4%). Bitter aubergine (1,311 t, 2.6%), amaranthas (773 t, 1.5%) Chillies (772 t, 1.5%) pumpkins (737 t, 1.4%) and others (1,181 t, 2.3%)



**Table 3.6: Area Planted, Quantity Harvested, Yield, Area Harvested per Household by Type of Horticultural Crop**

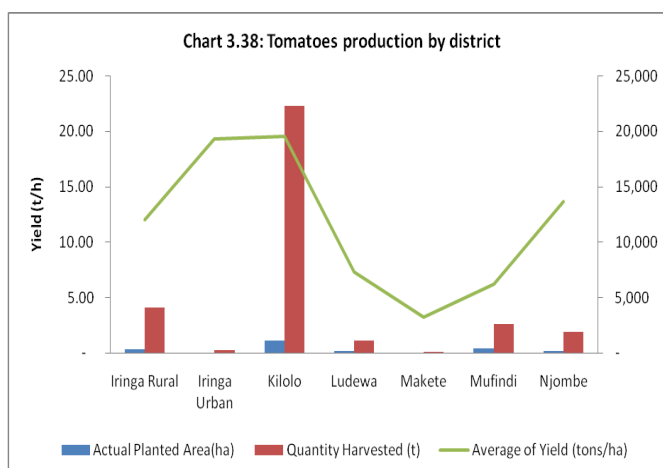
Crop	No of Hholds	Actual Planted Area	Quantity Harvested (tonnes)	Yield (t/ha)	Area per households	Harvest per household
Tomatoes	7,288	2,230	32,132	14.41	0.31	4.41
Cabbage	4,783	790	7,222	9.14	0.16	1.51
Spinach	3,748	529	3,454	6.53	0.14	0.92
Onion	2,678	737	3,267	4.43	0.28	1.22
Bitter	546	114	1,311	11.50	0.21	2.40
Pumpkins	3,505	309	737	2.39	0.09	0.21
Amaranthus	1,461	310	773	2.49	0.21	0.53
Chillies	556	270	772	2.86	0.49	1.39
Turmeric	199	298	487	1.63	1.50	2.45
Okra	913	258	332	1.29	0.28	0.36
Cucumber	278	59	200	3.39	0.21	0.72
Carrot	132	13	123	9.46	0.1	0.93
Radish	383	112	35	0.31	0.29	0.09
Ginger	72	7	4	0.57	0.1	0.06
Totals		6,036	50,849	8.42		



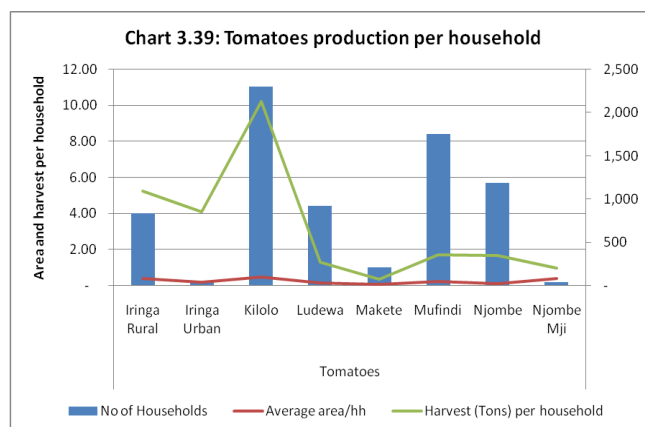
## Tomatoes

The area planted with tomatoes was 6,036 hectares. This represents 37 percent of the area under fruits & vegetables in Iringa region. Kilolo district had the largest planted area of tomatoes (1,142 ha or 51 % of the total area planted with tomatoes in the region), followed by Mufindi (422 ha, 18.9%), Iringa Rural (338ha, 15%), Ludewa (147 ha, 7%) and Njombe (137

ha, 6.1%), (Chart 3.38). Kilolo district was leading in terms of volume of tomatoes produced (22,280 t, 69.3%). It was followed by Iringa Rural (4,042 t, 12.5%), Mufindi (2,600 t, 8.1%), Njombe (1,870 t, 5.82%), Ludewa (1,072 t, 3.34%) Iringa Urban (181 t, 0.56%), Makete (61 t, 0.19%) and Njombe Mji (24 t, 0.07%), (Chart 3.38).



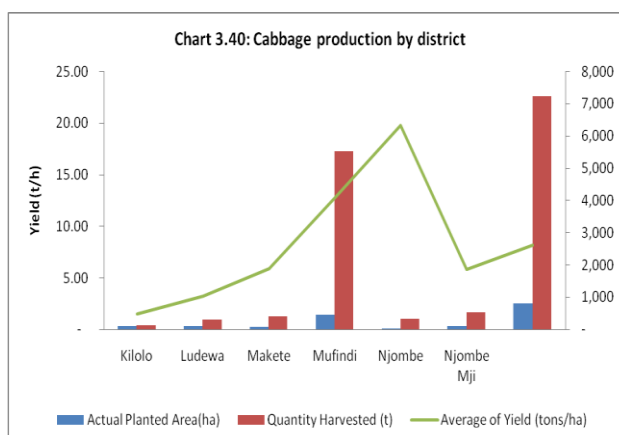
The average planted area per tomato growing household was 0.31 hectares. However, there were minor district variations. The area planted per tomato growing household was largest in Kilolo (0.5 ha) followed by Iringa Rural and Njombe Urban (0.4 ha) Mufindi (0.24 ha), Iringa Urban (0.2 ha), Ludewa (0.16 ha), Makete (0.09 ha), (Chart 3.39).



As compared to the 2002/3 census, the area under tomatoes has decreased by 32% from 3,274 ha to 2,230 ha. The quantity harvested has increased by 69% from 18,991 t to 32,132 t. The yield has increased by 78% from 5.8 t/h to 10.32 t/ha.

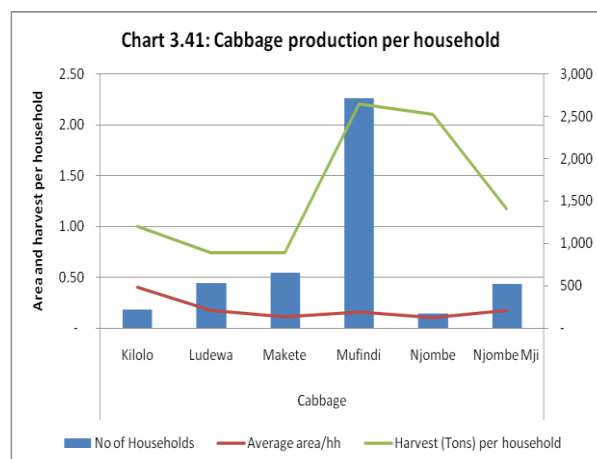
## Cabbage

The number of households growing cabbages in the region was 4,783. This represented 1.6 percent of the total crop growing households in





Iringa region. The number of household growing cabbage declined by 36% from 7,478 in 2002/3 to the current figure of 4,783. The total area planted with cabbages accounted for 13 percent of the total area planted with vegetables during the wet season. Mufindi district had the largest planted area for cabbage (431 ha, 55% of the total area planted with cabbage in the region), followed by Ludewa (93 ha, 12%), Njombe Urban (89 ha, 11.3%), Kilolo (89 ha, 11.3%) , Makete (70 ha, 8.8%) Njombe Rural (17 ha, 2.2%). No cabbage were grown in Iringa Rural and Iringa Urban, (Chart 3.40). Mufindi also registered the largest production of cabbage at about 5.524 tonnes, followed by Njombe Urban (518 t), Makete (411 t), Njombe (338 t) and Ludewa (300 t).and Kilolo(131 t) highest yields per hectare were experienced in Njombe and Mufindi (19.9 t/ha and 12.8 t/ha respectively), (Chart 3.41).

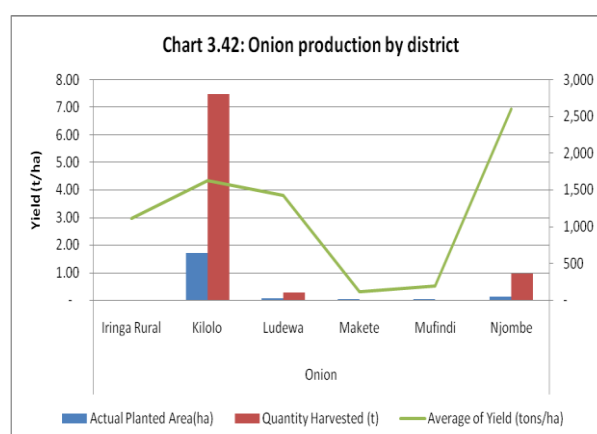


The average area planted per household ranged from 0.10 to 0.41 hectares (mean 0.16 ha). The highest value at 0.41 hectares per household was recorded in kilolo followed by Ludewa (0.18 ha) , Njombe Urban (0.17 ha), Mufindi (0.16 ha), Makete (0.11 ha), Njombe Rural (0.10 ha) (Chart 3.41).

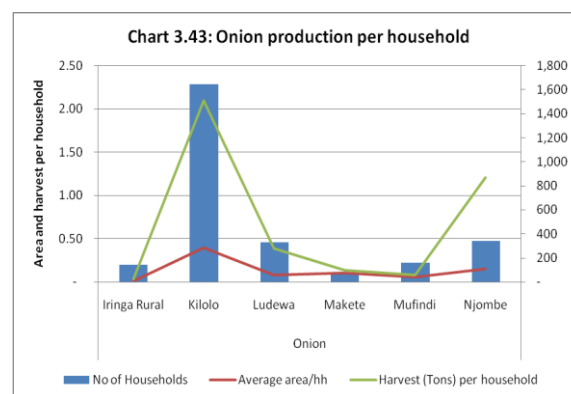
The results show that the area under cabbage in Mufindi, Ludewa Kilolo and Makete increased compared to 2002/3 figures in 2003 the area under cabbage in Mufindi, Ludewa, Kilolo and Makete were 131, 76, 0 and 36 ha respectively.

## Onion

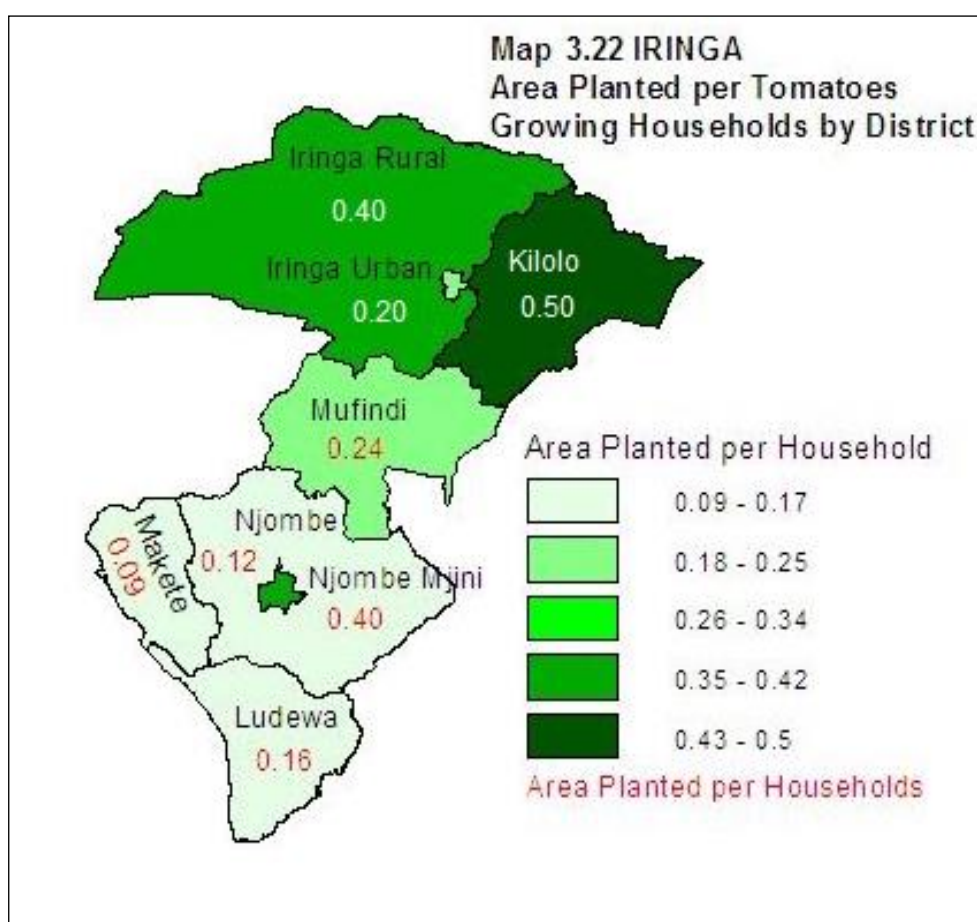
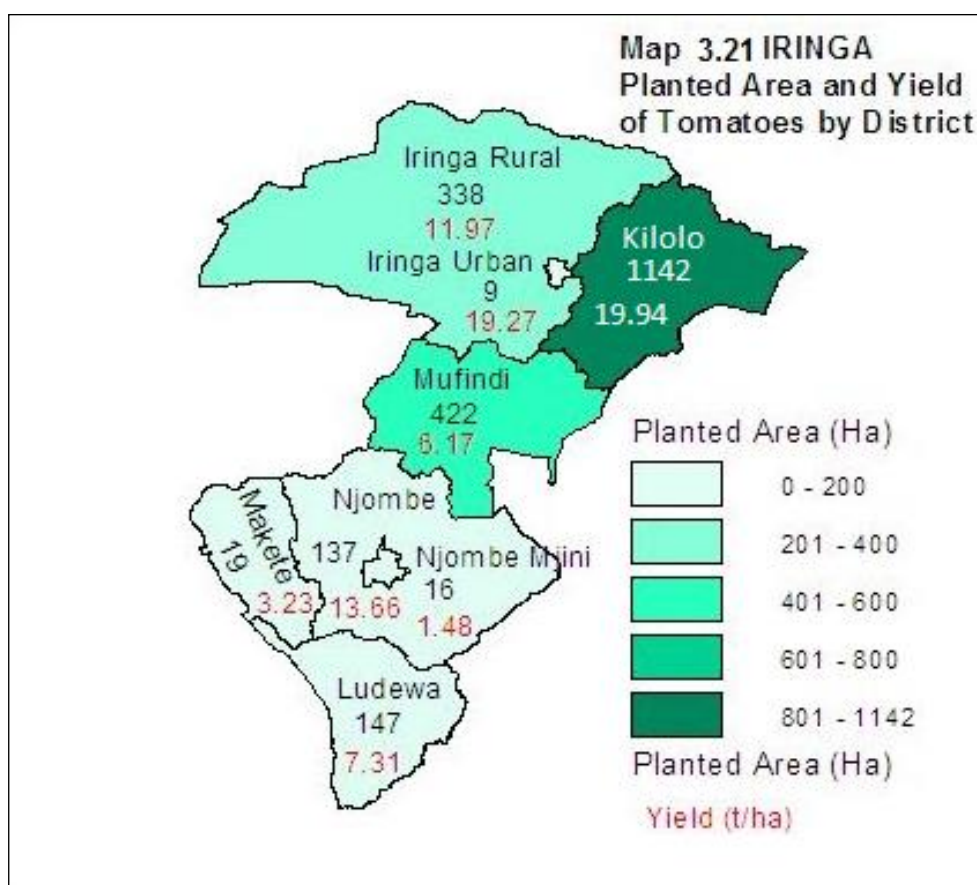
The number of households growing onions in the region was 2,677. A total of 3,267 tonnes were harvested from 736 hectares giving an average yield of 4.43 tonnes per hectare. Kilolo district had the largest planted area with onions (642 ha, 87% of the total area planted with onions in the region), followed by Njombe (51 ha, 6.9%) and Ludewa (27 ha, 3.7%). Yield was highest in Njombe (6.98 t/ha) followed by Kilolo (4.36 t/h) and Ludewa (3.78 t/h). Other districts had insignificant area under the crop

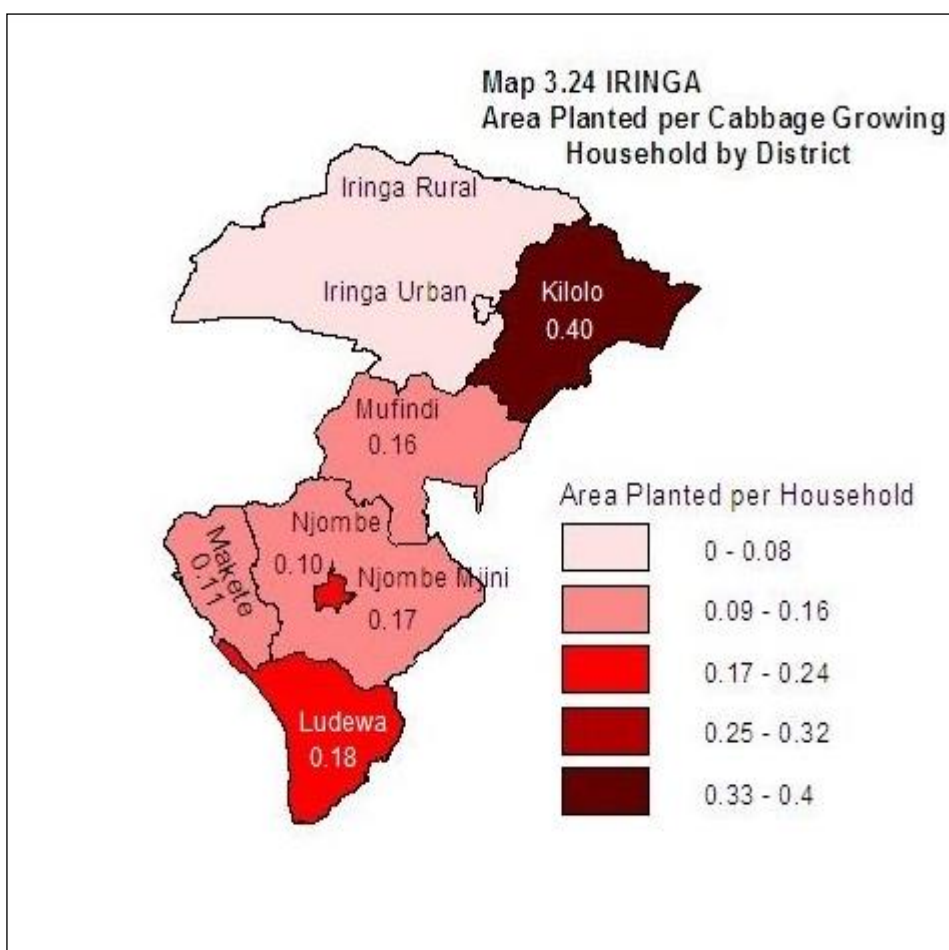
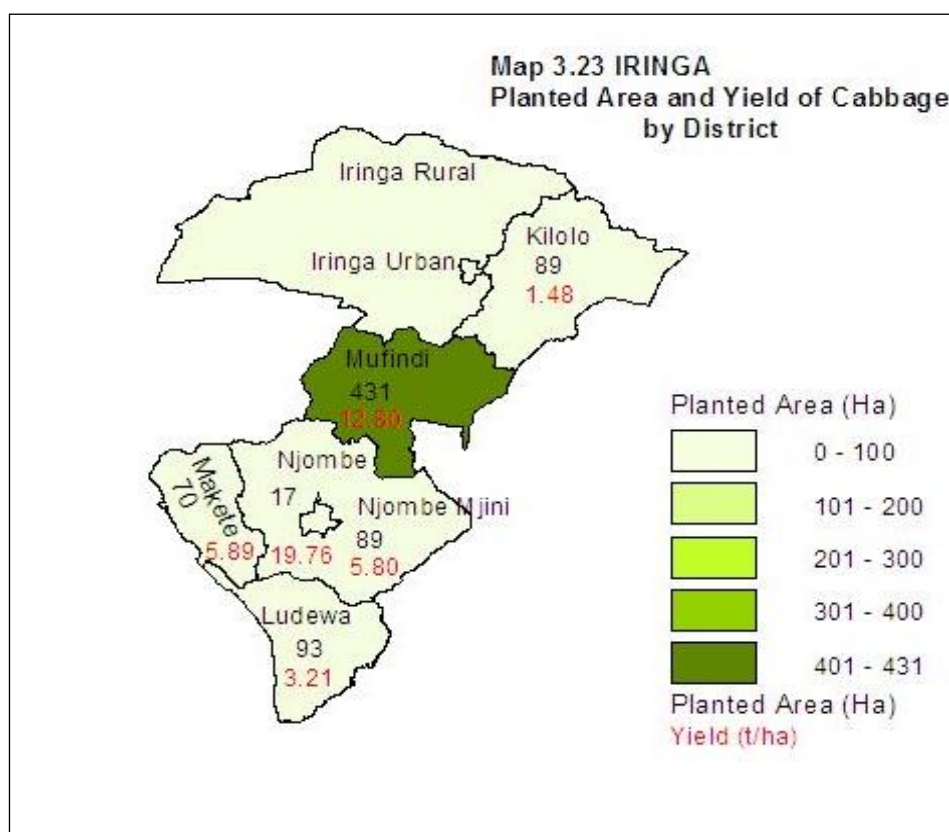


Each household cultivated an average of 0.28 hectares of onion. The largest planted area per household was found in Kilolo district (0.39 ha), followed by Njombe (0.15 ha), Makete (0.10 ha), Ludewa (0.08 ha), Mufindi (0.05 ha) and Iringa Rural (0.01 ha), (Chart 3.43).



As compared to the census of 2002/3, the number of onion growing households increased by 36% from 1,970 to 2,678. The area increased by 91% from 386 to 737 ha. Quantity harvested increased by 74.6% from 386 to 3,267 t. Yield increased by 23% from 3.6 t/h to 4.43 t/h





### 3.3.3.6 Other Annual Crop Production

Most of the other annual crops are cash crops. An area of 1,106 hectares was planted with other annual crops mainly pyrethrum and tobacco. The area under Pyrethrum was 1,031 ha (93%) of the area under other annual crops while that under tobacco was 75 ha (7%). The two crops were grown by 3,024 households (328 Tobacco; 2,696 Pyrethrum) (Table 3.9).

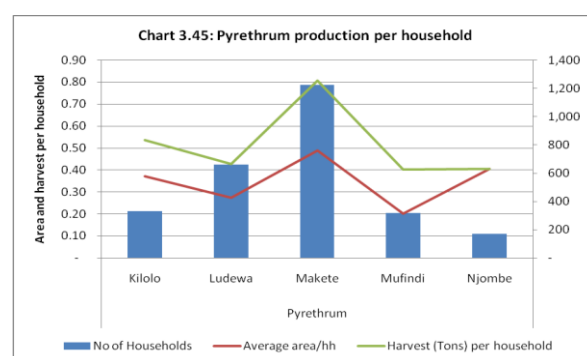
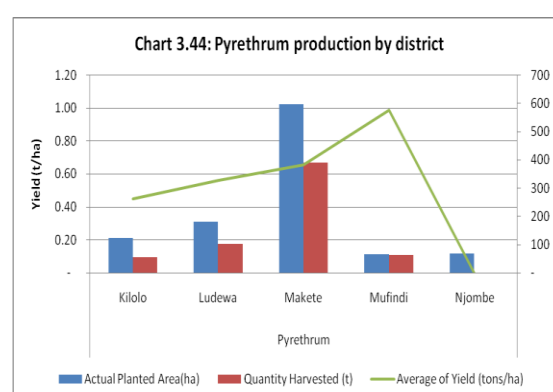
**Table 3.7: Number of Households, Planted Area, Quantity Harvested, Yield, and Area Harvested per Household by Type of Cash Crops**

Crop Name	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Area per Households	Harvest per Household
Pyrethrum	2,696	1,031	610	0.59	0.38	0.23
Tobacco	328	75	59	0.79	0.23	0.18
TOTALS	3,024	1,106	669			

### Pyrethrum

The area planted with pyrethrum was 1, 031 ha and production was 610 tonnes. Makete district had largest area planted with pyrethrum (596 ha, 58% of the total area planted with pyrethrum in the region), followed by Ludewa (180 ha, 17%), Kilolo (122 ha, 11%) Njombe (68 ha, 6.6%) and Mufindi (64 ha, 6.2%). Makete district was leading in quantity harvested (390 t or 64% of all pyrethrum harvested in Iringa region) followed by Ludewa (101 t, 17%), Mufindi (64 t, 10%), Kilolo (55 t, 9%). Njombe district had negligible production. Mufindi was leading in pyrethrum yield per unit area (0.99 t/ha) followed by Makete (0.65 t/ha), Ludewa (0.56 t/ha) and Kilolo (0.45 t/ha), (Chart 3.44).

Makete was leading in having the highest area under pyrethrum per household and (0.49h/hh,), followed by Kilolo (0.37ha/hh, ), Njombe (0.4ha/hh), Ludewa (0.27h/hh,) and Mufindi (0.2ha/hh, ) (Chart 3.45).

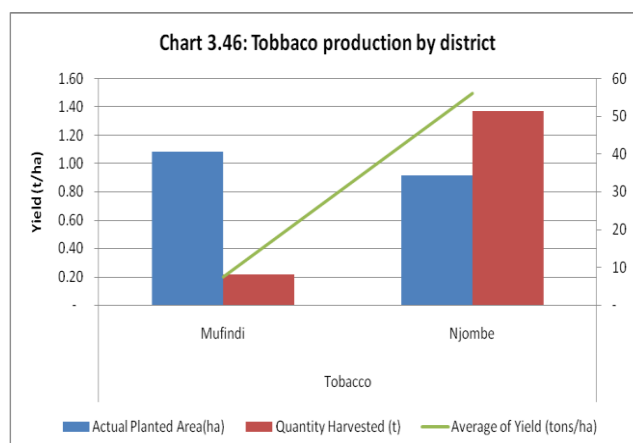


Compared to 2003 census, the area under has increased two fold from 336 Hectares to 1031 ha and the production has increased from 90 tonnes to 610 tonnes.

## Tobacco

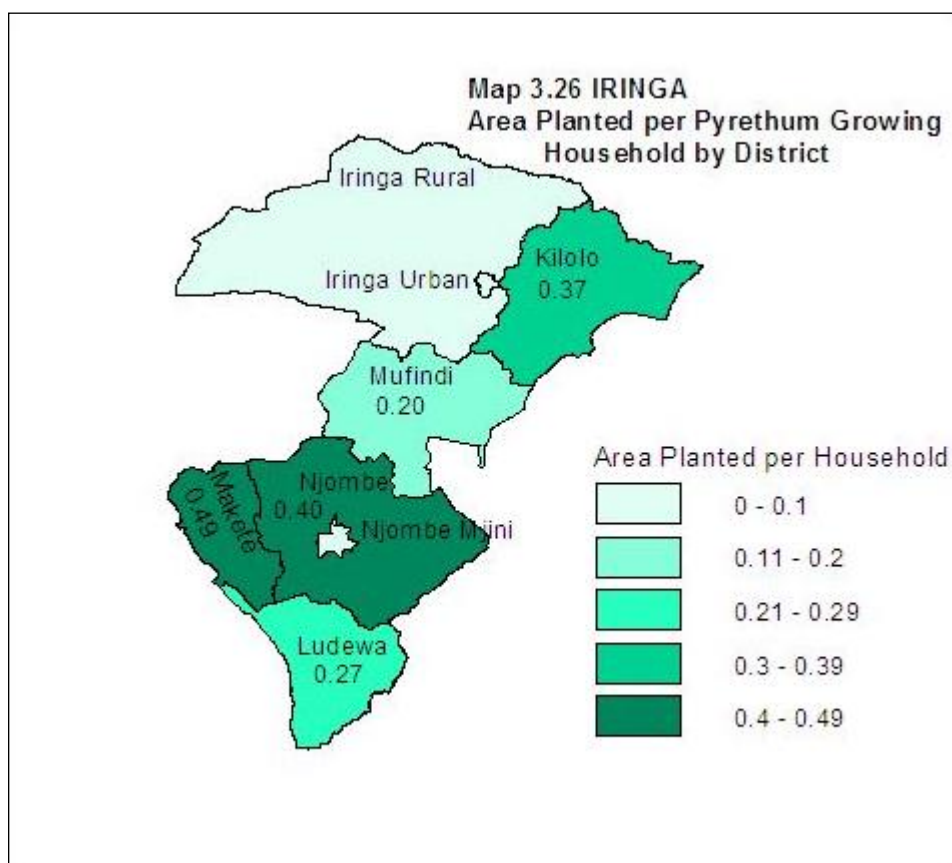
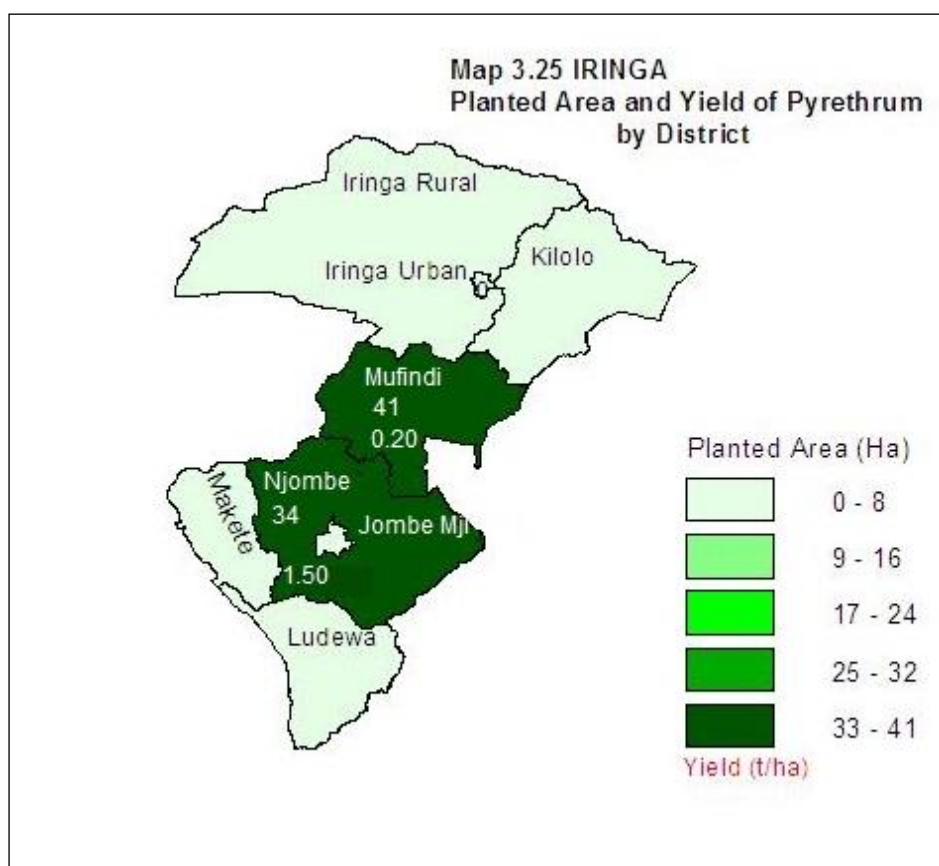
Tobacco was produced in Mufindi and Njombe districts only. A total number of 328 agricultural households planted 75 hectares; of which 55% were in Mufindi district. A total of 59 tonnes of tobacco were harvested; of which 87% were from Njombe district. The yield was 1.5 t/ha and 0.2 t/ha in Njombe and Mufindi districts respectively, (Chart 3.46).

The average planted area of tobacco per agricultural household was 0.23 hectares (0.26 h/hh in Mufindi and 0.2 h/hh in Njombe). The average harvest per household was 0.18t/hh (0.3 t/hh in Njombe and 0.05 t/hh in Mufindi).



Compared to 2002/3 census, there has been a 183% increase of number of households growing tobacco from 116 to 328. The planted area increased by 23% from 61 ha to 75 ha. The planted area per household decreased by 57% from 0.53 h/hh to 0.23 h/hh.





### 3.4 Permanent Crops

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

The area planted with permanent crops by smallholders was 16,789 hectares. However, the area planted with annual crops is not the actual physical land area as it includes the area planted more than once on the same land, whilst the area planted with permanent crops is the same as the physical planted land area. So the percentage of physical area planted with permanent crops is higher. Sixty six percent of the land under permanent crops was under mono crops while the remaining 34 percent were under mixed permanent crop

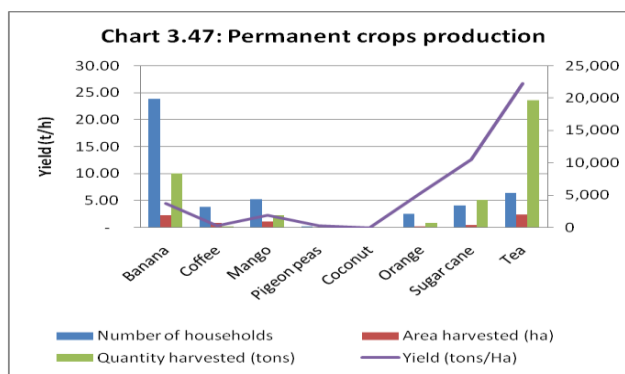
Banana is a crop that was cultivated by 27% of permanent crops growing households followed by tea (7%), mango (6%), sugarcane (5%), coffee (4%), oranges (3%), pigeon peas (0.3%) and coconuts (0.1%). Tea was a crop that was leading in area harvested; contributing to 18% of total area harvested followed by banana (16%), mango (7%), coffee (6%), sugarcane (3%), orange (1%) and pigeon pea (0.2%). Tea was leading by contributing 37% to the quantity of harvested permanent crops followed by banana (16%), sugarcane (8%), mango (4%), orange (1%), pigeon pea (0.02%) and coconut (0.002%), (Table 3.8).

**Table 3.8: Area Planted, Area harvested, Quantity Harvested and Yield by Type of Permanent Crop, Iringa Region**

Crop	Number of households	Area Planted (ha)	Area harvested (ha)	Quantity harvested (tons)	Yield (tons/Ha)
Banana	19,840	2,894	1,842	8,325	4.52
Coffee	3,176	882	684	244	0.36
Mango	4,382	2,476	836	1,942	2.32
Pigeon peas	204	26	26	9	0.35
Coconut	109	3	0	1	0
Orange	2,190	500	113	734	6.49
Sugar cane	3,414	473	340	4,297	12.64
Tea	5,379	2,042	1,985	19,624	9.89
Others	36,124	7,493	5,489	17,902	3.3
<b>Total</b>	<b>74,818</b>	<b>16,789</b>	<b>11,315</b>	<b>53,078</b>	

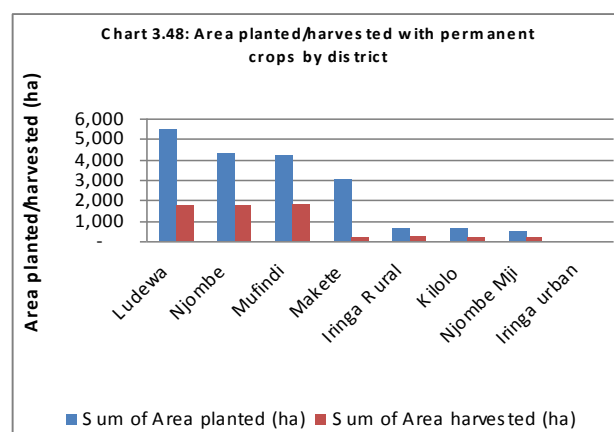


In terms of planted area banana accounted for a planted area of 2,894 hectares (17.2% of area planted with permanent crops), followed by mango (2,476 ha, 14.7%), Tea (2,042 ha, 12.2%) coffee (882 ha, 5.3%), oranges (500 ha, 3.0%) and sugarcane (473 ha 2.8%). Other permanent crops are grown in small quantities and in smaller area, (Chart 3.47).



As compared to the figures from the 2002/3 census, the acreage under banana has declined from 9,745 ha in 2003 to the current figure of 2,894 ha. Similarly, acreage under coffee dropped from 2,143 ha to 882 ha.

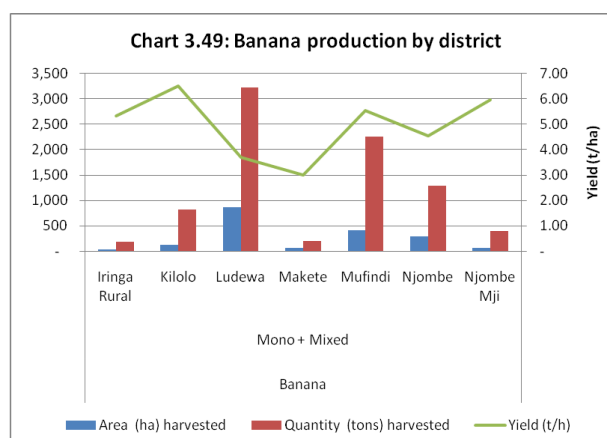
In terms of area planted per household, mango had 0.56ha/hh while tea had 0.38 h/hh. Other crops were coffee (0.2 ha/hh), orange (0.23 ha/hh), banana (0.15 ha/hh), sugarcane (0.14 ha/hh), pigeon peas (0.13 ha/hh) and coconut (0.03 ha/hh). Tea was leading by having highest production per household 3.65 t/hh followed by sugarcane (1.26 t/hh), mango (0.44 t/hh), banana (0.42 t/hh), orange (0.33 t/hh), coffee (0.08 t/hh), pigeon peas (0.04 t/hh) and coconut (0.01 t/hh).



### 3.4.1 Banana

Banana were planted by a total of 19,840 households on a total area of 2,894ha with a total production of 8,325 tonnes and average yield 4.52t/ha. In terms of area planted, banana was the most important permanent crop grown by smallholders in Iringa region.

Ludewa had the largest harvested area of bananas in the region at 866 ha (47%) followed by Mufindi (404 ha, 22%), Njombe (282 ha, 15%), Kilolo (124, 7%), Njombe Urban (67, 3.6%), Makete (65, 3.5%) and Iringa Uural (33, 1.8%), (Chart 3.49). Ludewa was also leading by



harvesting 3,218 tonnes or 39% of all banana harvested in Iringa region followed by Mufindi (2,246 t, 27%), Njombe (1,282 t, 15%), Kilolo (809 t, 10%), Njombe Urban (399 t, 5%), Makete (196 t, 2.4%) and Iringa Rural (175 t, 2.1%). In terms of yield, Kilolo was leading by harvesting 6.5 t/ha followed by Njombe urban (5.97 t/ha), Mufindi (5.56 t/ha), Iringa Rural (5.33 t/ha), Njombe (4.54 t/ha) and Makete (3.01 t/ha), (Chart 3.49).

Comparison of banana production between 2002/3 and 2007/8 shows that the number of households growing banana has remained stable. However, the area under bananas has declined by about 60 percent. The overall yield also decline by about 19 percent, (Table 3.9). Moreover, yield has increased three fold (220 %) possibly due to adoption of new varieties and better agronomic practices.

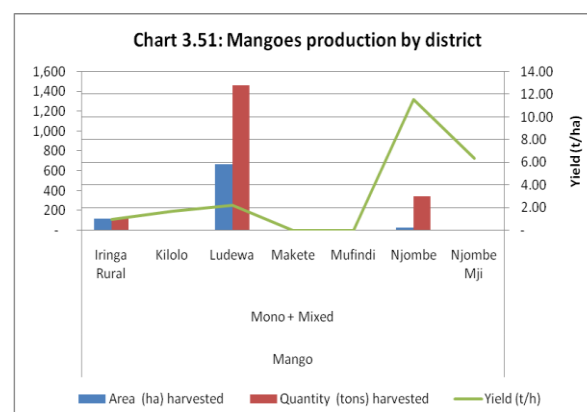
**Table 3.9: Comparison of Banana Production Between 2003 and 2008 Census Years**

Attribute	Year		% Change
	2003	2008	
Number of household	19,428	19,840	2.1
Area under banana (Ha)	7,263	2,894	-60
production (Tonnes)	10,244	8,325	-18.7
Yield (t/ha)	1.410	4.52	220
Planted area per HH	0.5	0.50	0

### 3.4.2 Mangoes

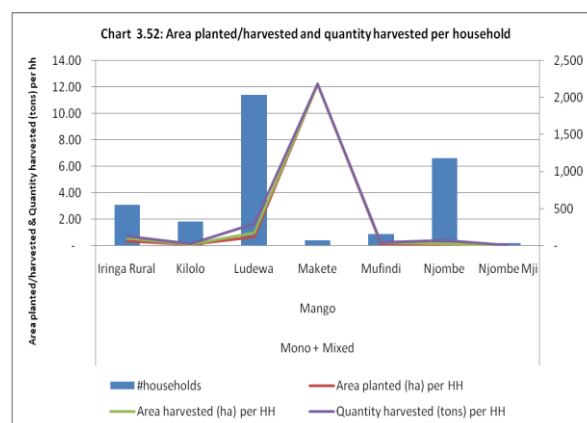
A total of 1,942tonnes of mangoes were produced on an area of 836ha with an average yield of 2.32t/ha. Ludewa district had the largest area of mangoe trees harvested in the region (664 ha, 79% of the total area harvested in the region), followed by Iringa Rural (118 ha, 14%), Njombe (30 ha, 4%) and Mufindi (17 ha, 2%). Other districts had insignificant areas harvested mangoes production.

Ludewa district had the largest quantity harvested in iringa region (1,461 t, 75%) followed by Njombe (347 t, 18%) and Iringa Rural (119 t, 6%), (Chart 3.51).



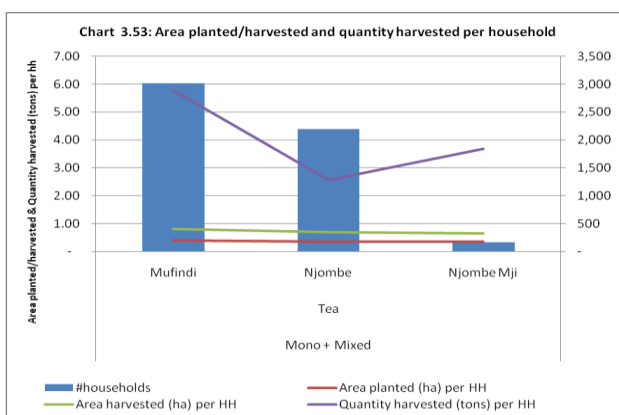
Mango was grown by 4,382 agricultural households in Iringa region; each having an average 0.56 hectares and harvesting an average of 0.19 hectares. Ludewa district was leading by having the biggest number of mango growing households (2,044 hh, 47%) followed by Njombe (1,184 hh, 27%), Iringa Rural (556 hh, 13%), (Chart 3.52). The average area harvested per mangoes growing household was highest in Ludewa (0.32 ha) followed Iringa Rural (0.21 ha), Mufindi (0.11 ha) and Njombe (0.03 ha), (Chart 3.52). The mango average harvest per household was highest in Ludewa district (0.72 t/hh) followed by Njombe (0.29 t/hh), Iringa Rural (0.21 t/hh) and Makete (0.06 t/ha).

As compared to the 2002/3 census, there has been a 19% increase in the number of mango growing households (3,681 to 4,382 hhs), 139% increase in the area per mango growing household (0.8 to 1.91 ha), 40% decrease in the area under mangoes (1,383 to 836 ha), 4% increase in the quantity harvested from (1,873 to 1,942 tonnes) and 72% increase in yield (1.354 to 2.32 t/h).

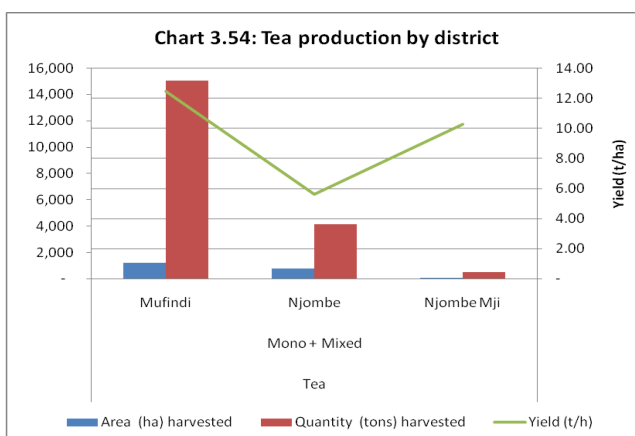


### 3.4.3 Tea

Tea was grown in Mufindi, Njombe Urban and Njombe Rural districts by 5,379 agricultural households; each having an average 0.37 h/hh and harvesting an average 3.65 t/hh. Mufindi district was leading by having the biggest number of tea growing households (3,022 hh, 56%) followed by Njombe rural (2,198, 41%) and Njombe urban (159 hh, 3%). The average area harvested per Tea growing household was highest in Mufindi (0.4 h/hh) followed Njombe rural (0.36 h/hh) and Njombe urban (0.34 ha). The Tea average harvest per household was highest in Mufindi district (4.97 t/hh) followed by Njombe urban (3.03 t/hh) and Njombe rural (1.87 t/hh), (Chart 3.53).



A total of 19,624 tonnes of tea were harvested on an area of 1,985 ha with an average yield of 9.89 t/h, (Chart 3.54). Mufindi district had the largest area planted with tea in the region (1,205 ha, 61% of the total area with Tea in the region), followed by Njombe Rural (732 ha, 37%), and Njombe Urban (47 ha, 2.4%), (Chart 3.54). Mufindi district had the largest quantity of Tea harvested in Iringa region (15,023 t, 77%) followed by Njombe Rural (4,118 t, 21%) and Njombe Urban (483 t, 2%). Yield was highest in Mufindi (12.5 t/h) followed by Njombe Urban (10.28 t/h) and Njombe Rural (5.6 t/h).

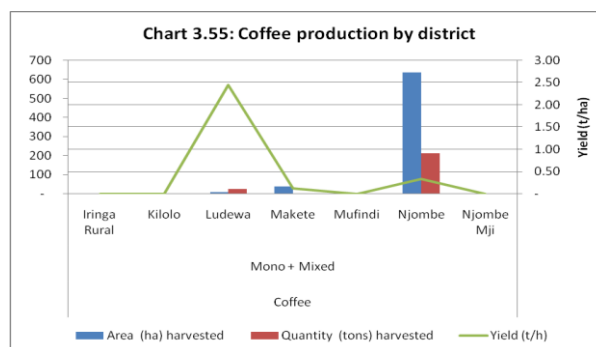


As compared to the 2002/3 census, there has been a 205% increase in the area planted with tea (669 to 2,042ha), 67% increase in the area harvested tea (1,191 to 1,985 ha), 110% increase in the quantity harvested (9,329 to 19,624 tonnes) and 26% increase in yield (7.833 to 9.886 t/h).

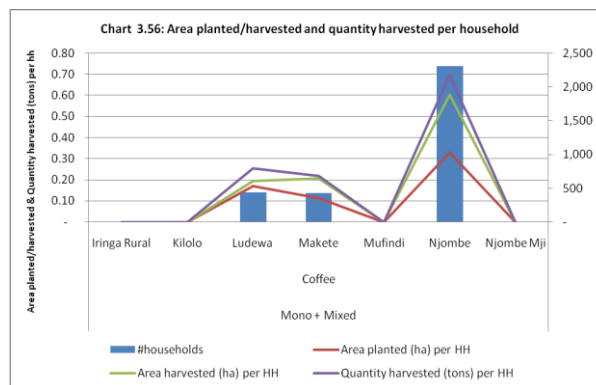
### 3.4.4 Coffee

Coffee is a crop that was grown in Ludewa, Makete and Njombe districts. A total of 244 tonnes of coffee were produced on an area of 684 ha with an average yield of 0.36 t/ha. Njombe district had the largest area harvested in the region (663 ha, 93% of the total area harvested in the region),

followed by Makete (40 ha, 6%) and Ludewa (11 ha, 2%), (Chart 3.55). Njombe district had the largest quantity harvested in Iringa region (213 t, 87%) followed by Ludewa (26 t, 11%) and Makete (5 t, 2%).



Coffee was grown by 3,176 agricultural households in Iringa region; each having an average of 0.28 hectares and harvesting an average area of 0.22 hectares. Njombe district was leading by having the biggest number of coffee growing households (2,307 hh, 73%) followed by Ludewa (437, 13.8%) and Makete (431 hh, 13.6%). The average area harvested of coffee per Coffee growing household was highest in Njombe (0.27 ha) followed Makete (0.09 ha) and Ludewa (0.03 ha), (Chart 3.56). The coffee average harvest per household was highest in Njombe district (0.09 t/hh) followed by Ludewa (0.06 t/hh) and Makete (0.01 t/hh).

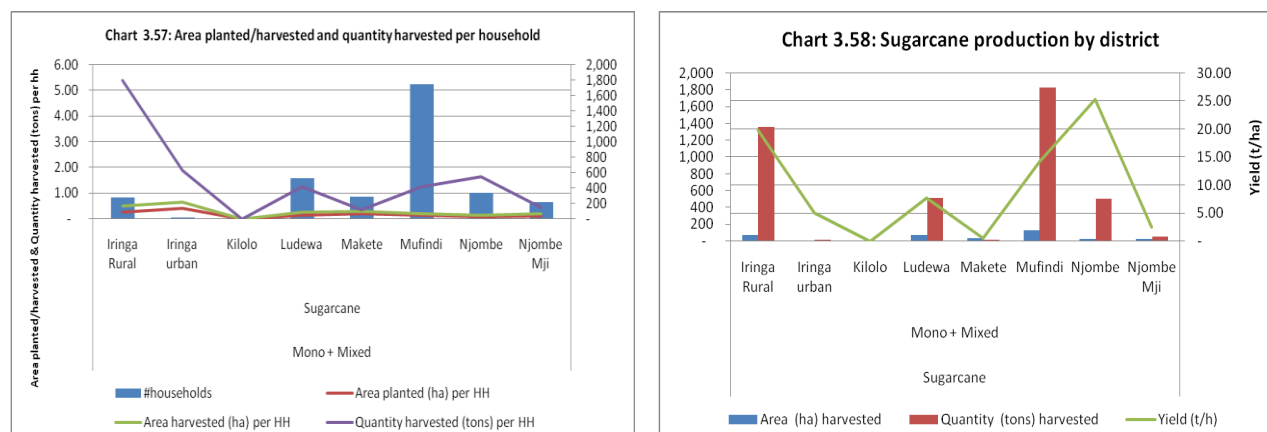


As compared to the 2002/3 census, there has been a 28% decrease in the number of coffee growing households (4,384 to 3,176), 58% decrease in the area per coffee growing household (0.49 to 0.2 ha/hh), 33% decrease in the area harvested (1,020 to 684 ha), 70% decrease in the quantity harvested (803 to 244 tonnes) and 55% decrease in yield (0.787 to 0.36 t/ha).

### 3.4.5 Sugarcane

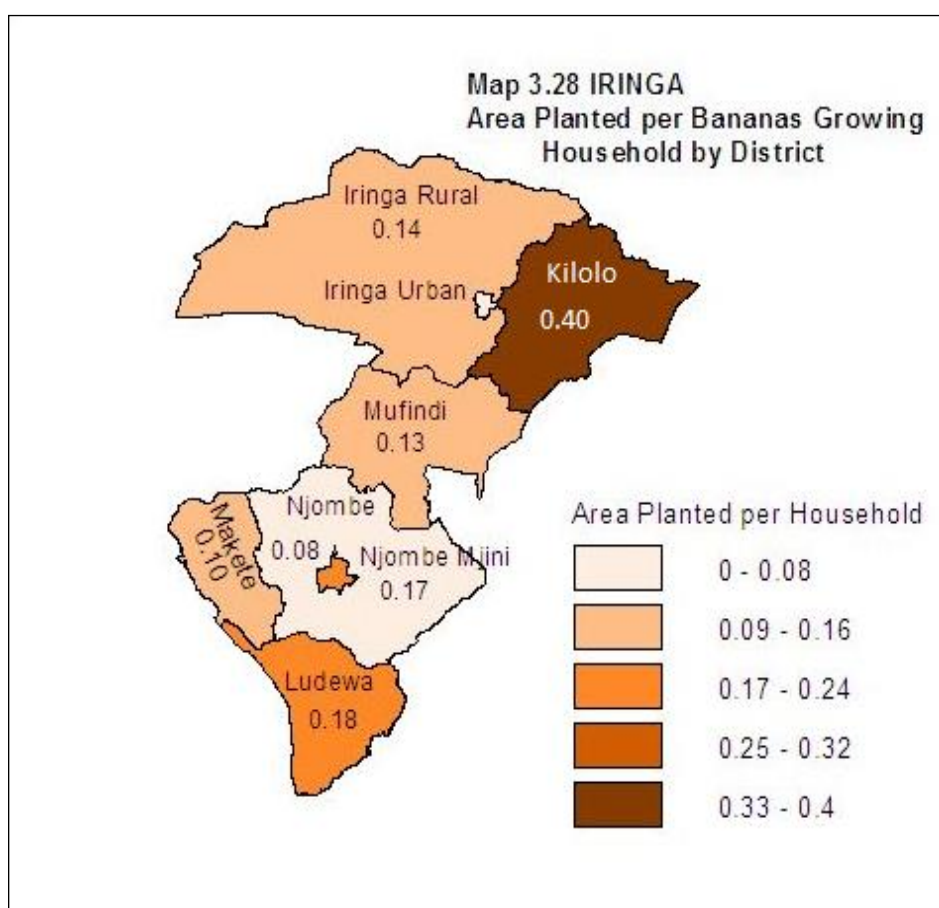
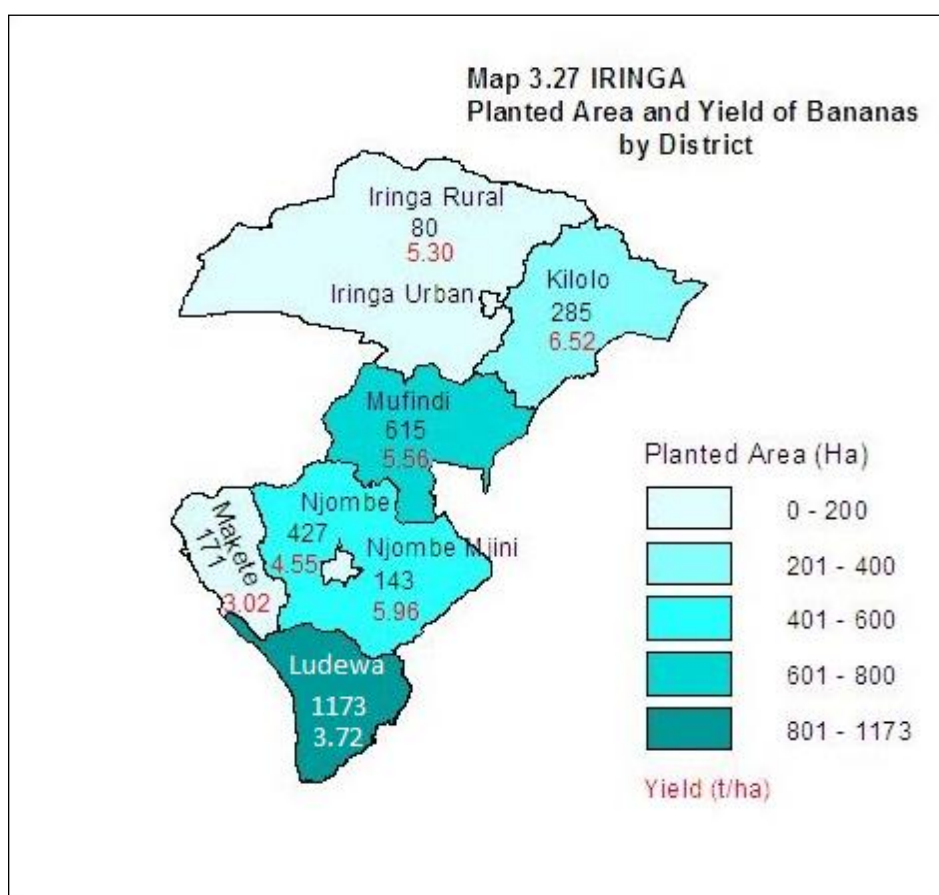
Sugarcane was grown in all districts in Iringa region except Kilolo by 3,414 agricultural households; each having an average of 0.14 hectares and harvesting an average 0.10 hectares. Mufindi district was leading by having the largest number of sugarcane growing households (1,749 hh, 51%) followed by Ludewa (527 hh, 15%), Njombe (338 hh, 10%), Makete (287 hh, 8.4%), Iringa Rural (278 hh, 8.1%), Njombe Urban (219 hh, 6%) and Iringa Urban (16 hh, 0.5%). The average area harvested per sugarcane growing household was highest in Iringa Urban (0.25 ha) followed Iringa Rural (0.24 ha), Ludewa (0.13 ha), Makete (0.11 ha), Mufindi (0.07 ha) and Njombe (0.06 ha). The sugarcane average harvest per household was highest in Iringa Rural district (4.89 t/hh) followed by Njombe (1.5 t/hh), Iringa Urban (1.19 t/hh), Mufindi (1.04 t/hh), Njombe Urban (0.26 t/hh) and Makete (0.06 t/ha), (Chart 3.57).

A total of 4,297 tonnes of sugarcane were harvested on an area of 340 ha with an average yield of 12.64 t/ha (Chart 3.58). Mufindi district had the largest area harvested in the region (129 ha, 38% of

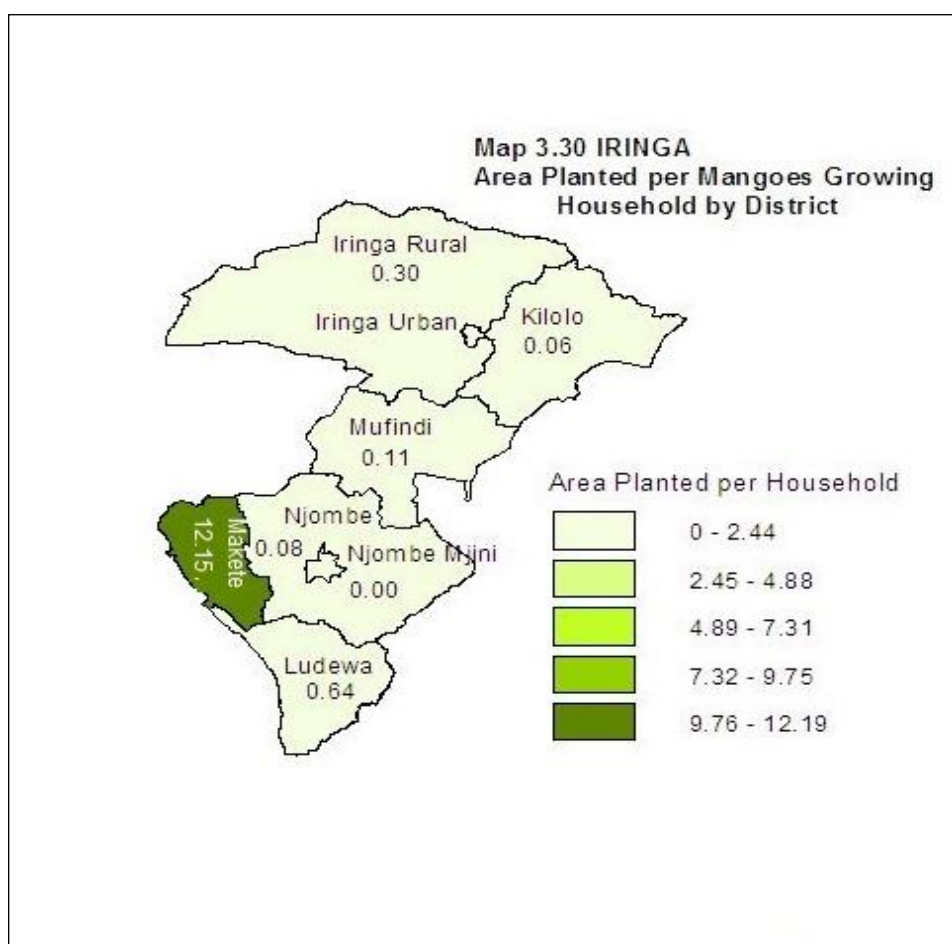
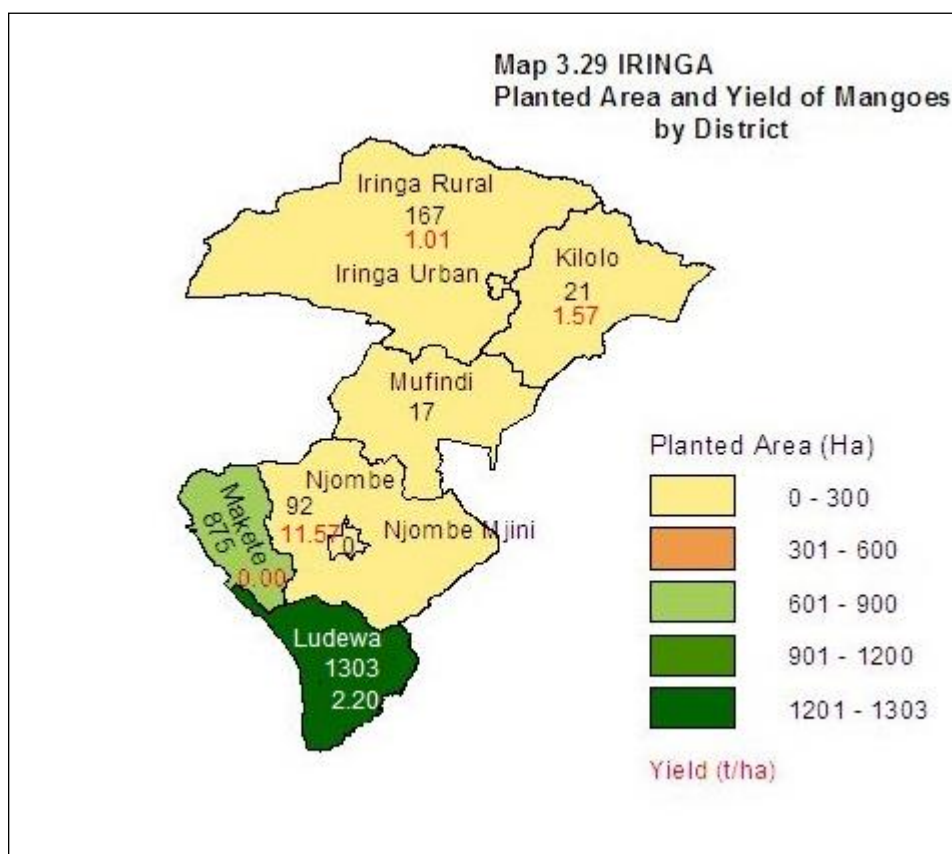


the total area harvested of sugarcane in the region), followed by Iringa Rural (68 ha, 20%), Ludewa (67 ha, 19.7%), Makete (31 ha, 9.1%), Njombe Urban (22 ha, 6.5%), and Njombe (20 ha, 5.9%), (Chart 3.58). Mufindi district had the largest quantity of sugarcane harvested in Iringa region (1,822 t, 42%) followed by Iringa Rural (1,359 t, 32%), Ludewa (515 t, 12%), Njombe (507 t, 12%). Other districts had insignificant production of sugarcane.

As compared to the 2002/3 census, there has been a 266% increase in the area under sugarcane (93 to 340 ha), 139% increase in the quantity harvested (1,797 to 4,297 tonnes) and 35% decrease in yield (19.62 to 12.64 t/h)







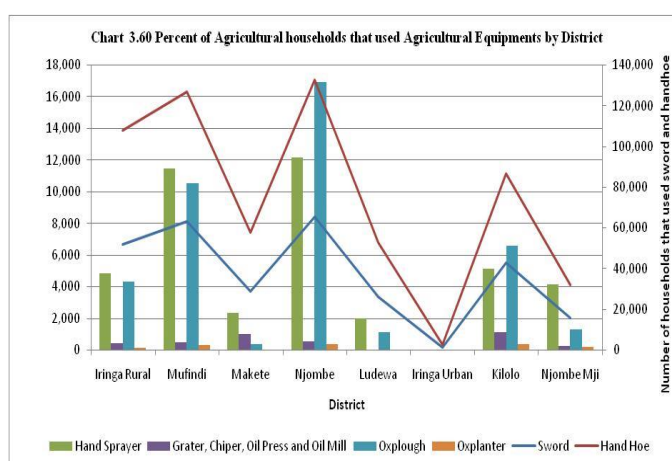
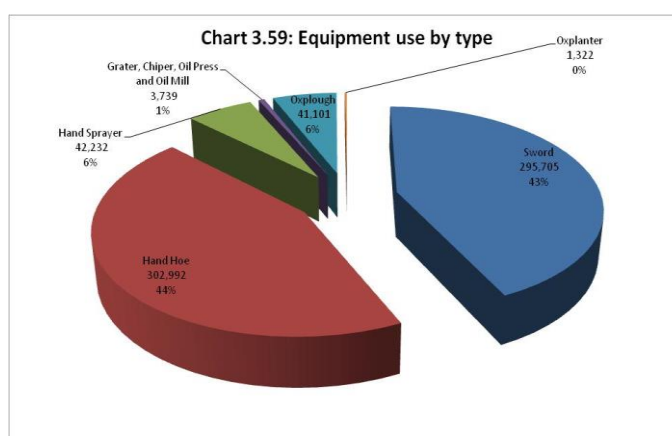


### 3.5 Inputs/Implements Use

Agricultural implements are a necessary for efficient production. The majority of households (98.8%) owned a hand hoe as the basic tool in agriculture. In Njombe Rural and Njombe Urban ox-carts dominated the types of agricultural implements owned by various households and were mainly used for transport. Other agricultural equipments include hand sprayer, ox plough and ox planter. Thirteen percent of household owned hand sprayer in which 25.7% of the total agricultural household in Iringa were in Njombe urban district (25.7%), Njombe (17.8%) and Mufindi (17.8%). Njombe, Mufindi and Kilolo districts had higher proportion of household owning ox plough (24.7%, 16.35 and 14.8% respectively), whilst the percentage of household owning ox plough in the remaining districts were less than ten percent. In total, 13.4% of the household owned ox plough. As for ox-planter, only 0.4 percent of the agricultural household had ox-plough, 1.2 percent being in Njombe urban while, in the remaining districts less than 0.5 percent had ox planter. Other included processing equipments such as grater, chipper, oil press and oil meal and were owned by 1.2 percent of the agricultural household.

The use of these implement in Iringa region is very minimal. Only 2.6 percent of the household had ox-cart, 0.2 percent tractor, 0.9 percent harrow, 0.2 percent thresher, 0.2 percent power tillers and 0.4 percent rigger. Handhoes were the most extensively used equipment in Iringa region (Chart 3.59). It was used by 44% of all households followed by swords (43%), oxploughs (6%), Handsprayers (6%), grater, chipper, oil press and oil mill (1%).

Njombe district had the highest number of households that used oxploughs and hand sprayers followed by Mufindi, Kilolo and Njombe urban. Other equipment like grater, chipper, oil press, oil mills and oxplanters were in minimal use, (Chart 3.60).



### 3.5.1 Improved Seeds Use

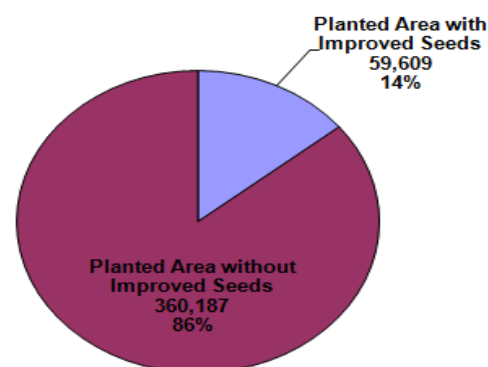
The planted area using improved seeds was 59,610 hectares which represents 14 percent of the total area planted with the annual crops and vegetables (Chart 3.61). Njombe district had the largest area planted with improved seeds (13,522 ha, 23% of total planted area). It was followed by Mufindi (12,396 ha, 21%), Iringa Rural (11,898 ha, 20%), Kilolo (10,235, 18%), Makete (5,404 ha, 14%), Njombe Urban (4,065 ha, 7%), Ludewa (1,933 ha, 3%) and Iringa Urban (154 ha, 0.3%) (Chart 3.62).

### 3.5.2 Fertilizer Use

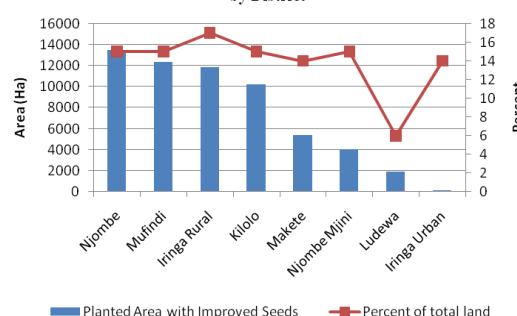
The use of fertilizers on annual crops in the region is relatively high compared to other regions with a planted area application of 135,897 hectares (34.4% of the total planted area in the region). Of the planted area with fertilizer application, organic fertilizers was applied to 32,199 hectares which represents 24 percent of the area using organic or inorganic fertilizers, whilst the area under inorganic fertilizer was 103,697 hectare (76%), (Chart 3.63).

Njombe district had the largest area planted using inorganic fertilizers (29,961 ha, 29% of agriculture land using inorganic fertilizer in Iringa. It was followed by Mufindi (18,220 ha, 17.6%), Iringa Rural (13,818 ha, 13.3%), Kilolo (12,891 ha, 12.4%), Njombe Urban (12,891 ha, 12.9%), Makete (8,793 ha, 8.5%). The area using inorganic fertilizer in Iringa Urban was only 611 ha (0.6%). With regard to organic fertilizer use, Mufindi was leading whereby 8,910 hectares (28%) were applied with organic fertilizer. The district was followed by Njombe with 8,161 ha (25.3%), Iringa Rural (4,964 ha, 15.4%), Makete (3,432 ha, 10.7%), Kilolo (297 ha,

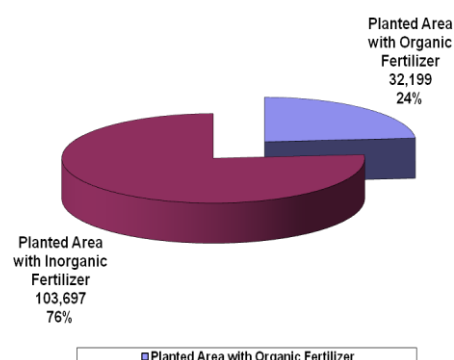
**Chart 3.61 Area Planted with Improved Seeds**



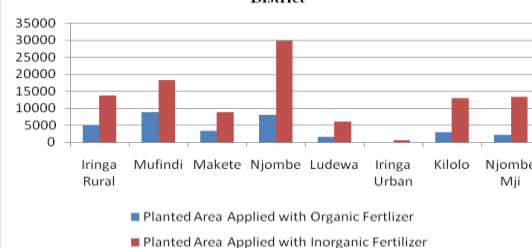
**Chart 3.62 Percent and Area Planted with Improved Seeds by District**



**Chart 3.63 Planted Area with Fertilizer**



**Chart 3.64 Planted Area by Type of Fertiliser Use and District**



9.2%), Njombe urban (2179 ha, 6.8%), Ludewa (1555 ha, 4.8%) and lastly Iringa Urban (28 ha, 0.1%), (Chart 3.64).

### 3.5.3 Pesticide and Herbicides Use

Pesticides are chemicals used for controlling insects, and diseases, while herbicides are used to control weeds. The proportion of the planted using insecticides was 29.6 percent while those using fungicides and herbicides were 4.1 and 0.6 percent respectively, (Chart 3.65). Insecticides were applied on 124,233 hectares, while fungicides and herbicides were applied to 17,338 and 2,648 hectares respectively.

**Table 3.10: Proportion of Area Planted with Pesticides and Herbicides**

District	Fungicide	Herbicide	Insecticide
Iringa rural	1.9	0.4	16.5
Mufindi	2.63	1.0	38.7
Makete	1.7	0.1	17.2
Njombe	2.3	0.6	22.9
Ludewa	2.5	0.2	31.7
Kilolo	2.9	0.2	19.4
Njombe urban	10.8	0.1	30.3
Average	3.1	0.48	25.6

Mufindi district had the highest percent of planted area where insecticides were used. It was followed by Njombe, Kilolo, Njombe Urban, Ludewa, Iringa Rural, Makete and lastly Iringa Urban. The leading districts in use of fungicides were Njombe Urban, Mufindi and Njombe Rural. Regarding herbicide use, Mufindi district was in the upfront, followed by Njombe and Iringa Rural. Iringa urban, Njombe Urban and Makete had the smallest percentage use of herbicides (Table 3.10).

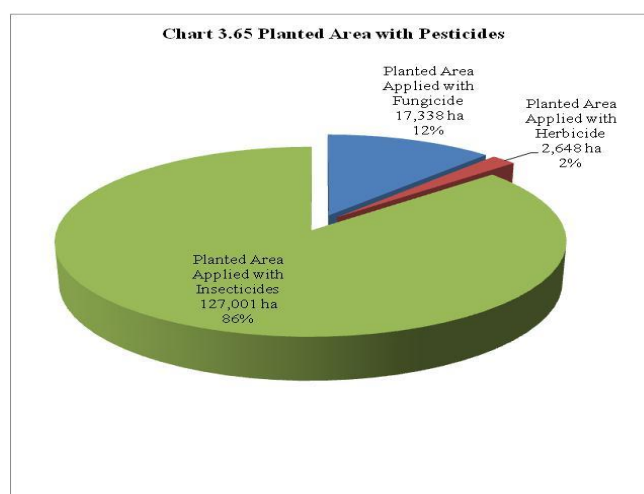


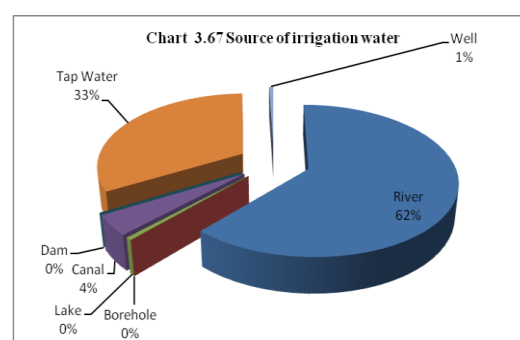
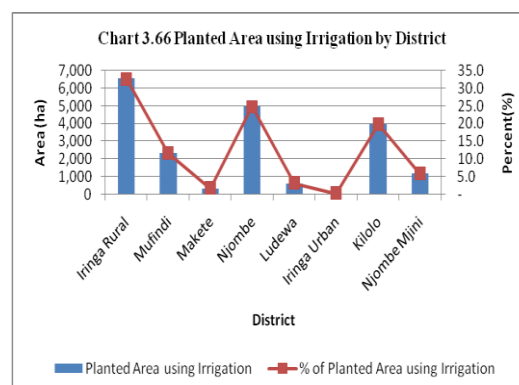
Chart 3.65 shows that over the period of 5 five years, the area that has been applied with agrochemicals has declined. In 2003 the area applied with agrochemicals was 208,377 ha and it declined to 161,369 hectares by 2008, equivalent to 22.6 percent decline. This scenario could probably be due to high cost of the chemicals, adoption of integrated pest management approaches or use of varieties that are resistant to most pests.

### 3.6 Irrigation

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

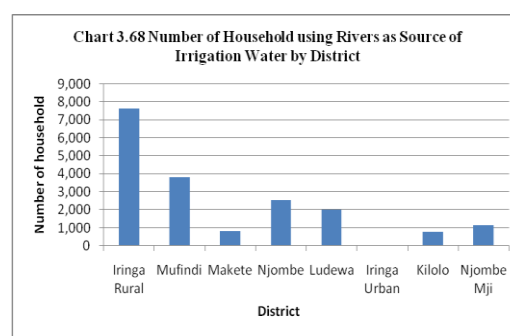
#### 3.6.1 Area Planted with Annual Crops and Under Irrigation

In Iringa region, the area of annual crops under irrigation was 20,061 hectares representing 4.8 percent of the total area planted area in the region. The district with the largest planted area under irrigation for annual crops was Iringa rural with 6,554 ha (32.7% of the total planted area with irrigation in the region). This is followed by Njombe with (4,969 ha, 24.8%), Kilolo (3,978 ha, 19.8%), Mufindi (2,335 ha, 11.6%), Njombe urban (1,175 ha, 5.9%), Ludewa (637 ha, 3.2%), Makete (358 ha, 1.8%) and Iringa Urban (55 ha, 0.3%), (Chart 3.66).



#### 3.6.2 Sources of Water Used for Irrigation

The main source of water used for irrigation was from rivers (62% of all households with irrigation). This was followed by tap water (33%) and canals (4%). None of households used water from dams or from boreholes, (Chart 3.67).



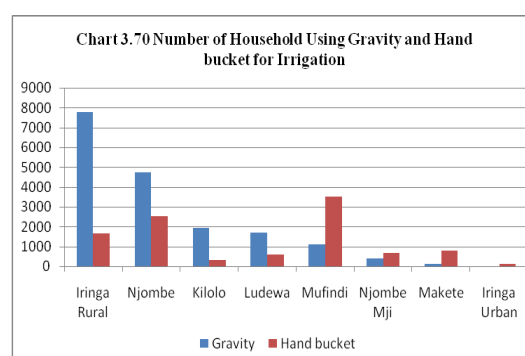
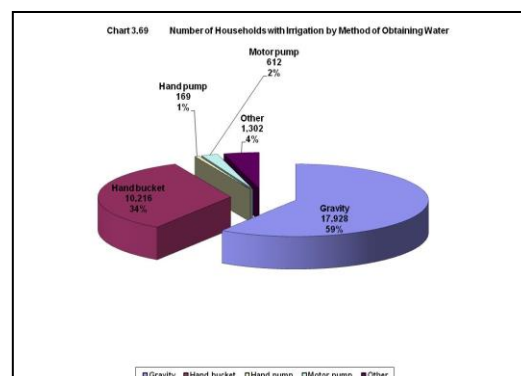
District wise, 7,646 households (41% of irrigating household in Iringa Rural) used river water for irrigation. It was followed by Mufindi (3,817 hh, 20.5%), Njombe (2,537 hh, 13.6%), Ludewa (1,978 hh, 10.6%), Njombe urban (1,115 hh, 6.2%) and the least users were Kilolo and Iringa Urban with 765 households (4.1%) and 16 households (0.1%) respectively, (Chart 3.68).

### 3.6.3 Methods of Obtaining Water for Irrigation

Gravity was the most common means of getting water for irrigation with 60 percent of the total households using this method in the region. This was closely followed by hand bucket (34%), hand pump (1.0%) other (5%), (Chart 3.69).

Iringa Rural had 7,785 (43.4% of all households using gravity in Iringa region) using gravity as a method of obtaining water for irrigation. It was followed by Njombe (4,735 households, 26.4%), Kilolo (1968 households, 11%), Ludewa (1714 households, 9.6%), Njombe urban (438household, 2.4%), Makete (144 household, 0.8%) and Iringa Urban with 31 households (0.2%), (Chart 3.70).

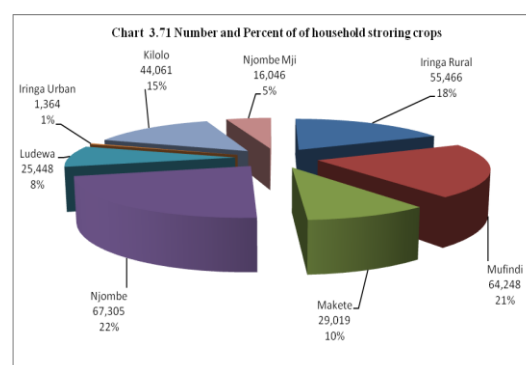
For the household using hand bucket, Mufindi had more household (3,499 households, 34.2%) compared to other districts. It was followed by Njombe (24.8%), Iringa Rural (16.3%). The remaining districts used buckets in less than ten percent of the households, the least being Iringa urban with 1.2 % of the households and Kilolo with 3.2 percent. Although hand bucket and gravity were the most common methods of obtaining irrigation water in all seven districts, some of the households used hand and motor pumps as well, though the percent was small.



## 3.7 Crop Storage, Processing and Marketing

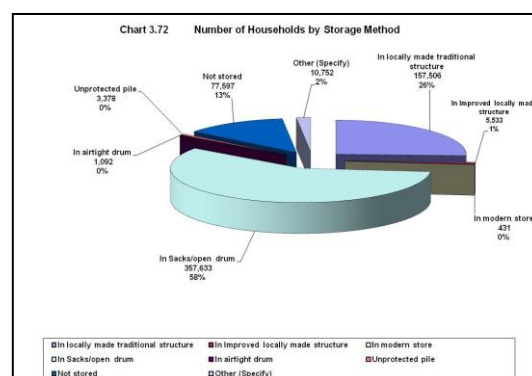
### 3.7.1 Crop Storage

Crop storage means keeping a crop for a certain period of time as food for the household, to sell at higher prices or as seed for planting in the following season. The results for Iringa region show that there were 302,957 crop growing households that stored various agricultural products in the region (93% of the total crop growing households). Greater percent of households in Njombe (22%) and Mufindi (21%) stored crops compared to Iringa rural (18%), Kilolo (15%), Makete (10%) and Ludewa (8%), (Chart 3.71).

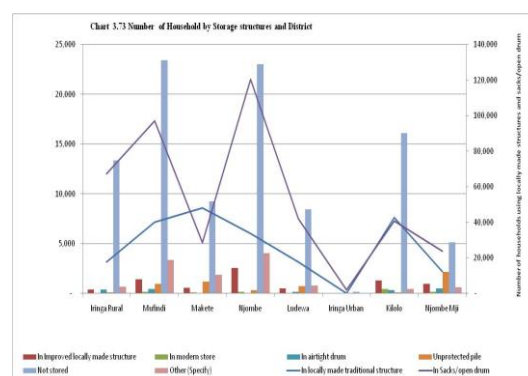


### 3.7.2 Methods of Storage

The region had 357,633 crop growing households storing their produce in sacks and/or open drums (58% of households that stored crops in the region). The number of households that stored their produce in locally made traditional structures was 157,506 (26%). This was followed by: improved locally made structures (5533 households, 1%), and other structures (10,752 households, 2%). Moreover, 13 percent of the households did not store crops in any form, (Chart 3.72).

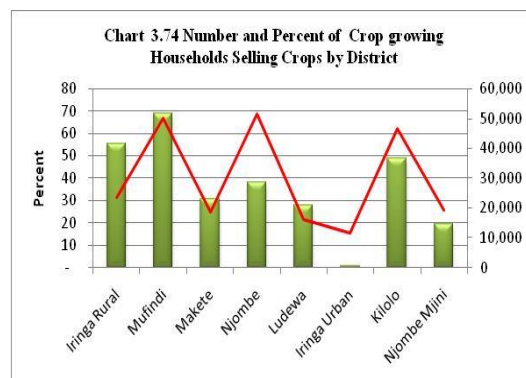


The highest percent of households using Locally Made Traditional Structures was in Makete (13.4% of the total number of households storing crops in the district), followed by Kilolo (11.9%), Mufindi (11.2%), Njombe (9.5%), Iringa Rural (5.0%), Ludewa (4.9) and Njombe urban (3.4). In Iringa urban most of the crop produce were stored in sacks, (Chart 3.73).



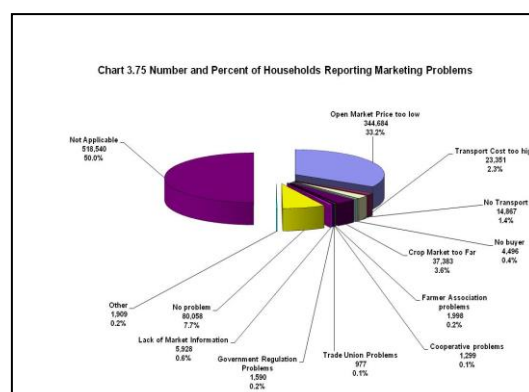
### 3.7.3 Crop Marketing

The number of households that reported selling crops was 247,566 which represent 44 percent of the total number of crop growing households. The percent of crop growing households selling crops was highest in Njombe (69%), followed by Mufindi (67%), Njombe (80.3%), Kilolo (62 %), Iringa rural (31%), Njombe urban (265), Makete (25%) Ludewa (22%) and Iringa Urban (15%), (Chart 3.74).



### Main Marketing Problems

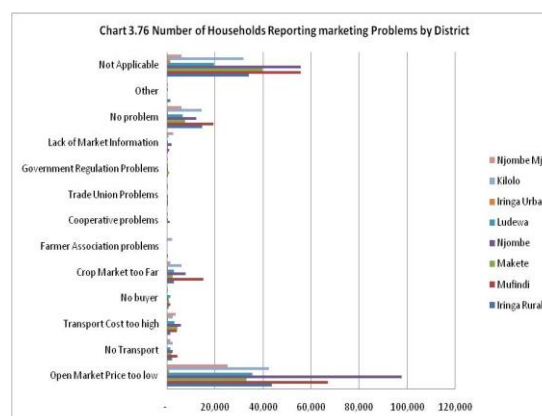
Low price for agricultural produce was the main marketing problem reported by agricultural households in Iringa region (68 % of crop growing households in the region), (Chart 3.75). Apart from low market prices, other problems were





longer distances to the markets (7%), high transport costs (5%). Other marketing problems are minor and represented less than 4 percent cumulatively. These include: No buyer (0.87%), Farmers' association (0.39%), Cooperative problems (0.15%), Trade union problems (0.19%), Government regulations (0.31%) and lack of market information (1.14%).

The extent of the market problems differed by district depending on many factors including their location (Chart 3.76). Njombe district experienced high percent (28%) of household indicating that open market price were low. It was followed by Mufindi (19.4%), Iringa rural and Kilolo (12.6 % each), Makete (9.6%) and Njombe urban (7.3%). In Mufindi more household (40 %) reported distance to the market to be the number one problem. The other districts where distance was a problem include Njombe (20.4%), Kilolo (12.3%) and Njombe urban (7.3%). In the remaining districts the problem of distance was reported in less than 10 percent of the households in the entire region.

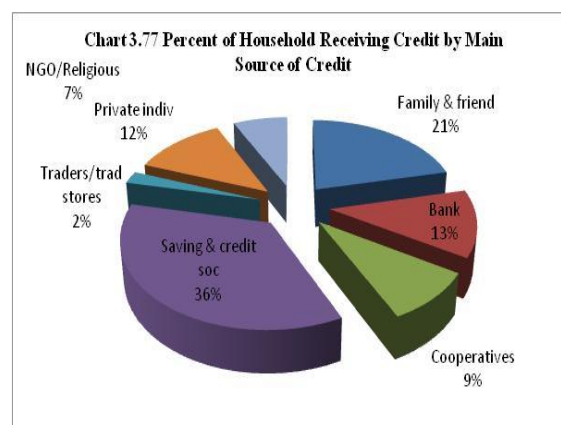


Transport costs as an impediment was notably reported in Njombe (23.9%), followed by Makete (17.5%), Mufindi (16.3 %) and Njombe urban (14.2 %). For the remaining district the problem was in less than 10 percent of the households. Iringa urban had the least of all the major marketing problems.

### 3.8 Access to Crop Production Services

#### 3.8.1 Source and Access to Agricultural Credit

The census results show that in Iringa region very few agricultural households (8,076, 2.6% of all crop growing households) accessed credit. The major agricultural credit provider in Iringa region was saving and credit societies (2,864 households, 36%), followed by family friend and relatives which provided credit to 1,729 agricultural households (21% of the total number of households that accessed credit), banks (1,004 households, 13 %), Cooperatives (739 household, 9%), Private individuals (976 household, 12%), religious organizations/non governmental



organizations/projects (579 households, 7%), trader/trade store (185 household, 2%). The contributions of other sources were insignificant, (Chart 3.77).

Compared to 2003 where the 63 percent of the credit were from family and friend, in 2008 the situation had changed and savings and credit Societies became the dominant source (36%). Likewise, the percent of household accessing credit from the banks increased from zero in 2003 to 13 percent in 2008.

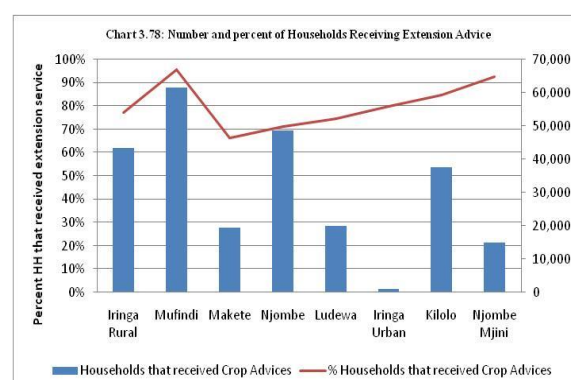
In Iringa rural, family friend/ relatives and SACCOS were the main source of credits and small proportion received credit from bank and NGO/development projects. In Mufindi district, there were equal distribution of individuals receiving credits from family/friends, banks and private individuals, whilst SACCOS were the sole source of credit in Makete district. Ludewa relied more from private individuals (50%) and cooperative as well s SACCOS. In the remaining districts, SACCOS were the dominant source of credit and in some districts such as Iringa rural, Mufindi and Makete the role of cooperatives were small or non existent. The contribution of NGOs, Development projects and religious organization in credit access were much higher in Kilolo and Iringa urban and to some extent in Makete district. Trader/trader store was the only credit provider in Ludewa and Iringa urban, (Table 3.11).

**Table 3.11: Percentage of Agricultural Household Receiving Credit by Type and District**

District	Family/Friend	Bank	Coops	SACCOS	Trade/Store	Private	NGO/Dev Org/Religious
Iringa Rural	40	13	-	40	-	-	-
Mufindi	27	27	-	18	-	27	-
Makete	-	-	-	80	-	-	20
Njombe	-	17	33	33	-	17	-
Kilolo	20	-	10	40	-	-	30
Ludewa	-	-	20	20	10	50	-
Iringa Urban	0	0	0	0	0	0	0
Njombe Mji	18	7	14	46	11	0	4

### 3.8.2 Crop Extension

The number of Agricultural households that received crop extension was 246,400, accounting for 80.4 percent of total crop growing households in the region (Chart 3.78). Some districts had more access to extension services than others.

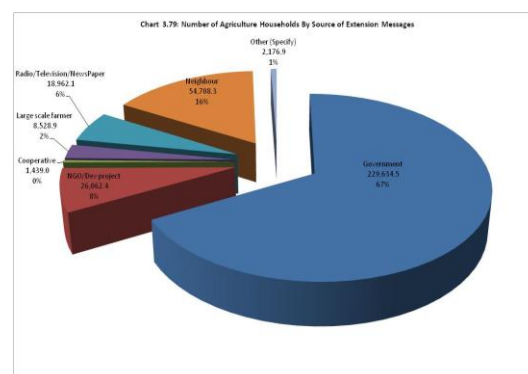




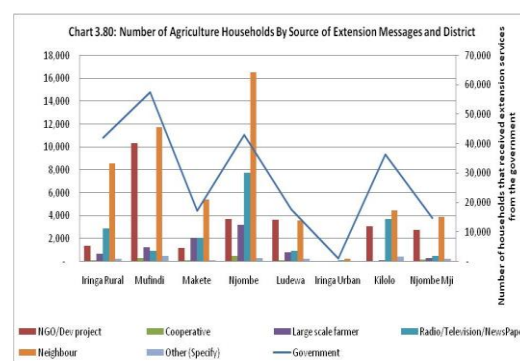
Mufindi had a relatively high proportion of households that received crop extension messages (95.8% of the crop growing households in the district), followed by Njombe urban (92.6%), Kilolo (84.7%), Iringa Urban (80%), Iringa Rural (77.4%), Ludewa (74.6%), Njombe (71.1%) and Makete (66.4%), (Chart 3.78).

### 3.8.3 Source of crop extension messages

The government was the main source of extension messages. It provided extension services to 229,935 or 75% of all crop growing households in Iringa region (Chart 3.79). This was followed by neighbors (16%), NGO's/development projects (7.6%), radio/TV (5.6%), large scale famrrers (2.5%), co-operatives and other sources (1%).(chart 3.79)

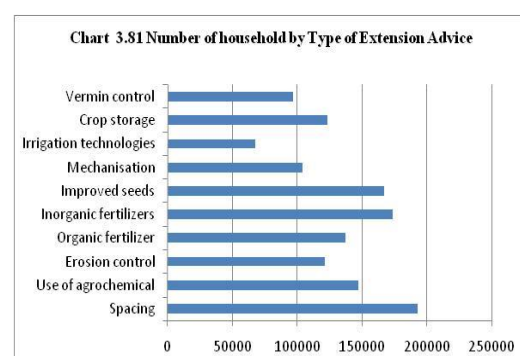


However, district differences exist with the proportion of households receiving extension services from the government (Chart 3.80). Mufindi district was leading by having 25% of agricultural households receiving extension services in Iringa region followed by Iringa rural (18%), Njombe rural (19%), Kilolo (16%), Ludewa (8%), Njombe urban (6%) and iringa urban (0.5%).



### 3.8.4 Type of Crop Extension Messages

Of the households receiving extension advice, the Government provided the largest proportion of the service (>80%). Spacing followed by use of inorganic fertilizer and improved seeds were the top most three extension advices provided by the government. Use of agrochemicals, organic fertilizers, erosion control, and crop storage had moderate level of advice, while fewer household received support/advise on mechanization, vermin control and irrigation technologies (Chart 3.81).



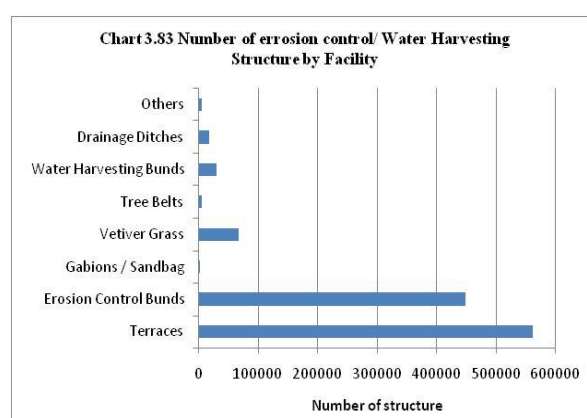
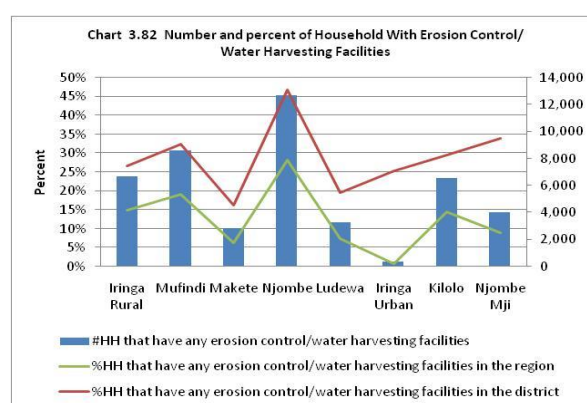
### 3.9 Irrigation and Erosion Control Facilities

Erosion control and water harvesting facilities are grouped together as 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 and water harvesting facilities on their farms in Iringa region was 45,035 which represent 15 percent of the total number of agricultural households in the region .

The largest number of households with erosion control and water harvesting facilities are found in Njombe district (12,683 households, 28% of the total households with erosion control and water harvesting facilities in Iringa region), followed by Mufindi (8,588 households, 19%), Iringa Rural (6,676 households, 15%), Kilolo (6,560 households, 15%), Njombe Urban (4,021 households, 9%), Ludewa (3,296 households, 7%), Makete (2,873, 6%) and Iringa Urban (341 households, 1%) .

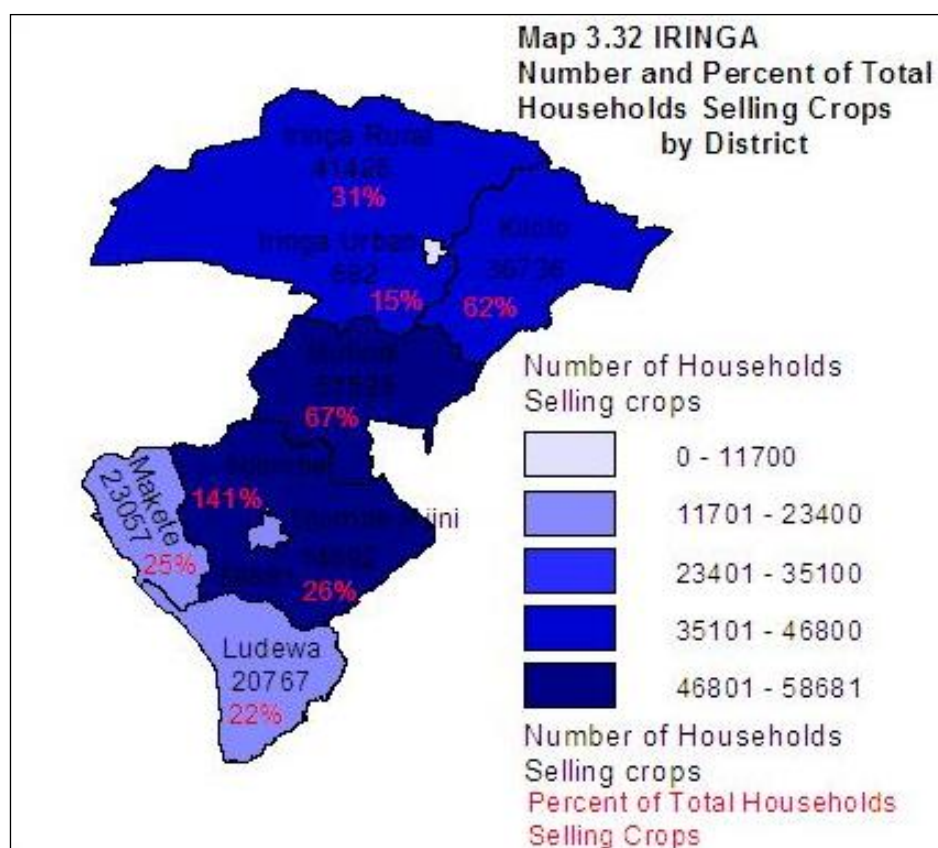
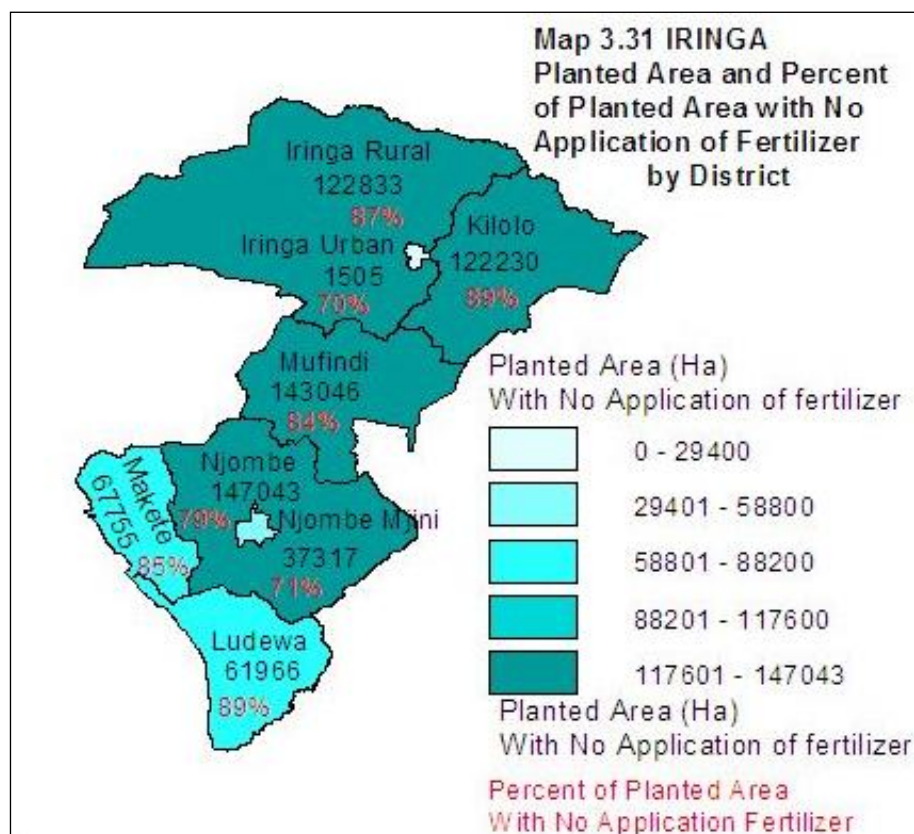
Terraces accounted for 50.1 percent of the total number of structures, followed by erosion control bunds (40.1%), vetiver grass (6.1%), water harvesting bunds (2.8%), tree belts (0.58%), others (0.24%) and Gabions (0.6%). Erosion control using terraces and erosion control using bunds together had 1,009,641 structures. This represents 90 percent of the total structures in the region. The remaining 10 percent were shared among the rest of the erosion control methods mentioned above, (Chart 3. 83).

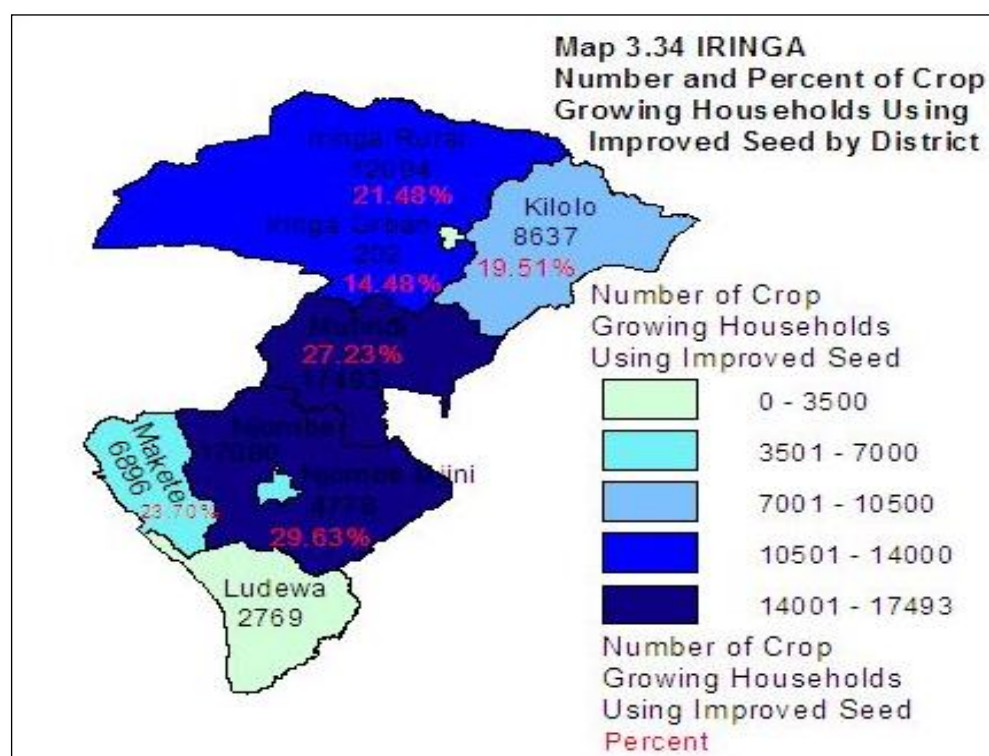
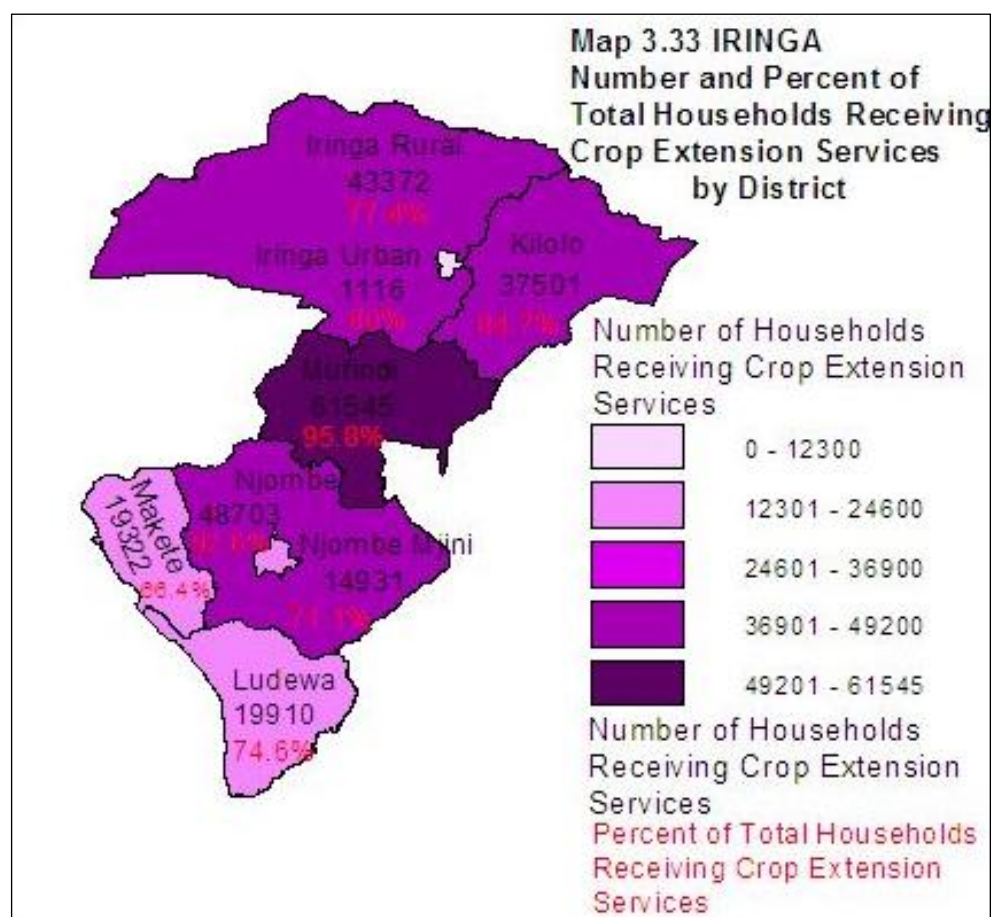
Kilolo and Iringa Rural districts had the highest number of terraces erosion control structures, while Njombe Urban and Kilolo were leading in terms of erosion control bunds. Vetiver grass and tree belts were more common in Njombe whilst, water harvesting structures and drainage ditches were most abundant in Mufindi district, (Table 3.12).



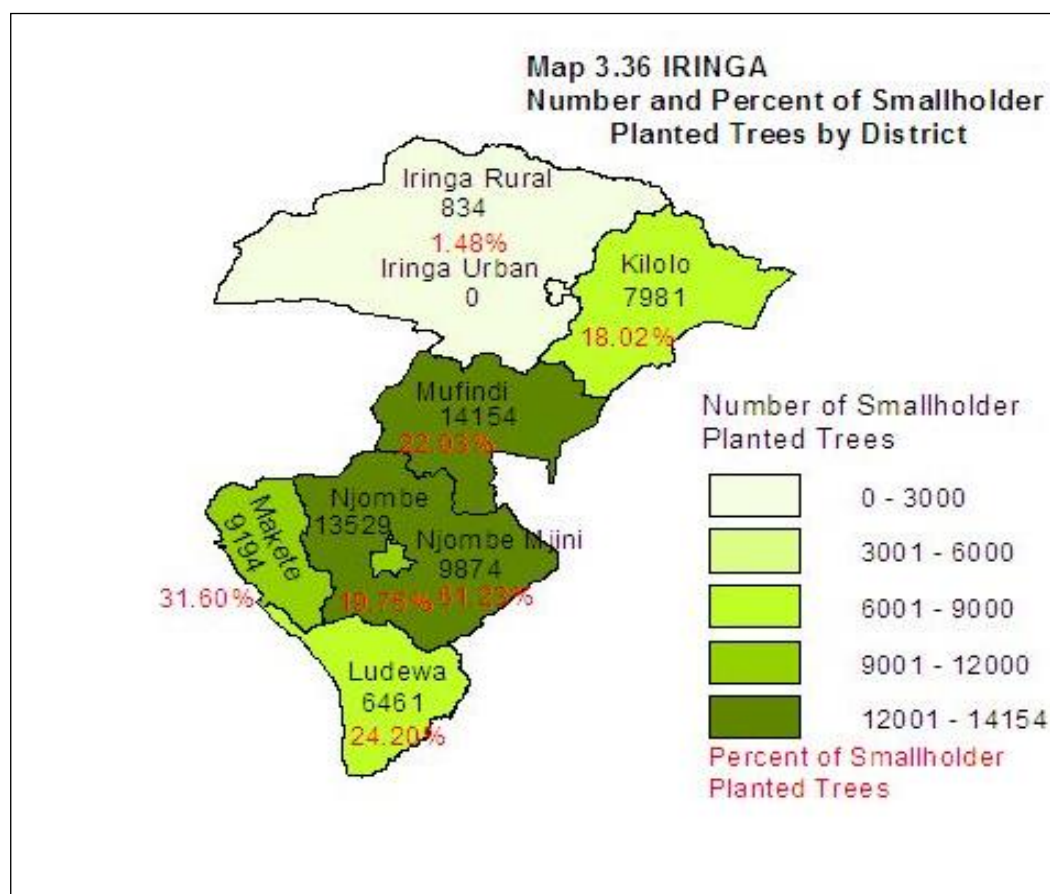
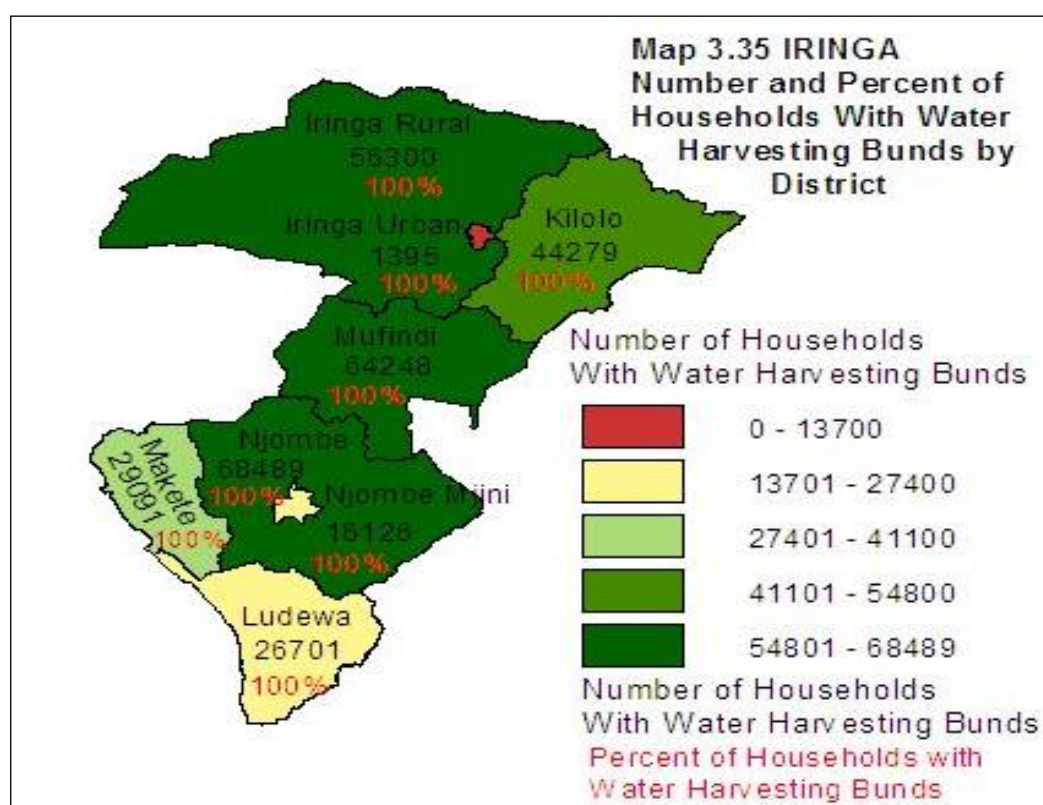
**Table 3.12: Number of Erosion Control Structures by Type and by District**

District	Terraces	Erosion Control Bunds	Gabions/ Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches	Others
Iringa Rural	10,704	19,323	1,251	3,336	0	3,336	1,390	0
Mufindi	9,701	24,332	0	12,086	159	15,267	10,178	0
Makete	2,370	7,255	0	0	287	575	144	0
Njombe	0	25,366	846	45,659	3,044	6,764	2,198	5,411
Ludewa	3,428	5,670	0	264	527	1,516	1,846	66
Iringa Urban	47	2,573	155	62	0	0	93	0
Kilolo	528,510	66,802	437	6,997	1,968	3,389	656	328
Njombe urban	6,570	296,990	0	119	597	836	2,309	478
<b>Total</b>	<b>561,330</b>	<b>448,311</b>	<b>2,689</b>	<b>68,524</b>	<b>6,583</b>	<b>31,684</b>	<b>18,814</b>	<b>6,283</b>









### 3.10 LIVESTOCK RESULTS

Cattle are the dominant livestock type in the region followed by goats, sheep and pigs.

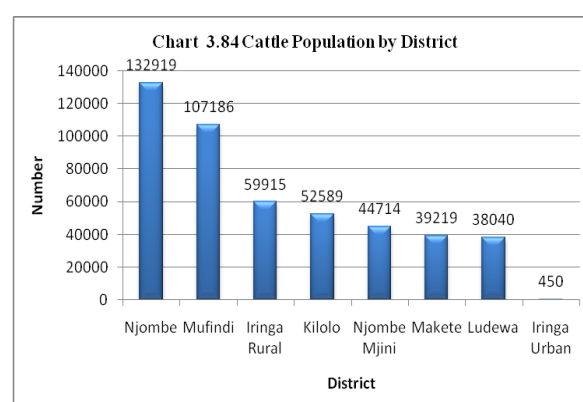
#### 3.10.1 Cattle production

##### Cattle Population

The total number of cattle in the region was 475,031 and it ranked fifteenth in the Mainland in which it held 2.2 percent of the total cattle population. The number of indigenous cattle in Iringa region was 459,275 (96.7% of the total number of cattle in the region), improved dairy cattle (14,258 cattle, 3%) and beef cattle (1,498 cattle, 0.3%).

The census results show that 57,600 agricultural households in the region (19% of total agricultural households) kept 0.475 million cattle. This was equivalent to an average of 8 heads of cattle per cattle keeping household.

The district with the largest number of cattle was Njombe which had about 132,919 cattle (28% of the total cattle in the region). This was followed by Mufindi (107,186 cattle, 22.6%), Iringa Rural (59,915 cattle, 12.6%), Kilolo (52,589 cattle, 11.1%), Njombe Urban (44,714 cattle, 9.4%), Ludewa (38,040 cattle, 8%) and Iringa Urban (450 cattle, 0.1), (Chart 3.84).



The number of dairy cattle was very small and the number of beef cattle was insignificant. Mufindi district had the largest number of dairy cattle in the region followed by Makete, Ludewa and Njombe Urban. Beef cattle were mainly found in Njombe, Makete Kilolo, Ludewa, and Njombe Urban. No beef cattle were found in Iringa Rural, Mufindi and Iringa Urban, (Table 3.13).

**Table 3.13: Number of Cattle by District**

District	Indigenous	Improved Beef	Improved Dairy
Iringa Rural	58,941	0	973
Mufindi	101,938	0	5,248
Makete	35,125	359	3,735
Njombe	131,397	507	1,015
Ludewa	36,326	264	1,450
Iringa Urban	295	0	155
Kilolo	51,933	328	328
Njombe urban	43,320	40	1,354

### Cattle Population Trend

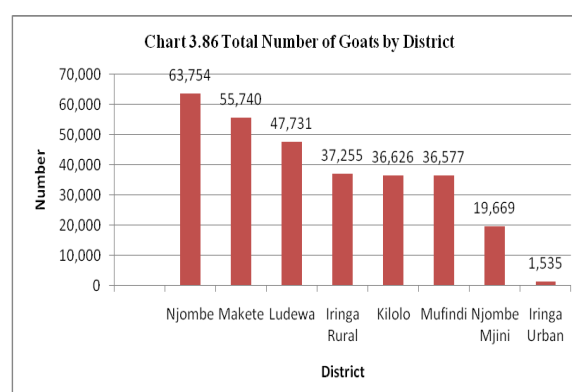
Cattle population in Iringa region increased during the period of eight years from 364,693 in 1995 to 420,954 cattle in 2003. This trend depicts an overall annual positive growth rate of 14.5 percent. However, there was a very sharp increase in the number of cattle for the period of four years from 1995 to 1999 at a rate of 24.3 percent, after which the number decreased from 626,424 in 1999 to 420,954 in 2003 at the rate of 5.5 percent. There was a slight increase between 2003 and 2008, where the number increased from 420,954 to 475,031 (Chart 3.85). The population of dairy cattle had declined from 17,522 in 2003 to 14,258 in 2008 while that of beef cattle decreased from 1,659 to 1,498 between the two census periods.

### 3.10.2 Goat Production

Goat rearing was the second most important livestock keeping activity in Iringa region. In terms of total number of goats on the Mainland, Iringa region dropped from the tenth position in 2003 to 17 in 2008 out of the 21 regions with 2 percent of the total goats on the Mainland.

### Goat Population

The number of goat-rearing-households in Iringa region was 48,188 (15.7% of all agricultural households in the region) with a total of 298,887 goats giving an average of 6 heads of goats per goat-rearing-household. Njombe had the largest number of goats (63,754 goats, 21.3% of all goats in the region), followed by Makete (55,740 goats, 18.6%), Ludewa (47,731 goats, 16%), Iringa

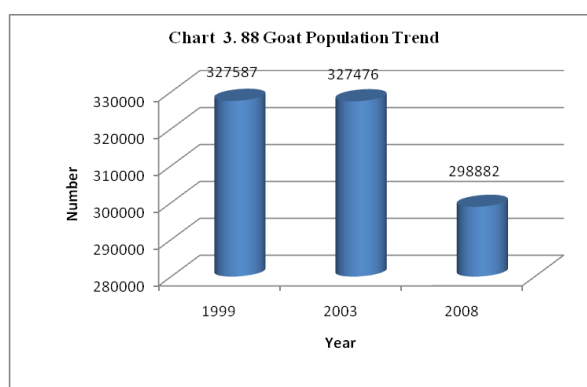
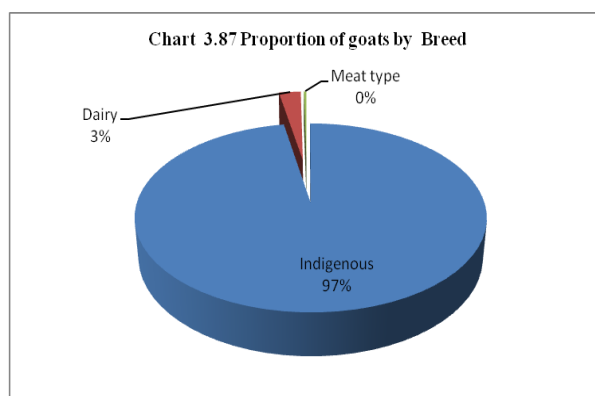




Rural (37,255 goats, 12.5%), Kilolo ( 36,626 goats, 12.3%), Mufindi (36,577 goats, 12.2%), Njombe Urban (19,669 goats, 6.6%) and Iringa Urban (1,535 goats, 0.5%), (Chart 3.86).

### Goat Breeds

Goat husbandry in the region was dominated by the indigenous breeds that constituted 97.2 percent of the total goats in Iringa region. Indigenous goats were raised by 47,454 households. There were 1,337 households raising 7,522 improved dairy goats (2.5% of the goats population) and 112 households raising 868 (0.3 percent of goat population) improved meat goats, (Char 3.87).



### Goat Population Trend

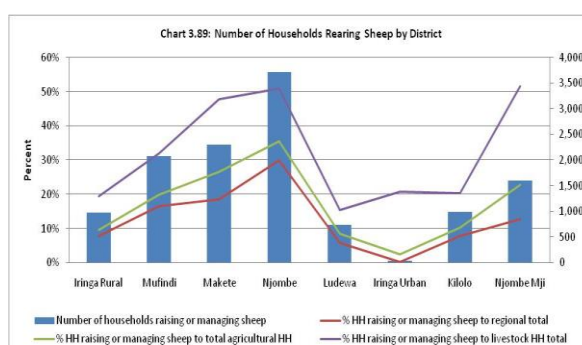
The overall annual growth rate of goat population from 1999 to 2008 was -0.91 percent. There was virtually no increase in goat numbers between 1999 and 2003 while the number declined sharply from 2003 to 2008 at an annual rate of 1.8 percent (Chart 3.88).

### 3.10.3 Sheep Production

Sheep rearing was the third most important livestock keeping activity in Iringa region after cattle and goats. The region ranked 15 out of 21 Mainland regions and had 0.2 percent of all sheep on Tanzania Mainland.

### Sheep Population

The number of sheep-rearing households was 12,392 (4% of all agricultural households and 14% of livestock rearing households in Tanzania Mainland, (Chart 3.89).



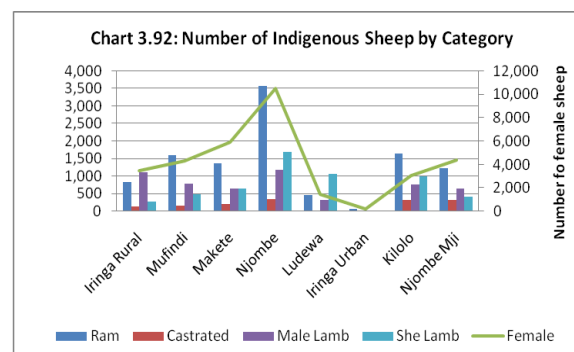
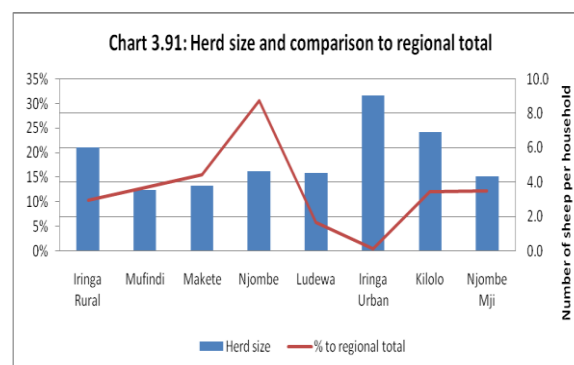
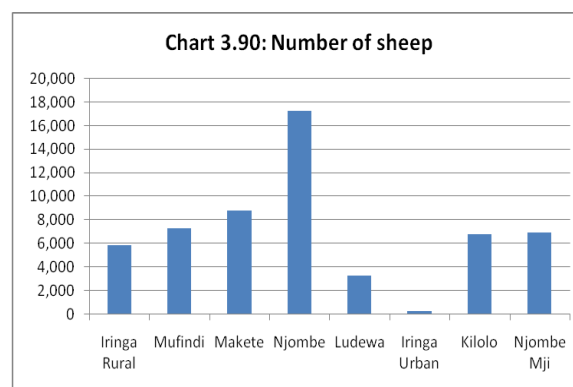
The total number of sheep in Iringa region was 56,448 sheep, giving an average of 4.5 heads of sheep per sheep-rearing household. The district with the largest number of sheep was Njombe with 17,249 sheep (30.6% of total sheep in Iringa region), followed by Makete (8,763, 15.5%), Mufindi (7,315, 12.9%), Kilolo (6,779, 12%), Njombe Urban (6,928, 12.3%) Iringa Rural (5,839, 10.3%) and Iringa urban (279, 0.5%), (Chart 3.90, Chart 3.91).

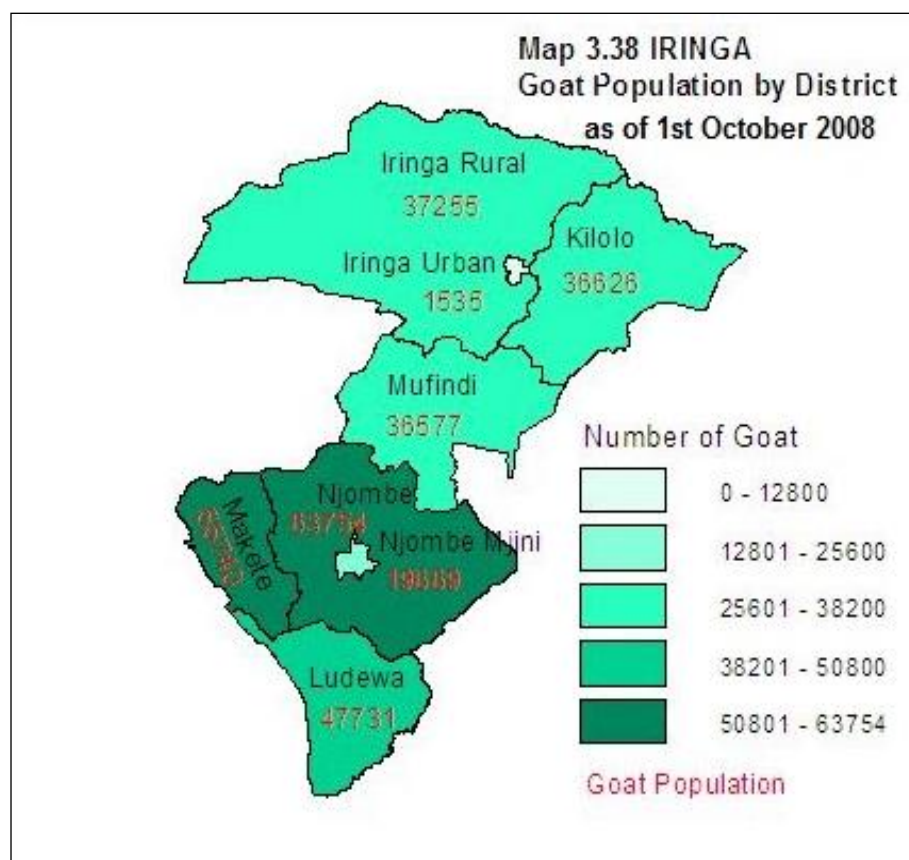
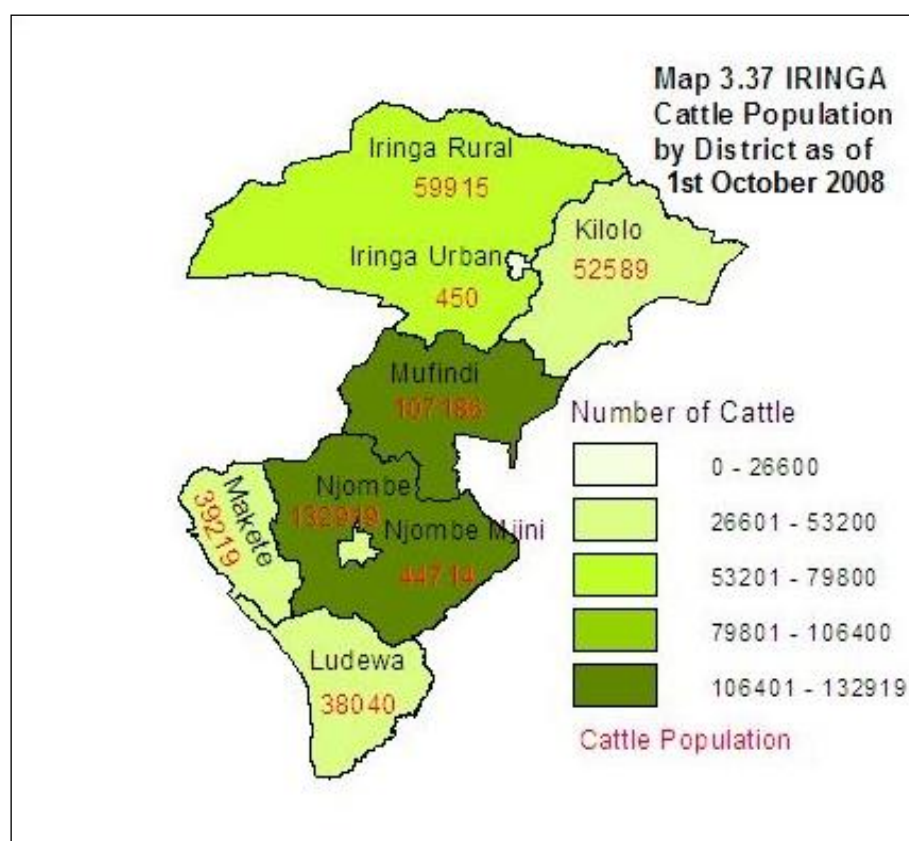
Sheep rearing was dominated by indigenous breeds that constituted 100 percent of all sheep kept in the region.

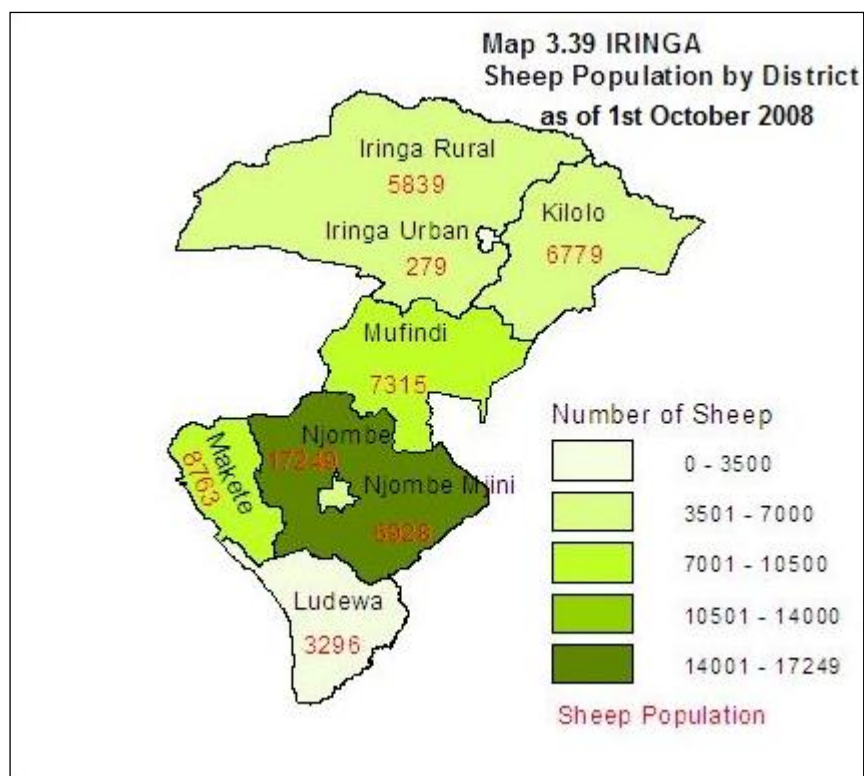
Iringa region had a total of 56,448 indigenous sheep; of which 59% were female, 19% were ram, 9.8% were she lamb, 9.7% were male lamb and 3% were castrated, (Chart 3.92).

### Sheep Population Trend

The overall annual growth rate of the sheep population over the thirteen year period from 1995 to 2008 was -0.06 percent and between 2003 and 2008 it was -3.5%. The population decreased at an annual rate of 0.01 percent from 56,875 in 1995 to 56,448 in 2008. The declining trend was also reported in previous census.







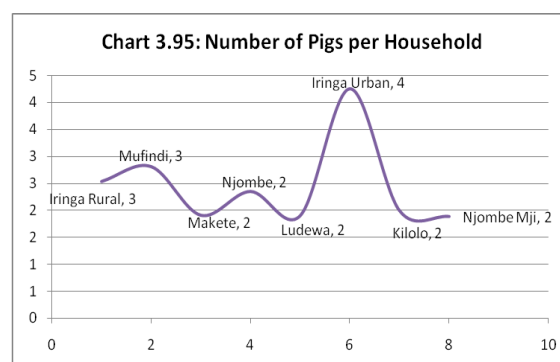
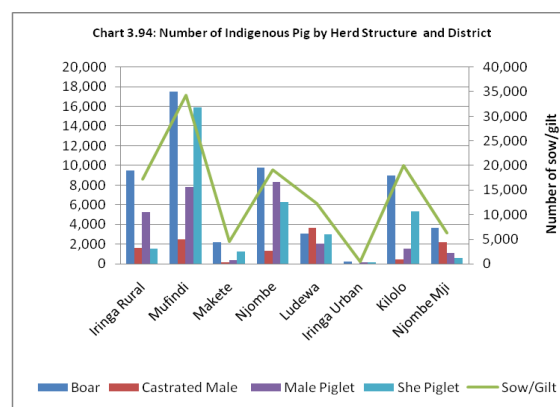
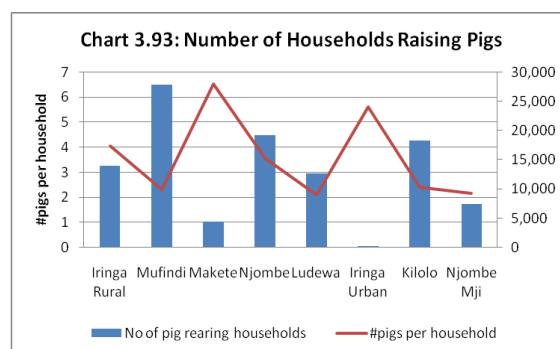
### 3.10.4 Pig Production

Pigs were the least important livestock in the region after cattle, goats and sheep. However, the region ranks 2 out of 21 Mainland regions and had 15 percent of the total pigs on the Mainland.

The number of pig-rearing agricultural households in Iringa region was 103,865 (33.9% of the total agricultural households in the region) rearing 241,829 pigs. This gives an average of 2 pigs per pig-rearing household

The district with the largest number of pigs was Mufindi with 78,084 pigs (32.3% of the total pig population in the region), followed by Njombe (44,814 pigs, 18.5%), Kilolo (36,298 pigs, 15%), Iringa Rural (35,170 pigs, 14.5%), Ludewa (23,998 pigs, 9.9%), Njombe Urban (13,936 pigs, 5.8%), Makete (8,476 pigs, 3.5%) and Iringa Urban (1,054 pigs, 0.4%), (Chart 3. 94).

Iringa region had an average flock size of 2 pigs per households. Iringa urban had an average of 4 pigs per household followed by Mufindi, Iringa rural (3) and the rest of districts (2) (Chart 3.95)



### Pig Population Trend

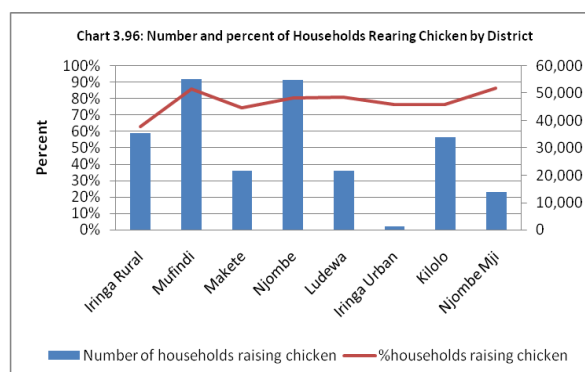
The overall annual growth rate of the pig population for the thirteen years period from 1995 to 2008 was 9.1 percent. During this period the pig population grew from 78,419 in 1995 to 241,829 in 2008, representing an annual growth rate of 8.1 percent. In the period between 2003 and 2008 the annual growth rate was 3.5 percent and the pig population increased from 180,904 to 241,829. The increase in number of pigs could be explained by the doubling in number of households raising pigs. In 2003 there were 67,979 households raising pigs and by 2008 the number has increased to 103,865.

### 3.10.5 Chicken Production

The poultry sector in Iringa region was dominated by chicken production. The region contributed 6.7 percent to the total chicken population on Tanzania Mainland.

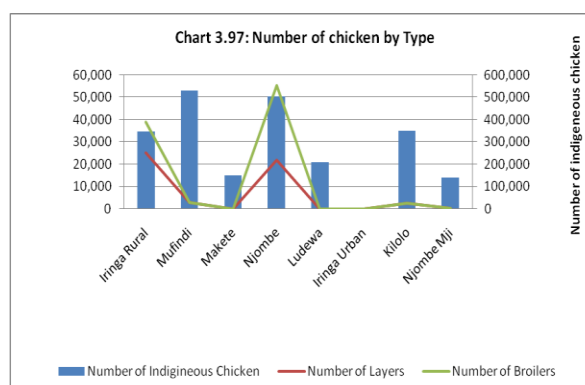
#### Chicken Population

The number of households keeping chicken was 237,735, raising about 2,343,579 chicken. This gives an average of 9.9 chicken per chicken-rearing household. In terms of total number of chicken in the country, Iringa region ranked 6<sup>th</sup> out of the 21 Mainland regions (Chart 3.96).



Iringa region reared various types of chicken of which 96% were indigenous, 2% layers and 2% broilers.

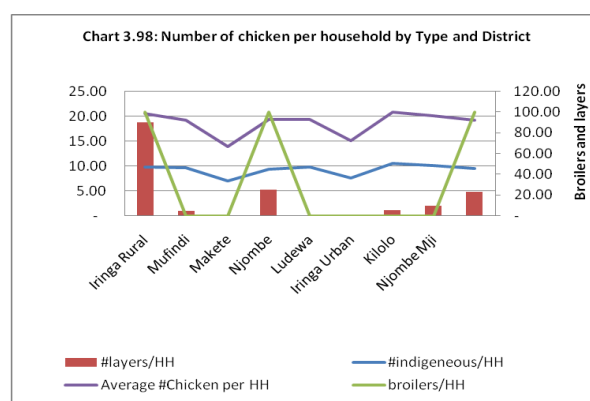
The district with largest number of chicken was Njombe with 560,086 chicken (23.9% of the total chicken in the region), followed by Mufindi (535,454 chicken, 22.8%), Iringa Rural (384,927 chicken, 16.4%), Kilolo (352,705 chicken, 15%), Ludewa (210,573 chicken, 9%), and Makete (150,842 chicken 6.4%). Njombe Urban and Iringa Urban had the least number of chicken (140,870 chicken, 6% and 8,123 chickens, 0.3% respectively)



Of the 2,243,187 indigeneous chicken kept in the region, 24% were found in Mufindi followed by Njombe (23%), Kilolo (16%), Iringa Rural (15%), Ludewa (9%), Makete (7%) Njombe Urban (6%) and Iringa Urban (4%). Of the 52,668 layers kept in the region, 48% were found in Iringa Rural, Njombe Rural (41%), Mufindi (6%), Kilolo (5%), Njombe Urban (1%), and Ludewa (0.13%). No layers were reported in Makete and Iringa Urban. Of the 47,723 broilers kept in the region, 71% were found in Njombe and the rest 29% were found in Iringa Rural district. No broilers were reported in the remaining districts.



In terms of chicken rearing per household, broilers were leading by having 100 chicken on average per household (Chart 3.98) followed by layers which had 23 chicken per households with district differences ranging from 1 chick per HH in Ludewa, Mufindi (5), Kilolo (6), Njombe rural (26) and Iringa rural (90). Indigenous chicken were last at an average of 9.5 chicken per



household but also with district differences ranging from 7 chicken per household in Makete and Iringa urban (8). The average in other district did not deviate significantly from the regional average.

### Chicken Population Trend

The overall annual chicken population growth rate during the eight-year period from 1995 to 2008 was 3.3 percent. Most of the increase occurred during the four year period from 1999 to 2003 when the chicken population increased from 1,644,795 to 2,241,683. Between 2003 and 2008 there was a small growth of only 0.89% annually in chicken numbers.

### Improved Chicken (Layers and Broilers)

Layers chicken population in Iringa region have decreased at an annual rate of 8.54 percent for the period of five years from 82,311 in 2003 to 52,668 in 2008. The number of layers was most significant in Iringa rural with 25,022 chicken (48%), followed by Njombe (21,646 layers, 41%), Mufindi (3,022 layers, 6%) and Kilolo (2,515 layers, 5%). Other district had insignificant number of layers.

The overall annual growth rate for broilers between 1995 and 2003 was 100 percent during which the population grew from 0 to 2,179. Between 2003 and 2008 the annual growth was 85% and the number of broiler increased from 2,179 to 47,723. Most (71%) of the broiler were raised in Njombe district and the remaining 29% were raised in Iringa rural. Other district had insignificant number of broilers.

### Other livestock

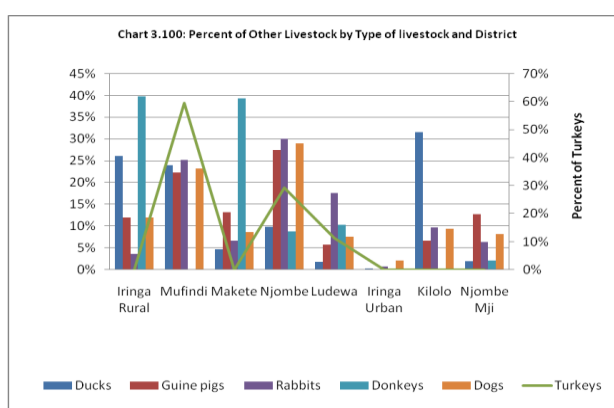
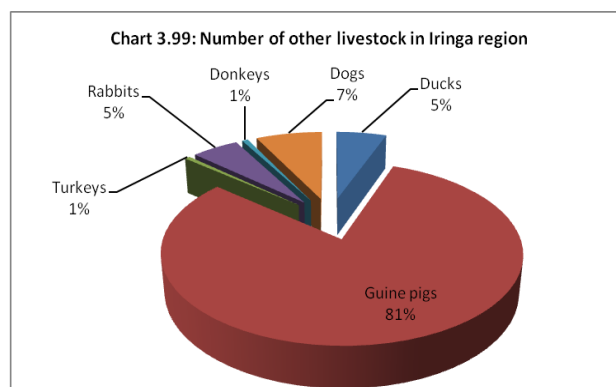
Iringa region had a total of 473,339 guinea pigs, 43,156 dogs, 32,579 ducks, 30,364 rabbits, 3,851 donkeys, 3,478 turkeys and raised by the agricultural households (Table 3.14, Chart 3.99). The biggest number of ducks was found in Kilolo district which had 32% of all ducks found in Iringa region (Chart 3.100). This was followed by Iringa Rural (26%), Mufindi (24%), Njombe (10%), Makete (5%) Njombe Urban (2%) and Iringa Urban (0.2%). The biggest number of guinea pigs was

**Table 3.14: Number of Other Livestock by Type of livestock and District**

District	Ducks	Guinea pigs	Turkeys	Rabbits	Donkeys	Dogs
Iringa Rural	8,480	56,717	0	1,112	1,529	5,143
Mufindi	7,792	105,278	2,067	7,633	0	10,019
Makete	1,508	62,420	0	2,011	1,508	3,735
Njombe	3,213	129,706	1,015	9,132	338	12,514
Ludewa	593	27,162	396	5,340	396	3,296
Iringa Urban	78	78	0	233	0	899
Kilolo	10,277	31,378	0	2,952	0	4,045
Njombe Mji	637	60,601	0	1,951	80	3,504
<b>Total</b>	<b>32,579</b>	<b>473,339</b>	<b>3,478</b>	<b>30,364</b>	<b>3,851</b>	<b>43,156</b>

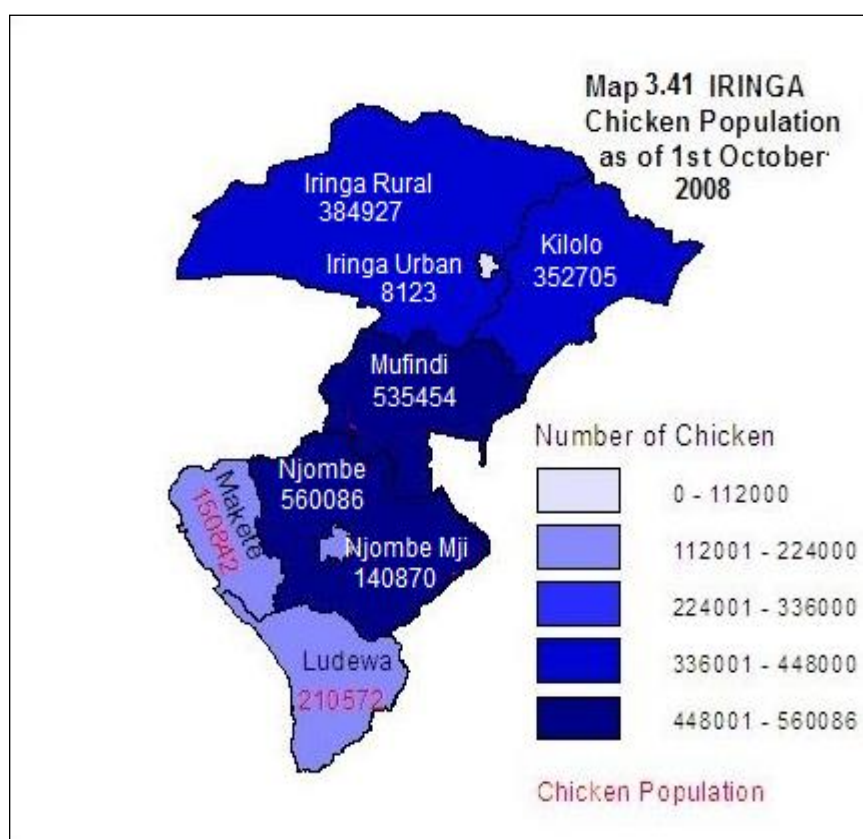
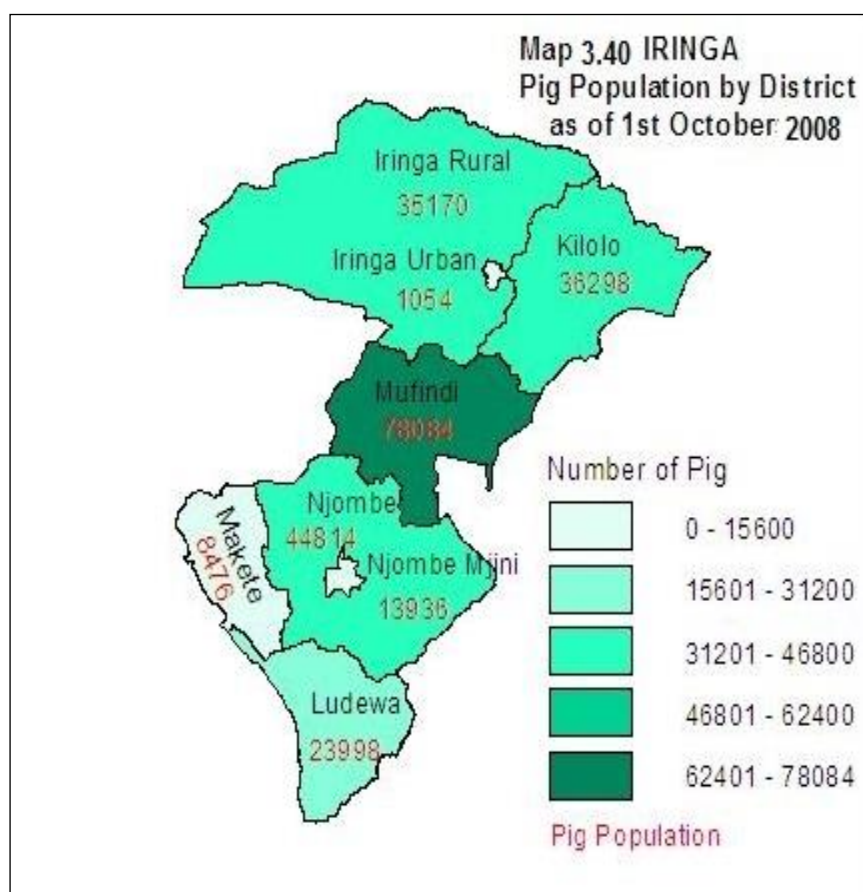
found in Njombe district which had 27% of all guinea pigs found in Iringa region. This was followed by Mufindi (22%), Njombe Urban and Makete (13% each), Iringa Rural (12%),

Kilolo (7%) Ludewa (6%) and Iringa Urban (0.02%). The biggest number of turkeys was found in Mufindi district which had 59% of all turkeys found in Iringa region. This was followed by Njombe Rural (29%) and Ludewa (11%). No guinea pigs were reported in the rest of the districts. The biggest number of rabbits was found in Njombe district which had 30% of all rabbits found in Iringa region. This was followed by Mufindi (25%), Ludewa (18%), Kilolo (10%), Makete (7%) Njombe Urban (6%), Iringa Rural (4%) and Iringa Urban (1%). The biggest number of donkeys was found in Iringa Rural district which had 40% of all donkeys found in Iringa region. This was followed by Makete (39%), Ludewa (10%), Njombe Rural (9%) and Njombe Urban (2%). No guinea pigs were reported in the rest of the districts.





Iringa is one of regions in Tanzania with the biggest and relatively evenly distributed number of dogs within its districts. The biggest number of dogs was found in Njombe district which had 29% of all dogs found in Iringa region. This was followed by Mufindi (23%), Iringa Rural (12%), Makete and Kilolo (9% each), Njombe Urban and Ludewa (8% each) and Iringa Urban (2%).

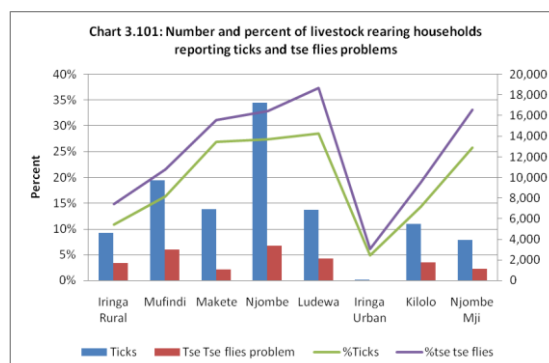


### 3.11 Pest and Parasite Incidence and Control

The main pests and parasites found in Iringa region were ticks and tse tse flies. The livestock diseases include Newcastle, fowl typhoid and foot & mouth disease.

#### 3.11.1 Ticks and Tse tse fly

Ticks and tse flies problem has been reported by 268,258 and 268,370 livestock rearing households in Irinag region respectively. The results indicate that 20 percent and 6 percent of the total livestock-keeping households reported to have encountered ticks and tsetse-fly problems respectively. Chart 3.101 shows that there is a predominance of tick related diseases



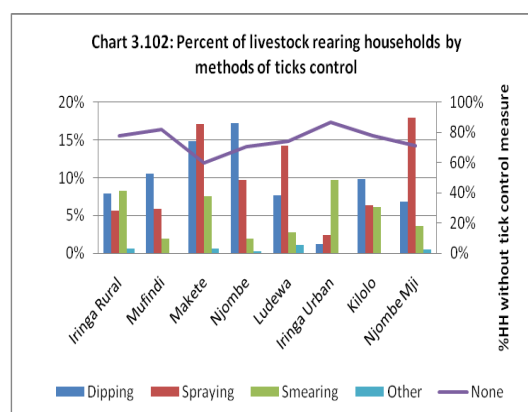
over tsetse related diseases. Incidences of both problems were highest in Ludewa district and lowest in Iringa urban. Higher incidences of ticks were also encountered in Ludewa (29%), Njombe (27%), Makete (27%), and Njombe Urban (26%)

However, compared to 2003 census the incidence of tick and tsetse problems have been reduced substantially. Reported values for 2003 showed that 27 and 15 percent of the households reported cases of ticks and tsetse.

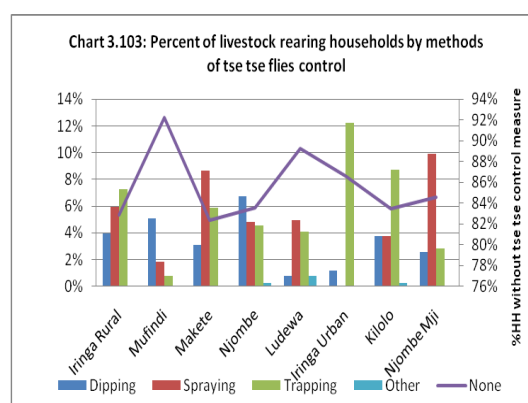
**Table 3.15: Number of Livestock Rearing Households by Method of Tick and Tsetse Control and District**

District	Dipping		Spraying		Smearing		None		Other		Total	
	Ticks	Tse tse flies	Ticks	Tse tse flies	Ticks	Tse tse flies	Ticks	Tse tse flies	Ticks	Tse tse flies	Ticks	Tse tse flies
Iringa Rural	3,336	1,668	2,363	2,502	3,475	3,058	32,807	35,031	278	0	42,260	42,260
Mufindi	6,202	3,022	3,499	1,113	1,113	477	48,345	54,547	0	0	59,159	59,159
Makete	3,807	790	4,382	2,227	1,939	1,508	15,372	21,190	144	0	25,643	25,715
Njombe	10,823	4,228	6,088	3,044	1,184	2,875	44,475	52,424	169	169	62,739	62,739
Ludewa	1,846	198	3,428	1,187	659	989	17,800	21,426	264	198	23,998	23,998
Iringa Urban	16	16	31	0	124	155	1,101	1,101	0	0	1,271	1,271
Kilolo	3,717	1,421	2,405	1,421	2,296	3,280	29,301	31,488	0	109	37,719	37,719
Njombe Mji	1,035	398	2,747	1,513	557	438	10,870	12,940	80	0	15,289	15,289
<b>Total</b>	<b>30,782</b>	<b>11,740</b>	<b>24,943</b>	<b>13,007</b>	<b>11,348</b>	<b>12,781</b>	<b>200,071</b>	<b>230,147</b>	<b>934</b>	<b>476</b>	<b>268,079</b>	<b>268,151</b>

About seventy five percent of all livestock rearing households did not use any tick control measures (Chart 3.102). This was most prominent in Mufindi district which had 24% of all livestock rearing households not using any tick control measure followed by Njombe (22%), Iringa Rural (16%), Kilolo (15%), Ludewa (9%), Makete (8%), Njombe urban (5%) and Iringa urban (1%).



The most practiced method of tick controlling was dipping with 11.5 percent of all livestock-rearing households in the region using the method followed by spraying (9%), smearing (4%) and other traditional methods like hand picking (0.3%). Njombe Rural district was leading in using the dipping method by having 35% of all livestock rearing households using this method followed by Mufindi (20%), Makete and Kilolo (12% each), Iringa Rural (11%), Ludewa (6%) and Njombe Urban (3%). Njombe Rural district was leading in using the spraying method by having 24% of all livestock rearing households using this method followed by Makete (18%), Mufindi and Ludewa (14% each), Mufindi (9%), Njombe Urban (11%) and Kilolo (10%). Iringa Rural (9%)



Eight six percent (86%) of livestock-keeping households did not use any method. The most common method used to control tsetse flies were spraying which was practiced by 4.9 percent of livestock rearing households; this was followed by trapping (4.8%) and dipping (4.4%). Like in ticks control greater majority of households did not use any of the three aforementioned methods, (Table 3.15).

### 3.11.2 De-worming

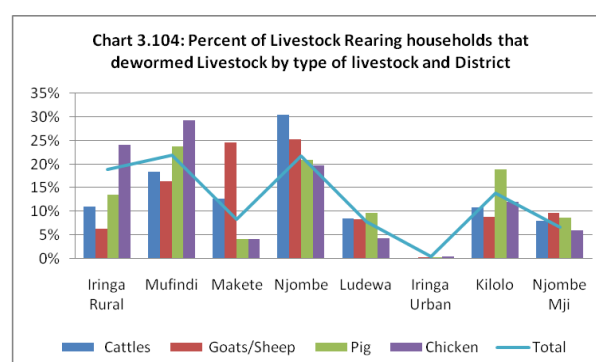
Livestock rearing households that de-wormed their animals were 148,702. Chicken were deworming by 55% of livestock rearing households followed by pigs (47%), cattle (29%) and goats/sheep (18%) (Chart 3.104). Higher proportion of chicken were dewormed in Iringa rural and Mufindi compared to other districts, while higher of household deworming pigs were

**Table 3.16: Number of Livestock Rearing Households that Dewormed Livestock by Type of Livestock and District**

District	Cattles	Goats/Sheep	Pig	Chicken	Total HH
Iringa Rural	4,726	1,668	9,453	19,740	28,220
Mufindi	7,952	4,294	16,539	24,014	32,601
Makete	5,459	6,393	2,873	3,376	12,427
Njombe	13,190	6,595	14,543	16,234	32,469
Ludewa	3,692	2,176	6,791	3,560	11,669
Iringa Urban	31	109	217	357	729
Kilolo	4,701	2,296	13,120	9,840	20,554
Njombe Mji	3,464	2,508	6,092	4,977	10,034
<b>Total</b>	<b>43,216</b>	<b>26,039</b>	<b>69,628</b>	<b>82,097</b>	<b>148,702</b>

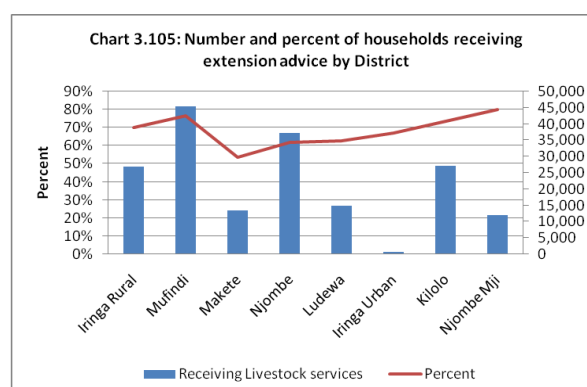
found in Iringa rural, Kilolo, Njombe Urban and Mufindi (at least 50% of the households). As for cattle household deworming were less than 50% and higher proportion was reported in Makete followed by Njombe, Kilolo and Njombe urban. Iringa rural and Ludewa had fewer households deworming their cattle, (Table 3.16).

For sheep and goats, more household dewormed their animals than in other livestock (50%). For the remaining districts the proportion of households reporting to deworm sheep and goats ranged from 5 to 23 percent, lowest value being reported in Iringa rural.

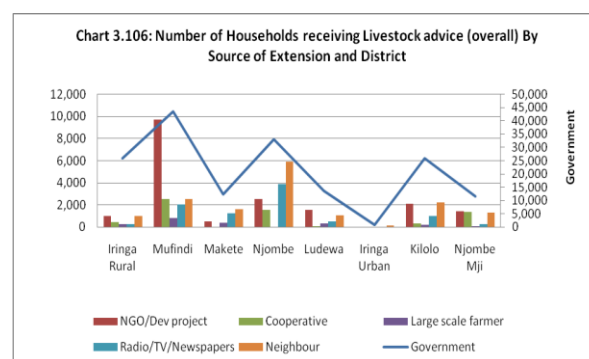


### 3.12 Access to Livestock Extension Services

The total number of households that received livestock advice was about 177,915 representing 69 percent of the total livestock rearing households and 31 percent of the agricultural households in the region (Chart 3.105).



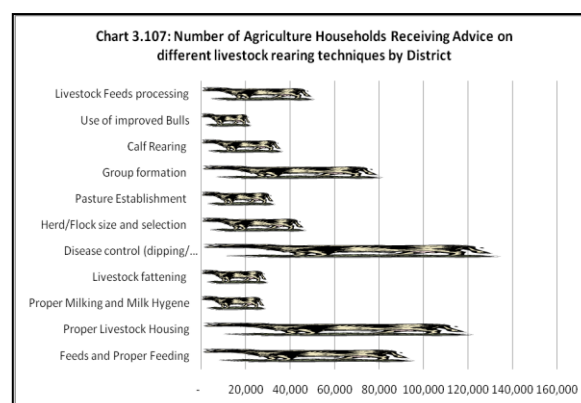
The main livestock extension agent was the government which provided service to 94 percent of all households receiving livestock extension services (Chart 3.106). The rest of the households got services from NGOs/development projects (11%), neighbours (9%), radio/TV/newspaper (5%), co-operatives (4%) and large scale famers (1%).



### Livestock extension messages

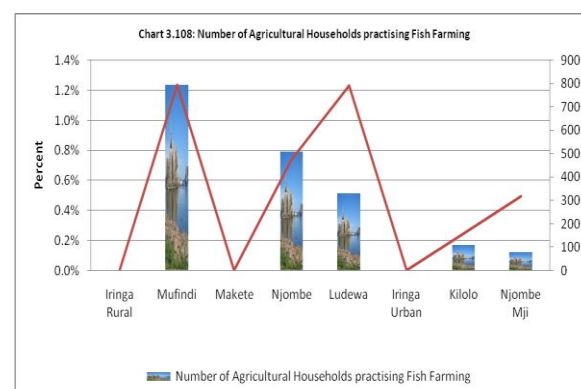
Table 3.19: Number of Agriculture Households Receiving Advice on different livestock rearing techniques by District

Messages on livestock disease was received by the biggest number of livestock rearing households (136,488) followed by proper livestock housing (123,826), feeds and proper feeding (97,291), group formation (82,883), livestock feeds processing (51,974) and other messages (Table 3.21, Chart 3.107).

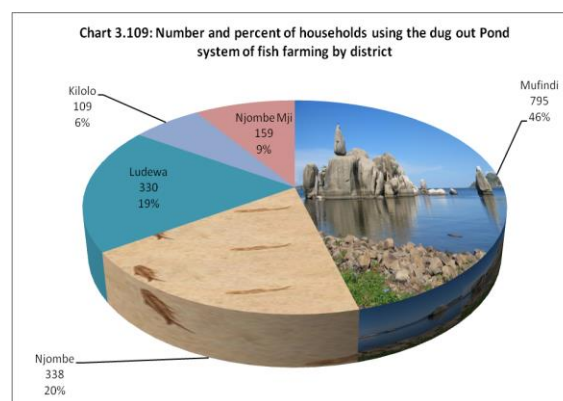


### 3.13 Fish Farming

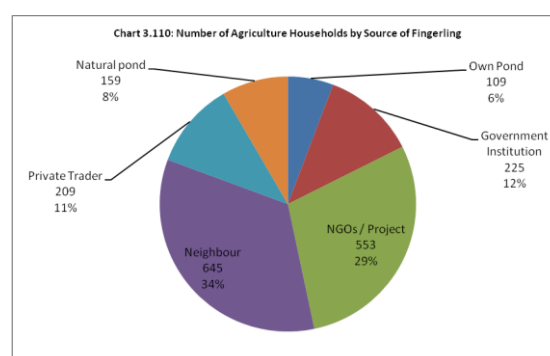
The number of households involved in fish farming in Iringa region was 1,821 representing 0.6 percent of the total agricultural households in Iringa region, (Chart 3.108). Mufindi was the leading district with 795 households (44% of agricultural households) involved in fish farming. This was followed by Njombe (507 households, 28%), Ludewa (330 households, 18%), Kilolo (109 households, 6%) and Njombe Urban (80 households, 4%). The number of household practicing fishing has decline from 3,293 household in 2003 to 1,821 in 2008 (-44.7%).



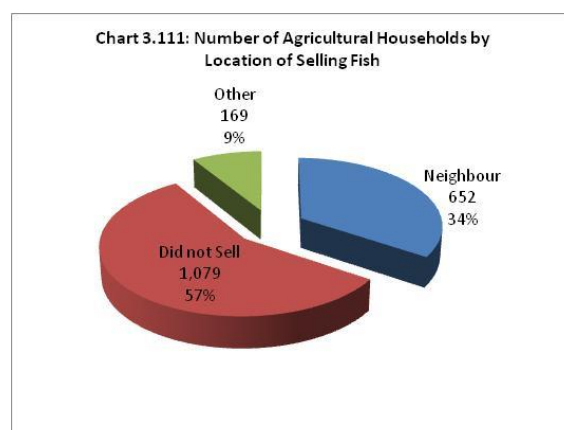
Only Njombe district had 169 agricultural households using natural pond as a system of fish farming in Iringa region. All districts except Iringa Urban & Rural and Makete used the dug-out-ponds and the main fish specie planted is tilapia. Mufindi district was leading by having 795 or 46% of all agricultural households in Iringa region practicing dug-out pond system of fish farming. This was followed by Njombe (20%), Ludewa (19%), Njombe Urban (9%) and Kilolo (6%) (Chart 3.109).



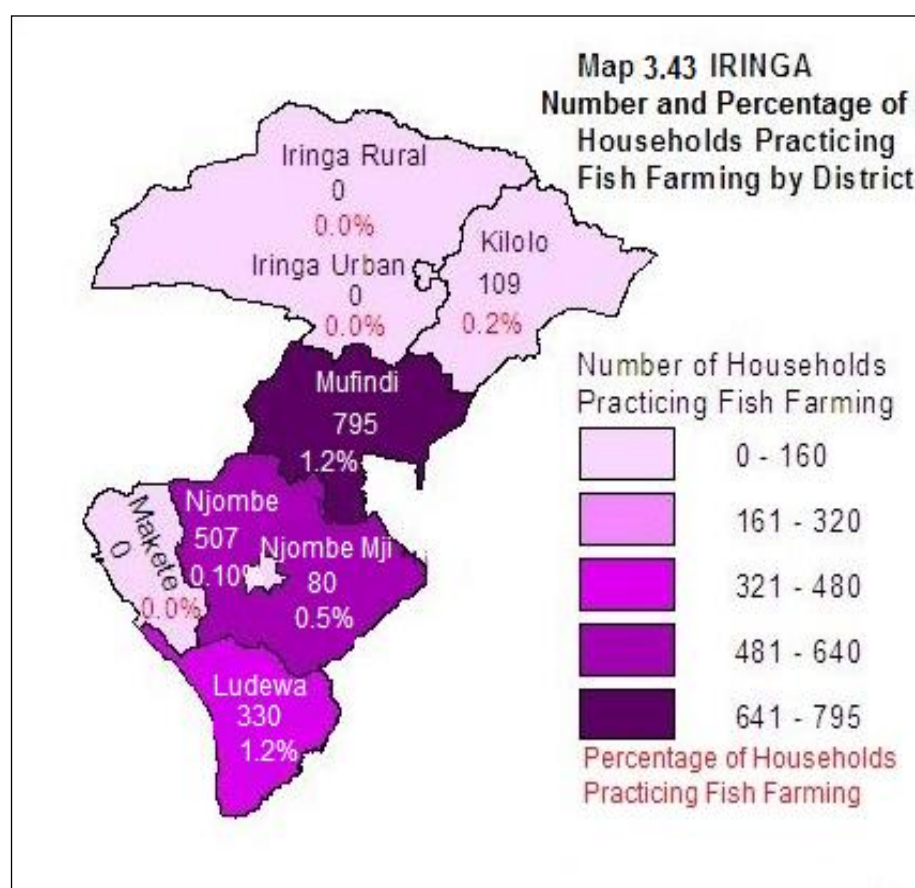
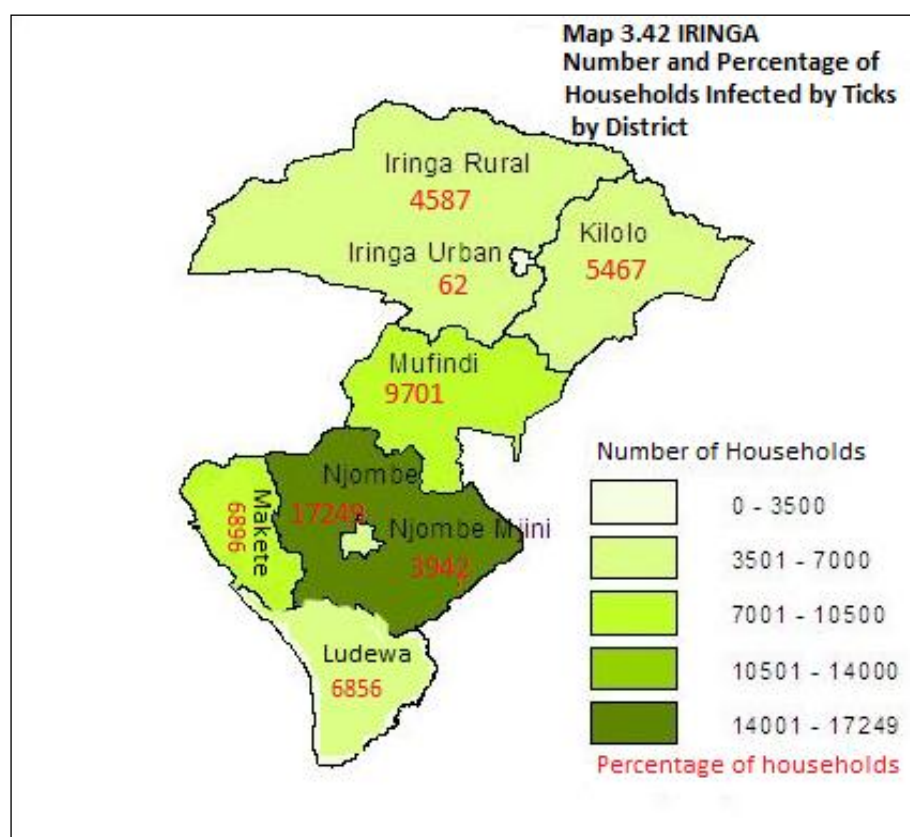
Fingerlings were obtained from neighbors (34%), NGO's/projects (29%), government institutions (12%), private traders (11%), natural ponds (8%) and own ponds (6%) (Chart 3.110).



About 34 percent of the fish farming households sold their fish to their neighbours, 9% sold to other outlets. 57 percent did not sell.









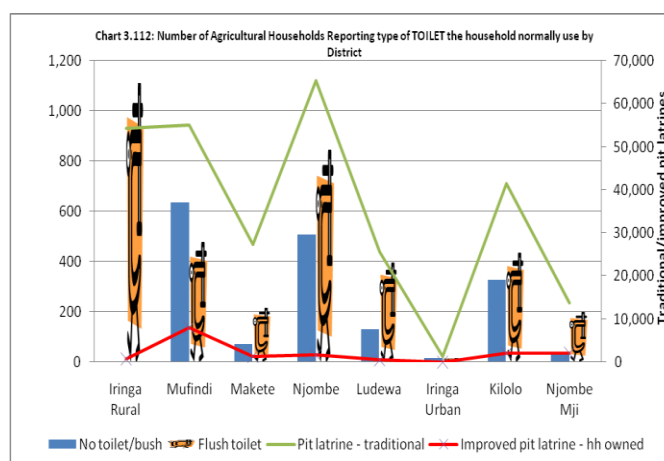
### 3.14 POVERTY INDICATORS

The agricultural Census aimed at getting information that would give an indication of the level of poverty in the rural areas of Tanzania. The information will also be used as a base for tracking progress in poverty reduction strategies undertaken by the government.

The poverty indicators analysed in this report are housefloor, wall and roofing materials, assets, energy, water, toilets, meat/fish consumption, food satisfaction and income source.

#### 3.14.1 Type of Toilets

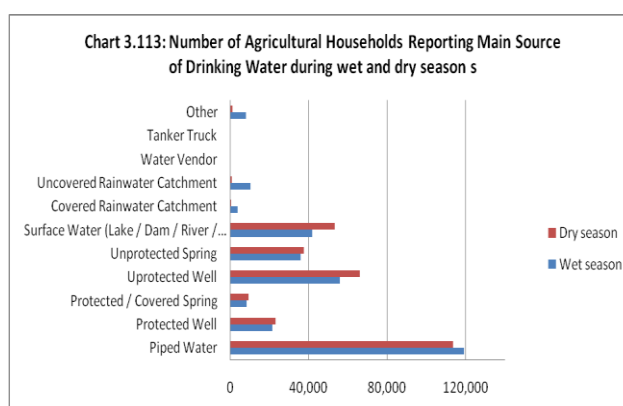
A large number of rural agricultural households in Iringa region use traditional pit latrines (284,343 households, 93% of all rural agricultural households), 3,698 households (1.2%) use flush toilet and 16,858 households (5%) use improved pit latrines. The remaining 1,730 households (1%) have no toilet facilities (Chart 3.112). The distribution of the households without toilets within the region indicates that 36.8 percent of them were found in Mufindi district, 29.3 % in Njombe and 19 % in Kilolo. The proportion of household without toilets in Ludewa, Makete and Njombe Urban and Iringa Urban were less than 8 percent. However, all households in Iringa Rural district had toilets.



While the proportion of traditional pit latrine has remained the same, while the one on improved pit latrine has increased from 2 percent in 2003 to 5 percent in 2008.

#### 3.14.2 Access to Drinking Water

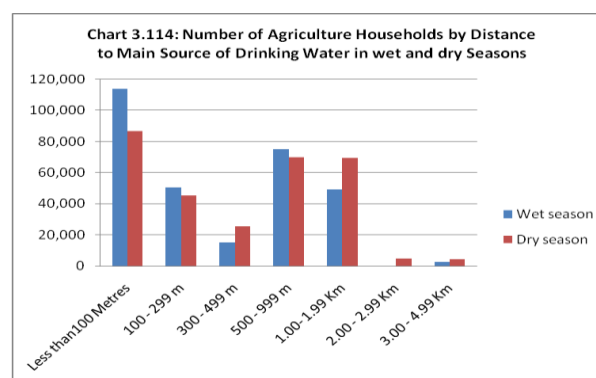
The main source of drinking water for rural agricultural households in Iringa region was pipe water with 37 percent of households using it as the main source during the dry season. This is followed by unprotected well (22% of households), surface water (17%), unprotected spring (12%), protected well (8%) and protected/covered spring (3%). Other sources of water are used by a very small numbers of households, (Chart 3.113).



The situation has not improved much compared to 2003 figures, when it was 32 percent for piped water, 22 percent for unprotected wells. However, the percent of household using water from protected spring/well declined from 18 percent to 3 percent between the census periods.

### Distance to the source of drinking water during wet and dry seasons

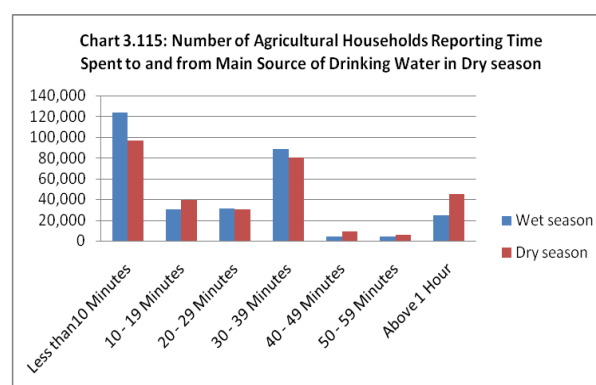
About 83 percent and 74 percent of the rural agricultural households in Iringa region obtained drinking water within a distance of less than one kilometer in the wet season and dry season respectively. However, 16 percent of the agricultural households obtained drinking water



from a distance of one to two kilometers during wet season compared to 23 percent during the dry season. The proportion that got water from a distance of more than two kilometers was about 10%.

### Time spent to the water source

306,629 agricultural households in Iringa region reported to spend up to one hour to the water source. In general, majority of households spent less time to the water source in wet as compared to dry seasons. 31% and 40% of them spent less than one hour in dry and wet seasons respectively (Chart 3.115). 29% and 26% spent between 30-39

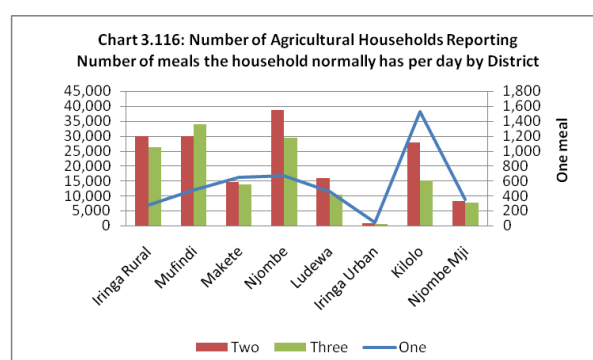


minutes to the water source during wet and dry seasons respectively. 10% and 13% spent between 10-19 minutes to the water source in wet and dry seasons respectively.

### 3.14.3 Food Consumption Patterns

#### 3.14.3.1 Number of Meals per Day

About one half of the households in Iringa region normally have 2 meals per day (165,352 households, 54 percent of the households in the region). This is followed by those having 3 meals per day (45%) and 1 meal per day (1%), (Chart 3.116). The proportion of household having two meals has dropped from 60 percent in 2003 to 54

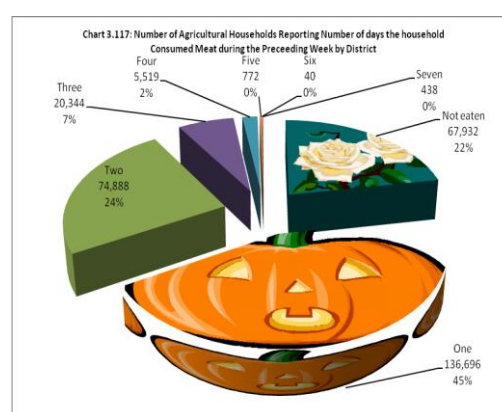


percent in 2008. This compensation resulted into an increase of those household having three meals from 37 percent to 45 percent in 2008.

The proportion of household having one meal per day was less than five percent in all districts. However, Kilolo, Ludewa and Njombe seem to relatively higher proportion of household having two meals per day than in the remaining districts. Mufindi district exhibited high proportion of households having three meals although the percentage were nearly equal to districts such as Makete, Njombe Urban, Iringa Rural and Iringa Urban.

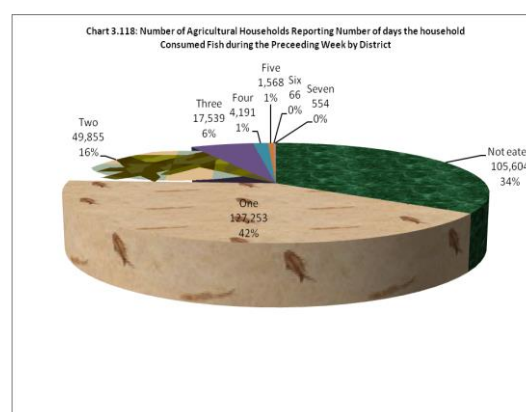
### 3.14.3.2 Meat Consumption Frequencies

The number of agricultural households in Iringa region that consumed meat during the week preceding the census was 238,697 (77.8% of the total agricultural household in the region) with 136,696 households (45% of those who consumed meat) consuming meat only once during the respective week. This was followed by those who had meat twice (24%). Very few households had meat three times (7%) or more times during the respective week (Chart 3.117).



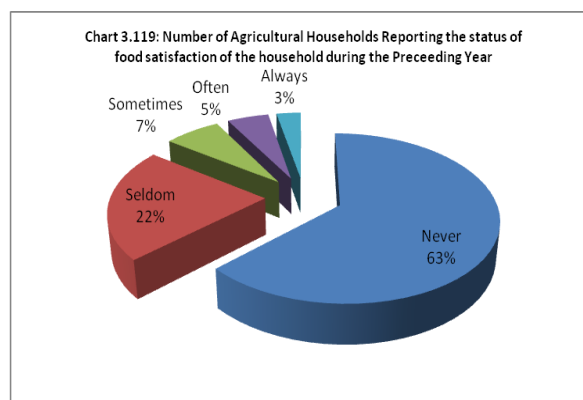
### 3.14.3.3 Fish Consumption Frequencies

The number of agricultural households that had consumed fish during the week preceding the census was 201,025 with 127,253 households (42 % of total Agricultural households) those who had fish twice during that week (16%). The percentage of households that consumed fish three times in the week preceding the census was only 6 and 2 percent of the household consumed fish four to seven times..

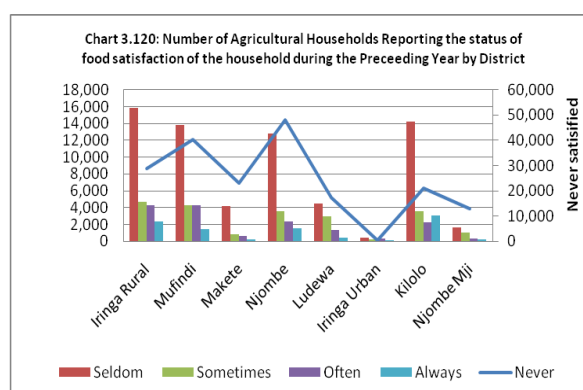


### 3.14.4 Food satisfaction

A total of 306,629 agricultural households were interviewed and 63% reported to have never been satisfied, with the food situation followed by the seldom satisfied (22%), sometimes satisfied (7%), often satisfied (5%) and always satisfied (3%), (Chart 3.119).

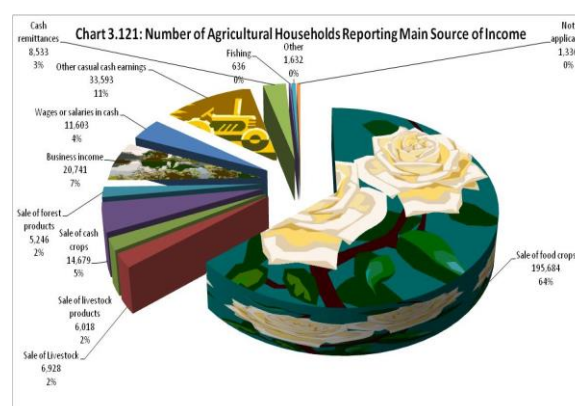


Iringa Rural district was leading in the number of agricultural households which were seldom satisfied by having 24% of all households under this category followed by Mufindi and Kilolo (21%). Other were Njombe (19%), Ludewa (7%) Makete (6%) ,and Njombe Urban (2%) of the seldom satisfied, Iringa Urban at (1%) had the least households. Njombe district was leading in having households which were never satisfied (25%) followed by Mufindi (21%). Others were having between 0-12%. Iringa rural district was leading in having households which were sometimes, often or always satisfied by having 22-26% of households under this category. Njombe urban was ranking the least in all these aspects.



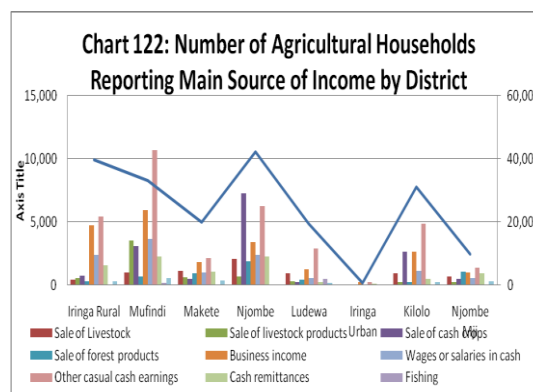
### 3.14.5 Sources of income

Results indicate that, of the 306,629 agricultural households interviewed, 64% were sourcing their cash income from sale of food crops followed by , casual earnings (11%), business income (7%), sale of cash crops (5%) and wages/salaries (4%). Other sources, which accounted for less than 4% include cash remittances, sale of forest products, sale of livestock products, sale of livestock cash remittances, fishing and others (Chart 3.121).



Njombe district was leading in having many of its households selling of food crops, followed by Iringa rural, Kilolo, Makete and Iringa urban, (Chart 3.122).

As compared to the census of 2002/3, the incomes sourced from sale of crops has increased by 17.3% from 47%, casual labor earning have decreased by 6.4%, business (-6.2%) and salaries/wages (-1.7%).

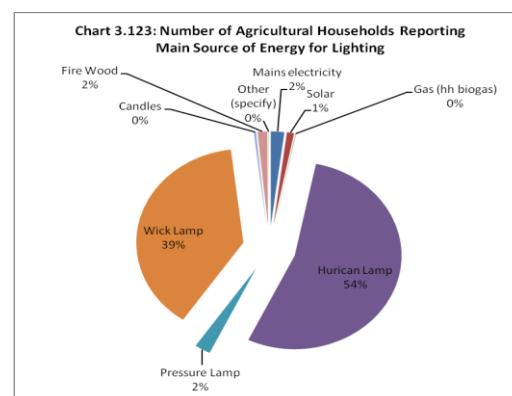


### 3.14.6 Sources of energy

This part analyses the sources of energy for lighting and cooking.

#### 3.14.6.1 Source of lighting energy

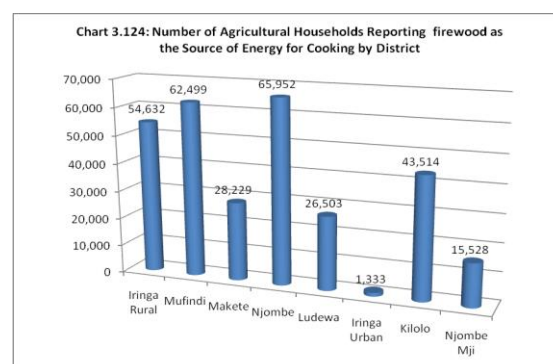
The main source of lighting energy as reported by 306,629 agricultural households that were interviewed were hurricane lamps (54%), wick lamp (39%), pressure lamp and mains electricity (2% each). Other sources of energy, each contributing up to 1% were firewood, solar energy, gas, candles and others (Chart 3.123).



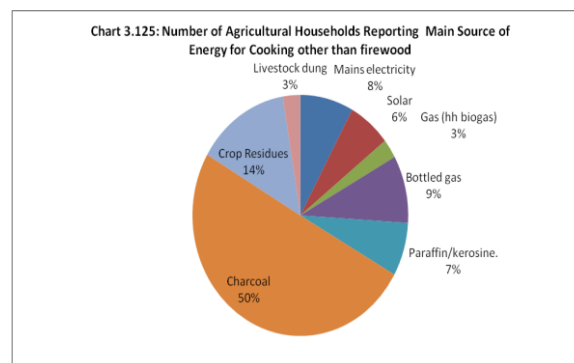
As compared to the 2002/3 census, the use of hurricane lamp has increased by 6.5%, wick lamp (-6.8%), pressure lamp (-1.3%), mains electricity (+0.5%) and firewood (+0.6%)

#### 3.14.6.2 Source of cooking energy

Firewood was reported as the main source by 97% of the 306,629 interviewed agricultural households in Iringa region. Njombe district was leading by having 22% of all agricultural households in Iringa region who used this cooking energy source followed by Mufindi (21%), Iringa rural (18%), Kilolo (15%), Makete and Ludewa (9% each), Njombe Urban (5%) and Iringa Urban (0.4%) (Chart 3.124). As compared to the census of 2002/3, the use of firewood for cooking has decreased by 2%.



Of the remaining energy sources for the 3% of the agricultural households, 50% reported charcoal as the main source of cooking energy followed by crop residues (14%), bottled gas and biogas (12%), mains electricity (8%), paraffin (7%), solar energy (6%) and livestock dung (3%), (Chart 3.125).



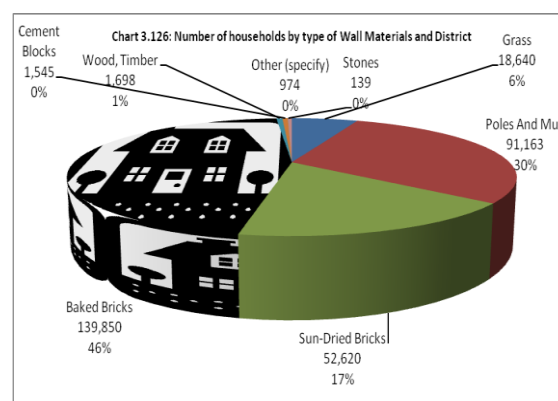
As compared to census of 2002/03, the use of charcoal has remained at a gross value of 1%. The rest of resources increased by a total of 1.16% from 0.84%.

### 3.14.7 Type of house

This part analyses the type of floor, walls and roofs of agricultural households dwellings in Iringa region. 306,629 agricultural households were interviewed in all districts. In general, houses had an average of three rooms except Makete and Iringa Urban districts which had an average of 2 rooms per house.

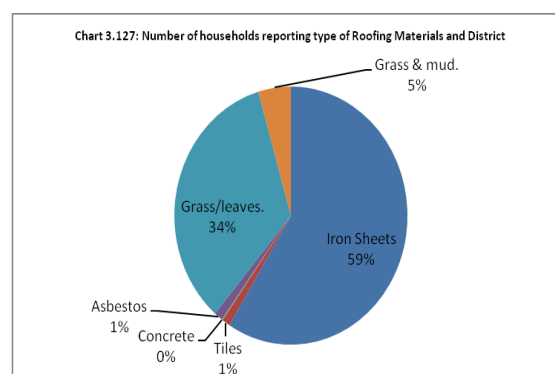
#### Wall

Results indicate that 46% of the interviewed households reported to build their households using backed bricks followed by poles and mud (30%), sun-dried bricks (17%) and grass (6%). Other wall materials, which accounted for up to 1% included wood/timber cement blocks stones and others, (Chart 3.126).



#### Roof

Results indicate that 59% of the respondents reported that roof of their houses used corrugated iron sheets, followed by grass/leaves (34%), grass & mud (5%), asbestos/concrete and tiles (1% each) (Chart 3.127). As compared to the census of 2002/3, the use of corrugated iron sheets has increased by 12.8%, grass/leaves (-10.8%), grass & mud (-3.8%), asbestos/concrete and tiles (-0.3%).



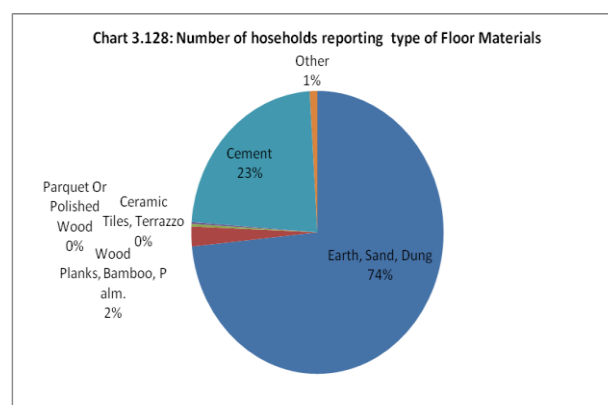


Njombe had the highest percentage of houses roofed with corrugated iron sheets (26%) followed by Mufindi (18%), Iringa Rural (17%), Makete and Kilolo (12% each), Ludewa (9%), Njombe Urban (6%) and Iringa Urban (0.4%).

There is a drastic difference in the type of roofing as compared to the 2002/3 census. By 2002/3 Iringa Urban district had the highest percentage of households whose roofing material for the main building was iron sheets (56%) and was followed by Ludewa district (52%), Njombe (51.5%), Makete (50.5%), Iringa Rural (43%), Mufindi (42%) and Kilolo (40%). On the other hand, Kilolo district had the highest percentage of households whose roofing material for the main building was grass/leaves (52%), followed by Ludewa district (47%), Njombe (51.5%), Njombe (46%), Mufindi (45%), Makete (44%), Iringa Urban (40%) and Iringa Rural (37%)

### Floor

The main floor material used by 74% of all interview agricultural households in Iringa region was earth, sand and dung followed by cement (23%), planks, bamboo and palm (2%). Other materials, accounting for up to 1% included ceramics, terrazzo, parquet or polished wood, (Chart 3.128).

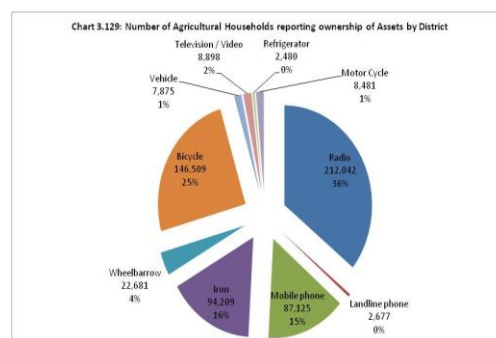


Mufindi district was leading by having 21% of all households in Iringa region using earth, sand and dung in making floor followed by Iringa rural and Njombe rural (20% each), Kilolo (15%) and Ludewa (10%), Makete (9%), Njombe Urban (4%), and Iringa Urban (0.46%). Mufindi district was leading in using wood, planks and bamboo for floor by having 27% followed by Makete (20%), Kilolo (16%) and Njombe (14%). Other districts had less than 10% share each. Njombe district was leading by having 30% in Iringa region using cement as a floor material in Iringa region followed by Mufindi (21%), Iringa Rural (16%), Kilolo (12%), Makete (9%), Njombe Urban (8%), Ludewa (4%) and Iringa Urban (0.5%).

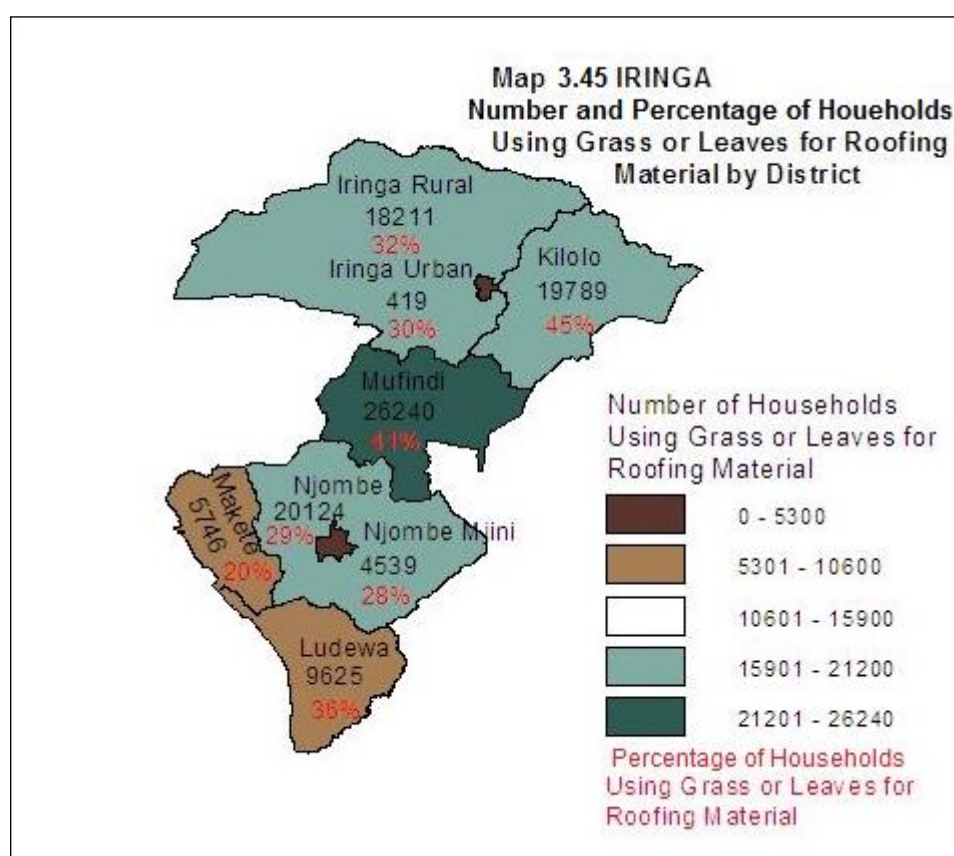
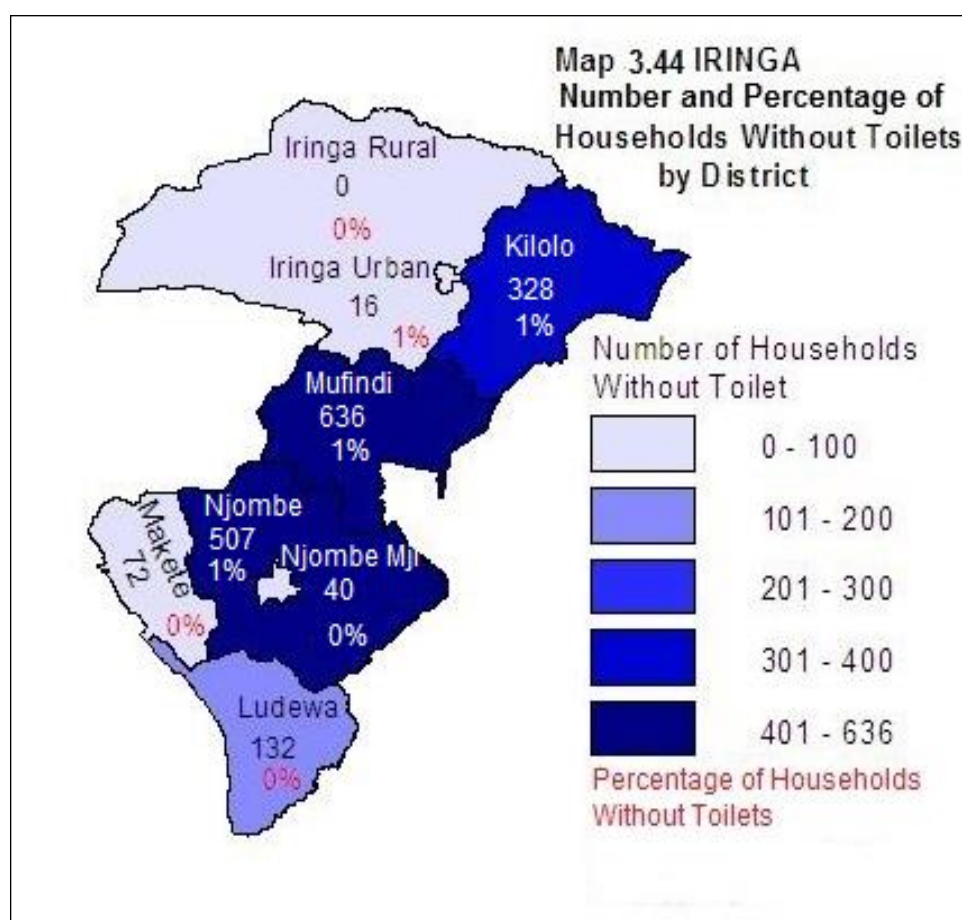
### 3.14.8 Households assets

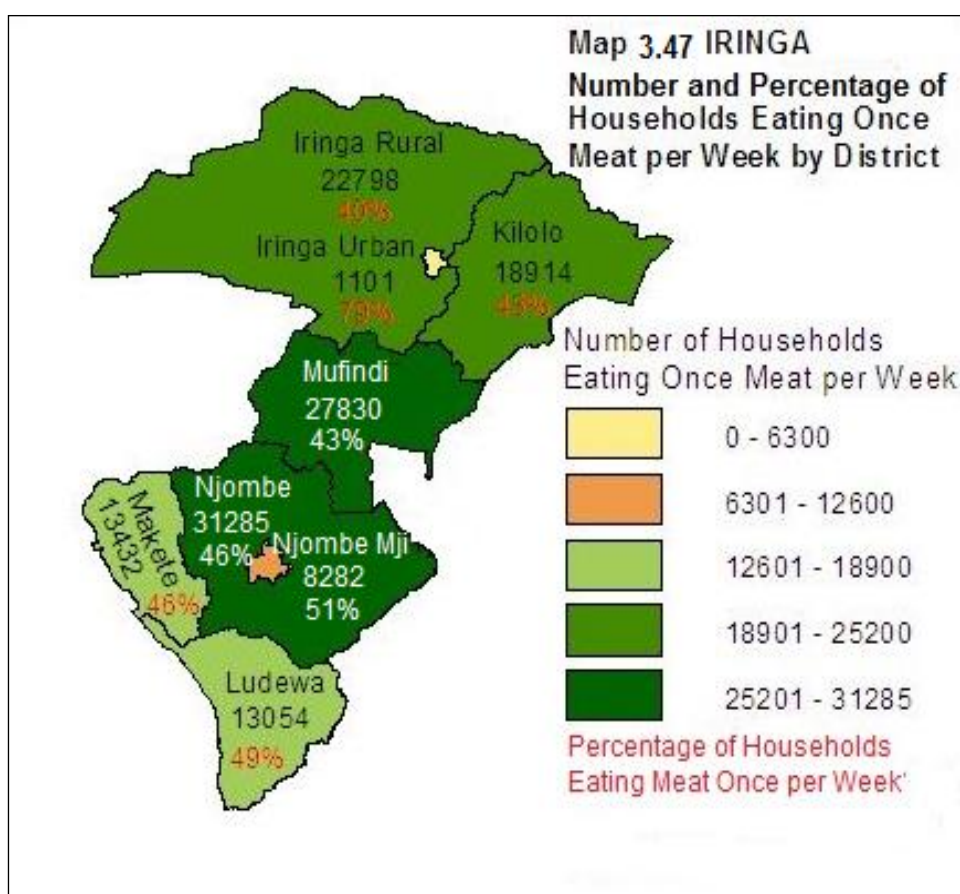
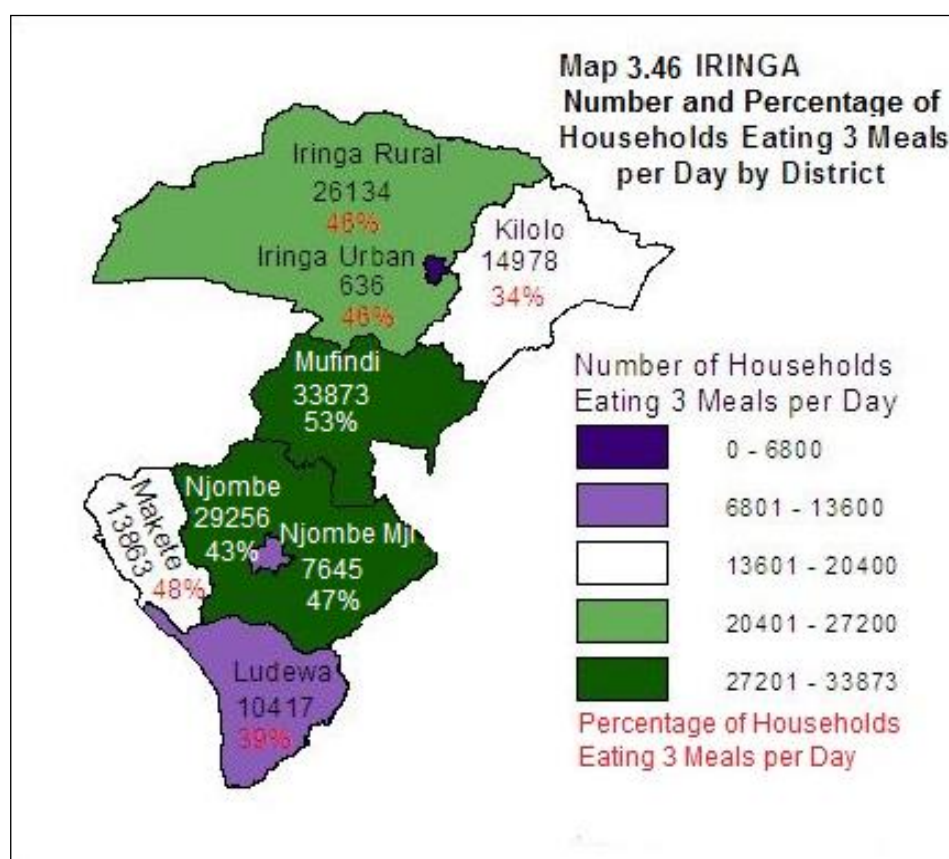
Radio was an asset that was owned by 69% of all interviewed households followed by bicycles (48%), cloth pressing iron (31%), mobile phones (28%), wheel barrow (7%) and television waves receiver sets (3%)., motor cycle (3%), landline phone (1%), vehicles (3%), refrigerators (1%)

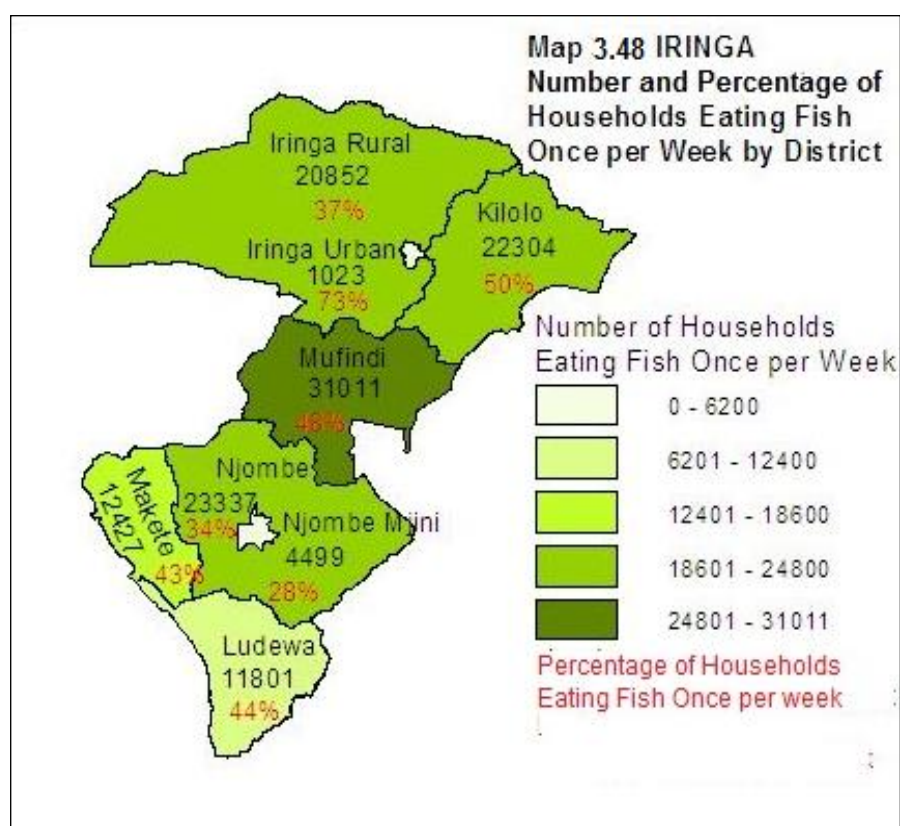
Njombe was leading by having 24% of all agricultural households owning radios in Iringa region followed by Mufindi (21%), Iringa Rural (18%), Kilolo (15%), Makete (8%), Ludewa (7%), Njombe Urban (6%) and Iringa Urban (1%). Mufindi and Njombe were leading by having 23% of all households in Iringa region in owning mobile phones followed by Iringa Rural (18%), Kilolo (14%), Njombe Urban (9%), Makete (8%), Ludewa (6%) and Iringa Urban (1%). Mufindi was leading by having 34% of all households in Iringa region owning television sets followed by Iringa Rural (20%), Makete and Njombe (13% each), Kilolo (10%), Ludewa (6%), Njombe Urban (4%) and Iringa Urban (0.2%).











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## 4 IRINGA REGIONAL PROFILE

### 4.1.1 Crops

Iringa has a land area of 745,315 hectares under crop production and the large majority of this land is planted with annual crops. It has a moderate to low number of crop growing households per square kilometer compared to other regions. The available land area per household is 2 hectares. The region receives only the long rainy season, but is considered to be one of the more productive regions in Tanzania

In terms of planted area, the largest area (67%) is planted area with cereals being the dominant crop. The remaining area was planted with oil seeds, roots and tubers, fruits and vegetables and annual crops such as tobacco and pyrethrum. Maize also accounted for 40% of the land with annual crops in the region. Other crops in order of their importance (based on area planted) are sunflower, Irish potatoes, wheat, groundnuts, field peas, paddy, cowpeas, finger millet, tomatoes, sorghum, tomatoes and simsim.

The region was the fifth in term of amount of maize produces (384,273 tonnes). It has a moderate to high planted area of beans; however it has the seventh in terms of quantity produced in the country. During the census year it had the highest production of Irish potatoes (80,958 t), tomatoes (32,132 t), Onions (3,267 t) and cabbage (7,222 t) than any other region in the country. Very little cassava and groundnuts are grown and virtually no traditional annual cash crops are grown in the region.

The planted area of permanent crops is small; however some bananas, coffee and tea are grown by smallholders. Banana was the most important crop in Iringa and it occupied 30.5 percent of area under permanent crops.

Iringa has the second largest planted area with irrigation in Tanzania, however only 4.9 percent of the planted area (20,061 ha) is under irrigation. Rivers and canals are the most common sources of irrigation water, but wells are also used.

Iringa has moderate use of fertilizer and about 25 percent of the planted area is applied with inorganic fertilizer, and 76% of the households use inorganic fertilizer, and the remaining 24% use organic fertilizers. The region also was among those with largest planted area with pesticide application compared to other regions. Use of improved seeds was only 14% of the households.

Furthermore, Iringa region has the highest number of households (80%) receiving extension services and ranked fourth in the use of irrigation.

#### 4.1.2 Livestock

Iringa has a low livestock population and density. Cattle are mostly indigenous, however small numbers of improved dairy and beef cattle are kept. The goat population is also moderate to low compared to other regions and the density is also low. Very few sheep are kept in Iringa and it has the second highest population of pigs after Mbeya. Chicken production is important in Iringa and it is the sixth highest producing region and fourth in terms of egg production. Like in many other regions, most of the chickens are indigenous.

Iringa had the third highest percentage of households receiving livestock extension advice. In relation to livestock population Iringa receives disproportionately more extension advice compared to other regions with much higher livestock populations. Noteworthy, the rate of disease infection is moderate for all diseases compared to other regions.

#### 4.1.3 Demography and Living conditions

Iringa Region has a moderate agriculture population, 306,629 persons. Crop production is the dominant type of agriculture. It has one of the smallest percent of households keeping livestock in the country and there are very few pastoralists and land ownership is mostly by customary law.

Iringa has literacy level of 79.5 percent among the agriculture households. About 41 percent of the individuals had completed schools, 38 percent were attending and 21 percent had never attended school. The region has a relatively high percent of the rural agriculture population that have completed school and one of the highest percent of household heads with education.

The most important livelihood activity is crop farming, mainly perennials. Only 2.6% of the agricultural household accessed credits and a very small amount of credit is available in the region and it is mostly through savings and credit associations (SACCOS) followed by family friends and relatives.

About 50 percent of the agricultural household managed at least two meals per day and animal protein (meat and fish) is eaten between 1 and 3 times a week by most households and it has the smallest percent of households that eat animal protein every. Access to services for the region is moderate and 37 percent of household have access to piped water and in general water was

available to most household in a distance that was less than one kilometer. Traditional pit latrines were the dominant type (93%), followed by improved pit latrines (7%).

## **4.1 DISTRICT PROFILES**

The following district profiles highlights the characteristics of each district and compares them in relation to Population, Main crops and Livestock, production and productivity, access to services and resources and levels of poverty.

### **4.1.1 Iringa Rural**

Iringa Rural district has the third largest number of households in the region as well as third highest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock production.

Compared to other districts in the region, Iringa Rural is among the districts with the second lowest average age of the heads of households. The literacy rate for the heads of household is higher and comparable to Mufindi and Iringa urban for both males and females (51 and 49 percent respectively).

Compared to other districts, it has a moderate higher utilized land area per household of 1.7 ha and 85 percent of the available land area is currently being utilized for agriculture. The district has the second largest planted area in the region and it has the second largest planted area per household (0.71 ha) after Njombe.

The district is second best in maize production in the region with a planted area of over 44,203 ha, and the planted area per household was 0.83 ha. However, the district was leading in production of paddy with 4,953 ha planted in 2007/2008 and an average of 0.73 ha per household.

Tuber crops were moderately produced and the district ranked sixth in Irish potato production. Production of beans in Iringa Rural is moderate with a planted area of 5,727 ha. Oilseed crop production is important with the district ranking second in oil seeds production in the region. Vegetable production in the district is relatively small while, traditional cash crops (e.g. tobacco, pyrethrum and coffee) are grown in very small quantities.

Compared to other districts in the region, Iringa Rural has a moderate planted area with permanent crops, which is dominated by bananas (80 ha) and mango (167 ha). Other perennials are grown in small areas.

The use of inputs in the region is moderate and district differences exist. Iringa Rural ranked third in planted area with improved seed in Iringa region. The district has a moderate planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer). Compared to other districts in the region, Iringa Rural district has a relatively low level of insecticide use and a moderate level of fungicide use. The district was leading in terms of number of households using irrigation.

A comparatively larger number of households (77.4%) receive extension services in Iringa Rural and almost all of this is from the government. Crop marketing was not a serious problem compared with other districts.

The district has the third largest number of cattle in the region and they are almost all indigenous. Goat production is moderate compared to other districts (4<sup>th</sup>). It has comparatively small number of pigs in the region and ranked third in chicken population.

Fewer household reported incidences of ticks and tse tse fly (11 and 4% resp.). It has largest number of household reporting to deworm chicken and fewer households dewormed other livestock compared to the remaining districts. There were virtual no fish farming activities in the district.

Iringa Rural district has the least percent of households with no toilet facilities. The most common source of drinking water in the district is piped water. The number of household having 1 to 2 meals per day was comparable to other districts.

#### **4.1.2 Mufindi**

Mufindi district has the second largest number of households in the region and it has the highest percentage of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock production. The most important livelihood activity for smallholder households in Mufindi district is annual crop farming, followed by off farm income.

Compared to other districts in the region, Mufindi has the highest percent of female headed households (38%) and it is among the districts with the second lowest average age of the household

head in the region. With an average household size of 5 members per household it is one of the highest in the region.

The district has the highest literacy rate (82%) in the region and was the third after Njombe urban and Iringa urban. The literacy rates for the heads of households was comparable to that of Iringa rural (51% males and 49% for females).

It has a moderate utilized land area per household (1.1 ha) and 76 percent of the allocated area is currently being utilized. The district had the highest area planted during the rainy season and was second best in maize production where 52,609 ha was planted with an average of 0.82 ha per household.

The district is not important for paddy production with a planted area of only 467 hectares, but had highest planted area per household (1.42 ha). The district has small area (1,532 ha) planted area of Irish potatoes with an average of 0.28 ha/household and was leading in terms of cassava production in the region. The district has the second largest planted area of beans in the region with a planted area of 12,200 ha and was leading in groundnut production. Vegetable production is small in the district. Traditional cash crops (e.g. pyrethrum) are grown in very small quantities.

Compared to other districts in the region, Mufindi has the first largest planted area with perennials which is dominated by bananas.

The use of inputs in the region is moderately high and district differences exist. Mufindi has the second largest planted area with improved seed in the region and also second in terms of use of fertilizers. Most of the fertilizer used is farm yard manure. Compared to other districts in the region, Mufindi district has one of the highest levels of insecticide use. The use of fungicides and herbicides is was moderate. It ranked fourth in terms of area under irrigation compared to other districts with 2,335 ha of irrigated land. The most common source of water for irrigation is from rivers using gravity and hand buckets.

The proportion of households storing crops in Mufindi district is the second highest in the region and the most common method of crop storage in the district is in sacks/open drums and in locally made traditional cribs.



Access to credit in the district is moderate and the main sources were family, bank, private and to a small extent SACCOS. A comparatively higher number of households (95.8%) receive crop extension services in Mufindi district and most of this is from the government. However, the district was among those with the highest number of households with erosion control and water harvesting structures.

The district has the second largest number of cattle in the region and they are almost all indigenous. It however, had the largest number of improved dairy cattle (5,248 heads). Moreover, it had fewer goats and sheep but, kept most of the pigs and chicken in Iringa region.

A moderate number of households reported tsetse and tick problems in Mufindi district and it has the second largest number of households de-worming chicken and pigs. The district has the highest proportion of households practice fish farming in the region.

About 37 percent of the household, which was the highest in the region, did not have toilet facilities. The most common source of drinking water is unprotected wells (23%) and piped water (20%). About 26 percent of the household got drinking water from a distance less than 100 meters. It is one of the districts with the highest percent of households having 3 meals per day.

#### **4.1.3 Njombe**

Njombe district has the largest number of households in the region and it has one of the highest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming. The most important livelihood activity for smallholder households in Njombe district is annual crop farming, followed by off-farm income.

The literacy rate was high (80%) which compare to the region average. The literacy rate of the head of household was also comparable to regional average.

The planted area is moderate but, the percent utilization was low. About 60 percent of the land is cultivated during the long rain season and the district was the third in this aspect, but ranked first in area under annual crops.

The district is very important for maize production in the region with a planted area of over 53,579 ha, the largest in the region. The planted area per household is 0.8 ha which is closer to regional

average of 0.83 ha. Paddy production is not important in the district, but was third in terms of area planted with wheat.

The district ranked third in terms of area planted with Irish potatoes (4,627 ha) and the second largest planted area of wheat (4,244 ha).

The district has moderate to low planted area of cassava accounting for 2.7 percent of the cassava planted area in the region and had the largest area planted with beans in the region (15, 422 ha, 27.8%).

Oilseed crops are important in Njombe district and an estimated 1,884 tons were produced in 2007/08. Vegetable production was moderately low compared to other districts. Though small, the district is important in vegetable and area vegetable growing household was 0.15 ha, 2.2 ha and 0.1 ha for onion, cabbage and tomato respectively. Tobacco is not grown in the district and only 68 ha were planted with pyrethrum. Permanent crops are not important in Njombe district, however, the district was third in terms of area planted with banana (427 ha).

The use of inputs in the region is comparatively high, however district differences exist. Njombe has a comparatively largest planted area with improved seed (13,522 ha, 15% of total planted area). The district has the largest planted area with fertilizers (Farm yard manure, compost and inorganic fertilizer). Most of the fertilizer used is the inorganic type followed by farm yard manure.

Compared to other districts in the region, Njombe district ranked fourth in terms of percent of planted area with insecticides. The use of herbicides and was moderate. It has a relatively large area with irrigation in the region with 4,969 ha (24.8%) of irrigated land. The most common source of water for irrigation is from rivers using gravity.

Njombe district has a comparatively high percent (22%) of households storing crops in the region and 9.5% store their crop using traditional methods. About 10 percent of the crop growing households store crops and highest percent (69%) sell their crops. The district also has highest number of households reporting problems in crop marketing, the most constraint being low farm gate price. The most important sources of credit were SACCOS and Cooperatives, contributing 66% of the total. Others were banks (17%) and private individuals (17%).

A moderate number of households (71%) receive extension services in Njombe district and most of this is from the government. The district had the highest proportion of households with erosion control and water harvesting bunds and it also has the largest number of erosion control bunds in the region.

The district has the highest number of cattle in the region (132,919 cattle, 28% of the total cattle in the region) and they are almost all indigenous. It ranked first in terms of number of improved beef, goats and sheep but was fourth in number of improved dairy cattle. It has the second largest number of pigs in the region and the first largest number of chickens, most of which are indigenous. Most of layers and broilers were kept in Njombe district. The district also ranked second in terms of number of household reporting to raise fish.

Incidences of ticks were among the highest in the region, while tse tse problems were moderate and comparable with other districts. Deworming of livestock were moderate and percent of households reporting to deworm ranged from 20 to 50 percent.

The percentage of households without toilet facilities in Njombe district is the second highest in the region. The most common source of drinking water is piped water, followed by unprotected springs. Number of household reporting to have at least 2 meals per day did not differ from other districts.

#### **4.1.4 Ludewa**

Ludewa district has the lowest number of households in the region and it has the least number of agriculture household per square kilometer involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming. The most important livelihood activity for smallholder households in Ludewa district is annual crop farming. It has the largest number of household involved in fishing (25%).

Compared to other districts in the region, Ludewa district has moderate to high percent (79%) of literacy rate among smallholder households. The literacy rate of head of household was about 50 percent.

It has the lowest utilized land area per household and only 12 percent of available are is utilized for agriculture. Only 265 ha the total area is planted with cereal and maize and paddy production is less cultivated (17,000 ha for maize and 661 ha for paddy).

Roots and tuber crops are grown in small area in the district and only 614 ha (3.4%) of Irish potatoes were planted in 2007/08 agricultural year. The district is also moderately important for bean production (8,454 ha) . Oilseed crops and vegetables are also moderately cultivated.

About 180 ha of pyrethrum are grown in Ludewa and the district ranked third in terms of area under permanent crops. Compared to other districts in the region, Ludewa has the largest area planted area with banana 40.5% of the total area with bananas in the region). It also has the largest area planted with mangoes (1,303 ha, 52% of the total area with mangoes in the region).

Ludewa district has the second smallest planted area with improved seed and it also has the second smallest planted area per household in the region. The district has the second smallest percent of planted area with fertilizers (farm yard manure, compost and inorganic) after Iringa urban and most of this is with inorganic fertilizer. However, the use of insecticides was moderate. It has one of the smallest areas of irrigation (637 ha, 3.2%). The most common source of water for irrigation is from canals.

Only 8 percent of the agriculture household in Ludewa stored crops and it as amongst the district with the lowest proportion of households not storing crops. The most common method of crop storage in the district is in locally made traditional cribs, followed by sacks/open drums. Fewer (22%) of the household sell crops but, only about 10 percent reported to experience market constraint. Access to credit in the district is very small and the main source is from private, followed by cooperatives, SACCOS and to a limited extent traders stores. A relatively higher number of households receive extension services (74.6 % of the households) almost all of this is from the government. Erosion control as reported by only 7 percent of the agricultural households and mostly were through the use of erosion control bunds and terraces.

Ludewa district has the second smallest number of cattle in the region after Iringa urban and most of them are indigenous. It is ranked third in terms of number of goats and had less numbers of sheep, pigs and chickens compared to other districts.

The district had the highest number of households reporting ticks and tse tse problems and it has one of the smallest numbers of households de-worming livestock.

Ludewa district has a relatively low percent of households with no toilet facilities (7 percent). The most common source of drinking water is piped water. It was the second lowest percent of households having 3 meals per day compared to other districts and second in term of fewer number of household having 2 meals per day.

#### **4.1.5 Makete**

Makete district has the third smallest number of agricultural households in the region and it has the second lowest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming. The most important livelihood activity for smallholder households in Makete district is annual crop farming.

Compared to other districts in the region, the highest average age of the household head in the region. The literacy rate was lowest in the region. The literacy rate of household head was comparable to other district in the region.

It has a lower utilized land area (5%) but, during the long rain season about 60 percent of the land was cropped. However, area planted per household was the lowest. Compared to other districts, Makete ranked third from the bottom in terms of area planted with maize and wheat but, had moderately large area with paddy.

Makete District has more households (15,084) planting Irish potatoes and largest planted area for the crop (6,284 ha, 35% of the total Irish potato planted area in the region). Other roots and tuber crops are grown in small quantities, whilst the district had the largest area planted with cassava per household. The production of beans in Makete district is minimal with only 2,901 ha. Oil crops such as groundnuts and simsim are also grown in the district but in small quantities. Vegetable production is not important in the district with the district having the smallest planted area per tomato growing household in the region. Traditional cash crops pyrethrum are grown and Makete had the largest area planted with the crop (596 ha). Permanent crops such as banana are grown and the district had the second largest area planted with mangoes after Ludewa.

Use of agricultural implements as well as improved seeds is low. Similarly, the use of fertilizers and insecticides is minimal compared to other districts in the region. Only 358 ha (1.8%) was under irrigation and the district ranked second from bottom after Iringa urban.

The proportion of households storing crops in the district was small (10%) and most of the crops were stored in traditional structures and sacs. Only 25 percent of the household sell crops and fewer households experience crop marketing constraints, mostly low farm gate price.

Eight percent of the household accessed credits from SACCOS and the remaining 20 percent were from NGOs and religious institutions.

A comparatively fewer number of households receive extension services in Makete district and the district ranked last in terms of access to extension services. Fewer household had erosion control structures and the common methods were erosion control bunds and terraces.

The district has ranked third from bottom in terms of number of cattle but had the second highest number of goats and sheep in the region. It has fewer pigs and chicken compared to other districts and virtually there were no fish farming. A moderate number of households reported tsetse and tick problems and Makete was third in terms of households reporting tick problem.

Only 4 percent of the households reported not to have toilets and it has modest percent of households having 2 or more meals per day which was comparable to other districts.

#### **4.1.6 Iringa Urban**

Iringa Urban district has the smallest number of households in the region and it has the smallest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock production. The literacy rate among smallholder households in Iringa Urban district is the second highest in the region (84%). About 50 percent of the head of household were literate and about 42 percent of the household members had completed school.

The percentage utilization of the usable land per household is highest in Iringa Urban district (84.7%). The district had the smallest percentage of land area planted and the average planted area per household in the wet season was only (0.4 ha). Iringa Urban district is not important for cereal, root and tubers as well as pulse production. The proportion of land planted with vegetables was very small.

Iringa Urban has a smallest planted area with improved seed in Iringa region and use of implements was the lowest. The use of fertilizer and irrigation in the district was also the lowest in the region.

The proportion of households storing crops in the district was small and only 15 percent of the household reported to sell crops. Very few households reported to experience marketing problems.

Access to credit was mainly from SACCOS and NGOs/Development organization/religious institutions. More than 80 percent of households in Iringa Urban district receive extension services, mostly from the government. Few household reported to have erosion control and water harvesting structures in the district.

The district has the smallest number of cattle, goats, sheep, pigs and chicken in the region and they are mostly indigenous. It has the lowest proportion of households reporting tsetse and tick problems in the region.

All households in Iringa Urban district have toilet facilities... The most common source of drinking water is piped water.

#### **4.1.7 Kilolo**

Kilolo district has the fifth largest number of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock production. Kilolo has a comparatively high literacy rate among smallholder households (80 percent). The literacy rate for the heads of household is comparable to other districts. The district has the second highest planted area per household in the region and comparable high percent of area utilized for farming. About 56 percent of the land is planted during the long rain season.

The district is moderately important for maize production in the region with a planted area of 44, 113 ha and the planted area per maize growing household is the largest in the region (1ha). The district is not important for paddy production but, ranked second in wheat production. Cassava and roots and tubers production is small accounting. The production of beans in Kilolo, though relatively small is the third highest in the region. Other pulses produced in the district are of minor importance.

Oilseed crops are moderately important in Kilolo and the district ranked second in terms of area planted and third in production per hectare. Though small, the district is comparatively important for vegetable production and has the largest planted area of tomatoes (51 % of the total area planted with tomatoes in the region). The area planted per tomato growing household was largest in Kilolo

(0.5 ha) and the total production was 22,279 t (69.3% of regional yield). Other vegetables such as okra, spinach and pumpkins are grown in small quantities.

Compared to other districts in the region, Kilolo has the smallest area with permanent crops which is dominated by banana. Small quantities of mango and coffee are also grown.

The use of inputs in the region is moderate and Kilolo has a moderate percentage of its planted area with improved seed and fertilizer. The district has a relatively low level of insecticide use; however it ranked second in fungicides use. It has the third largest area of irrigation in Iringa region with 3,978 ha of irrigated land. The most common source of water for irrigation is from rivers using gravity.

About 10 percent of the household stored crops using traditionally made structures and the district ranked third in this aspect. The district has a moderate number of households (62 percent) selling crops and less than 15% of the households experienced problems in crop marketing.

There are a small number of households accessing credit in the district, mainly from SACCOS (40%) and Religious Organizations/NGO/Project (30%).

A comparatively large number of households (84.7%) received extension services in Kilolo district and almost all of this is from the government. The district ranked third in terms of the proportion of households with erosion control and water harvesting structures.

The district has moderate number of cattle, goats, sheep and pigs in the region. It has the third largest numbers of pigs in the region and a moderate to low number of chickens, all of which are indigenous. The proportion of households practicing fish farming is small.

Kilolo district has the third highest percent of households with no toilet facilities. It has the first highest percent of households having 2 meals per day compared to other districts and the first lowest percent with 3 meals per day.



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**APPENDICES**

APENDIX I: TABULATION LIST .....	119
APPENDIX II: TABLES.....	140
APPENDIX III: QUESTIONNAIRE .....	251

**APPENDIX I: TABULATION LIST**

2.1:

2.1: Number of Households by type of Household and District during 2007/08 Agriculture Year 140

2.2: Number of Agriculture Households by type of Holding by District during 2007/08 Agriculture Year ..... 140

2.3: Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year - IRINGA REGION ..... 141

2.4: Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year - IRINGA REGION ..... 142

HOUSEHOLD DEMOGRAPH ..... 143

3.1: Number of Heads of Agricultural Households by Sex of Head and District, 2007/08 Agricultural Year ..... 144

3.2: Number of Household Members classified by District and Sex ..... 144

3.3: Number of Agricultural Household Members By Sex and Age Group, 2007/08 Agricultural Year, IRINGA Region ..... 145

3.4: Number of Heads of Agricultural Households by Marital Status, sex of head and District, 2007/08 Agricultural Year ..... 145

3.5: Number of Heads of Agricultural Households by Survival of Male Parent, Sex of head and District, 2007/08 Agricultural Year ..... 147

3.6: Number of Heads of Agricultural Households by Survival of Female Parent, sex of head and District, 2007/08 Agricultural Year ..... 148

3.7: Number of Household Members Who Can Read and Write languages by type of language and District ..... 149

3.8 Number of Heads of Agricultural Households by Status of writing and reading Languages, sex of head and District, 2007/08 Agricultural Year ..... 149

3.9: Number of Agricultural Household Members Five Years and Above reporting Literacy levels by Sex of Member and District, 2007/08 Agricultural Year ..... 151

3.10: Number of heads of Agricultural households reporting Literacy levels by Sex of Member and District, 2007/08 Agricultural Year ..... 151

3.11: Number of Heads of Agricultural Households by Education Status, sex of head and District, 2007/08 Agricultural Year ..... 152

3.12: Number of Agricultural Household Members By Level of involvement in Farming Activity and District, 2007/08 Agricultural Year ..... 153

---

3.13: Number of Agricultural Household Members by Main Activity and District, 2007/08 Agricultural Year.....	153
LAND USE.....	155
4.1: Number of Farming households by type of land Ownership/Tenure and District for the 2007/08 agriculture year.....	156
4.2: Area of land (ha) by Ownership/Tenure and District for the 2007/08 agriculture year .....	156
4.3: Number of Agriculture Households by Whether All Land Available to the Household Was Used during 2007/08 agriculture year and District .....	157
4.4: Number of Agriculture Households by Whether they Consider Having Sufficient Land for the Household and District during 2007/08 agriculture year .....	157
4.5: Number of Agriculture Households By Whether Female Members of the Household Own or Have Customary Right to Land by District during 2007/08 Agriculture Year .....	157
4.6: Number of Agriculture Households by Type of Land Use and District for the 2007/08 agriculture year .....	158
4.7: Area of Land (ha) by Land use and District for the 2007/08 Agriculture Year .....	159
INPUT USE .....	160
5.1: Number of Households and Planted Area by Organic Fertiliser Use and District - SHORT RAINY SEASON.....	161
5.2: Number of Households and Planted Area by Organic Fertiliser Use and District - LONG RAINY SEASON.....	161
5.3: Number of Households and Planted Area by Inorganic Fertilizer Use and District - SHORT RAINY SEASON.....	161
5.4: Number of Households and Planted Area by Inorganic Fertiliser Use and District - LONG RAINY SEASON.....	162
5.5: Number of Households and Planted Area by Fungicide Use and District - SHORT RAINY SEASON.....	162
5.6: Number of Households and Planted Area by Fungicide Use and District - LONG RAINY SEASON.....	162
5.7: Number of Households and Planted Area by Herbicide Use and District - SHORT RAINY SEASON.....	163
5.8: Number of Households and Planted Area by Herbicide Use and District - LONG RAINY SEASON.....	163
5.9: Number of Households and Planted Area by Improved Seed Use and District - SHORT RAINY SEASON.....	163

---

---

5.10: Number of Households and Planted Area by Improved Seed Use and District - LONG RAINY SEASON.....	164
5.11: Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - SHORT Rainy Season .....	164
5.12: Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - LONG Rainy Season .....	164
5.13: Number of Households and Planted Area by Insecticides Use by District - SHORT RAINY SEASON.....	165
5.14: Number of Households and Planted Area by Insecticide Use and District - LONG RAINY SEASON.....	165
5.15: Number of Households and Planted Area by Irrigation Use and District - SHORT RAINY SEASON.....	165
5.16: Number of Households and Planted Area by Irrigation Use and District - LONG RAINY SEASON.....	166
TOTAL ANNUAL CROP PRODUCTION BY DISTRICT DURING SHORT AND LONG RAINY SEASON .....	167
5.17: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short Rainy Season Agricultural Year 2007/08.....	168
5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08.....	169
PERMANENT CROPS .....	175
5.19: Number of Households Planting Permanent Crops by District, 2007/08 Agriculture Year - Iringa.....	176
5.20: Planted Area and Area Harvested by Type of Planting and District .....	176
5.21: Area Planted, Area harvested, Quantity Harvested and Yield .....	177
by Type of Planted Crop – IRINGA REGION.....	177
5.22: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District - Iringa.....	178
IRRIGATION .....	180
6.1: Number of Agriculture Households reporting use of Irrigation during 2007/08 Agricultural Year by District .....	181
Table 6.2: Number of Agriculture Households using irrigation by Source of Irrigation Water and District during the 2007/08 agricultural Year .....	181

---

---

Table 6.3: Number of Agriculture Households by method of used to obtain water and region during 2007/08 Agriculture Year.....	182
EROSION CONTROL .....	183
6.4: Number of Households with Soil Erosion Problem on their Land By District .....	184
6.5: Number of Households with Erosion Control/Water Harvesting Facilities on their Land By District.....	184
AGRICULTURE CREDIT .....	185
7.1: Number of Agriculture Households receiving Credit by District During the 2007/08 Agriculture Year.....	186
7.2: Number of Credits by sex of the household Member receiving credit During the 2007/08 Agriculture Year –IRINGA REGION.....	186
7.3: Number of Households receiving Credits by Main Source of credit A and District During the 2007/08 Agriculture Year.....	187
7.4: Number of Households receiving Credits by Main Source of credit B and District During the 2007/08 Agriculture Year.....	187
7.5: Number of Households Reporting the Main reasons for Not Using Credit by District During the 2007/08 Agriculture Year .....	188
7.6: Number of Households receiving Credits by Main Source of credit C and region During the 2007/08 Agriculture Year.....	189
7.7 : Provision of credit B by sex and region During the 2007/08 Agriculture Year .....	189
7.8 : Provision of credit C by sex and region During the 2007/08 Agriculture Year .....	189
CROP EXTENSION.....	190
8.1: Number of Agriculture Households that received Crop Advice During the 2007/08 Agriculture Year .....	191
8.2: Number of Agriculture Households Participated in Out Grower Agreement During the 2007/08 Agriculture Year - IRINGA REGION .....	192
8.3: Number of Agriculture Households Participated in Contract Production Agreement During the 2007/08 - IRINGA REGION.....	192
8.4: Number of Agriculture Households By Source of Extension Messages and District During the 2007/08 Agriculture Year.....	192
8.5: Number of households receiving extension advice on use of Spacing by District during the 2007/08 agriculture year.....	193
8.6: Number of households receiving extension advice on Erosion Control by District during the 2007/08 agriculture year.....	193

---

---

8.7: Number of households receiving extension advice on Organic Fertilizer use by District during the 2007/08 agriculture year .....	194
8.8: Number of Households receiving extension advice on Inorganic Fertilizer use by District during the 2007/08 agriculture year .....	194
8.9: Number of households receiving extension advice on use of Improved Seeds by District during the 2007/08 agriculture year .....	195
8.10: Number of households receiving extension advice on Mechanisation/LST by District during the 2007/08 agriculture year .....	196
8.11: Number of households receiving extension advice on Irrigation Technology by District during the 2007/08 agriculture year .....	196
8.12: Number of households receiving extension advice on Crop Storage by District during the 2007/08 agriculture year .....	197
8.13: Number of households receiving extension advice on Vermin Control by District during the 2007/08 agriculture year .....	197
8.14 :Number of households receiving extension advice on Other messages by District during the 2007/08 agriculture year .....	198
8.15: Number of households receiving extension advice (OVERALL) by District during the 2007/08 agriculture year .....	198
CATTLE PRODUCTION .....	199
9.1: Total Number of Households Rearing Cattle by District during 2007/08 Agriculture Year .	200
9.2: Number of Households rearing cattle, Head of Cattle and Average Head per Household by Herd size During the 2007/08 Agricultural Year - IRINGA .....	200
9.3: Total Number of Cattle by Cattle Types and Category, 2007/08 Agricultural Year- Iringa.	200
9.4: Total Number of indigenous Cattle by Category of cattle and District During the 2007/08 Agricultural Year .....	201
9.5: Total Number of Beef Cattle by Category of cattle and District During the 2007/08 Agricultural Year .....	202
9.6: Total Number of Dairy Cattle by Category of cattle and District During the 2007/08 Agricultural Year .....	202
9.7: Total Number Households rearing Cattle and Method of Cattle Identification by District during, 2007/08 Agricultural Year .....	203
9.8: Number of Milked Dairy Cows by Breed, Season and District During the 2007/08 Agricultural Year .....	204

---

---

9.9: Average Milk Production per Cow per Day by Breed, Season and District During the 2007/08 Agricultural Year.....	204
9.10: Average number of days for cows on milk, by Breed, Season and Districts, during the 2007/08 Agricultural Year.....	204
9.11: Average Price per Litre of Milk per season by Breed and District, during the 2007/08 Agricultural Year (Tshs.).....	205
9.12: Number of Milked Cows, Average Milk Produced per Cow per Day, Average Number of Days for Cows on Milk and Average Price per Litre per Season and District During the 2007/2008 Agriculture Year.....	205
GOAT PRODUCTION.....	206
9.13: Number of Agriculture Households Rearing Goats by District during the 2007/08 Agricultural Year.....	207
9.14: Number of Goats by Type and District as of 1st October 2008 .....	207
9.15: Total Number of Goats by Category and Type of Goat as of 1st October 2008 - IRINGA.	207
9.16: Total Number of Indigenous Goat by Category and District as of 1st October 2008 .....	208
9.17: Number of Indigenous Goats by Flock Structure and District as of 1st october 2008.....	208
9.18: Number of Improved Goats for Meat by Flock Structure and District as of 1st october 2008 .....	208
9.19: Number of Improved Dairy Goats by Flock Structure and District as of 1st october 2008.	209
9.20: Milk Production from Goat By Season and District, during the 2007/08 Agricultural Year	209
SHEEP PRODUCTION.....	210
9.21: Number of Households Rearing Sheep by District during the 2007/08 Agriculture Year..	211
9.22: Number of Rearing Sheep and number of Sheep by District as of 1st October 2008 .....	211
9.23: Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October 2007/08 Agriculture year.....	211
9.24: Number of Sheep by Breed as of 1st October 2008 .....	212
9.25: Number of Households Rearing Sheep, Head of Sheep and Average Head per Household by Flock Size During the 2007/08 Agricultural Year .....	212
PIG PRODUCTION .....	213
9.26: Number of Households Raising Pigs by District during 2007/08 Agriculture Year .....	214
9.27: Number of Households rearing Pig, Head of Pig and Average Head per Household by Herd size During the 2007/08 Agricultural Year - .....	214
9.28: Total Number of Indigenous Pig by Herd Structure and District During the 2007/08 Agricultural Year.....	214

---

---

9.29: Number of Pigs per Household by District as of 1st October 2008 .....	214
CHICKEN AND OTHER LIVESTOCK.....	215
9.30: Number of Households Rearing Chicken by District during the 2007/08 Agriculture Year	216
9.31: Number of chicken by Type and District as of 1st October 2008 .....	216
9.32: Number of Households Keeping Chicken and Average Number of Chicken per Household by Flock Size as of 1st October 2008 - Iringa .....	217
9.33: Number of Other Livestock by Type of livestock and District as of 1st October 2008.....	217
9.34: Total Number of Chicken and Other Livestock by Type as of 1st October 2008.....	217
PESTS AND PARASITES .....	218
9.34: Number of Livestock Rearing households deworming Livestock by District during 2007/08 Agriculture Year .....	219
9.35: Number of Livestock Rearing households that dewormed Livestock by type of livestock and District, 2007/08 Agricultural Year.....	219
9.36: Number of Livestock Rearing Households Normally Encountering Tick Problems by District during 2007/08 Agriculture Year .....	220
9.37: Number of Livestock Rearing Households by Method of Tick Control and District during 2007/08 Agriculture Year.....	220
9.38: Number of Livestock Rearing Households Normally Encountering Tsetse Flies Problems by District during 2007/08 Agriculture Year .....	220
9.39: Number of Livestock Rearing Households by Method of Tsetse Flies Control and District during 2007/08 Agriculture Year .....	221
9.40: Number of Livestock Rearing Households Normally Encountering Newcastle Disease Problems by District during 2007/08 Agriculture Year .....	221
9.41 : Number of Livestock Rearing Households by Method of Newcastle Disease Control and District during 2007/08 Agriculture Year .....	221
9.42 : Number of Livestock Rearing Households normally Encountering Fowl Typhoid Disease Problems by District during 2007/08 Agriculture Year .....	222
9.43: Number of Livestock Rearing Households by Method of Fowl Typhoid Disease Control and District During 2007/08 Agriculture Year .....	222
9.44: Number of Livestock Rearing Households Normally Encountering Foot and Mouth Disease Problems by District during 2007/08 Agriculture Year .....	222
9.45: Number of Livestock Rearing Households normally Encountering Lymphskin Disease Problems by District during 2007/08 Agriculture Year .....	223
LIVESTOCK EXTENSION .....	224

---



---

9.46: Number of households receiving extension advice by District during the 2007/08 agriculture year .....	225
9.50: Number of Households receiving Livestock advice (overall) By Source of Extension and District during the 2007/08 agriculture year .....	226
9.51: Number of Agriculture Households Receiving Advice on Feeds and Proper Feeding by Source and District During 2007/08 agriculture Year.....	226
9.52: Number of households receiving extension advice on Proper Livestock Housing by District during the 2007/08 agriculture year .....	227
9.53: Number of households receiving extension advice on Proper Milking and Milk Hygiene by District during the 2007/08 agriculture year .....	227
9.54: Number of households receiving extension advice on Livestock fattening by District during the 2007/08 agriculture year .....	228
9.55: Number of households receiving extension advice on Disease control (dipping/spraying) by District during the 2007/08 agriculture year .....	228
9.56: Number of households receiving extension advice on Herd/Flock size and selection by District during the 2007/08 agriculture year .....	229
9.57: Number of households receiving extension advice on Pasture Establishment by District during the 2007/08 agriculture year .....	229
9.58: Number of households receiving extension advice on Group formation by District during the 2007/08 agriculture year .....	230
9.59: Number of households receiving extension advice on Calf Rearing by District during the 2007/08 agriculture year .....	230
9.60: Number of households receiving extension advice on Use of improved Bulls by District during the 2007/08 agriculture year .....	231
9.61: Number of households receiving extension advice on Livestock Feeds processing by District during the 2007/08 agriculture year .....	231
FISH FARMING .....	232
9.62: Number of Agriculture Households Practising Fish Farming by District during the 2007/08 Agriculture Year .....	233
9.63: Number of Agriculture Households by System of Fish Farming and District during the 2007/08 Agriculture Year .....	233
9.64: Number of Agriculture Households by Source of Fingerling and District during the 2007/08 Agriculture Year .....	233

---

---

9.65: Number of Agriculture Households by Location of Selling Fish and District during the 2007/08 Agriculture Year.....	234
9.66: Number of Agricultural Households By Location of Selling Fish and District, 2007/08 Agricultural Year.....	234
9.67: Number of Agricultural Households By frequency of stocking of Fingerings in fish ponds and District, 2007/08 Agricultural Year.....	234
9.68: Number of Agricultural Households By level of care of fish ponds and District, 2007/08 Agricultural Year.....	234
9.69: Mean Size of Fish Pond and average Number of fingerings stocked by District, 2007/08 Agricultural Year.....	235
9.70: Total Number of Fish Harvested by Type and District, 2007/08 Agricultural Year.....	235
BEE KEEPING.....	236
9.71: Number of Agricultural Households involved in Honey Production/Collection and District, 2007/08 Agricultural Year.....	237
9.72: Number of Agriculture Households Harvesting Honey by Type of Bee and District during the 2007/08 Agriculture Year.....	237
9.73: Number of Agricultural Households, type of bee Hives and type of bees and District , 2007/08 Agricultural Year.....	237
9.74: Quantity of Honey Harvested and Sold by Size of Bees and District during the 2007/08 Agriculture Year.....	238
9.75: Average price of Honey (Tshs/litre) by Size of Bees and District during the 2007/08 Agriculture Year.....	238
9.76: Number of Agricultural Households By Location of Selling Fish and District , 2007/08 Agricultural Year.....	238
POVERTY MODULE.....	239
10.1: Number of households reporting average number of rooms and type of Roofing Materials and District, 2007/08 Agricultural Year.....	240
10.2: Number of households reporting average number of rooms and type of Floor Materials by District 2007/08 Agricultural Year.....	240
10.3: Number of households by type of Wall Materials and District, 2007/08 Agricultural Year.....	241
10.4: Number of Agricultural Households reporting ownership of Assets by District, 2007/08 Agricultural Year.....	241
10.5: Number of Agricultural Households Reporting Main Source of Energy for Lighting by District, 2007/08 Agricultural Year.....	242

---

10.6: Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2007/08 Agricultural Year.....	243
10.7: Number of Agricultural Households Reporting Main Source of Drinking Water during wet season by District, 2007/08 Agricultural Year .....	243
10.8 : Number of Agriculture Households by Distance to Main Source of Drinking Water in wet Season and District during, 2007/08 Agricultural Year .....	244
10.9: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year .....	244
10.10: Number of Agricultural Households Reporting Main Source of Drinking Water during Dry season and District , 2007/08 Agricultural Year .....	245
10.11: Number of Agriculture Households by Distance to Main Source of Drinking Water in Dry Season and District during, 2007/08 Agricultural Year .....	245
10.12: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water in Dry season and District , 2007/08 Agricultural Year.....	246
10.13: Number of Agricultural Households Reporting type of TOILET the household normally use by District , 2007/08 Agricultural Year.....	246
10.14: Number of Agricultural Households Reporting Number of meals the household normally has per day by District, 2007/08 Agricultural Year.....	247
10.15: Number of Agricultural Households Reporting Number of days the household Consumed Meat during the Preceeding Week by District, 2007/08 Agricultural Year .....	247
10.16: Number of Agricultural Households Reporting Number of days the household Consumed Fish during the Preceeding Week by District, 2007/08 Agricultural Year .....	248
10.17: Number of Agricultural Households Reporting the status of food satisfaction of the household during the Preceeding Year by District, 2007/08 Agricultural Year .....	248
10.18: Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year.....	249
10.19: Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year.....	249
Number of Households by type of Household and District during 2007/08 Agriculture Year .....	140
2.2: Number of Agriculture Households by type of Holding by District during 2007/08 Agriculture Year .....	140
2.3: Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year - IRINGA REGION .....	141

---

2.4: Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year -	
IRINGA REGION .....	142
HOUSEHOLD DEMOGRAPH.....	143
3.1: Number of Heads of Agricultural Households by Sex of Head and District, 2007/08	
Agricultural Year.....	144
3.2: Number of Household Members classified by District and Sex .....	144
3.3: Number of Agricultural Household Members By Sex and Age Group, 2007/08 Agricultural	
Year, IRINGA Region.....	145
3.4: Number of Heads of Agricultural Households by Marital Status, sex of head and District,	
2007/08 Agricultural Year.....	145
3.5: Number of Heads of Agricultural Households by Survival of Male Parent, Sex of head and	
District, 2007/08 Agricultural Year.....	147
3.6: Number of Heads of Agricultural Households by Survival of Female Parent, sex of head and	
District, 2007/08 Agricultural Year.....	148
3.7: Number of Household Members Who Can Read and Write languages by type of language and	
District .....	149
3.8 Number of Heads of Agricultural Households by Status of writing and reading Languages, sex	
of head and District, 2007/08 Agricultural Year .....	149
3.9: Number of Agricultural Household Members Five Years and Above reporting Literacy levels	
by Sex of Member and District, 2007/08 Agricultural Year .....	151
3.10: Number of heads of Agricultural households reporting Literacy levels by Sex of Member and	
District, 2007/08 Agricultural Year.....	151
3.11: Number of Heads of Agricultural Households by Education Status, sex of head and District,	
2007/08 Agricultural Year.....	152
3.12: Number of Agricultural Household Members By Level of involvement in Farming Activivty	
and District, 2007/08 Agricultural Year .....	153
3.13: Number of Agricultural Household Members by Main Activity and District, 2007/08	
Agricultural Year.....	153
LAND USE.....	155
4.1: Number of Farming households by type of land Ownership/Tenure and District for the 2007/08	
agriculture year .....	156
4.2: Area of land (ha) by Ownership/Tenure and District for the 2007/08 agriculture year .....	156
4.3: Number of Agriculture Households by Whether All Land Available to the Household Was	
Used during 2007/08 agriculture year and District .....	157

---

---

4.4: Number of Agriculture Households by Whether they Consider Having Sufficient Land for the Household and District during 2007/08 agriculture year .....	157
4.5: Number of Agriculture Households By Whether Female Members of the Household Own or Have Customary Right to Land by District during 2007/08 Agriculture Year .....	157
4.6: Number of Agriculture Households by Type of Land Use and District for the 2007/08 agriculture year .....	158
4.7: Area of Land (ha) by Land use and District for the 2007/08 Agriculture Year .....	159
INPUT USE .....	160
5.1: Number of Households and Planted Area by Organic Fertiliser Use and District - SHORT RAINY SEASON .....	161
5.2: Number of Households and Planted Area by Organic Fertiliser Use and District - LONG RAINY SEASON .....	161
5.3: Number of Households and Planted Area by Inorganic Fertilizer Use and District - SHORT RAINY SEASON .....	161
5.4: Number of Households and Planted Area by Inorganic Fertiliser Use and District - LONG RAINY SEASON .....	162
5.5: Number of Households and Planted Area by Fungicide Use and District - SHORT RAINY SEASON .....	162
5.6: Number of Households and Planted Area by Fungicide Use and District - LONG RAINY SEASON .....	162
5.7: Number of Households and Planted Area by Herbicide Use and District - SHORT RAINY SEASON .....	163
5.8: Number of Households and Planted Area by Herbicide Use and District - LONG RAINY SEASON .....	163
5.9: Number of Households and Planted Area by Improved Seed Use and District - SHORT RAINY SEASON .....	163
5.10: Number of Households and Planted Area by Improved Seed Use and District - LONG RAINY SEASON .....	164
5.11: Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - SHORT Rainy Season .....	164
5.12: Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - LONG Rainy Season .....	164
5.13: Number of Households and Planted Area by Insecticides Use by District - SHORT RAINY SEASON .....	165

---

---

5.14: Number of Households and Planted Area by Insecticide Use and District - LONG RAINY SEASON.....	165
5.15: Number of Households and Planted Area by Irrigation Use and District - SHORT RAINY SEASON.....	165
5.16: Number of Households and Planted Area by Irrigation Use and District - LONG RAINY SEASON.....	166
TOTAL ANNUAL CROP PRODUCTION BY DISTRICT DURING SHORT AND LONG RAINY SEASON .....	167
5.17: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short Rainy Season Agricultural Year 2007/08.....	168
5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08.....	169
PERMANENT CROPS .....	175
5.19: Number of Households Planting Permanent Crops by District, 2007/08 Agriculture Year - Iringa.....	176
5.20: Planted Area and Area Harvested by Type of Planting and District .....	176
5.21: Area Planted, Area harvested, Quantity Harvested and Yield .....	177
by Type of Planted Crop – IRINGA REGION.....	177
5.22: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District - Iringa.....	178
IRRIGATION .....	180
6.1: Number of Agriculture Households reporting use of Irrigation during 2007/08 Agricultural Year by District .....	181
Table 6.2: Number of Agriculture Households using irrigation by Source of Irrigation Water and District during the 2007/08 agricultural Year .....	181
Table 6.3: Number of Agriculture Households by method of used to obtain water and region during 2007/08 Agriculture Year.....	182
EROSION CONTROL .....	183
6.4: Number of Households with Soil Erosion Problem on their Land By District .....	184
6.5: Number of Households with Erosion Control/Water Harvesting Facilities on their Land By District .....	184
AGRICULTURE CREDIT .....	185
7.1: Number of Agriculture Households receiving Credit by District During the 2007/08 Agriculture Year .....	186

---

---

7.2: Number of Credits by sex of the household Member receiving credit During the 2007/08 Agriculture Year –IRINGA REGION.....	186
7.3: Number of Households receiving Credits by Main Source of credit A and District During the 2007/08 Agriculture Year.....	187
7.4: Number of Households receiving Credits by Main Source of credit B and District During the 2007/08 Agriculture Year.....	187
7.5: Number of Households Reporting the Main reasons for Not Using Credit by District During the 2007/08 Agriculture Year.....	188
7.6: Number of Households receiving Credits by Main Source of credit C and region During the 2007/08 Agriculture Year.....	189
7.7 : Provision of credit B by sex and region During the 2007/08 Agriculture Year.....	189
7.8 : Provision of credit C by sex and region During the 2007/08 Agriculture Year.....	189
CROP EXTENSION.....	190
8.1: Number of Agriculture Households that received Crop Advice During the 2007/08 Agriculture Year .....	191
8.2: Number of Agriculture Households Participated in Out Grower Agreement During the 2007/08 Agriculture Year - IRINGA REGION .....	192
8.3: Number of Agriculture Households Participated in Contract Production Agreement During the 2007/08 - IRINGA REGION.....	192
8.4: Number of Agriculture Households By Source of Extension Messages and District During the 2007/08 Agriculture Year.....	192
8.5: Number of households receiving extension advice on use of Spacing by District during the 2007/08 agriculture year.....	193
8.6: Number of households receiving extension advice on Erosion Control by District during the 2007/08 agriculture year.....	193
8.7: Number of households receiving extensionadvice on Organic Fertilizeer use by District during the 2007/08 agriculture year.....	194
8.8: Number of Households receiving extension advice on Inorganic Fertilizer use by District during the 2007/08 agriculture year .....	194
8.9: Number of households receiving extension advice on use of Improved Seeds by District during the 2007/08 agriculture year.....	195
8.10: Number of households receiving extension advice on Mechanisation/LST by District during the 2007/08 agriculture year.....	196

---

8.11: Number of households receiving extension advice on Irrigation Technology by District during the 2007/08 agriculture year .....	196
8.12: Number of households receiving extension advice on Crop Storage by District during the 2007/08 agriculture year .....	197
8.13: Number of households receiving extension advice on Vermin Control by District during the 2007/08 agriculture year .....	197
8.14 :Number of households receiving extension advice on Other messages by District during the 2007/08 agriculture year .....	198
8.15: Number of households receiving extension advice (OVERALL) by District during the 2007/08 agriculture year .....	198
CATTLE PRODUCTION .....	199
9.1: Total Number of Households Rearing Cattle by District during 2007/08 Agriculture Year .	200
9.2: Number of Households rearing cattle, Head of Cattle and Average Head per Household by Herd size During the 2007/08 Agricultural Year - IRINGA .....	200
9.3: Total Number of Cattle by Cattle Types and Category, 2007/08 Agricultural Year- Iringa.	200
9.4: Total Number of indigenous Cattle by Category of cattle and District During the 2007/08 Agricultural Year .....	201
9.5: Total Number of Beef Cattle by Category of cattle and District During the 2007/08 Agricultural Year .....	202
9.6: Total Number of Diary Cattle by Category of cattle and District During the 2007/08 Agricultural Year .....	202
9.7: Total Number Households rearing Cattle and Method of Cattle Identification by District during, 2007/08 Agricultural Year .....	203
9.8: Number of Milked Diary Cows by Breed, Season and District During the 2007/08 Agricultural Year .....	204
9.9: Average Milk Production per Cow per Day by Breed, Season and District During the 2007/08 Agricultural Year .....	204
9.10: Average number of days for cows on milk, by Breed, Season and Districts, during the 2007/08 Agricultural Year .....	204
9.11: Average Price per Litre of Milk per season by Breed and District, during the 2007/08 Agricultural Year (Tshs.) .....	205
9.12: Number of Milked Cows, Average Milk Produced per Cow per Day, Average Number of Days for Cows on Milk and Average Price per Litre per Season and District During the 2007/2008 Agriculture Year .....	205



---

GOAT PRODUCTION.....	206
9.13: Number of Agriculture Households Rearing Goats by District during the 2007/08 Agricultural Year.....	207
9.14: Number of Goats by Type and District as of 1st October 2008 .....	207
9.15: Total Number of Goats by Category and Type of Goat as of 1st October 2008 - IRINGA.	207
9.16: Total Number of Indigenous Goat by Category and District as of 1st October 2008 .....	208
9.17: Number of Indigenous Goats by Flock Structure and District as of 1st october 2008.....	208
9.18: Number of Improved Goats for Meat by Flock Structure and District as of 1st october 2008 .....	208
9.19: Number of Improved Dairy Goats by Flock Structure and District as of 1st october 2008 .	209
9.20: Milk Production from Goat By Season and District, during the 2007/08 Agricultural Year	209
SHEEP PRODUCTION.....	210
9.21: Number of Households Rearing Sheep by District during the 2007/08 Agriculture Year..	211
9.22: Number of Rearing Sheep and number of Sheep by District as of 1st October 2008 .....	211
9.23: Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October 2007/08 Agriculture year.....	211
9.24: Number of Sheep by Breed as of 1st October 2008 .....	212
9.25: Number of Households Rearing Sheep, Head of Sheep and Average Head per Household by Flock Size During the 2007/08 Agricultural Year .....	212
PIG PRODUCTION .....	213
9.26: Number of Households Raising Pigs by District during 2007/08 Agriculture Year .....	214
9.27: Number of Households rearing Pig, Head of Pig and Average Head per Household by Herd size During the 2007/08 Agricultural Year - .....	214
9.28: Total Number of Indigenous Pig by Herd Structure and District During the 2007/08 Agricultural Year.....	214
9.29: Number of Pigs per Household by District as of 1st October 2008 .....	214
CHICKEN AND OTHER LIVESTOCK.....	215
9.30: Number of Households Rearing Chicken by District during the 2007/08 Agriculture Year	216
9.31: Number of chicken by Type and District as of 1st October 2008 .....	216
9.32: Number of Households Keeping Chicken and Average Number of Chicken per Household by Flock Size as of 1st October 2008 - Iringa .....	217
9.33: Number of Other Livestock by Type of livestock and District as of 1st October 2008.....	217
9.34: Total Number of Chicken and Other Livestock by Type as of 1st October 2008.....	217
PESTS AND PARASITES .....	218

---

9.34: Number of Livestock Rearing households deworming Livestock by District during 2007/08 Agriculture Year .....	219
9.35: Number of Livestock Rearing households that dewormed Livestock by type of livestock and District, 2007/08 Agricultural Year .....	219
9.36: Number of Livestock Rearing Households Normally Encountering Tick Problems by District during 2007/08 Agriculture Year .....	220
9.37: Number of Livestock Rearing Households by Method of Tick Control and District during 2007/08 Agriculture Year .....	220
9.38: Number of Livestock Rearing Households Normally Encountering Tsetse Flies Problems by District during 2007/08 Agriculture Year .....	220
9.39: Number of Livestock Rearing Households by Method of Tsetse Flies Control and District during 2007/08 Agriculture Year .....	221
9.40: Number of Livestock Rearing Households Normally Encountering Newcastle Disease Problems by District during 2007/08 Agriculture Year .....	221
9.41 : Number of Livestock Rearing Households by Method of Newcastle Disease Control and District during 2007/08 Agriculture Year .....	221
9.42 : Number of Livestock Rearing Households normally Encountering Fowl Typhoid Disease Problems by District during 2007/08 Agriculture Year .....	222
9.43: Number of Livestock Rearing Households by Method of Fowl Typhoid Disease Control and District During 2007/08 Agriculture Year .....	222
9.44: Number of Livestock Rearing Households Normally Encountering Foot and Mouth Disease Problems by District during 2007/08 Agriculture Year .....	222
9.45: Number of Livestock Rearing Households normally Encountering Lymphskin Disease Problems by District during 2007/08 Agriculture Year .....	223
LIVESTOCK EXTENSION .....	224
9.46: Number of households receiving extension advice by District during the 2007/08 agriculture year .....	225
9.50: Number of Households receiving Livestock advice (overall) By Source of Extension and District during the 2007/08 agriculture year .....	226
9.51: Number of Agriculture Households Receiving Advice on Feeds and Proper Feeding by Source and District During 2007/08 Agriculture Year .....	226
9.52: Number of households receiving extension advice on Proper Livestock Housing by District during the 2007/08 agriculture year .....	227

9.53: Number of households receiving extension advice on Proper Milking and Milk Hygiene by District during the 2007/08 agriculture year .....	227
9.54: Number of households receiving extension advice on Livestock fattening by District during the 2007/08 agriculture year .....	228
9.55: Number of households receiving extension advice on Disease control (dipping/spraying) by District during the 2007/08 agriculture year .....	228
9.56: Number of households receiving extension advice on Herd/Flock size and selection by District during the 2007/08 agriculture year .....	229
9.57: Number of households receiving extension advice on Pasture Establishment by District during the 2007/08 agriculture year .....	229
9.58: Number of households receiving extension advice on Group formation by District during the 2007/08 agriculture year .....	230
9.59: Number of households receiving extension advice on Calf Rearing by District during the 2007/08 agriculture year .....	230
9.60: Number of households receiving extension advice on Use of improved Bulls by District during the 2007/08 agriculture year .....	231
9.61: Number of households receiving extension advice on Livestock Feeds processing by District during the 2007/08 agriculture year .....	231
FISH FARMING .....	232
9.62: Number of Agriculture Households Practising Fish Farming by District during the 2007/08 Agriculture Year .....	233
9.63: Number of Agriculture Households by System of Fish Farming and District during the 2007/08 Agriculture Year .....	233
9.64: Number of Agriculture Households by Source of Fingerling and District during the 2007/08 Agriculture Year .....	233
9.65: Number of Agriculture Households by Location of Selling Fish and District during the 2007/08 Agriculture Year .....	234
9.66: Number of Agricultural Households By Location of Selling Fish and District, 2007/08 Agricultural Year .....	234
9.67: Number of Agricultural Households By frequency of stocking of Fingerings in fish ponds and District, 2007/08 Agricultural Year .....	234
9.68: Number of Agricultural Households By level of care of fish ponds and District, 2007/08 Agricultural Year .....	234

---

9.69: Mean Size of Fish Pond and average Number of fingerings stocked by District, 2007/08 Agricultural Year.....	235
9.70: Total Number of Fish Harvested by Type and District, 2007/08 Agricultural Year .....	235
BEE KEEPING .....	236
9.71: Number of Agricultural Households involved in Honey Production/Collection and District, 2007/08 Agricultural Year.....	237
9.72: Number of Agriculture Households Harvesting Honey by Type of Bee and District during the 2007/08 Agriculture Year .....	237
9.73: Number of Agricultural Households, type of bee Hives and type of bees and District , 2007/08 Agricultural Year.....	237
9.74: Quantity of Honey Harvested and Sold by Size of Bees and District during the 2007/08 Agriculture Year .....	238
9.75: Average price of Honey (Tshs/litre) by Size of Bees and District during the 2007/08 Agriculture Year .....	238
9.76: Number of Agricultural Households By Location of Selling Fish and District , 2007/08 Agricultural Year.....	238
POVERTY MODULE .....	239
10.1: Number of households reporting average number of rooms and type of Roofing Materials and District, 2007/08 Agricultural Year.....	240
10.2: Number of households reporting average number of rooms and type of Floor Materials by District 2007/08 Agricultural Year.....	240
10.3: Number of households by type of Wall Materials and District, 2007/08 Agricultural Year	241
10.4: Number of Agricultural Households reporting ownership of Assets by District, 2007/08 Agricultural Year.....	241
10.5: Number of Agricultural Households Reporting Main Source of Energy for Lighting by District, 2007/08 Agricultural Year.....	242
10.6: Number of Agricultural Households Reporting Main Source of Energy for Cooking by District, 2007/08 Agricultural Year.....	243
10.7: Number of Agricultural Households Reporting Main Source of Drinking Water during wet season by District, 2007/08 Agricultural Year .....	243
10.8 : Number of Agriculture Households by Distance to Main Source of Drinking Water in wet Season and District during, 2007/08 Agricultural Year .....	244
10.9: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year .....	244

---

---

10.10: Number of Agricultural Households Reporting Main Source of Drinking Water during Dry season and District , 2007/08 Agricultural Year .....	245
10.11: Number of Agriculture Households by Distance to Main Source of Drinking Water in Dry Season and District during, 2007/08 Agricultural Year .....	245
10.12: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water in Dry season and District , 2007/08 Agricultural Year.....	246
10.13: Number of Agricultural Households Reporting type of TOILET the household normally use by District , 2007/08 Agricultural Year.....	246
10.14: Number of Agricultural Households Reporting Number of meals the household normally has per day by District, 2007/08 Agricultural Year .....	247
10.15: Number of Agricultural Households Reporting Number of days the household Consumed Meat during the Preceeding Week by District, 2007/08 Agricultural Year .....	247
10.16: Number of Agricultural Households Reporting Number of days the household Consumed Fish during the Preceeding Week by District, 2007/08 Agricultural Year .....	248
10.17: Number of Agricultural Households Reporting the status of food satisfaction of the household during the Preceeding Year by District, 2007/08 Agricultural Year .....	248
10.18: Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year.....	249
10.19: Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year.....	249

## TYPE OF AGRICULTURE HOUSEHOLD

## APPENDIX II: TABLES

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
Iringa Rural	56,300	98.5	862	1.5	57,162	92.3	4,802	7.7	61,964
Mufindi	64,248	99.3	477	0.7	64,725	89.0	8,036	11.0	72,761
Makete	29,091	99.0	290	1.0	29,381	95.9	1,265	4.1	30,646
Njombe	68,489	99.6	303	0.4	68,792	75.6	22,171	24.4	90,962
Ludewa	26,701	99.1	239	0.9	26,940	85.7	4,494	14.3	31,433
Iringa Urban	1,395	96.0	58	4.0	1,453	4.5	30,554	95.5	32,007
Kilolo	44,279	98.9	476	1.1	44,755	90.5	4,695	9.5	49,451
Njombe Mji	16,126	99.5	82	0.5	16,208	75.6	5,223	24.4	21,431
<b>Total</b>	<b>306,629</b>	<b>99.1</b>	<b>2,787</b>	<b>0.9</b>	<b>309,416</b>	<b>79.2</b>	<b>81,239</b>	<b>20.8</b>	<b>390,655</b>

2.2: 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	%			
Iringa Rural	46,291	82	278	0	0	0	9,731	17	56,300	56,022	10,009
Mufindi	46,914	73	0	0	0	0	17,334	27	64,248	64,248	17,334
Makete	18,317	63	0	0	0	0	10,774	37	29,091	29,091	10,774
Njombe	44,137	64	0	0	0	0	24,352	36	68,489	68,489	24,352
Ludewa	16,086	60	0	0	0	0	10,614	40	26,701	26,701	10,614
Iringa Urban	1,225	88	0	0	0	0	171	12	1,395	1,395	171
Kilolo	34,549	78	0	0	0	0	9,731	22	44,279	44,279	9,731
Njombe Mji	10,591	66	0	0	0	0	5,534	34	16,126	16,126	5,534
<b>Total</b>	<b>218,110</b>	<b>71</b>	<b>278</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88,241</b>	<b>29</b>	<b>306,629</b>	<b>306,351</b>	<b>88,519</b>

**2.3: Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year - IRINGA REGION**

Size of Holding	Type of Agriculture Household									
	Crops only		Livestock only		Pastoralist		Crops and Livestock		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0.01 - 0.50	17,890	85	278	1	0	0	2,979	14	21,146	100
0.51 - 1.00	39,747	84	0	0	0	0	7,424	16	47,172	100
1.01 - 1.50	45,525	76	0	0	0	0	14,499	24	60,024	100
1.51 - 2.00	30,291	75	0	0	0	0	10,277	25	40,568	100
2.01 - 2.50	33,601	70	0	0	0	0	14,485	30	48,086	100
2.51 - 3.00	10,670	65	0	0	0	0	5,723	35	16,393	100
3.01 - 3.50	8,882	62	0	0	0	0	5,523	38	14,404	100
3.51 - 4.00	3,900	53	0	0	0	0	3,434	47	7,334	100
4.01 -4.50	9,977	58	0	0	0	0	7,233	42	17,210	100
4.51 -5.00	3,650	56	0	0	0	0	2,830	44	6,480	100
Above 5	13,977	50	0	0	0	0	13,835	50	27,811	100
<b>Total</b>	<b>218,110</b>	<b>71</b>	<b>278</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>88,241</b>	<b>29</b>	<b>306,629</b>	<b>100</b>



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

Size of Holding	Type of Agriculture Household									
	Crops only		Livestock only		Pastoralist		Crops and Livestock		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0.01 - 0.50	17,890	8	278	100	0	0	2,979	3	21,146	7
0.51 - 1.00	39,747	18	0	0	0	0	7,424	8	47,172	15
1.01 - 1.50	45,525	21	0	0	0	0	14,499	16	60,024	20
1.51 - 2.00	30,291	14	0	0	0	0	10,277	12	40,568	13
2.01 - 2.50	33,601	15	0	0	0	0	14,485	16	48,086	16
2.51 - 3.00	10,670	5	0	0	0	0	5,723	6	16,393	5
3.01 - 3.50	8,882	4	0	0	0	0	5,523	6	14,404	5
3.51 - 4.00	3,900	2	0	0	0	0	3,434	4	7,334	2
4.01 -4.50	9,977	5	0	0	0	0	7,233	8	17,210	6
4.51 -5.00	3,650	2	0	0	0	0	2,830	3	6,480	2
Above 5	13,977	6	0	0	0	0	13,835	16	27,811	9
<b>Total</b>	<b>218,110</b>	<b>100</b>	<b>278</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>88,241</b>	<b>100</b>	<b>306,629</b>	<b>100</b>

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## HOUSEHOLD DEMOGRAPH

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

District	Male		Female		Total
	Number	Percent	Number	Percent	
Iringa Rural	40,036	71	16,265	29	56,300
Mufindi	46,437	72	17,811	28	64,248
Makete	18,604	64	10,487	36	29,091
Njombe	47,350	69	21,139	31	68,489
Ludewa	18,196	68	8,505	32	26,701
Iringa Urban	946	68	450	32	1,395
Kilolo	31,925	72	12,355	28	44,279
Njombe Mji	11,109	69	5,017	31	16,126
Total	214,602	70	92,027	30	306,629

**3.2: Number of Household Members classified by District and Sex**

District	Male		Female		Total
	Number	Percent	Number	Percent	
Iringa Rural	116,354	49	121,080	51	237,434
Mufindi	153,464	49	157,917	51	311,381
Makete	49,419	47	54,950	53	104,368
Njombe	137,147	47	153,381	53	290,528
Ludewa	53,269	47	60,917	53	114,186
Iringa Urban	2,697	45	3,256	55	5,953
Kilolo	99,383	49	103,756	51	203,139
Njombe Mji	31,216	46	35,954	54	67,170
Total	642,949	48	691,210	52	1,334,159

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

Age Group	Sex					
	Male		Female		Total	
	Number	%	Number	%	Number	%
Less than 4	82,311	51	78,758	49	161,070	100
5 - 9	96,459	49	98,511	51	194,971	100
10 - 14	102,102	50	102,434	50	204,536	100
15 - 19	82,656	54	70,626	46	153,282	100
20 - 24	40,251	45	49,050	55	89,301	100
25 - 29	40,637	42	55,575	58	96,212	100
30 - 34	35,689	43	46,854	57	82,543	100
35 - 39	35,776	43	46,654	57	82,430	100
40 - 44	26,146	46	30,278	54	56,424	100
45 - 49	26,970	46	31,662	54	58,632	100
50 - 54	17,810	46	21,086	54	38,897	100
55 - 59	14,746	49	15,100	51	29,846	100
60 - 64	11,537	49	12,121	51	23,658	100
65 - 69	11,630	52	10,742	48	22,372	100
70 - 74	8,022	46	9,574	54	17,596	100
75 - 79	4,728	46	5,503	54	10,231	100
80 - 84	2,997	49	3,167	51	6,164	100
Above 85	2,483	41	3,514	59	5,997	100
<b>Total</b>	<b>642,949</b>	<b>48</b>	<b>691,210</b>	<b>52</b>	<b>1,334,159</b>	<b>100</b>

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

District	Married						Not Married					
	Male		Female		Total		Male		Female		Total	
Iringa Rural	35,726	84	6,812	16	42,538	100	1,529	65	834	35	2,363	100
Mufindi	43,733	86	6,838	14	50,572	100	954	46	1,113	54	2,067	100
Makete	17,670	80	4,310	20	21,980	100	359	31	790	69	1,149	100
Njombe	42,446	80	10,654	20	53,100	100	1,691	50	1,691	50	3,382	100
Ludewa	17,075	91	1,648	9	18,723	100	396	18	1,846	82	2,242	100
Iringa Urban	791	88	109	12	899	100	78	71	31	29	109	100
Kilolo	27,442	86	4,373	14	31,816	100	984	45	1,203	55	2,187	100
Njombe Mji	9,795	81	2,309	19	12,104	100	518	45	637	55	1,155	100
<b>Total</b>	<b>194,679</b>	<b>84</b>	<b>37,053</b>	<b>16</b>	<b>231,732</b>	<b>100</b>	<b>6,508</b>	<b>44</b>	<b>8,145</b>	<b>56</b>	<b>14,653</b>	<b>100</b>

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

District	Living together						Separated					
	Male		Female		Total		Male		Female		Total	
Iringa Rural	139	100	0	0	139	100	973	27	2,641	73	3,614	100
Mufindi	159	100	0	0	159	100	159	13	1,113	88	1,272	100
Makete	72	33	144	67	215	100	144	17	718	83	862	100
Njombe	0	0	0	0	0	0	1,184	47	1,353	53	2,537	100
Ludewa	198	33	396	67	593	100	132	18	593	82	725	100
Iringa Urban	0	0	0	0	0	0	31	33	62	67	93	100
Kilolo	2,077	95	109	5	2,187	100	328	23	1,093	77	1,421	100
Njombe Mji	119	100	0	0	119	100	279	50	279	50	557	100
<b>Total</b>	<b>2,764</b>	<b>81</b>	<b>649</b>	<b>19</b>	<b>3,413</b>	<b>100</b>	<b>3,229</b>	<b>29</b>	<b>7,853</b>	<b>71</b>	<b>11,082</b>	<b>100</b>

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

District	Widowed						Total					
	Male		Female		Total		Male		Female		Total	
Iringa Rural	1,668	22	5,978	78	7,646	100	40,036	71	16,265	29	56,300	100
Mufindi	1,431	14	8,747	86	10,178	100	46,437	72	17,811	28	64,248	100
Makete	359	7	4,525	93	4,884	100	18,604	64	10,487	36	29,091	100
Njombe	2,029	21	7,441	79	9,470	100	47,350	69	21,139	31	68,489	100
Ludewa	396	9	4,022	91	4,417	100	18,196	68	8,505	32	26,701	100
Iringa Urban	47	16	248	84	295	100	946	68	450	32	1,395	100
Kilolo	1,093	16	5,576	84	6,669	100	31,925	72	12,355	28	44,279	100
Njombe Mji	398	18	1,792	82	2,190	100	11,109	69	5,017	31	16,126	100
<b>Total</b>	<b>7,421</b>	<b>16</b>	<b>38,327</b>	<b>84</b>	<b>45,749</b>	<b>100</b>	<b>214,602</b>	<b>70</b>	<b>92,027</b>	<b>30</b>	<b>306,629</b>	<b>100</b>

**3.5: 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	%
Iringa Rural	19,184	77	5,839	23	25,022	100	20,852	67	10,426	33	31,278	100
Mufindi	23,695	79	6,361	21	30,057	100	22,741	67	11,450	33	34,191	100
Makete	8,332	75	2,801	25	11,134	100	10,272	57	7,686	43	17,957	100
Njombe	26,381	74	9,301	26	35,682	100	20,969	64	11,838	36	32,807	100
Ludewa	9,428	70	4,022	30	13,449	100	8,768	66	4,417	33	13,185	100
Iringa Urban	310	67	155	33	465	100	636	68	295	32	930	100
Kilolo	18,914	77	5,795	23	24,709	100	13,010	66	6,560	34	19,570	100
Njombe Mji	6,649	73	2,508	27	9,158	100	4,459	64	2,508	36	6,968	100
<b>Total</b>	<b>112,894</b>	<b>75</b>	<b>36,782</b>	<b>25</b>	<b>149,675</b>	<b>100</b>	<b>101,708</b>	<b>65</b>	<b>55,179</b>	<b>35</b>	<b>156,888</b>	<b>100</b>

**Cont. 3.5: 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	%
Iringa Rural	0	0	0	0	0	0	40,036	71	16,265	29	56,300	100
Mufindi	0	0	0	0	0	0	46,437	72	17,811	28	64,248	100
Makete	0	0	0	0	0	0	18,604	64	10,487	36	29,091	100
Njombe	0	0	0	0	0	0	47,350	69	21,139	31	68,489	100
Ludewa	0	0	66	100	66	100	18,196	68	8,505	32	26,701	100
Iringa Urban	0	0	0	0	0	0	946	68	450	32	1,395	100
Kilolo	0	0	0	0	0	0	31,925	72	12,355	28	44,279	100
Njombe Mji	0	0	0	0	0	0	11,109	69	5,017	31	16,126	100
<b>Total</b>	<b>0</b>	<b>0</b>	<b>66</b>	<b>100</b>	<b>66</b>	<b>100</b>	<b>214,602</b>	<b>70</b>	<b>92,027</b>	<b>30</b>	<b>306,629</b>	<b>100</b>

**3.6: 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	%
Iringa Rural	15,430	79	4,031	21	19,462	100	24,605	67	12,233	33	36,838	100
Mufindi	15,903	79	4,294	21	20,197	100	30,375	69	13,359	31	43,733	100
Makete	5,603	81	1,293	19	6,896	100	13,001	59	9,194	41	22,195	100
Njombe	16,065	79	4,228	21	20,293	100	31,285	65	16,911	35	48,196	100
Ludewa	7,252	75	2,373	25	9,625	100	10,878	64	6,131	36	17,009	100
Iringa Urban	419	75	140	25	558	100	527	63	310	37	837	100
Kilolo	14,869	81	3,499	19	18,368	100	17,056	66	8,856	34	25,912	100
Njombe Mji	4,499	74	1,553	26	6,052	100	6,570	65	3,464	35	10,034	100
<b>Total</b>	<b>80,040</b>	<b>79</b>	<b>21,410</b>	<b>21</b>	<b>101,451</b>	<b>100</b>	<b>134,297</b>	<b>66</b>	<b>70,458</b>	<b>34</b>	<b>204,755</b>	<b>100</b>

**Cont. 3.6: 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	%
Iringa Rural	0	0	0	0	0	0	40,036	71	16,265	29	56,300	100
Mufindi	159	50	159	50	318	100	46,437	72	17,811	28	64,248	100
Makete	0	0	0	0	0	0	18,604	64	10,487	36	29,091	100
Njombe	0	0	0	0	0	0	47,350	69	21,139	31	68,489	100
Ludewa	66	100	0	0	66	100	18,196	68	8,505	32	26,701	100
Iringa Urban	0	0	0	0	0	0	946	68	450	32	1,395	100
Kilolo	0	0	0	0	0	0	31,925	72	12,355	28	44,279	100
Njombe Mji	40	100	0	0	40	100	11,109	69	5,017	31	16,126	100
<b>Total</b>	<b>265</b>	<b>62</b>	<b>159</b>	<b>38</b>	<b>424</b>	<b>100</b>	<b>214,602</b>	<b>70</b>	<b>92,027</b>	<b>30</b>	<b>306,629</b>	<b>100</b>

**3.7: Number of Household Members Who Can Read and Write languages by type of language and District**

District	Swahili		Swahili & English		Any Other Language		Don't Read / Write		Total
	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	150,273	72	7,924	3.8	0	0.0	50,601	24	208,797
Mufindi	186,542	69	36,259	13.4	159	0.1	48,345	18	271,305
Makete	63,138	68	5,172	5.6	72	0.0	24,566	26	92,947
Njombe	190,078	75	10,823	4.3	846	0.4	50,902	20	252,648
Ludewa	73,509	74	4,813	4.9	0	0.0	20,899	21	99,220
Iringa Urban	3,922	74	496	9.4	0	0.0	868	16	5,286
Kilolo	118,297	64	28,426	15.5	109	0.1	36,845	20	183,678
Njombe Mji	47,421	80	4,380	7.4	0	0.0	7,406	13	59,207
<b>Total</b>	<b>833,180</b>	<b>71</b>	<b>98,292</b>	<b>8.4</b>	<b>1,186</b>	<b>0.6</b>	<b>240,431</b>	<b>20</b>	<b>1,173,089</b>

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

District	Swahili						Swahili & English					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Iringa Rural	29,749	81	6,812	19	36,560	100	1,529	73	556	27	2,085	100
Mufindi	34,987	81	8,429	19	43,415	100	5,725	82	1,272	18	6,997	100
Makete	13,432	78	3,807	22	17,239	100	1,293	86	215	14	1,508	100
Njombe	38,895	77	11,668	23	50,563	100	1,860	85	338	15	2,198	100
Ludewa	14,702	75	4,945	25	19,646	100	1,384	81	330	19	1,714	100
Iringa Urban	791	81	186	19	977	100	78	100	0	0	78	100
Kilolo	20,882	79	5,467	21	26,349	100	5,576	81	1,312	19	6,888	100
Njombe Mji	9,994	74	3,464	26	13,458	100	438	73	159	27	597	100
<b>Total</b>	<b>163,431</b>	<b>78</b>	<b>44,777</b>	<b>22</b>	<b>208,208</b>	<b>100</b>	<b>17,883</b>	<b>81</b>	<b>4,183</b>	<b>19</b>	<b>22,066</b>	<b>100</b>



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

Region	Any Other Language						Don't Read / Write					
	Male	%	Female	%	Total	%	Male	%	Female	%	Total	%
Iringa Rural	0	0	0	0	0	0	8,758	50	8,897	50	17,655	100
Mufindi	0	0	0	0	0	0	5,725	41	8,111	59	13,836	100
Makete	0	0	72	100	72	100	3,879	38	6,393	62	10,272	100
Njombe	0	0	0	0	0	0	6,595	42	9,132	58	15,727	100
Ludewa	0	0	0	0	0	0	2,110	40	3,230	60	5,340	100
Iringa Urban	0	0	0	0	0	0	78	23	264	77	341	100
Kilolo	109	100	0	0	109	100	5,357	49	5,576	51	10,933	100
Njombe Mji	0	0	0	0	0	0	677	33	1,394	67	2,070	100
<b>Total</b>	<b>109</b>	<b>60</b>	<b>72</b>	<b>40</b>	<b>181</b>	<b>100</b>	<b>33,178</b>	<b>44</b>	<b>42,996</b>	<b>56</b>	<b>76,174</b>	<b>100</b>

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

Region	Total					
	Male	%	Female	%	Total	%
Iringa Rural	40,036	71	16,265	29	56,300	100
Mufindi	46,437	72	17,811	28	64,248	100
Makete	18,604	64	10,487	36	29,091	100
Njombe	47,350	69	21,139	31	68,489	100
Ludewa	18,196	68	8,505	32	26,701	100
Iringa Urban	946	68	450	32	1,395	100
Kilolo	31,925	72	12,355	28	44,279	100
Njombe Mji	11,109	69	5,017	31	16,126	100
<b>Total</b>	<b>214,602</b>	<b>70</b>	<b>92,027</b>	<b>30</b>	<b>306,629</b>	<b>100</b>

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

District	Male						Female						Total					
	Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	81,462	80	20,852	20	102,313	100	76,735	72	29,749	28	106,484	100	158,197	76	50,601	24	208,797	100
Mufindi	113,865	86	18,925	14	132,790	100	109,095	79	29,421	21	138,515	100	222,960	82	48,345	18	271,305	100
Makete	34,335	80	8,835	20	43,170	100	34,047	68	15,731	32	49,778	100	68,382	74	24,566	26	92,947	100
Njombe	98,928	84	18,771	16	117,699	100	102,818	76	32,131	24	134,948	100	201,746	80	50,902	20	252,648	100
Ludewa	38,699	84	7,516	16	46,215	100	39,622	75	13,383	25	53,005	100	78,322	79	20,899	21	99,220	100
Iringa Urban	2,232	92	186	8	2,418	100	2,186	76	682	24	2,868	100	4,418	84	868	16	5,286	100
Kilolo	72,924	82	16,072	18	88,996	100	73,908	78	20,773	22	94,681	100	146,833	80	36,845	20	183,678	100
Njombe Mji	24,009	89	3,026	11	27,035	100	27,792	86	4,380	14	32,172	100	51,801	87	7,406	13	59,207	100
<b>Total</b>	<b>466,455</b>	<b>83</b>	<b>94,182</b>	<b>17</b>	<b>560,637</b>	<b>100</b>	<b>466,203</b>	<b>76</b>	<b>146,249</b>	<b>24</b>	<b>612,452</b>	<b>100</b>	<b>932,658</b>	<b>80</b>	<b>240,431</b>	<b>20</b>	<b>1,173,089</b>	<b>100</b>

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

District	Male						Female						Total					
	Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total		Can Read and Write		Can not Read and Write		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	31,278	78	8,758	22	40,036	100	7,368	45	8,897	55	16,265	100	38,646	69	17,655	31	56,300	100
Mufindi	40,712	88	5,725	12	46,437	100	9,701	54	8,111	46	17,811	100	50,413	78	13,836	22	64,248	100
Makete	14,725	79	3,879	21	18,604	100	4,094	39	6,393	61	10,487	100	18,819	65	10,272	35	29,091	100
Njombe	40,755	86	6,595	14	47,350	100	12,007	57	9,132	43	21,139	100	52,762	77	15,727	23	68,489	100
Ludewa	16,086	88	2,110	12	18,196	100	5,274	62	3,230	38	8,505	100	21,360	80	5,340	20	26,701	100
Iringa Urban	868	92	78	8	946	100	186	41	264	59	450	100	1,054	76	341	24	1,395	100
Kilolo	26,568	83	5,357	17	31,925	100	6,779	55	5,576	45	12,355	100	33,346	75	10,933	25	44,279	100
Njombe Mji	10,432	94	677	6	11,109	100	3,623	72	1,394	28	5,017	100	14,055	87	2,070	13	16,126	100
<b>Total</b>	<b>181,424</b>	<b>85</b>	<b>33,178</b>	<b>15</b>	<b>214,602</b>	<b>100</b>	<b>49,032</b>	<b>53</b>	<b>42,996</b>	<b>47</b>	<b>92,027</b>	<b>100</b>	<b>230,455</b>	<b>75</b>	<b>76,174</b>	<b>25</b>	<b>306,629</b>	<b>100</b>

**3.11: 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	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	139	50	139	50	278	100	30,722	82	6,534	18	37,255	100
Mufindi	636	100	0	0	636	100	39,758	81	9,065	19	48,822	100
Makete	287	80	72	20	359	100	14,581	78	4,094	22	18,676	100
Njombe	507	100	0	0	507	100	40,755	77	11,838	23	52,593	100
Ludewa	66	33	132	67	198	100	15,888	75	5,208	25	21,097	100
Iringa Urban	31	100	0	0	31	100	837	82	186	18	1,023	100
Kilolo	437	80	109	20	547	100	25,584	79	6,779	21	32,362	100
Njombe Mji	80	33	159	67	239	100	10,273	74	3,583	26	13,856	100
<b>Total</b>	<b>2,184</b>	<b>78</b>	<b>611</b>	<b>22</b>	<b>2,795</b>	<b>100</b>	<b>178,398</b>	<b>79</b>	<b>47,287</b>	<b>21</b>	<b>225,684</b>	<b>100</b>

**Cont..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	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	9,175	49	9,592	51	18,767	100	40,036	71	16,265	29	56,300	100
Mufindi	6,043	41	8,747	59	14,790	100	46,437	72	17,811	28	64,248	100
Makete	3,735	37	6,321	63	10,056	100	18,604	64	10,487	36	29,091	100
Njombe	6,088	40	9,301	60	15,389	100	47,350	69	21,139	31	68,489	100
Ludewa	2,242	41	3,165	59	5,406	100	18,196	68	8,505	32	26,701	100
Iringa Urban	78	23	264	77	341	100	946	68	450	32	1,395	100
Kilolo	5,904	52	5,467	48	11,371	100	31,925	72	12,355	28	44,279	100
Njombe Mji	757	37	1,274	63	2,031	100	11,109	69	5,017	31	16,126	100
<b>Total</b>	<b>34,020</b>	<b>44</b>	<b>44,129</b>	<b>56</b>	<b>78,150</b>	<b>100</b>	<b>214,602</b>	<b>70</b>	<b>92,027</b>	<b>30</b>	<b>306,629</b>	<b>100</b>

**3.12: Number of Agricultural Household Members By Level of involvement in Farming Activivty 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	%
Iringa Rural	101,062	48	9,592	5	48,654	23	49,489	24	208,797	100
Mufindi	99,871	37	7,633	3	87,467	32	76,334	28	271,305	100
Makete	46,905	50	2,514	3	16,521	18	27,008	29	92,947	100
Njombe	134,610	53	10,485	4	31,623	13	75,930	30	252,648	100
Ludewa	47,599	48	2,769	3	17,207	17	31,645	32	99,220	100
Iringa Urban	1,876	35	93	2	2,604	49	713	13	5,286	100
Kilolo	87,356	48	5,576	3	34,112	19	56,634	31	183,678	100
Njombe Mji	27,035	46	4,181	7	11,069	19	16,922	29	59,207	100
<b>Total</b>	<b>546,315</b>	<b>47</b>	<b>42,843</b>	<b>4</b>	<b>249,257</b>	<b>21</b>	<b>334,675</b>	<b>29</b>	<b>1,173,089</b>	<b>100</b>

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

District	Main Activity									
	Crop/Seaweed Farming		Livestock Keeping / Herding		Livestock Pastoralist		Fishing		Fish Farming	
	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	107,596	52	1,390	1	278	0.1	695	0.3	0	0
Mufindi	121,022	45	1,590	1	0	0.0	636	0.2	0	0
Makete	49,850	54	431	0	72	0.1	144	0.2	0	0
Njombe	139,852	55	676	0	0	0.0	338	0.1	0	0
Ludewa	51,291	52	330	0	0	0.0	725	0.7	0	0
Iringa Urban	2,806	53	16	0	0	0.0	0	0.0	0	0
Kilolo	93,041	51	1,531	1	219	0.1	219	0.1	0	0
Njombe Mji	29,743	50	80	0	40	0.1	80	0.1	0	0
<b>Total</b>	<b>595,202</b>	<b>51</b>	<b>6,043</b>	<b>1</b>	<b>608</b>	<b>0.1</b>	<b>2,837</b>	<b>0.2</b>	<b>0</b>	<b>0</b>

Cont 3.13: 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	%
Iringa Rural	2,085	1.00	4,865	2.33	2,224	1.07	834	0.40	695	0.33
Mufindi	1,749	0.64	7,156	2.64	1,590	0.59	2,704	1.00	318	0.12
Makete	934	1.00	1,077	1.16	359	0.39	575	0.62	359	0.39
Njombe	1,353	0.54	4,904	1.94	1,015	0.40	1,522	0.60	846	0.33
Ludewa	593	0.60	132	0.13	527	0.53	396	0.40	330	0.33
Iringa Urban	62	1.17	16	0.29	31	0.59	62	1.17	0	0.00
Kilolo	875	0.48	2,843	1.55	1,203	0.65	875	0.48	547	0.30
Njombe Mji	438	0.74	637	1.08	478	0.81	199	0.34	159	0.27
<b>Total</b>	<b>8,089</b>	<b>0.69</b>	<b>21,630</b>	<b>1.84</b>	<b>7,427</b>	<b>0.63</b>	<b>7,166</b>	<b>0.61</b>	<b>3,253</b>	<b>0.28</b>

Cont 3.13: 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	%
Iringa Rural	695	0	417	0	2,224	1	70,340	34	13,345	6	1,112	1	208,797	100
Mufindi	636	0	159	0	477	0	115,933	43	16,380	6	954	0	271,305	100
Makete	215	0	72	0	144	0	32,251	35	6,249	7	215	0	92,947	100
Njombe	507	0	0	0	0	0	84,892	34	16,573	7	169	0	252,648	100
Ludewa	0	0	66	0	0	0	36,919	37	7,845	8	66	0	99,220	100
Iringa Urban	0	0	0	0	0	0	2,186	41	109	2	0	0	5,286	100
Kilolo	219	0	328	0	1,093	1	67,676	37	11,917	6	1,093	1	183,678	100
Njombe Mji	119	0	40	0	80	0	23,452	40	3,504	6	159	0	59,207	100
<b>Total</b>	<b>2,392</b>	<b>0</b>	<b>1,082</b>	<b>0</b>	<b>4,018</b>	<b>0</b>	<b>433,651</b>	<b>37</b>	<b>75,922</b>	<b>6</b>	<b>3,769</b>	<b>0</b>	<b>1,173,089</b>	<b>100</b>

**LAND USE**

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

District	Land ownership/tenure														
	Leased / Certificate of Ownership		Owned under Customary Law		Bought		Rented		Borrowed		Households with area Share - cropped		Households with area under Other forms of Tenure		Total number of households
	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	No of Households	%	
Iringa Rural	3,753	6.7	47,959	85.2	6,117	10.9	7,924	14.1	2,085	3.7	0	0.0	139	0.2	56,300
Mufindi	3,022	4.7	58,682	91.3	14,790	23.0	7,156	11.1	9,224	14.4	1,113	1.7	2,067	3.2	64,248
Makete	1,365	4.7	26,792	92.1	5,531	19.0	5,244	18.0	4,310	14.8	431	1.5	1,437	4.9	29,091
Njombe	4,059	5.9	62,232	90.9	10,992	16.0	9,808	14.3	5,073	7.4	676	1.0	5,750	8.4	68,489
Ludewa	5,604	21.0	23,668	88.6	3,362	12.6	2,110	7.9	3,428	12.8	330	1.2	1,055	4.0	26,701
Iringa Urban	16	1.1	1,147	82.2	124	8.9	171	12.2	93	6.7	0	0.0	0	0.0	1,395
Kilolo	5,685	12.8	33,018	74.6	6,779	15.3	7,544	17.0	2,733	6.2	109	0.2	219	0.5	44,279
Njombe Mji	677	4.2	15,289	94.8	995	6.2	1,672	10.4	1,354	8.4	438	2.7	557	3.5	16,126
<b>Total</b>	<b>24,180</b>	<b>7.9</b>	<b>268,789</b>	<b>87.7</b>	<b>48,690</b>	<b>15.9</b>	<b>41,628</b>	<b>13.6</b>	<b>28,300</b>	<b>9.2</b>	<b>3,098</b>	<b>1.0</b>	<b>11,224</b>	<b>3.7</b>	<b>306,629</b>

**4.2: 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
Iringa Rural	8,020	83,745	9,427	7,176	1,407	.	84	109,860
Mufindi	3,960	117,566	23,246	4,652	4,748	740	1,594	156,506
Makete	1,924	55,121	8,012	3,766	2,742	233	1,214	73,011
Njombe	16,123	107,636	14,275	8,010	2,619	257	6,077	154,997
Ludewa	10,803	63,115	3,697	1,862	2,376	127	3,657	85,636
Iringa Urban	13	1,069	116	108	35	.	.	1,340
Kilolo	9,351	83,891	12,792	7,923	1,804	89	133	115,983
Njombe Mji	2,019	64,670	1,294	1,423	1,584	512	1,346	72,847
<b>Total</b>	<b>52,212</b>	<b>576,814</b>	<b>72,858</b>	<b>34,920</b>	<b>17,314</b>	<b>1,957</b>	<b>14,105</b>	<b>770,180</b>

**4.3: 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
Iringa Rural	33,085	59	23,215	41	56,300
Mufindi	32,760	51	31,488	49	64,248
Makete	13,288	46	15,803	54	29,091
Njombe	43,630	64	24,859	36	68,489
Ludewa	8,834	33	17,866	67	26,701
Iringa Urban	1,132	81	264	19	1,395
Kilolo	26,568	60	17,712	40	44,279
Njombe Mji	6,570	41	9,556	59	16,126
<b>Total</b>	<b>165,867</b>	<b>54</b>	<b>140,762</b>	<b>46</b>	<b>306,629</b>

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

District	Do you Consider that you have sufficient land for the Hh?				
	Yes	%	No	%	Total
Iringa Rural	22,659	40	33,641	60	56,300
Mufindi	29,262	46	34,987	54	64,248
Makete	15,659	54	13,432	46	29,091
Njombe	30,101	44	38,388	56	68,489
Ludewa	11,339	42	15,361	58	26,701
Iringa Urban	915	66	481	34	1,395
Kilolo	22,085	50	22,194	50	44,279
Njombe Mji	6,251	39	9,874	61	16,126
<b>Total</b>	<b>138,271</b>	<b>45</b>	<b>168,358</b>	<b>55</b>	<b>306,629</b>

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

District	Do any Female Members of the Hh own or have customary right to Land			
	Yes	%	No	%
Iringa Rural	23,493	42	32,807	58
Mufindi	32,442	50	31,806	50
Makete	13,648	47	15,443	53
Njombe	31,285	46	37,204	54
Ludewa	10,746	40	15,954	60
Iringa Urban	527	38	868	62
Kilolo	23,397	53	20,882	47
Njombe Mji	5,933	37	10,193	63
<b>Total</b>	<b>141,471</b>	<b>46</b>	<b>165,158</b>	<b>54</b>



**4.6: 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	%
Iringa Rural	41,287	73	17,794	32	556	1	0	0	973	556	1	10,426	556	1
Mufindi	45,801	71	30,057	47	7,633	12	1,272	2	2,067	5,566	9	22,105	2,544	4
Makete	27,726	95	9,841	34	1,437	5	646	2	1,724	790	3	12,139	1,149	4
Njombe	37,204	54	42,446	62	4,228	6	1,860	3	2,706	3,889	6	16,403	1,691	2
Ludewa	21,558	81	9,757	37	6,922	26	1,846	7	2,505	1,780	7	14,570	3,692	14
Iringa Urban	605	43	837	60	16	1	0	0	0	0	0	186	0	0
Kilolo	30,722	69	20,226	46	1,968	4	656	1	1,531	875	2	10,387	1,421	3
Njombe Mji	14,374	89	2,747	17	1,394	9	637	4	597	518	3	6,331	796	5
<b>Total</b>	<b>219,276</b>	<b>72</b>	<b>133,705</b>	<b>44</b>	<b>24,153</b>	<b>8</b>	<b>6,918</b>	<b>2</b>	<b>12,103</b>	<b>13,974</b>	<b>5</b>	<b>92,547</b>	<b>11,850</b>	<b>4</b>

**Cont..4.6: Number of Agriculture Households by Type of Land Use and District for the 2007/08 agriculture year**

Type of land use								
Households under Planted Trees	%	Households under area Rented to Others	%	Households under Unusable land	%	Households of Uncultivated Usable Land	%	Total number of households
834	1	2,502	4	1,668	3	4,865	9	56,300
14,154	22	2,385	4	4,453	7	4,930	8	64,248
9,194	32	1,939	7	2,083	7	4,382	15	29,091
13,529	20	1,860	3	3,382	5	5,919	9	68,489
6,461	24	2,110	8	4,813	18	5,010	19	26,701
0	0	31	2	16	1	109	8	1,395
7,981	18	4,045	9	1,640	4	4,155	9	44,279
9,874	61	836	5	1,314	8	2,588	16	16,126
<b>62,027</b>	<b>20</b>	<b>15,709</b>	<b>5</b>	<b>19,368</b>	<b>6</b>	<b>31,957</b>	<b>10</b>	<b>306,629</b>

**4.7: 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)
Iringa Rural	52,313	18,595	104	.	760	507	21,232	281	2,547	3,658	1,126	8,738	109,859.54
Mufindi	54,073	30,673	2,688	483	2,253	6,712	26,768	3,525	17,484	3,300	3,348	5,199	156,506.13
Makete	31,937	7,787	377	170	1,415	843	13,687	554	9,320	1,200	1,178	4,544	73,011.42
Njombe	42,697	49,315	1,643	344	1,951	4,772	16,267	1,643	14,224	1,506	9,551	11,117	155,031.12
Ludewa	27,939	7,498	3,797	566	1,744	2,342	18,395	7,720	2,488	1,802	5,492	5,853	85,636.01
Iringa Urban	349	731	6	.	.	.	104	.	.	44	6	100	1,340.31
Kilolo	43,821	24,941	401	166	1,671	2,125	16,632	4,161	8,488	5,865	1,793	5,920	115,982.52
Njombe Mji	23,252	3,546	415	153	282	3,201	10,012	4,074	17,081	1,040	2,406	7,385	72,847.02
<b>Total</b>	<b>276,382</b>	<b>143,085</b>	<b>9,430</b>	<b>1,882</b>	<b>10,077</b>	<b>20,501</b>	<b>123,097</b>	<b>21,959</b>	<b>71,631</b>	<b>18,414</b>	<b>24,899</b>	<b>48,857</b>	<b>770,214.07</b>

**INPUT USE**

**5.1: Number of Households and Planted Area by Organic Fertiliser Use and District - SHORT RAINY SEASON**

District	Number of Households using Organic Fertilizer	Planted Area with Organic Fertilizer	Number of Households NOT using Improved Fertilizer	Planted Area with no Organic Fertilizer	Total Number of Households	Total Planted Area (ha)
Iringa Rural	0	.	139	56	139	56
Mufindi	0	.	159	161	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	0	.	66	160	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	0	.	984	730	984	730
Njombe Mji	0	.	40	8	40	8
Total	0	.	1,388	1,116	1,388	1,116

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

District	Number of Households using Organic Fertilizer	Planted Area with Organic Fertilizer	Number of Households NOT using Improved Fertilizer	Planted Area with no Organic Fertilizer	Total Number of Households	Total Planted Area (ha)
Iringa Rural	7,507	4,964	48,237	65,788	55,744	70,751
Mufindi	13,836	8,910	50,253	76,017	64,089	84,928
Makete	5,890	3,432	23,201	36,558	29,091	39,990
Njombe	9,639	8,161	58,173	84,421	67,812	92,582
Ludewa	2,703	1,555	22,877	33,070	25,580	34,624
Iringa Urban	93	28	1,271	1,044	1,364	1,072
Kilolo	3,061	2,971	40,890	65,345	43,951	68,316
Njombe Mji	2,588	2,179	13,498	24,238	16,086	26,417
Total	45,317	32,199	258,401	386,481	303,718	418,681

**5.3: Number of Households and Planted Area by Inorganic Fertilizer Use and District - SHORT RAINY SEASON**

District	Number of Households using Inorganic Fertilizer	Planted Area with Inorganic Fertilizer	Number of Households NOT using Improved Fertilizer	Planted Area with no Inorganic Fertilizer	Total Number of Households	Total Planted Area (ha)
Iringa Rural	139	0	0	56	139	56
Mufindi	159	64	0	97	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	66	80	0	80	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	984	144	0	586	984	730
Njombe Mji	40	0	0	8	40	8
Total	1,388	288	0	827	1,388	1,116

**5.4: Number of Households and Planted Area by Inorganic Fertiliser Use and District - LONG RAINY SEASON**

District	Number of Households using Inorganic Fertilizer	Planted Area with Inorganic Fertilizer	Number of Households NOT using Improved Fertilizer	Planted Area with no Inorganic Fertilizer	Total Number of Households	Total Planted Area (ha)
Iringa Rural	55,744	13,818	0	56,933	55,744	70,751
Mufindi	64,089	18,156	0	66,772	64,089	84,928
Makete	29,091	8,793	0	31,197	29,091	39,990
Njombe	67,812	29,961	0	62,622	67,812	92,582
Ludewa	25,580	5,969	0	28,655	25,580	34,624
Iringa Urban	1,364	611	0	461	1,364	1,072
Kilolo	43,951	12,747	0	55,569	43,951	68,316
Njombe Mji	16,086	13,354	0	13,063	16,086	26,417
Total	303,718	103,409	0	315,272	303,718	418,681

**5.5: Number of Households and Planted Area by Fungicide Use and District - SHORT RAINY SEASON**

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)
Iringa Rural	0	.	139	56	139	56
Mufindi	0	.	159	161	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	0	.	66	160	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	0	.	984	730	984	730
Njombe Mji	0	.	40	8	40	8
Total	0	.	1,388	1,116	1,388	1,116

**5.6: Number of Households and Planted Area by Fungicide Use and District - LONG RAINY SEASON**

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)
Iringa Rural	2,641	1,538	53,103	69,214	55,744	70,751
Mufindi	4,612	3,099	59,477	81,829	64,089	84,928
Makete	1,077	875	28,014	39,115	29,091	39,990
Njombe	6,426	2,721	61,386	89,861	67,812	92,582
Ludewa	2,307	1,205	23,272	33,420	25,580	34,624
Iringa Urban	62	15	1,302	1,057	1,364	1,072
Kilolo	4,373	2,585	39,578	65,731	43,951	68,316
Njombe Mji	8,123	5,301	7,963	21,116	16,086	26,417
Total	29,622	17,338	274,096	401,343	303,718	418,681

**5.7: Number of Households and Planted Area by Herbicide Use and District - SHORT RAINY SEASON**

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)
Iringa Rural	0	.	139	56	139	56
Mufindi	0	.	159	161	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	0	.	66	160	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	0	.	984	730	984	730
Njombe Mji	0	.	40	8	40	8
Total	0	.	1,388	1,116	1,388	1,116

**5.8: Number of Households and Planted Area by Herbicide Use and District - LONG RAINY SEASON**

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)
Iringa Rural	139	338	55,605	70,414	55,744	70,751
Mufindi	1,272	1,215	62,817	83,713	64,089	84,928
Makete	144	73	28,947	39,917	29,091	39,990
Njombe	846	702	66,967	91,881	67,812	92,582
Ludewa	66	80	25,514	34,544	25,580	34,624
Iringa Urban	16	9	1,349	1,063	1,364	1,072
Kilolo	437	199	43,514	68,116	43,951	68,316
Njombe Mji	40	32	16,046	26,385	16,086	26,417
Total	2,959	2,648	300,759	416,032	303,718	418,681

**5.9: Number of Households and Planted Area by Improved Seed Use and District - SHORT RAINY SEASON**

District	Number of Households using Improved seed	Planted Area with Improved seed	Number of Households NOT using Improved seed	Planted Area with no Improved seed	Total Number of Households	Total Planted Area (ha)
Iringa Rural	0	.	139	56	139	56
Mufindi	159	32	0	129	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	0	.	66	160	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	328	221	656	509	984	730
Njombe Mji	0	.	40	8	40	8
Total	487	254	901	862	1,388	1,116

**5.10: Number of Households and Planted Area by Improved Seed Use and District - LONG RAINY SEASON**

District	Number of Households using Improved seed	Planted Area with Improved seed	Number of Households NOT using Improved seed	Planted Area with no Improved seed	Total Number of Households	Total Planted Area (ha)
Iringa Rural	12,094	11,898	43,650	58,854	55,744	70,751
Mufindi	17,334	12,363	46,755	72,564	64,089	84,928
Makete	6,896	5,408	22,195	34,582	29,091	39,990
Njombe	17,080	13,522	50,732	79,061	67,812	92,582
Ludewa	2,769	1,933	22,811	32,691	25,580	34,624
Iringa Urban	202	154	1,163	918	1,364	1,072
Kilolo	8,309	10,014	35,642	58,302	43,951	68,316
Njombe Mji	4,778	4,065	11,308	22,352	16,086	26,417
Total	69,462	59,356	234,256	359,325	303,718	418,681

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

District	Number of Households using Local seed	Planted Area with Local seed	Number of Households NOT using Local seed	Planted Area with no Local seed	Total Number of Households	Total Planted Area (ha)
Iringa Rural	139	56	0	.	139	56
Mufindi	159	129	0	32	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	66	120	0	40	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	656	443	328	288	984	730
Njombe Mji	40	8	0	.	40	8
Total	1,060	756	328	360	1,388	1,116

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

District	Number of Households using Local seed	Planted Area with Local seed	Number of Households NOT using Local seed	Planted Area with no Local seed	Total Number of Households	Total Planted Area (ha)
Iringa Rural	51,574	58,115	4,170	12,637	55,744	70,751
Mufindi	61,068	70,725	3,022	14,507	64,089	84,928
Makete	28,301	34,273	790	5,772	29,091	39,990
Njombe	65,445	76,519	2,368	16,063	67,812	92,582
Ludewa	25,250	32,193	330	2,431	25,580	34,624
Iringa Urban	1,287	901	78	171	1,364	1,072
Kilolo	42,639	57,007	1,312	11,309	43,951	68,316
Njombe Mji	15,250	22,046	836	4,371	16,086	26,417
Total	290,813	351,778	12,905	67,261	303,718	418,681

**5.13: Number of Households and Planted Area by Insecticides Use by District - SHORT RAINY SEASON**

District	Number of Households using Insecticide	Planted Area with Insecticide	Number of Households NOT using Insecticide	Planted Area with no Insecticide	Total Number of Households	Total Planted Area (ha)
Iringa Rural	0	.	139	56	139	56
Mufindi	159	64	0	97	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	66	80	0	80	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	328	89	656	642	984	730
Njombe Mji	0	.	40	8	40	8
Total	553	233	835	883	1,388	1,116

**5.14: Number of Households and Planted Area by Insecticide Use and District - LONG RAINY SEASON**

District	Number of Households using Insecticide	Planted Area with Insecticide	Number of Households NOT using Insecticide	Planted Area with no Insecticide	Total Number of Households	Total Planted Area (ha)
Iringa Rural	12,928	12,207	42,816	58,544	55,744	70,751
Mufindi	45,324	38,775	18,766	46,153	64,089	84,928
Makete	9,122	6,340	19,969	33,650	29,091	39,990
Njombe	26,719	22,475	41,093	70,107	67,812	92,582
Ludewa	15,229	12,735	10,351	21,889	25,580	34,624
Iringa Urban	78	44	1,287	1,028	1,364	1,072
Kilolo	16,618	16,699	27,333	51,616	43,951	68,316
Njombe Mji	14,812	14,725	1,274	11,692	16,086	26,417
Total	140,830	124,001	162,888	294,680	303,718	418,681

**5.15: Number of Households and Planted Area by Irrigation Use and District - SHORT RAINY SEASON**

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)
Iringa Rural	139	56	0	.	139	56
Mufindi	0	.	159	161	159	161
Makete	0	.	0	.	0	.
Njombe	0	.	0	.	0	.
Ludewa	0	.	66	160	66	160
Iringa Urban	0	.	0	.	0	.
Kilolo	875	509	109	221	984	730
Njombe Mji	0	.	40	8	40	8
Total	1,014	565	374	550	1,388	1,116



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

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)
Iringa Rural	9,175	6,498	46,569	64,253	55,744	70,751
Mufindi	6,679	2,335	57,410	82,593	64,089	84,928
Makete	862	358	28,229	39,632	29,091	39,990
Njombe	8,455	4,969	59,357	87,614	67,812	92,582
Ludewa	1,187	637	24,393	33,987	25,580	34,624
Iringa Urban	186	55	1,178	1,017	1,364	1,072
Kilolo	3,499	3,469	40,453	64,846	43,951	68,316
Njombe Mji	1,632	1,175	14,453	25,242	16,086	26,417
Total	31,675	19,496	272,043	399,185	303,718	418,681

**TOTAL ANNUAL CROP PRODUCTION BY DISTRICT DURING SHORT AND LONG  
RAINY SEASON**

**5.17: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short Rainy Season Agricultural Year 2007/08**

District	Maize				Paddy				Wheat				Onion			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	0	0	0	.	139	56	222.42	3.95	0	0	0	.	0	0	0	.
Mufindi	159	64	127.22	1.98	0	0	0	.	159	32	15.58	0.48	0	0	0	.
Makete	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Njombe	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Ludewa	66	80	341.77	4.27	0	0	0	.	0	0	0	.	0	0	0	.
Iringa Urban	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Kilolo	656	598	765.32	1.28	0	0	0	.	0	0	0	.	109	33	218.66	6.59
Njombe Mji	40	8	3.58	0.44	0	0	0	.	0	0	0	.	0	0	0	.
<b>Total</b>	<b>921</b>	<b>750</b>	<b>1,237.90</b>	<b>1.65</b>	<b>139</b>	<b>56</b>	<b>222.42</b>	<b>3.95</b>	<b>159</b>	<b>32</b>	<b>15.58</b>	<b>0.48</b>	<b>109</b>	<b>33</b>	<b>218.66</b>	<b>6.59</b>

**Cont.... Table 5.17: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short Rainy Season Agricultural Year 2007/08**

District	Beans				Cowpeas				Field Peas				Sunflower			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Mufindi	0	0	0	.	0	0	0	.	159	16	11.93	0.74	0	0	0	.
Makete	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Njombe	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Ludewa	66	40	52.74	1.32	0	0	0	.	0	0	0	.	66	40	12.66	0.32
Iringa Urban	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Kilolo	328	100	52.48	0.53	0	0	0	.	0	0	0	.	0	0	0	.
Njombe Mji	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
<b>Total</b>	<b>394</b>	<b>140</b>	<b>105.22</b>	<b>0.75</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>.</b>	<b>159</b>	<b>16</b>	<b>11.93</b>	<b>0.74</b>	<b>66</b>	<b>40</b>	<b>12.66</b>	<b>0.32</b>

Cont.... Table 5.17: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Short Rainy SEASON Agricultural Year 2007/08

District	Cabbage				Tomatoes				Pumpkins			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)		Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	0	0	0	.	0	0	0	.	0	0	0	.
Mufindi	159	16	214.69	13.34	159	16	556.61	34.58	159	16	39.76	2.47
Makete	0	0	0	.	0	0	0	.	0	0	0	.
Njombe	0	0	0	.	0	0	0	.	0	0	0	.
Ludewa	0	0	0	.	0	0	0	.	0	0	0	.
Iringa Urban	0	0	0	.	0	0	0	.	0	0	0	.
Kilolo	0	0	0	.	0	0	0	.	0	0	0	.
Njombe Mji	0	0	0	.	0	0	0	.	0	0	0	.
<b>Total</b>	<b>159</b>	<b>16</b>	<b>214.69</b>	<b>13.34</b>	<b>159</b>	<b>16</b>	<b>556.61</b>	<b>34.58</b>	<b>159</b>	<b>16</b>	<b>39.76</b>	<b>2.47</b>

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

District	Maize				Paddy				Sorghum				Bulrush Millet			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	49,489	44,203	61,546.54	1.39	6,673	4,896	15,026.31	3.07	3,197	2,828	2,428.55	0.86	0	0	0	.
Mufindi	63,771	52,545	84,722.92	1.61	318	467	951.00	2.04	0	0	0	.	0	0	0	.
Makete	28,947	18,834	23,816.03	1.26	646	371	861.95	2.32	2,586	1,162	1,410.30	1.21	0	0	0	.
Njombe	67,136	53,579	95,603.28	1.78	0	0	0	.	169	3	1.69	0.49	169	17	51.24	2.99
Ludewa	24,855	17,859	33,233.79	1.86	1,912	661	563.94	0.85	264	100	61.97	0.62	0	0	0	.
Iringa Urban	1,364	845	903.49	1.07	0	0	0	.	0	0	0	.	0	0	0	.
Kilolo	43,623	43,515	55,126.00	1.27	109	44	57.40	1.30	437	199	240.53	1.21	0	0	0	.
Njombe Mji	16,006	14,777	28,083.08	1.90	40	32	27.87	0.86	80	73	26.28	0.36	0	0	0	.
<b>Total</b>	<b>295,191</b>	<b>246,158</b>	<b>383,035</b>	<b>1.56</b>	<b>9,698</b>	<b>6,471</b>	<b>17,488.48</b>	<b>2.70</b>	<b>6,733</b>	<b>4,365</b>	<b>4,169.33</b>	<b>0.96</b>	<b>169</b>	<b>17</b>	<b>51.24</b>	<b>2.99</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

strict	Turmeric				Bitter Aubergine			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	0	0	0	.	278	70	1,028.70	14.62
Mufindi	159	290	477.09	1.65	159	32	63.61	1.98
Makete	0	0	0	.	0	0	0	.
Njombe	0	0	0	.	0	0	0	.
Ludewa	0	0	0	.	0	0	0	.
Iringa Urban	0	0	0	.	0	0	0	.
Kilolo	0	0	0	.	109	11	218.66	19.76
Njombe Mji	40	8	9.56	1.19	0	0	0	.
<b>Total</b>	<b>199</b>	<b>298</b>	<b>486.65</b>	<b>1.63</b>	<b>546</b>	<b>114</b>	<b>1,310.97</b>	<b>11.54</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Finger Millet				Mung Bean				Okra				Radish			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	139	14	27.80	1.98	556	197	347.53	1.76	278	84	97.31	1.15	139	56	6.95	0.12
Mufindi	4,930	1,651	1,210.38	0.73	0	0	0	.	159	97	114.50	1.19	0	0	0	.
Makete	1,652	204	142.37	0.70	359	79	12.93	0.16	72	3	13.79	5.27	72	29	8.62	0.30
Njombe	1,353	548	351.75	0.64	0	0	0	.	338	48	80.50	1.68	0	0	0	.
Ludewa	2,110	567	214.79	0.38	0	0	0	.	66	27	26.37	0.99	132	10	6.99	0.69
Iringa Urban	0	0	0	.	0	0	0	.	0	0	0	.	0	0	0	.
Kilolo	5,029	2,246	956.65	0.43	109	18	349.86	19.76	0	0	0	.	0	0	0	.
Njombe Mji	2,150	841	562.13	0.67	0	0	0	.	0	0	0	.	40	16	11.94	0.74
<b>Total</b>	<b>17,363</b>	<b>6,072</b>	<b>3,465.86</b>	<b>0.57</b>	<b>1,025</b>	<b>294</b>	<b>710.32</b>	<b>2.42</b>	<b>913</b>	<b>258</b>	<b>332.47</b>	<b>1.29</b>	<b>383</b>	<b>112</b>	<b>34.50</b>	<b>0.31</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Wheat				Cassava				Sweet Potato				Irish potatoes			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	139	28	2	0.07	0	0	0	.	0	0	0	.	973	310	2,468	7.97
Mufindi	9,065	4,450	4,175	0.94	477	80	54.07	0.67	4,135	487	1,808.65	3.71	5,407	1,532	4,368	2.85
Makete	16,880	7,129	4,264	0.60	0	0	0	.	1,652	195	276.47	1.41	15,084	6,248	27,305	4.37
Njombe	5,073	2,014	1,551	0.77	507	142	59.19	0.42	169	17	43.29	2.53	6,764	3,132	19,983	6.38
Ludewa	3,560	1,475	1,025	0.70	0	0	0	.	1,450	244	369.32	1.51	3,758	1,401	3,784	2.70
Kilolo	219	89	33	0.37	0	0	0	.	547	111	338.93	3.06	437	144	429	2.98
Njombe Mji	5,654	2,345	1,596	0.68	40	16	23.89	1.48	478	81	137.96	1.71	8,481	4,627	22,622	4.89
<b>Total</b>	<b>40,590</b>	<b>17,530</b>	<b>12,646</b>	<b>0.72</b>	<b>1,024</b>	<b>239</b>	<b>137.15</b>	<b>0.57</b>	<b>8,431</b>	<b>1,135</b>	<b>2,974.63</b>	<b>2.62</b>	<b>40,905</b>	<b>17,394</b>	<b>80,958</b>	<b>4.65</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Yams				Coco Yam				Onion				Ginger			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	0	0	0	.	0	0	0	.	139	1	3.34	2.96	0	0	0	.
Mufindi	0	0	0	.	318	84	122.29	1.46	159	8	4.45	0.53	0	0	0	.
Makete	72	10	5.75	0.56	72	7	13.07	1.80	72	7	2.30	0.32	72	7	4.31	0.59
Njombe	0	0	0	.	0	0	0	.	338	51	356.48	6.94	0	0	0	.
Ludewa	0	0	0	.	132	17	11.21	0.65	330	27	101.53	3.80	0	0	0	.
Kilolo	109	18	16.40	0.93	0	0	0	.	1,531	609	2,579.79	4.24	0	0	0	.
Njombe Mji	0	0	0	.	40	16	29.03	1.80	0	0	0	.	0	0	0	.
<b>Total</b>	<b>181</b>	<b>28</b>	<b>22.15</b>	<b>0.79</b>	<b>562</b>	<b>124</b>	<b>175.60</b>	<b>1.41</b>	<b>2,568</b>	<b>703</b>	<b>3,047.89</b>	<b>4.33</b>	<b>72</b>	<b>7</b>	<b>4.31</b>	<b>0.59</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Beans				Cowpeas				Green gram				Bambaranuts			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	15,986	5,727	3,493	0.61	4,031	991	413.70	0.42	139	28	70.34	2.50	0	0	0	.
Mufindi	38,644	12,200	8,339	0.68	2,385	469	154.26	0.33	0	0	0	.	159	64	55.66	0.86
Makete	10,846	2,901	1,694	0.58	862	85	29.23	0.34	0	0	0	.	0	0	0	.
Njombe	48,027	15,422	10,972	0.71	9,470	2,703	1,633.42	0.60	0	0	0	.	1,691	522	385.40	0.74
Ludewa	16,680	8,414	5,325	0.63	1,055	171	64.94	0.38	0	0	0	.	132	19	8.83	0.46
Iringa Urban	775	167	101	0.61	31	13	5.43	0.43	0	0	0	.	16	2	.62	0.33
Kilolo	23,725	9,410	6,047	0.64	6,232	1,694	700.60	0.41	0	0	0	.	0	0	0	.
Njombe Mji	6,132	1,736	1,438	0.83	80	20	35.28	1.75	0	0	0	.	0	0	0	.
<b>Total</b>	<b>160,815</b>	<b>55,976</b>	<b>37,409</b>	<b>0.67</b>	<b>24,146</b>	<b>6,146</b>	<b>3,036.85</b>	<b>0.49</b>	<b>139</b>	<b>28</b>	<b>70.34</b>	<b>2.50</b>	<b>1,997</b>	<b>608</b>	<b>450.51</b>	<b>0.74</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Field Peas				Sunflower				Simsim				Groundnut			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	278	113	54.22	0.48	12,789	9,157	4,686.12	0.51	0	0	0	.	3,058	1,324	1,368.44	1.03
Mufindi	7,633	2,402	1,536.87	0.64	15,903	4,901	3,282.54	0.67	159	8	7.63	0.99	2,544	1,740	671.58	0.39
Makete	3,663	890	447.50	0.50	646	234	127.35	0.54	72	15	4.31	0.30	2,083	787	215.85	0.27
Njombe	1,522	231	58.17	0.25	34,836	11,877	9,693.11	0.82	169	51	3.38	0.07	3,720	1,836	1,884.88	1.03
Ludewa	4,153	1,412	853.89	0.60	4,219	953	422.66	0.44	264	40	13.19	0.33	2,505	757	514.50	0.68
Iringa Urban	0	0	0	.	31	9	4.84	0.51	0	0	0	.	47	8	5.58	0.68
Kilolo	2,624	1,425	1,694.43	1.19	9,184	5,062	2,921.13	0.58	1,093	930	396.33	0.43	2,624	1,200	1,257.21	1.05
Njombe Mji	5,017	1,629	1,066.16	0.65	119	36	10.51	0.29	0	0	0	.	80	8	9.56	1.19
<b>Total</b>	<b>24,891</b>	<b>8,102</b>	<b>5,711.23</b>	<b>0.70</b>	<b>77,729</b>	<b>32,230</b>	<b>21,148.26</b>	<b>0.66</b>	<b>1,757</b>	<b>1,044</b>	<b>424.84</b>	<b>0.41</b>	<b>16,662</b>	<b>7,660</b>	<b>5,927.59</b>	<b>0.77</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Tobacco				Pyrethrum				Chillies			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	.	.	.	.	.	.	.	.	556	270	771.52	2.86
Mufindi	159	41	7.95	0.20	318	64	63.61	0.99	0	0	0	.
Makete	0	0	0	.	1,221	596	390.03	0.65	0	0	0	.
Njombe	169	34	51.24	1.50	169	68	.00	-	0	0	0	.
Ludewa	0	0	0	.	659	180	101.46	0.56	0	0	0	.
Kilolo	0	0	0	.	328	122	54.56	0.45	0	0	0	.
Njombe Mji	.	..	.	.	.	.	.	.	0	0	0	.
<b>Total</b>	<b>328</b>	<b>75</b>	<b>59.19</b>	<b>0.79</b>	<b>2,696</b>	<b>1,031</b>	<b>609.67</b>	<b>0.59</b>	<b>556</b>	<b>270</b>	<b>771.52</b>	<b>2.86</b>

Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Cabbage				Tomatoes				Spinach				Carrot			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	0	0	0	.	834	338	4,042	12	139	56	78	1.38	0	0	0	.
Mufindi	2,544	415	5309	12.78	1,590	406	2,044	5	2,067	330	2,604	7.88	0	0	0	.
Makete	646	70	411	5.89	215	19	61	3	72	7	4	0.49	0	0	0	.
Njombe	169	17	338	19.76	1,184	137	1,870	14	676	61	541	8.88	0	0	0	.
Ludewa	527	93	300	3.21	923	147	1,073	7	396	37	122	3.34	132	13	123	9
Iringa Urban	0	0	0	.	47	9	181	19	0	0	.	.	0	0	0	.
Kilolo	219	89	131	1.48	2,296	1,142	22,280	20	0	0	.	.	0	0	0	.
Njombe Mji	518	89	518	5.80	40	16	24	1	398	38	105	2.76	0	0	0	.
<b>Total</b>	<b>4,624</b>	<b>773</b>	<b>7008</b>	<b>9.06</b>	<b>7,129</b>	<b>2,213</b>	<b>31,575</b>	<b>14</b>	<b>3,748</b>	<b>529</b>	<b>3,454</b>	<b>6.52</b>	<b>132</b>	<b>13</b>	<b>123</b>	<b>9</b>



Cont... Table 5.18: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) during Long Rainy SEASON Agricultural Year 2007/08

District	Amaranth				Pumpkins				Cucumber			
	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	No of Hholds	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Iringa Rural	0	0	0	.	0	0	0	.	278	59	200.18	3.39
Mufindi	954	41	511.92	12.62	1,749	124	520.35	4.19	0	0	0	.
Makete	0	0	0	.	1,149	100	56.17	0.56	0	0	0	.
Njombe	169	17	50.73	2.96	338	51	120.07	2.34	0	0	0	.
Iringa Urban	109	19	17.83	0.95	0	0	0	.	0	0	0	.
Kilolo	109	221	170.56	0.77	109	18	.00	-	0	0	0	.
Njombe Mji	119	12	21.50	1.78	0	0	0	.	0	0	0	.
<b>Total</b>	<b>1,461</b>	<b>310</b>	<b>772.54</b>	<b>2.49</b>	<b>3,346</b>	<b>293</b>	<b>696.58</b>	<b>2.37</b>	<b>278</b>	<b>59</b>	<b>200.18</b>	<b>3.39</b>

**PERMANENT CROPS**

**5.19: Number of Households Planting Permanent Crops by District, 2007/08 Agriculture Year - Iringa**

District	Have Crops/Fruit Trees		Does Not Have Crops/Fruit Trees		Total	
	Number	%	Number	%	Number	%
Iringa Rural	1,390	2.5	54,910	97.5	56,300	100
Mufindi	10,019	15.6	54,229	84.4	64,248	100
Makete	2,873	9.9	26,218	90.1	29,091	100
Njombe	9,470	13.8	59,019	86.2	68,489	100
Ludewa	12,394	46.4	14,306	53.6	26,701	100
Iringa Urban	16	1.1	1,380	98.9	1,395	100
Kilolo	4,155	9.4	40,125	90.6	44,279	100
Njombe Mji	3,225	20.0	12,901	80.0	16,126	100
Total	43,542	14.2	263,087	85.8	306,629	100

**5.20: Planted Area and Area Harvested by Type of Planting and District**

District	Area of Permanent Monocrop (ha)		Area of Permanent Mixed Crop (ha)		Total Area Planted Mono + Mixed (ha)		Area Harvested (ha)
	Number of households	Area (ha)	Number of households	Area (ha)	Number of households	Area (ha)	
Iringa Rural	834	205	834	369	1,390	574	400
Mufindi	7,315	2,231	4,612	599	10,019	2,829	2,234
Makete	1,221	1,573	1,939	286	2,873	1,859	400
Njombe	4,566	1,778	7,103	865	9,470	2,643	1,496
Ludewa	9,098	4,330	4,879	2,901	12,394	7,231	5,653
Iringa Urban	16	6	0	.	16	6	4
Kilolo	2,515	702	2,405	471	4,155	1,172	745
Njombe Mji	2,031	393	1,394	261	3,185	654	383
Total	27,595	11,218	23,165	5,752	43,502	16,969	11,315

**5.21: Area Planted, Area harvested, Quantity Harvested and Yield****by Type of Planted Crop – IRINGA REGION**

Crop	Number of Households	Area Planted(ha)	Area Harvested(ha)	Quantity Harvested (tonne)	Yield (t/ha)
Banana	19,840	2,894	1,842	8,325	4.5
Coffee	3,176	882	684	244	0.4
Mango	4,382	2,476	836	1,942	2.3
Pegion Peas	204	26	26	9	0.3
Coconuts	109	3	0.0	1	0.0
Orange	2,190	500	113	734	6.5
Sugar Cane	3,414	473	340	4,297	12.6
Tea	5,379	2,042	1,985	19,624	9.9
Others	36,124	7,493	5,489	17,902	3.3
<b>Total</b>	<b>74,818</b>	<b>16,789</b>	<b>11,315</b>	<b>53,078</b>	<b>4.4</b>

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

Districts	Banana								Coffee							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Iringa Rural	278	33	278	47	556	80	33	175	-	-	-	-	-	-	-	0
Mufindi	3,181	510	2,544	106	4,771	615	404	2,246	-	-	-	-	-	-	-	0
Makete	215	102	1,580	69	1,652	171	65	196	144	20	287	30	431	49	40	5
Njombe	1,860	312	3,889	114	5,073	427	282	1,282	1,384	315	989	443	2,307	758	633	213
Ludewa	1,582	515	3,230	657	4,417	1,173	866	3,218	109	11	328	63	437	74	11	26
Kilolo	1,093	243	1,203	42	2,296	285	124	809	-	-	-	-	-	-	-	-
Njombe Mji	637	118	478	25	1,075	143	67	399	-	-	-	-	-	-	-	-
<b>Total</b>	<b>8,847</b>	<b>1,833</b>	<b>13,203</b>	<b>1,061</b>	<b>19,840</b>	<b>2,894</b>	<b>1,842</b>	<b>8,325</b>	<b>1,637</b>	<b>346</b>	<b>1,604</b>	<b>536</b>	<b>3,176</b>	<b>882</b>	<b>684</b>	<b>244</b>

**Cont. Table 5.22: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District - Iringa**

Districts	Mango								Pigeon pea							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Iringa Rural	139	27	556	140	556	167	118	119	-	-	-	-	-	-	-	-
Mufindi	159	16	159	2	159	17	17	0	-	-	-	-	-	-	-	-
Makete	72	851	72	24	72	875	.	4	72	7	0	.	72	7	7	2
Njombe	0	.	1,184	92	1,184	92	30	347	-	-	-	-	-	-	-	-
Ludewa	791	513	1,450	789	2,044	1,303	664	1,461	66	13	66	6	132	19	19	7
Kilolo	0	.	328	21	328	21	7	11	-	-	-	-	-	-	-	-
Njombe Mjini	40	0	0	.	40	0	0	1	-	-	-	-	-	-	-	-
<b>Total</b>	<b>1,201</b>	<b>1,408</b>	<b>3,749</b>	<b>1,068</b>	<b>4,382</b>	<b>2,476</b>	<b>836</b>	<b>1,942</b>	<b>138</b>	<b>19</b>	<b>66</b>	<b>6</b>	<b>204</b>	<b>26</b>	<b>26</b>	<b>9</b>

Cont. Table 5.22: Mono and Mixed Crops by Area Planted, Area Harvested and Quantity Harvested, Type of Planting Crops and District - Iringa

Districts	Orange								Sugar cane							
	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)	Area of Plants/Trees/Bushes in Mono Crop (ha)		Area Covered by Permanent Crop in Mixed Crop (ha)		Total Area Planted (ha) Mono+Mixed Area		Area harvested (ha)	Quantity harvested (tons)
	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons	Number of households	Area	Number of households	Area	Number of households	Area	Area	tons
Iringa Rural	-	-	-	-	-	-	-	-	278	68	0	.	278	68	68	1,359
Mufindi	0	.	318	21	318	21	21	40	636	50	1,590	173	1,749	223	129	1,822
Makete	72	340	72	4	72	344	.	7	144	31	144	22	287	53	31	18
Njombe	338	25	676	15	1,015	40	29	507	169	17	169	9	338	26	20	507
Ludewa	0	.	527	90	527	90	62	160	461	65	132	8	527	73	67	515
Iringa Urban	-	-	-	-	-	-	-	-	16	6	0	.	16	6	4	19
Kilolo	0	.	219	4	219	4	.	4	-	-	-	-	-	-	-	-
Njombe Mji	40	2	0	.	40	2	2	15	109	22	109	1	219	22	22	56
<b>Total</b>	<b>450</b>	<b>366</b>	<b>1,812</b>	<b>134</b>	<b>2,190</b>	<b>500</b>	<b>113</b>	<b>734</b>	<b>1,813</b>	<b>259</b>	<b>2,144</b>	<b>214</b>	<b>3,414</b>	<b>473</b>	<b>340</b>	<b>4,297</b>

## IRRIGATION

**6.1: 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	%
Iringa Rural	10,148	18	46,152	82	56,300	100
Mufindi	4,930	8	59,318	92	64,248	100
Makete	934	3	28,157	97	29,091	100
Njombe	8,286	12	60,203	88	68,489	100
Ludewa	2,373	9	24,327	91	26,701	100
Iringa Urban	171	12	1,225	88	1,395	100
Kilolo	2,843	6	41,437	94	44,279	100
Njombe Mji	1,155	7	14,971	93	16,126	100
<b>Total</b>	<b>30,839</b>	<b>10</b>	<b>275,790</b>	<b>90</b>	<b>306,629</b>	<b>100</b>

**Table 6.2: Number of Agriculture Households using irrigation by Source of Irrigation Water and District during the 2007/08 agricultural Year**

District	Main Source of Irrigation Water							
	River	Borehole	Lake	Canal	Dam	Tap Water	Well	Total
Iringa Rural	7,646	0	0	417	0	2,085	0	10,148
Mufindi	3,817	0	0	159	0	954	0	4,930
Makete	790	0	0	0	0	144	0	934
Njombe	2,537	0	169	507	0	4,397	169	7,779
Ludewa	1,978	0	0	0	0	330	0	2,307
Iringa Urban	16	0	0	109	0	47	0	171
Kilolo	765	0	0	109	0	1,968	0	2,843
Njombe Mji	1,115	0	0	0	0	0	0	1,115
<b>Total</b>	<b>18,663</b>	<b>0</b>	<b>169</b>	<b>1,301</b>	<b>0</b>	<b>9,924</b>	<b>169</b>	<b>30,226</b>



**Table 6.3: Number of Agriculture Households by method of used to obtain water and region during 2007/08 Agriculture Year**

District	Main method of Obtaining Water			
	Gravity	Hand bucket	Hand pump	Other
Iringa Rural	7,785	1,668	0	695
Mufindi	1,113	3,499	0	159
Makete	144	790	0	0
Njombe	4,735	2,537	169	338
Ludewa	1,714	593	0	0
Iringa Urban	31	124	0	0
Kilolo	1,968	328	0	109
Njombe Mji	438	677	0	0
<b>Total</b>	<b>17,928</b>	<b>10,216</b>	<b>169</b>	<b>1,302</b>

## **EROSION CONTROL**

**6.4: 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	%
Iringa Rural	8,063	14.3	48,237	85.7	56,300	100.00
Mufindi	9,860	15.3	54,388	84.7	64,248	100.00
Makete	4,310	14.8	24,781	85.2	29,091	100.00
Njombe	12,176	17.8	56,313	82.2	68,489	100.00
Ludewa	4,945	18.5	21,756	81.5	26,701	100.00
Iringa Urban	310	22.2	1,085	77.8	1,395	100.00
Kilolo	6,560	14.8	37,719	85.2	44,279	100.00
Njombe Mji	3,066	19.0	13,060	81.0	16,126	100.00
<b>Total</b>	<b>49,289</b>	<b>16.1</b>	<b>257,340</b>	<b>83.9</b>	<b>306,629</b>	<b>100.00</b>

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

District	Presence of Erosion Control/Water Harvesting Facilities					
	Have any erosion control/water harvesting facilities		Do not have any erosion control/water harvesting facilities		Total	
	Number	%	Number	%	Number	%
Iringa Rural	6,673	12	49,628	88	56,300	100
Mufindi	8,588	13	55,661	87	64,248	100
Makete	2,873	10	26,218	90	29,091	100
Njombe	12,683	19	55,806	81	68,489	100
Ludewa	3,296	12	23,404	88	26,701	100
Iringa Urban	341	24	1,054	76	1,395	100
Kilolo	6,560	15	37,719	85	44,279	100
Njombe Mji	4,021	25	12,104	75	16,126	100
<b>Total</b>	<b>45,035</b>	<b>15</b>	<b>261,594</b>	<b>85</b>	<b>306,629</b>	<b>100</b>

District	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds
Iringa Rural	10,704	19,323	1,251	3,336	0	3,336
Mufindi	9,701	24,332	0	12,086	159	15,267
Makete	2,370	7,255	0	0	287	575
Njombe	0	25,366	846	45,659	3,044	6,764
Ludewa	3,428	5,670	0	264	527	1,516
Iringa Urban	47	2,573	155	62	0	0
Kilolo	528,510	66,802	437	6,997	1,968	3,389
Njombe Mji	6,570	296,990	0	119	597	836
<b>Total</b>	<b>561,330</b>	<b>448,311</b>	<b>2,689</b>	<b>68,523</b>	<b>6,582</b>	<b>31,683</b>

**AGRICULTURE CREDIT**

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

District	Households Receiving Credit					
	borrowed money for agriculture		Did not borrow money for agriculture		Total	
	Number	%	Number	%	Number	%
Iringa Rural	2,085	3.7	54,215	96.3	56,300	100
Mufindi	1,749	2.7	62,499	97.3	64,248	100
Makete	359	1.2	28,732	98.8	29,091	100
Njombe	1,015	1.5	67,474	98.5	68,489	100
Ludewa	659	2.5	26,041	97.5	26,701	100
Iringa Urban	0	0.0	1,395	100.0	1,395	100
Kilolo	1,093	2.5	43,186	97.5	44,279	100
Njombe Mji	1,115	6.9	15,011	93.1	16,126	100
<b>Total</b>	<b>8,076</b>	<b>2.6</b>	<b>298,553</b>	<b>97.4</b>	<b>306,629</b>	<b>100</b>

**7.2: Number of Credits by sex of the household Member receiving credit During the 2007/08 Agriculture Year –IRINGA REGION**

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Iringa Rural	1,529	73	556	27	2,085	100
Mufindi	1,431	82	318	18	1,749	100
Makete	287	80	72	20	359	100
Njombe	676	67	338	33	1,015	100
Ludewa	461	70	198	30	659	100
Kilolo	765	70	328	30	1,093	100
Njombe Mji	717	64	398	36	1,115	100
<b>Total</b>	<b>5,868</b>	<b>73</b>	<b>2,208</b>	<b>27</b>	<b>8,076</b>	<b>100</b>

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

District	Family, friend or relative		Bank	Cooperative	Savings & credit Soc		Trader/trade store		Private individual		NGO/Development project		Total	
	Number	%	Number	Number	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	834	40	278	0	834	40	0	0	0	0	139	7	2,085	100
Mufindi	477	27	477	0	318	18	0	0	477	27	0	0	1,749	100
Makete	0	0	0	0	287	80	0	0	0	0	72	20	359	100
Njombe	0	0	169	338	338	33	0	0	169	17	0	0	1,015	100
Ludewa	0	0	0	132	132	20	66	10	330	50	0	0	659	100
Iringa Urban	0	-	0	0	0	-	0	-	0	-	0	-	0	-
Kilolo	219	20	0	109	437	40	0	0	0	0	328	30	1,093	100
Njombe Mji	199	18	80	159	518	46	119	11	0	0	40	4	1,115	100
<b>Total</b>	<b>1,729</b>	<b>21</b>	<b>1,004</b>	<b>739</b>	<b>2,864</b>	<b>35</b>	<b>185</b>	<b>2</b>	<b>976</b>	<b>12</b>	<b>579</b>	<b>7</b>	<b>8,076</b>	<b>100</b>

**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		Cooperative		Savings & credit Soc		Trader/trade store		Private individual		NGO/Development project		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	0	0.0	139	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	139	100
Mufindi	159	14.3	0	0.0	0	0.0	477	42.9	318	28.6	159	14.3	0	0.0	1,113	-
Makete	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
Njombe	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
Ludewa	0	0.0	66	33.3	0	0.0	66	33.3	0	0.0	66	33.3	0	0.0	198	-
Iringa Urban	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	-
Kilolo	0	.	0	.	0	.	0	.	0	.	0	.	0	.	0	.
Njombe Mji	40	6.3	80	12.5	40	6.3	119	18.8	80	12.5	239	37.5	40	6.3	637	100
<b>Total</b>	<b>199</b>	<b>9.5</b>	<b>285</b>	<b>13.6</b>	<b>40</b>	<b>1.9</b>	<b>662</b>	<b>31.7</b>	<b>398</b>	<b>19.1</b>	<b>464</b>	<b>22.2</b>	<b>40</b>	<b>1.9</b>	<b>2,087</b>	<b>100</b>

**7.5: 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	%
Iringa Rural	6,673	12.3	15,152	27.9	8,619	15.9	2,780	5.1	11,677	21.5	3,336	6.2	973	1.8	417	0.8	4,587	8.5	54,215	100
Mufindi	4,294	6.9	18,766	30.0	13,359	21.4	6,043	9.7	7,633	12.2	636	1.0	1,272	2.0	1,113	1.8	9,383	15.0	62,499	100
Makete	2,442	8.5	7,973	27.8	6,896	24.0	862	3.0	6,896	24.0	1,149	4.0	215	0.8	144	0.5	2,155	7.5	28,732	100
Njombe	3,720	5.5	13,190	19.5	13,021	19.3	5,411	8.0	19,617	29.1	1,860	2.8	1,015	1.5	507	0.8	9,132	13.5	67,474	100
Ludewa	923	3.5	4,615	17.7	2,439	9.4	989	3.8	11,735	45.1	857	3.3	264	1.0	0	0.0	4,219	16.2	26,041	100
Iringa Urban	217	15.6	264	18.9	202	14.4	109	7.8	186	13.3	47	3.3	31	2.2	0	0.0	341	24.4	1,395	100
Kilolo	3,389	7.8	9,075	21.0	5,795	13.4	5,795	13.4	9,949	23.0	2,624	6.1	984	2.3	219	0.5	5,357	12.4	43,186	100
Njombe Mji	1,155	7.7	6,410	42.7	1,911	12.7	1,155	7.7	2,747	18.3	319	2.1	279	1.9	239	1.6	796	5.3	15,011	100
<b>Total</b>	<b>22,813</b>	<b>7.6</b>	<b>75,445</b>	<b>25.3</b>	<b>52,241</b>	<b>17.5</b>	<b>23,144</b>	<b>7.8</b>	<b>70,440</b>	<b>23.6</b>	<b>10,828</b>	<b>3.6</b>	<b>5,033</b>	<b>1.7</b>	<b>2,639</b>	<b>0.9</b>	<b>35,971</b>	<b>12.0</b>	<b>298,553</b>	<b>100</b>

**7.6: Number of Households receiving Credits by Main Source of credit C and region During the 2007/08 Agriculture Year**

District	Family, friend or relative		Bank		Cooperative		Savings & credit Soc		Trader/trade store		Private individual		NGO/Development project		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	0	0.0	139	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0	139	-
Mufindi	159	16.7	0	0.0	159	16.7	159	16.7	159	16.7	318	33.3	0	0.0	0.0	0.0	954	-
Makete	0	0.0	72	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0	72	100
Njombe	169	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0	169	100
Ludewa	0	0.0	198	50.0	0	0.0	66	16.7	0	0.0	66	16.7	0	0.0	66.0	16.7	396	-
Iringa Urban	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0	0	-
Kilolo	0	0.0	219	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0	219	100
Njombe Mji	159	26.7	40	6.7	0	0.0	0	0.0	119	20.0	119	20.0	159	26.7	0.0	0.0	597	100
<b>Total</b>	<b>487</b>	<b>20.3</b>	<b>528</b>	<b>21.9</b>	<b>159</b>	<b>6.6</b>	<b>225</b>	<b>9.3</b>	<b>278</b>	<b>11.6</b>	<b>503</b>	<b>20.9</b>	<b>159</b>	<b>6.6</b>	<b>66.0</b>	<b>16.7</b>	<b>2,407</b>	<b>100</b>

**7.7 : Provision of credit B by sex and region During the 2007/08 Agriculture Year**

Region	Male		Female		Total	
	Number	%	Number	%	Number	%
Iringa Rural	139	100	0	0	139	100
Mufindi	477	43	636	57	1,113	100
Makete	204	100	0	0	204	100
Njombe	0	0	0	0	0	0
Ludewa	132	67	66	33	198	100
Iringa Urban	0	0	0	0	0	
Kilolo	0	0	0	0	0	0
Njombe Mji	358	56	279	44	637	100
<b>Total</b>	<b>1,106</b>	<b>53</b>	<b>981</b>	<b>47</b>	<b>2,087</b>	<b>100</b>

**7.8 : Provision of credit C by sex and region During the 2007/08 Agriculture Year**

Region	Male		Female		Total	
	Number	%	Number	%	Number	%
Iringa Rural	0	0	0	0	0	0
Mufindi	477	50	477	50	954	100
Makete	0	0	0	0	0	0
Njombe	0	0	0	0	0	0
Ludewa	132	20	198	60	330	100
Iringa Urban	0	0	0	0	0	0
Kilolo	0	0	109	100	109	100
Njombe Mji	239	40	358	60	597	100
<b>Total</b>	<b>848</b>	<b>39</b>	<b>1,143</b>	<b>57</b>	<b>1,990</b>	<b>100</b>



**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		Crop Growing Households
	Number	%	Number	%	
Iringa Rural	43,372	77.4	12,650	22.6	56,022
Mufindi	61,545	95.8	2,703	4.2	64,248
Makete	19,322	66.4	9,769	33.6	29,091
Njombe	48,703	71.1	19,786	28.9	68,489
Ludewa	19,910	74.6	6,791	25.4	26,701
Iringa Urban	1,116	80.0	279	20.0	1,395
Kilolo	37,501	84.7	6,778	15.3	44,279
Njombe Mji	14,931	92.6	1,195	7.4	16,126
<b>Total</b>	<b>246,400</b>	<b>80.4</b>	<b>59,951</b>	<b>19.6</b>	<b>306,351</b>

**8.2: Number of Agriculture Households Participated in Out Grower Agreement During the 2007/08 Agriculture Year - IRINGA REGION**

District	Number of Households Participated in Out Grower Agreement		Number of Households NOT Participated in Out Grower Agreement		Total Number of Households	
	Number	%	Number	%	Number	%
Iringa Rural	417	0.7	55,883	99.3	56,300	100
Mufindi	1,908	3.0	62,340	97.0	64,248	100
Makete	646	2.2	28,445	97.8	29,091	100
Njombe	4,397	6.4	64,092	93.6	68,489	100
Ludewa	264	1.0	26,437	99.0	26,701	100
Iringa Urban	16	1.1	1,380	98.9	1,395	100
Kilolo	219	0.5	44,061	99.5	44,279	100
Njombe Mji	637	4.0	15,489	96.0	16,126	100
<b>Total</b>	<b>8,504</b>	<b>2.8</b>	<b>298,125</b>	<b>97.2</b>	<b>306,629</b>	<b>100</b>

**8.3: Number of Agriculture Households Participated in Contract Production Agreement During the 2007/08 - IRINGA REGION**

District	Number of Hholds Participated in Production Agreement		Number of Hholds NOT Participated in Production Agreement		Total Number of Households	
	Number	%	Number	%	Number	%
Iringa Rural	278	0.5	56,022	99.5	56,300	100
Mufindi	954	1.5	63,294	98.5	64,248	100
Makete	72	0.2	29,019	99.8	29,091	100
Njombe	507	0.7	67,981	99.3	68,489	100
Ludewa	66	0.2	26,635	99.8	26,701	100
Iringa Urban	16	1.1	1,380	98.9	1,395	100
Kilolo	109	0.2	44,170	99.8	44,279	100
Njombe Mji	279	1.7	15,847	98.3	16,126	100
<b>Total</b>	<b>2,281</b>	<b>0.7</b>	<b>304,348</b>	<b>99.3</b>	<b>306,629</b>	<b>100</b>

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

District	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Total Households that received advices
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	41,982	96.8	1,390.1	3.2	139.0	0.3	695.1	1.6	2,919.3	6.7	8,618.8	19.9	278.0	0.6	43,372
Mufindi	57,410	93.3	10,337.0	16.8	318.1	0.5	1,272.2	2.1	954.2	1.6	11,768.2	19.1	477.1	0.8	61,545
Makete	17,167	88.8	1,149.3	5.9	143.7	0.7	2,083.1	10.8	2,083.1	10.8	5,459.0	28.3	143.7	0.7	19,322
Njombe	42,953	88.2	3,720.4	7.6	507.3	1.0	3,213.1	6.6	7,779.0	16.0	16,572.6	34.0	338.2	0.7	48,703
Ludewa	17,866	89.7	3,626.0	18.2	131.9	0.7	791.1	4.0	923.0	4.6	3,626.0	18.2	263.7	1.3	19,910
Iringa Urban	1,116	100.0	31.0	2.8	-	-	46.5	4.2	108.5	9.7	279.0	25.0	-	-	1,116
Kilolo	36,408	97.1	3,061.3	8.2	-	-	109.3	0.3	3,717.3	9.9	4,482.6	12.0	437.3	1.2	37,501
Njombe Mji	14,732	98.7	2,747.3	18.4	199.1	1.3	318.5	2.1	477.8	3.2	3,902.0	26.1	238.9	1.6	14,931
<b>Total</b>	<b>229,634</b>	<b>88.2</b>	<b>26,062.4</b>	<b>10.6</b>	<b>1,439.0</b>	<b>0.6</b>	<b>8,528.9</b>	<b>3.5</b>	<b>18,962.1</b>	<b>7.7</b>	<b>54,708.3</b>	<b>22.2</b>	<b>2,176.9</b>	<b>0.9</b>	<b>246,400</b>

**8.5: Number of households receiving extension advice on use of Spacing by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	37,672	94.1	278	0.7	0	0.0	139	0.3	695	1.7	973	2.4	278	0.7	40,036
Mufindi	49,935	87.5	2,226	3.9	0	0.0	318	0.6	318	0.6	4,294	7.5	0	0.0	57,092
Makete	13,432	82.0	72	0.4	144	0.9	575	3.5	359	2.2	1,796	11.0	0	0.0	16,377
Njombe	32,469	78.7	1,015	2.5	169	0.4	0	0.0	1,522	3.7	6,088	14.8	0	0.0	41,262
Ludewa	14,174	90.7	593	3.8	0	0.0	132	0.8	198	1.3	527	3.4	0	0.0	15,625
Iringa Urban	946	88.4	0	0.0	0	0.0	0	0.0	31	2.9	93	8.7	0	0.0	1,070
Kilolo	31,378	95.0	219	0.7	0	0.0	109	0.3	765	2.3	547	1.7	0	0.0	33,018
Njombe Mji	12,423	90.2	438	3.2	0	0.0	119	0.9	0	0.0	796	5.8	0	0.0	13,776
Total	192,430	88.2	4,841	2.2	313	0.1	1,392	0.6	3,888	1.8	15,114	6.9	278	0.1	218,256

**8.6: Number of households receiving extension advice on Erosion Control by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	17,516	88.7	0	0.0	0	0.0	278	1.4	278	1.4	1,529	7.7	139	0.7	19,740
Mufindi	34,191	88.8	1,908	5.0	0	0.0	477	1.2	318	0.8	1,431	3.7	159	0.4	38,485
Makete	9,194	86.5	215	2.0	0	0.0	503	4.7	287	2.7	431	4.1	0	0.0	10,631
Njombe	18,771	75.0	1,353	5.4	0	0.0	338	1.4	1,860	7.4	2,706	10.8	0	0.0	25,028
Ludewa	9,362	75.1	2,110	16.9	66	0.5	198	1.6	132	1.1	593	4.8	0	0.0	12,460
Iringa Urban	527	85.0	0	0.0	0	0.0	16	2.5	31	5.0	47	7.5	0	0.0	620
Kilolo	22,413	97.6	219	1.0	0	0.0	0	0.0	109	0.5	219	1.0	0	0.0	22,960
Njombe Mji	8,998	86.6	916	8.8	40	0.4	40	0.4	40	0.4	358	3.4	0	0.0	10,392
Total	120,973	86.2	6,721	4.8	106	0.1	1,849	1.3	3,056	2.2	7,314	5.2	298	0.2	140,316

**8.7: Number of households receiving extension advice on Organic Fertilizer use by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	22,520	84.4	278	1.0	0	0.0	0	0.0	695	2.6	3,197	12.0	0	0.0	26,690
Mufindi	41,030	83.0	3,658	7.4	0	0.0	318	0.6	0	0.0	4,135	8.4	318	0.6	49,458
Makete	9,194	84.8	359	3.3	0	0.0	287	2.6	359	3.3	575	5.3	72	0.7	10,846
Njombe	20,631	67.0	676	2.2	0	0.0	1,184	3.8	2,029	6.6	6,257	20.3	0	0.0	30,778
Ludewa	9,625	79.8	1,319	10.9	66	0.5	264	2.2	132	1.1	659	5.5	0	0.0	12,065
Iringa Urban	496	88.9	0	0.0	0	0.0	16	2.8	0	0.0	47	8.3	0	0.0	558
Kilolo	23,397	91.8	656	2.6	0	0.0	0	0.0	547	2.1	547	2.1	328	1.3	25,474
Njombe Mji	10,113	82.5	1,075	8.8	0	0.0	40	0.3	40	0.3	995	8.1	0	0.0	12,263
Total	137,007	81.5	8,021	4.8	66	0.0	2,108	1.3	3,802	2.3	16,412	9.8	718	0.4	168,133

**8.8: Number of Households receiving extension advice on Inorganic Fertilizer use by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	25,578	92.0	417	1.5	0	0.0	278	1.0	834	3.0	695	2.5	0	0.0	27,803
Mufindi	49,776	92.3	2,704	5.0	0	0.0	318	0.6	0	0.0	1,113	2.1	0	0.0	53,911
Makete	11,565	88.5	72	0.5	0	0.0	287	2.2	144	1.1	1,006	7.7	0	0.0	13,073
Njombe	33,653	81.9	846	2.1	169	0.4	338	0.8	1,691	4.1	4,397	10.7	0	0.0	41,093
Ludewa	11,274	90.0	461	3.7	66	0.5	132	1.1	198	1.6	330	2.6	66	0.5	12,526
Iringa Urban	853	96.5	0	0.0	0	0.0	0	0.0	0	0.0	31	3.5	0	0.0	884
Kilolo	27,661	95.1	437	1.5	0	0.0	109	0.4	437	1.5	437	1.5	0	0.0	29,082
Njombe Mji	12,861	93.6	398	2.9	0	0.0	40	0.3	0	0.0	358	2.6	80	0.6	13,737
Total	173,220	90.2	5,335	2.8	235	0.1	1,503	0.8	3,304	1.7	8,367	4.4	146	0.1	192,109

**8.9: Number of households receiving extension advice on use of Improved Seeds by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	28,359	92.3	278	0.9	0	0.0	139	0.5	695	2.3	1,251	4.1	0	0.0	30,722
Mufindi	47,550	91.2	2,544	4.9	0	0.0	318	0.6	159	0.3	1,590	3.0	0	0.0	52,162
Makete	9,912	86.8	215	1.9	0	0.0	215	1.9	287	2.5	790	6.9	0	0.0	11,421
Njombe	28,748	78.3	338	0.9	169	0.5	676	1.8	1,522	4.1	5,242	14.3	0	0.0	36,696
Ludewa	12,328	92.1	396	3.0	0	0.0	132	1.0	198	1.5	330	2.5	0	0.0	13,383
Iringa Urban	744	96.0	0	0.0	0	0.0	0	0.0	0	0.0	31	4.0	0	0.0	775
Kilolo	28,864	95.0	437	1.4	0	0.0	109	0.4	656	2.2	219	0.7	109	0.4	30,394
Njombe Mji	9,874	87.9	358	3.2	0	0.0	119	1.1	159	1.4	717	6.4	0	0.0	11,228
Total	166,380	89.1	4,567	2.4	169	0.1	1,710	0.9	3,676	2.0	10,170	5.4	109	0.1	186,782

**8.10: Number of households receiving extension advice on Mechanisation/LST by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	18,767	86.5	417	1.9	0	0.0	417	1.9	417	1.9	1,668	7.7	0	0.0	21,686
Mufindi	32,442	85.7	3,340	8.8	318	0.8	636	1.7	159	0.4	954	2.5	0	0.0	37,849
Makete	3,161	83.0	72	1.9	0	0.0	215	5.7	72	1.9	287	7.5	0	0.0	3,807
Njombe	13,698	60.9	846	3.8	338	1.5	507	2.3	3,044	13.5	4,059	18.0	0	0.0	22,491
Ludewa	5,802	83.0	198	2.8	0	0.0	330	4.7	66	0.9	593	8.5	0	0.0	6,988
Iringa Urban	434	80.0	0	0.0	0	0.0	16	2.9	47	8.6	47	8.6	0	0.0	543
Kilolo	22,522	90.4	547	2.2	0	0.0	0	0.0	1,312	5.3	547	2.2	0	0.0	24,928
Njombe Mji	6,848	89.1	319	4.1	40	0.5	0	0.0	159	2.1	319	4.1	0	0.0	7,685
<b>Total</b>	<b>103,674</b>	<b>82.3</b>	<b>5,737</b>	<b>4.6</b>	<b>696</b>	<b>0.6</b>	<b>2,121</b>	<b>1.7</b>	<b>5,276</b>	<b>4.2</b>	<b>8,473</b>	<b>6.7</b>	<b>0</b>	<b>0.0</b>	<b>125,977</b>

**8.11: Number of households receiving extension advice on Irrigation Technology by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	13,345	89.7	139	0.9	0	0.0	139	0.9	834	5.6	417	2.8	0	0.0	14,874
Mufindi	22,900	87.3	2,067	7.9	0	0.0	477	1.8	0	0.0	795	3.0	0	0.0	26,240
Makete	2,299	91.4	0	0.0	0	0.0	215	8.6	0	0.0	0	0.0	0	0.0	2,514
Njombe	7,441	56.4	507	3.8	0	0.0	169	1.3	2,198	16.7	2,875	21.8	0	0.0	13,190
Ludewa	3,560	84.4	264	6.3	0	0.0	66	1.6	0	0.0	330	7.8	0	0.0	4,219
Iringa Urban	310	76.9	0	0.0	0	0.0	16	3.8	16	3.8	62	15.4	0	0.0	403
Kilolo	13,338	85.9	547	3.5	0	0.0	0	0.0	875	5.6	656	4.2	109	0.7	15,525
Njombe Mji	4,539	75.5	438	7.3	80	1.3	119	2.0	80	1.3	757	12.6	0	0.0	6,012
Total	67,733	81.6	3,962	4.8	80	0.1	1,202	1.4	4,002	4.8	5,891	7.1	109	0.1	82,979

**8.12: Number of households receiving extension advice on Crop Storage by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	23,493	87.1	0	0.0	0	0.0	139	0.5	695	2.6	2,641	9.8	0	0.0	26,968
Mufindi	37,690	82.6	3,022	6.6	0	0.0	159	0.3	0	0.0	4,612	10.1	159	0.3	45,642
Makete	6,321	72.7	0	0.0	0	0.0	575	6.6	503	5.8	1,293	14.9	0	0.0	8,691
Njombe	20,631	67.4	676	2.2	0	0.0	169	0.6	2,029	6.6	7,103	23.2	0	0.0	30,609
Ludewa	7,186	82.6	659	7.6	0	0.0	0	0.0	264	3.0	593	6.8	0	0.0	8,702
Iringa Urban	512	82.5	0	0.0	0	0.0	0	0.0	31	5.0	78	12.5	0	0.0	620
Kilolo	21,210	92.8	437	1.9	0	0.0	0	0.0	437	1.9	765	3.3	0	0.0	22,850
Njombe Mji	6,291	71.2	597	6.8	0	0.0	40	0.5	80	0.9	1,832	20.7	0	0.0	8,839
Total	123,335	80.7	5,392	3.5	0	0.0	1,082	0.7	4,039	2.6	18,916	12.4	159	0.1	152,922

**8.13: Number of households receiving extension advice on Vermin Control by District during the 2007/08 agriculture year**

District	Source of Crop Extension														Total Number of Households
	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	16,543	83.8	278	1.4	0	0.0	0	0.0	556	2.8	2,363	12.0	0	0.0	19,740
Mufindi	33,555	90.2	1,431	3.8	0	0.0	318	0.9	0	0.0	1,908	5.1	0	0.0	37,213
Makete	5,315	66.7	144	1.8	0	0.0	359	4.5	287	3.6	1,868	23.4	0	0.0	7,973
Njombe	8,963	52.5	507	3.0	0	0.0	0	0.0	1,015	5.9	6,426	37.6	169	1.0	17,080
Ludewa	5,538	84.8	264	4.0	0	0.0	0	0.0	66	1.0	659	10.1	0	0.0	6,527
Iringa Urban	403	92.9	16	3.6	0	0.0	0	0.0	0	0.0	16	3.6	0	0.0	434
Kilolo	20,554	92.6	437	2.0	0	0.0	0	0.0	109	0.5	1,093	4.9	0	0.0	22,194
Njombe Mji	5,614	69.1	398	4.9	0	0.0	40	0.5	40	0.5	1,991	24.5	40	0.5	8,123
Total	96,485	80.9	3,475	2.9	0	0.0	717	0.6	2,073	1.7	16,324	13.7	209	0.2	119,284



**8.14 :Number of households receiving extension advice on Other messages by District during the 2007/08 agriculture year**

Source of Crop Extension																Total Number of Households
District	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)			
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%		
Iringa Rural	3,058	68.8	139	3.1	139	3.1	0	0.0	695	15.6	417	9.4	0	0.0	4,448	
Mufindi	5,407	72.3	1,749	23.4	0	0.0	0	0.0	318	4.3	0	0.0	0	0.0	7,474	
Makete	359	55.6	0	0.0	0	0.0	0	0.0	144	22.2	144	22.2	0	0.0	646	
Njombe	2,368	63.6	0	0.0	0	0.0	0	0.0	0	0.0	1,184	31.8	169	4.5	3,720	
Ludewa	1,450	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,450	
Iringa Urban	217	93.3	16	6.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	233	
Kilolo	7,981	76.0	1,093	10.4	0	0.0	0	0.0	109	1.0	1,312	12.5	0	0.0	10,496	
Njombe Mji	2,389	69.0	438	12.6	80	2.3	40	1.1	40	1.1	398	11.5	80	2.3	3,464	
Total	23,230	72.7	3,435	10.8	219	0.7	40	0.1	1,306	4.1	3,455	10.8	249	0.8	31,932	

**8.15: Number of households receiving extension advice (OVERALL) by District during the 2007/08 agriculture year**

District	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/NewsPaper		Neighbour		Other (Specify)		Number
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Iringa Rural	229,927	89.0	2,363	.9	139	.1	1,529	.6	7,090	2.7	16,821	6.5	417	.2	258,286
Mufindi	398,211	87.2	27,512	6.0	318	.1	3,817	.8	1,590	.3	24,491	5.4	795	.2	456,734
Makete	79,444	82.0	1,293	1.3	144	.1	3,663	3.8	2,586	2.7	9,553	9.9	144	.1	96,826
Njombe	209,525	72.0	7,948	2.7	846	.3	3,382	1.2	18,771	6.4	50,225	17.3	338	.1	291,035
Ludewa	93,089	85.6	6,856	6.3	198	.2	1,253	1.2	1,253	1.2	5,868	5.4	264	.2	108,780
Iringa Urban	5,860	88.5	31	.5	0	.0	62	.9	155	2.3	512	7.7	0	.0	6,620
Kilolo	243,482	92.4	5,139	2.0	0	.0	328	.1	6,888	2.6	6,997	2.7	547	.2	263,380
Njombe Mji	91,697	84.0	5,972	5.5	239	.2	637	.6	717	.7	9,556	8.8	319	.3	109,137
<b>Total</b>	<b>1,351,235</b>	<b>84.9</b>	<b>57,115</b>	<b>3.6</b>	<b>1,883</b>	<b>.1</b>	<b>14,671</b>	<b>.9</b>	<b>39,049</b>	<b>2.5</b>	<b>124,022</b>	<b>7.8</b>	<b>2,823</b>	<b>.2</b>	<b>1,590,798</b>

## **CATTLE PRODUCTION**

**9.1: Total Number of Households Rearing Cattle by District during 2007/08 Agriculture Year**

District	Households rearing cattle		Households not rearing cattle		Total Agriculture households	Total Number of Households Rearing Livestock
	Number	%	Number	%		
Iringa Rural	5,282	9.4	51,018	90.6	56,300	10,009
Mufindi	11,450	17.8	52,798	82.2	64,248	17,334
Makete	7,183	24.7	21,908	75.3	29,091	10,774
Njombe	18,095	26.4	50,394	73.6	68,489	24,352
Ludewa	6,065	22.7	20,635	77.3	26,701	10,614
Iringa Urban	47	3.3	1,349	96.7	1,395	171
Kilolo	5,576	12.6	38,703	87.4	44,279	9,731
Njombe Mji	3,902	24.2	12,224	75.8	16,126	5,534
<b>Total</b>	<b>57,600</b>	<b>18.8</b>	<b>249,029</b>	<b>81.2</b>	<b>306,629</b>	<b>88,519</b>

**9.2: Number of Households rearing cattle, Head of Cattle and Average Head per Household by Herd size During the 2007/08 Agricultural Year - IRINGA**

Herd size	Cattle Rearing Households	%	Herd of Cattle	Average Per Household
1 - 5	28,756	49.9	87,318	3.0
6 - 10	15,022	26.1	112,151	7.5
11 - 15	6,673	11.6	84,117	12.6
16 - 20	3,079	5.3	55,538	18.0
21 - 30	2,526	4.4	64,719	25.6
31 - 40	849	1.5	30,583	36.0
41 - 50	515	0.9	24,537	47.6
51 - 60	139	0.2	7,785	56.0
61 - 80	0	0.0	0	0.0
81 - 150	1	0.0	0	0.0
151+	40	0.1	8,282	208.0
<b>Total</b>	<b>57,600</b>	<b>100.0</b>	<b>475,031</b>	<b>8.2</b>

**9.3: Total Number of Cattle by Cattle Types and Category, 2007/08 Agricultural Year- Iringa**

Cattle Types	Indigeneous	Improved		Total Cattle	%
		Beef	Diary		
Castrated Bulls	0	0	0	0	0
Uncastrated Bulls	53,616	138	1,847	55,600	12
Cows	154,311	626	5,956	160,893	34
Steers	7,869	0	537	8,405	2
Heifers	41,703	106	2,105	43,914	9
Male Calves	37,740	0	1,071	38,811	8
Female Calves	50,488	219	2,060	52,767	11
<b>Total</b>	<b>459,275</b>	<b>1,498</b>	<b>14,258</b>	<b>475,031</b>	<b>100</b>

**9.4: Total Number of indigenous Cattle by Category of cattle and District During the 2007/08 Agricultural Year**

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Iringa Rural	15,152	26	7,229	12	19,323	33	2,085	4	5,282	9	4,309	7	5,561	9	58,941	100
Mufindi	22,900	22	10,814	11	33,714	33	2,385	2	10,973	11	11,450	11	9,701	10	101,938	100
Makete	1,580	4	4,382	12	13,432	38	718	2	7,614	22	2,873	8	4,525	13	35,125	100
Njombe	50,056	38	14,205	11	39,571	30	1,691	1	5,581	4	9,808	7	10,485	8	131,397	100
Ludewa	4,351	12	5,736	16	14,702	40	461	1	3,230	9	2,505	7	5,340	15	36,326	100
Iringa Urban	78	26	31	11	124	42	0	0	0	0	31	11	31	11	295	100
Kilolo	13,776	27	5,685	11	20,664	40	328	1	3,608	7	3,936	8	3,936	8	51,933	100
Njombe Mji	5,654	13	5,534	13	12,781	30	199	0	5,415	13	2,827	7	10,910	25	43,320	100
<b>Total</b>	<b>113,547</b>	<b>25</b>	<b>53,616</b>	<b>12</b>	<b>154,311</b>	<b>34</b>	<b>7,869</b>	<b>2</b>	<b>41,703</b>	<b>9</b>	<b>37,740</b>	<b>8</b>	<b>50,488</b>	<b>11</b>	<b>459,275</b>	<b>100</b>

**9.5: Total Number of Beef Cattle by Category of cattle and District During the 2007/08 Agricultural Year**

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Iringa Rural	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mufindi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Makete	0	0	72	20	287	80	0	0	0	0	0	0	0	0	359	0
Njombe	169	33	0	0	338	67	0	0	0	0	0	0	0	0	507	0
Ludewa	132	50	66	25	0	0	0	0	66	25	0	0	0	0	264	100
Iringa Urban	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kilolo	109	33	0	0	0	0	0	0	0	0	0	0	219	67	328	0
Njombe Mji	0	0	0	0	0	0	0	0	40	100	0	0	0	0	40	0
<b>Total</b>	<b>410</b>	<b>27</b>	<b>138</b>	<b>9</b>	<b>626</b>	<b>42</b>	<b>0</b>	<b>0</b>	<b>106</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>219</b>	<b>15</b>	<b>1,498</b>	<b>100</b>

**9.6: Total Number of Dairy Cattle by Category of cattle and District During the 2007/08 Agricultural Year**

District	Cattle Type															
	Castrated Bulls (Oxen)		Uncastrated Bulls		Cows		Steers		Heifers		Male Calves		Female Calves		Total	
	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%	Total Cattle	%
Iringa Rural	278	20	0	0	417	40	139	20	139	20	0	0	0	0	973	100
Mufindi	0	0	636	20	2,385	35	0	0	477	10	477	10	1,272	25	5,248	100
Makete	72	2	790	22	1,652	41	0	0	862	24	287	7	72	2	3,735	100
Njombe	169	17	169	17	169	17	169	17	169	17	0	0	169	17	1,015	100
Ludewa	132	8	132	15	659	31	0	0	198	15	132	15	198	15	1,450	100
Iringa Urban	31	20	0	0	47	20	0	0	31	20	16	20	31	20	155	100
Kilolo	0	0	0	0	109	33	109	33	109	33	0	0	0	0	328	100
Njombe Mji	0	0	119	9	518	36	119	5	119	14	159	14	319	23	1,354	100
<b>Total</b>	<b>682</b>	<b>5</b>	<b>1,847</b>	<b>17</b>	<b>5,956</b>	<b>35</b>	<b>537</b>	<b>5</b>	<b>2,105</b>	<b>17</b>	<b>1,071</b>	<b>8</b>	<b>2,060</b>	<b>14</b>	<b>14,258</b>	<b>100</b>

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

District	Branding		Cattle Clan		Ear notching		Colour		Earrings		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	556	7	1,251	16	1,251	16	2,919	38	278	4	1,390	18	7,646	100
Mufindi	0	0	1,749	15	477	4	8,429	72	318	3	795	7	11,768	100
Makete	359	4	934	11	144	2	5,603	67	431	5	862	10	8,332	100
Njombe	169	0	7,441	22	338	1	16,403	48	0	0	9,639	28	33,991	100
Ludewa	198	2	1,055	12	396	5	5,010	59	132	2	1,714	20	8,505	100
Iringa Urban	0	0	31	25	0	0	31	25	16	13	47	38	124	100
Kilolo	437	3	4,155	32	875	7	3,171	25	0	0	4,155	32	12,792	100
Njombe Mji	597	10	1,433	25	159	3	2,548	44	119	2	876	15	5,734	100
<b>Total</b>	<b>2,317</b>	<b>3</b>	<b>18,049</b>	<b>20</b>	<b>3,640</b>	<b>4</b>	<b>44,114</b>	<b>50</b>	<b>1,294</b>	<b>1</b>	<b>19,478</b>	<b>22</b>	<b>88,891</b>	<b>100</b>

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

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
	Number	Number	Number	Number	Number	Number
Iringa Rural	278	8,897	9,175	278	7,090	7,368
Mufindi	2,226	20,833	23,059	2,067	13,836	15,903
Makete	1,149	7,901	9,051	646	5,746	6,393
Njombe	169	12,852	13,021	.	9,132	9,132
Ludewa	461	4,285	4,747	461	2,967	3,428
Iringa Urban	140	47	186	.	78	78
Kilolo	328	8,528	8,856	219	4,811	5,029
Njombe Mji	438	7,087	7,525	358	3,783	4,141
<b>Total</b>	<b>5,190</b>	<b>70,430</b>	<b>75,620</b>	<b>4,030</b>	<b>47,441</b>	<b>51,471</b>

**9.9: Average Milk Production per Cow per Day by Breed, Season and District During the 2007/08 Agricultural Year**

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Iringa Rural	10	2	3	7	1	2
Mufindi	7	2	3	5	2	2
Makete	5	3	3	5	2	3
Njombe	6	2	2	.	2	2
Ludewa	11	2	3	7	2	2
Iringa Urban	6	2	3	.	1	1
Kilolo	9	2	3	6	1	2
Njombe Mji	10	3	4	8	2	3
<b>Total</b>	<b>7</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>2</b>	<b>2</b>

**9.10: Average number of days for cows on milk, by Breed, Season and Districts, during the 2007/08 Agricultural Year**

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Iringa Rural	260	138	145	260	88	98
Mufindi	173	119	129	144	108	115
Makete	173	130	139	176	92	106
Njombe	210	146	148	8	134	129
Ludewa	226	122	133	128	115	117
Iringa Urban	210	170	183	.	170	170
Kilolo	165	154	155	140	150	149
Njombe Mji	200	114	122	157	81	91
<b>Total</b>	<b>184</b>	<b>133</b>	<b>139</b>	<b>147</b>	<b>111</b>	<b>116</b>

**9.11: Average Price per Litre of Milk per season by Breed and District, during the 2007/08 Agricultural Year (Tshs.)**

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Iringa Rural	500	443	445	500	467	468
Mufindi	456	417	423	481	378	400
Makete	338	337	337	456	405	414
Njombe	500	379	383	537	409	423
Ludewa	375	306	313	510	391	409
Iringa Urban	500	500	500	.	500	500
Kilolo	302	376	366	450	396	402
Njombe Mji	410	400	401	425	412	414
<b>Total</b>	<b>398</b>	<b>384</b>	<b>386</b>	<b>481</b>	<b>406</b>	<b>417</b>

**9.12: Number of Milked Cows, Average Milk Produced per Cow per Day, Average Number of Days for Cows on Milk and Average Price per Litre per Season and District During the 2007/2008 Agriculture Year**

District	Number of milked cows		Average milk production per cow per day(lts)		Average number of days for cows on milked		Average price per litre per season(Tshs)	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
Iringa Rural	9,175	7,368	2.5	1.7	145	98	445	468
Mufindi	23,059	15,903	3.0	2.3	129	115	423	400
Makete	9,051	6,393	3.3	2.5	139	106	337	414
Njombe	13,021	9,132	2.2	1.9	148	129	383	423
Ludewa	4,747	3,428	3.2	2.4	133	117	313	409
Iringa Urban	186	78	3.3	1.0	183	170	500	500
Kilolo	8,856	5,029	2.8	1.9	155	149	366	402
Njombe Mji	7,525	4,141	3.5	2.8	122	91	401	414
<b>Total</b>	<b>75,620</b>	<b>51,471</b>	<b>2.9</b>	<b>2.2</b>	<b>139</b>	<b>116</b>	<b>386</b>	<b>417</b>



**GOAT PRODUCTION**

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

District	Households rearing Goat		Households NOT rearing Goat		Total	Total livestock keeping households
	No of households	%	No of households	%		
Iringa Rural	3,058	5	53,242	95	56,300	10,009
Mufindi	6,043	9	58,205	91	64,248	17,334
Makete	11,708	40	17,383	60	29,091	10,774
Njombe	11,499	17	56,989	83	68,489	24,352
Ludewa	8,702	33	17,998	67	26,701	10,614
Iringa Urban	124	9	1,271	91	1,395	171
Kilolo	3,389	8	40,890	92	44,279	9,731
Njombe Mji	3,663	23	12,463	77	16,126	5,534
<b>Total</b>	<b>48,188</b>	<b>16</b>	<b>258,441</b>	<b>84</b>	<b>306,629</b>	<b>88,519</b>

**9.14: 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	%	No of households	Number of Goats
Iringa Rural	3,058	37,255	100.0	0	0	0.0	0	0	0.0	3,058	37,255
Mufindi	5,566	33,873	92.6	0	0	0.0	636	2,704	7.4	6,043	36,577
Makete	11,636	55,596	99.7	72	72	0.1	72	72	0.1	11,708	55,740
Njombe	11,330	61,724	96.8	0	0	0.0	507	2,029	3.2	11,499	63,754
Ludewa	8,702	45,754	95.9	0	0	0.0	66	1,978	4.1	8,702	47,731
Iringa Urban	109	915	59.6	0	0	0.0	16	620	40.4	124	1,535
Kilolo	3,389	36,626	100.0	0	0	0.0	0	0	0.0	3,389	36,626
Njombe Mji	3,663	18,754	95.3	40	796	4.0	40	119	0.6	3,663	19,669
<b>Total</b>	<b>47,454</b>	<b>290,497</b>	<b>97.2</b>	<b>112</b>	<b>868</b>	<b>0.3</b>	<b>1,337</b>	<b>7,522</b>	<b>2.5</b>	<b>48,188</b>	<b>298,887</b>

**9.15: Total Number of Goats by Category and Type of Goat as of 1st October 2008 - IRINGA**

Category	Indigenous		Improved Meat		Improved Dairy		Total	
	Number	%	Number	%	Number	%	Number	%
Billy Goats	48,548	17	159	18.3	2,288	30.4	50,995	17.1
She Goats	13,141	4.5	159	18.3	0	0.0	13,300	4.4
Castrated Goat	162,165	55.8	231	26.6	4,439	59.0	166,836	55.8
Male Kid	28,204	9.7	159	18.3	159	2.1	28,522	9.5
She Kid	38,439	13.2	159	18.3	636	8.5	39,234	13.1
<b>Total</b>	<b>290,497</b>	<b>100.0</b>	<b>868</b>	<b>100.0</b>	<b>7,522</b>	<b>100.0</b>	<b>298,887</b>	<b>100</b>

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

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Iringa Rural	5,839	16	1,946	5	20,296	54	5,143	14	4,031	11	37,255	100
Mufindi	6,679	20	1,908	6	17,652	52	3,658	11	3,976	12	33,873	100
Makete	8,979	16	1,724	3	34,550	62	4,525	8	5,818	10	55,596	100
Njombe	11,668	19	3,382	5	33,145	54	6,088	10	7,441	12	61,724	100
Ludewa	5,670	12	1,187	3	23,536	51	3,560	8	11,801	26	45,754	100
Iringa Urban	155	17	31	3	558	61	109	12	62	7	915	100
Kilolo	5,139	14	2,405	7	21,757	59	3,608	10	3,717	10	36,626	100
Njombe Mji	4,420	24	557	3	10,671	57	1,513	8	1,593	8	18,754	100
<b>Total</b>	<b>48,548</b>	<b>17</b>	<b>13,141</b>	<b>5</b>	<b>162,165</b>	<b>56</b>	<b>28,204</b>	<b>10</b>	<b>38,439</b>	<b>13</b>	<b>290,497</b>	<b>100</b>

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

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Iringa Rural	16,525	9	10,008	5	107,297	58	21,180	11	30,024	16	185,034	100
Mufindi	8,103	11	3,536	5	48,176	67	6,188	9	6,188	9	72,190	100
Makete	14,480	12	1,632	1	79,540	64	15,296	12	13,053	11	124,000	100
Njombe	16,156	16	2,117	2	52,937	52	13,803	14	16,469	16	101,482	100
Ludewa	15,455	9	4,379	3	102,386	62	14,939	9	26,788	16	163,947	100
Iringa Urban	575	13	58	1	2,991	68	403	9	403	9	4,429	100
Kilolo	5,615	16	276	1	23,566	67	2,762	8	3,130	9	35,349	100
Njombe Mji	17,428	18	917	1	52,996	54	12,026	12	15,593	16	98,960	100
<b>Total</b>	<b>94,336</b>	<b>12</b>	<b>22,923</b>	<b>3</b>	<b>469,888</b>	<b>60</b>	<b>86,596</b>	<b>11</b>	<b>111,647</b>	<b>14</b>	<b>785,391</b>	<b>100</b>

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

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Iringa Rural	0	0	0	0	0	0	0	0	0	0	0	0
Mufindi	0	0	0	0	0	0	0	0	0	0	0	0
Makete	0	0	0	0	72	100	0	0	0	0	72	100
Njombe	0	0	0	0	0	0	0	0	0	0	0	0
Ludewa	0	0	0	0	0	0	0	0	0	0	0	0
Iringa Urban	0	0	0	0	0	0	0	0	0	0	0	0
Kilolo	0	0	0	0	0	0	0	0	0	0	0	0
Njombe Mji	159	20	159	20	159	20	159	20	159	20	796	100
<b>Total</b>	<b>159</b>	<b>18</b>	<b>159</b>	<b>18</b>	<b>231</b>	<b>27</b>	<b>159</b>	<b>18</b>	<b>159</b>	<b>18</b>	<b>868</b>	<b>100</b>

**9.19: Number of Improved Dairy Goats by Flock Structure and District as of 1st october 2008**

District	Goat Type											
	Billy Goat		Castrated Goat		She Goat		Male Kid		She Kid		Total	
	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%	Total Goat	%
Iringa Rural	0	0	0	0	0	0	0	0	0	0	0	0
Mufindi	477	18	0	0	1,431	53	159	6	636	24	2,704	100
Makete	0	0	0	0	72	100	0	0	0	0	72	100
Njombe	1,691	83	0	0	338	17	0	0	0	0	2,029	100
Ludewa	0	0	0	0	1,978	100	0	0	0	0	1,978	100
Iringa Urban	0	0	0	0	620	100	0	0	0	0	620	100
Kilolo	0	0	0	0	0	0	0	0	0	0	0	0
Njombe Mji	119	100	0	0	0	0	0	0	0	0	119	100
<b>Total</b>	<b>2,288</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>4,439</b>	<b>59</b>	<b>159</b>	<b>2</b>	<b>636</b>	<b>8</b>	<b>7,522</b>	<b>100</b>

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

Region	Number of Milked goat		Average milk production per goat per day (lts)		Average number of days for goats on milked		Average price per litre per season (Tshs)	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
Iringa Rural	0	0	0.0	0.0	0	0	0	0
Mufindi	795	795	0.8	0.5	83	50	433	350
Makete	0	0	0.0	0.0	0	6	0	0
Njombe	507	169	0.8	1.1	55	10	450	500
Ludewa	132	66	0.5	0.5	60	45	350	400
Iringa Urban	0	0	0.0	0.0	0	0	0	0
Kilolo	1,968	1,859	1.1	0.9	78	78	460	470
Njombe Mji	0	0	0.0	0.0	0	0	0	0
<b>Total</b>	<b>3,402</b>	<b>2,889</b>	<b>0.9</b>	<b>0.8</b>	<b>74</b>	<b>54</b>	<b>444</b>	<b>416</b>

**SHEEP PRODUCTION**

**9.21: Number of Households Rearing Sheep by District during the 2007/08 Agriculture Year**

District	Number of households raising or managing sheep	%	Number of households not raising or managing sheep	%	Number of agriculture households	Total livestock keeping households
Iringa Rural	973	1.7	55,327	98.3	56,300	10,009
Mufindi	2,067	3.2	62,181	96.8	64,248	17,334
Makete	2,299	7.9	26,792	92.1	29,091	10,774
Njombe	3,720	5.4	64,768	94.6	68,489	24,352
Ludewa	725	2.7	25,975	97.3	26,701	10,614
Iringa Urban	31	2.2	1,364	97.8	1,395	171
Kilolo	984	2.2	43,295	97.8	44,279	9,731
Njombe Mji	1,593	9.9	14,533	90.1	16,126	5,534
<b>Total</b>	<b>12,392</b>	<b>4.0</b>	<b>294,237</b>	<b>96.0</b>	<b>306,629</b>	<b>88,519</b>

**9.22: Number of Rearing Sheep and number of Sheep by District as of 1st October 2008**

District	Number of Households	%	Total Sheep	%
Iringa Rural	973	7.9	5,839	10.3
Mufindi	2,067	16.7	7,315	13.0
Makete	2,299	18.5	8,763	15.5
Njombe	3,720	30.0	17,249	30.6
Ludewa	725	5.9	3,296	5.8
Iringa Urban	31	0.3	279	0.5
Kilolo	984	7.9	6,779	12.0
Njombe Mji	1,593	12.9	6,928	12.3
<b>Total</b>	<b>12,392</b>	<b>100.0</b>	<b>56,448</b>	<b>100.0</b>

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

District	Number of Indigenous					
	Ram	Castrated Sheep	She Sheep	Male Lamb	She Lamb	Total
Iringa Rural	834	139	3,475	1,112	278	5,839
Mufindi	1,590	159	4,294	795	477	7,315
Makete	1,365	215	5,890	646	646	8,763
Njombe	3,551	338	10,485	1,184	1,691	17,249
Ludewa	461	0	1,450	330	1,055	3,296
Iringa Urban	62	0	171	31	16	279
Kilolo	1,640	328	3,061	765	984	6,779
Njombe Mji	1,234	319	4,340	637	398	6,928
<b>Total</b>	<b>10,738</b>	<b>1,498</b>	<b>33,166</b>	<b>5,501</b>	<b>5,545</b>	<b>56,448</b>

**9.24: Number of Sheep by Breed as of 1st October 2008**

Category	Indigenous			Improved Beef			Total	
	Number of households	Number of Sheep	%	Number of households	Number of Sheep	%	Number of Sheep	%
Ram	7,780	10,738	100	0	0	0	10,738	19
Castrated Sheep	1,046	1,498	100	0	0	0	1,498	3
She Lamb	11,449	33,166	100	0	0	0	33,166	59
Male Lamb	3,607	5,501	100	0	0	0	5,501	10
She Lamb	3,714	5,545	100	0	0	0	5,545	10
Total	27,597	56,448	100	0	0	0	56,448	100

**9.25: Number of Households Rearing Sheep, Head of Sheep and Average Head per Household by Flock Size During the 2007/08 Agricultural Year**

Flock Size	Sheep Rearing Households	%	Head of Sheep
1 - 4	8,082	65	20,332
5 - 9	2,892	23	17,754
10 - 14	914	7	9,428
15 - 19	395	3	6,747
20 - 24	109	1	2,187
<b>Total</b>	<b>12,392</b>	<b>100</b>	<b>56,448</b>

**PIG PRODUCTION**



**9.26: Number of Households Raising Pigs by District during 2007/08 Agriculture Year**

District	During the 2007/2008 Agriculture Year		
	rearing Pigs	Not rearing pigs	Total
	No of households	No of households	No of households
Iringa Rural	13,901	42,399	56,300
Mufindi	27,830	36,418	64,248
Makete	4,453	24,638	29,091
Njombe	19,109	49,380	68,489
Ludewa	12,658	14,043	26,701
Iringa Urban	248	1,147	1,395
Kilolo	18,258	26,021	44,279
Njombe Mji	7,406	8,720	16,126
<b>Total</b>	<b>103,865</b>	<b>202,764</b>	<b>306,629</b>

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

Flock Size	Pig rearing households	Herd of pigs
	Number	Number
1 - 4	94,223	159,441
5 - 9	6,787	43,217
10 - 14	1,878	21,444
15 - 19	678	11,350
20 - 24	298	6,378
<b>Total</b>	<b>103,865</b>	<b>241,829</b>

**9.28: Total Number of Indigenous Pig by Herd Structure and District During the 2007/08 Agricultural Year**

District	Pig Herd Structure										
	Boar		Castrated Male	Sow/Gilt		Male Piglet		She Piglet		Total	
	Total PIG	%	Total PIG	Total PIG	%	Total PIG	%	Total PIG	%	Total PIG	%
Iringa Rural	9,453	36	1,668	17,238	49	5,282	8	1,529	3	35,170	100
Mufindi	17,493	31	2,544	34,350	51	7,792	7	15,903	8	78,084	100
Makete	2,155	31	144	4,597	59	359	5	1,221	4	8,476	100
Njombe	9,808	30	1,353	19,109	49	8,286	13	6,257	5	44,814	100
Ludewa	3,033	16	3,692	12,262	52	2,044	8	2,967	7	23,998	100
Iringa Urban	233	23	31	481	52	140	13	171	6	1,054	100
Kilolo	8,965	31	437	20,008	60	1,531	5	5,357	3	36,298	100
Njombe Mji	3,663	28	2,230	6,371	47	1,075	7	597	2	13,936	100
Total	54,803	30	12,099	114,416	52	26,509	8	34,002	5	241,829	100

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

District	Number of households	Number of pigs	Average per household
Iringa Rural	13,901	35,170	3
Mufindi	27,830	78,084	3
Makete	4,453	8,476	2
Njombe	19,109	44,814	2
Ludewa	12,658	23,998	2
Iringa Urban	248	1,054	4
Kilolo	18,258	36,298	2
Njombe Mji	7,406	13,936	2
<b>Total</b>	<b>103,865</b>	<b>241,829</b>	<b>2</b>

**CHICKEN AND OTHER LIVESTOCK**

**9.30: Number of Households Rearing Chicken by District during the 2007/08 Agriculture Year**

District	raising chicken		not raising chicken		Total	%
	Number of households	%	Number of households	%		
Iringa Rural	35,448	63	20,852	37	56,300	100
Mufindi	55,183	86	9,065	14	64,248	100
Makete	21,621	74	7,470	26	29,091	100
Njombe	54,960	80	13,529	20	68,489	100
Ludewa	21,624	81	5,076	19	26,701	100
Iringa Urban	1,070	77	326	23	1,395	100
Kilolo	33,893	77	10,387	23	44,279	100
Njombe Mji	13,936	86	2,190	14	16,126	100
Total	237,735	78	68,894	22	306,629	100

**9.31: Number of chicken by Type and District as of 1st October 2008**

District	Indigineous chicken			Layers			Broilers			Total	
	Number of Households	Number of Indigineous Chicken	%	Number of Households	Number of Layers	%	Number of Households	Number of Broilers	%	Number of Households	Number of Chicken
Iringa Rural	35,309	346,003	90	278	25,022	7	139	13,901	4	35,726	384,927
Mufindi	55,183	532,432	99	636	3,022	1	0	0	0	55,820	535,454
Makete	21,621	150,842	100	0	0	0	0	0	0	21,621	150,842
Njombe	54,284	504,619	90	846	21,646	4	338	33,822	6	55,467	560,086
Ludewa	21,624	210,506	100	66	66	0	0	0	0	21,690	210,572
Iringa Urban	1,070	8,123	100	0	0	0	0	0	0	1,070	8,123
Kilolo	33,456	350,190	99	437	2,515	1	0	0	0	33,893	352,705
Njombe Mji	13,936	140,472	100	40	398	0	0	0	0	13,976	140,870
Total	236,482	2,243,187	96	2,303	52,668	2	477	47,723	2	239,262	2,343,579

**9.32: Number of Households Keeping Chicken and Average Number of Chicken per Household by Flock Size as of 1st October 2008 - Iringa**

Heard Size	Indigenous chicken				Layers				Broilers				Total			
	Number of Households	Number of Chicken	%	Number of Chicken Per Household	Number of Households	Number of Chicken	%	Number of Chicken Per Household	Number of Households	Number of Chicken	%	Number of Chicken Per Household	Number of Households	Number of Chicken	%	Number of Chicken Per Household
1-49	235,127	2,158,778	99	9	1,995	16,296	0.7	8	169	6,764	0.3	40	237,291	2,181,838	93.1	9
50-99	1,186	64,117	100	54	0	0	0.0	0	0	0	0.0	0	1,186	64,117	2.7	54
100-299	169	20,293	21	120	308	36,373	37.3	0	308	40,959	42.0	133	785	97,624	4.2	124
<b>Total</b>	<b>236,482</b>	<b>2,243,187</b>	<b>96</b>	<b>9</b>	<b>2,303</b>	<b>52,668</b>	<b>2.2</b>	<b>23</b>	<b>477</b>	<b>47,723</b>	<b>2.0</b>	<b>100</b>	<b>239,262</b>	<b>2,343,579</b>	<b>100</b>	<b>10</b>

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

District	Ducks	Guine pigs	Turkeys	Rabbits	Donkeys	Horses	Dogs
Iringa Rural	8,480	56,717	0	1,112	1,529	0	5,143
Mufindi	7,792	105,278	2,067	7,633	0	0	10,019
Makete	1,508	62,420	0	2,011	1,508	0	3,735
Njombe	3,213	129,706	1,015	9,132	338	0	12,514
Ludewa	593	27,162	396	5,340	396	0	3,296
Iringa Urban	78	78	0	233	0	0	899
Kilolo	10,277	31,378	0	2,952	0	0	4,045
Njombe Mji	637	60,601	0	1,951	80	0	3,504
<b>Total</b>	<b>32,579</b>	<b>473,339</b>	<b>3,478</b>	<b>30,364</b>	<b>3,851</b>	<b>0</b>	<b>43,156</b>

**9.34: Total Number of Chicken and Other Livestock by Type as of 1st October 2008**

Type	Chicken		Others
	Number	%	Number
Indigenous Chicken	2,243,187	95.7	32,579
Layer	52,668	2.2	473,339
Broiler	47,723	2	3,478
			30,364
			3,851
			43,156
<b>TOTAL</b>	<b>2,343,579</b>	<b>100</b>	<b>586,767</b>

**PESTS AND PARASITES**

**9.34: Number of Livestock Rearing households deworming Livestock by District during 2007/08 Agriculture Year**

District	Deworming Livestock		Not Deworm Livestock	Total
	Number	%	%	Number of Livestock Rearing households
Iringa Rural	28,359	67	33	10,009
Mufindi	32,760	55	45	17,334
Makete	11,636	45	55	10,774
Njombe	32,300	52	48	24,352
Ludewa	10,548	44	56	10,614
Iringa Urban	496	48	52	171
Kilolo	20,445	54	46	9,731
Njombe Mji	9,078	63	37	5,534
<b>Total</b>	<b>145,622</b>	<b>55</b>	<b>45</b>	<b>88,519</b>

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

District	Cattles				Goats/Sheep			
	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total
Iringa Rural	4,726	6,256	17,238	28,220	1,668	6,812	19,740	28,220
Mufindi	7,952	1,431	23,218	32,601	4,294	1,908	26,399	32,601
Makete	5,459	646	5,818	11,924	6,393	2,299	3,735	12,427
Njombe	13,190	1,184	18,095	32,469	6,595	1,522	24,352	32,469
Ludewa	3,692	857	6,329	10,878	2,176	2,703	5,868	10,746
Iringa Urban	31	0	574	605	109	0	496	605
Kilolo	4,701	437	15,088	20,226	2,296	656	17,056	20,008
Njombe Mji	3,464	319	6,172	9,954	2,508	995	6,490	9,994
<b>Total</b>	<b>43,216</b>	<b>11,130</b>	<b>92,531</b>	<b>146,876</b>	<b>26,039</b>	<b>16,895</b>	<b>104,135</b>	<b>147,068</b>

**Cont..9.35: Number of Livestock Rearing households that dewormed Livestock by type of livestock and District, 2007/08 Agricultural Year**

District	Pig				Chicken			
	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total
Iringa Rural	9,453	6,812	11,955	28,220	19,740	6,534	1,946	28,220
Mufindi	16,539	3,022	13,040	32,601	24,014	6,838	1,749	32,601
Makete	2,873	1,006	7,758	11,636	3,376	7,614	1,437	12,427
Njombe	14,543	507	17,418	32,469	16,234	11,499	4,735	32,469
Ludewa	6,791	1,846	2,769	11,405	3,560	7,186	923	11,669
Iringa Urban	217	0	388	605	357	202	171	729
Kilolo	13,120	437	6,560	20,117	9,840	9,075	1,640	20,554
Njombe Mji	6,092	836	3,026	9,954	4,977	3,902	1,155	10,034
<b>Total</b>	<b>69,628</b>	<b>14,466</b>	<b>62,914</b>	<b>147,007</b>	<b>82,097</b>	<b>52,849</b>	<b>13,755</b>	<b>148,702</b>

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

District	Tick Problem		No Tick Problem		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	4,587	11	5,282	13	32,390	77	42,260	100
Mufindi	9,701	16	8,429	14	41,030	69	59,159	100
Makete	6,896	27	8,332	32	10,415	41	25,643	100
Njombe	17,249	27	14,374	23	31,116	50	62,739	100
Ludewa	6,856	29	5,076	21	12,065	50	23,998	100
Iringa Urban	62	5	109	9	1,101	87	1,271	100
Kilolo	5,467	14	8,309	22	24,162	64	37,938	100
Njombe Mji	3,942	26	3,305	22	8,003	52	15,250	100
<b>Total</b>	<b>54,760</b>	<b>20</b>	<b>53,216</b>	<b>20</b>	<b>160,282</b>	<b>60</b>	<b>268,258</b>	<b>100</b>

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

District	Dipping		Spraying		Smearing		None		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	3,336	7.9	2,363	5.6	3,475	8.2	32,807	77.6	278	0.7	42,260	100
Mufindi	6,202	10.5	3,499	5.9	1,113	1.9	48,345	81.7	0	0.0	59,159	100
Makete	3,807	14.8	4,382	17.1	1,939	7.6	15,372	59.9	144	0.6	25,643	100
Njombe	10,823	17.3	6,088	9.7	1,184	1.9	44,475	70.9	169	0.3	62,739	100
Ludewa	1,846	7.7	3,428	14.3	659	2.7	17,800	74.2	264	1.1	23,998	100
Iringa Urban	16	1.2	31	2.4	124	9.8	1,101	86.6	0	0.0	1,271	100
Kilolo	3,717	9.9	2,405	6.4	2,296	6.1	29,301	77.7	0	0.0	37,719	100
Njombe Mji	1,035	6.8	2,747	18.0	557	3.6	10,870	71.1	80	0.5	15,289	100
<b>Total</b>	<b>30,782</b>	<b>11.5</b>	<b>24,943</b>	<b>9.3</b>	<b>11,348</b>	<b>4.2</b>	<b>200,071</b>	<b>74.6</b>	<b>934</b>	<b>0.3</b>	<b>268,079</b>	<b>100</b>

**9.38: Number of Livestock Rearing Households Normally Encountering Tsetse Flies Problems by District during 2007/08 Agriculture Year**

District	Yes		No	Not Applicable	Total	
	Number	%	%	%	Number	%
Iringa Rural	1,668	4	18	78	42,260	100
Mufindi	3,022	5	19	76	59,159	100
Makete	1,077	4	49	46	25,715	100
Njombe	3,382	5	44	50	62,739	100
Ludewa	2,110	9	33	58	23,998	100
Iringa Urban	16	1	9	90	1,271	100
Kilolo	1,749	5	25	70	37,938	100
Njombe Mji	1,115	7	36	57	15,289	100
<b>Total</b>	<b>14,139</b>	<b>5</b>	<b>31</b>	<b>64</b>	<b>268,370</b>	<b>100</b>

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

District	Dipping		Spraying		Trappig		None		Others		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	1,668	4	2,502	6	3,058	7	35,031	83	0	0	42,260	100
Mufindi	3,022	5	1,113	2	477	1	54,547	92	0	0	59,159	100
Makete	790	3	2,227	9	1,508	6	21,190	82	0	0	25,715	100
Njombe	4,228	7	3,044	5	2,875	5	52,424	84	169	0	62,739	100
Ludewa	198	1	1,187	5	989	4	21,426	89	198	1	23,998	100
Iringa Urban	16	1	0	0	155	12	1,101	87	0	0	1,271	100
Kilolo	1,421	4	1,421	4	3,280	9	31,488	83	109	0	37,719	100
Njombe Mji	398	3	1,513	10	438	3	12,940	85	0	0	15,289	100
<b>Total</b>	<b>11,740</b>	<b>4</b>	<b>13,007</b>	<b>5</b>	<b>12,781</b>	<b>5</b>	<b>230,147</b>	<b>86</b>	<b>476</b>	<b>0</b>	<b>268,151</b>	<b>100</b>

**9.40: Number of Livestock Rearing Households Normally Encountering Newcastle Disease Problems by District during 2007/08 Agriculture Year**

District	Yes		No		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	24,466	58	13,345	32	4,309	10	42,121	100
Mufindi	29,739	50	22,264	38	7,156	12	59,159	100
Makete	13,217	51	9,051	35	3,448	13	25,715	100
Njombe	40,755	65	15,220	24	6,764	11	62,739	100
Ludewa	14,306	60	7,779	32	1,912	8	23,998	100
Iringa Urban	791	62	326	26	155	12	1,271	100
Kilolo	21,538	57	13,229	35	3,171	8	37,938	100
Njombe Mji	10,671	70	4,021	26	597	4	15,289	100
<b>Total</b>	<b>155,483</b>	<b>58</b>	<b>85,235</b>	<b>32</b>	<b>27,513</b>	<b>10</b>	<b>268,231</b>	<b>100</b>

**9.41 : 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	%
Iringa Rural	20,018	48	10,982	26	11,121	26	42,121	100
Mufindi	31,011	52	9,383	16	18,766	32	59,159	100
Makete	12,283	48	4,238	16	9,194	36	25,715	100
Njombe	23,506	37	18,433	29	20,800	33	62,739	100
Ludewa	7,318	30	6,329	26	10,351	43	23,998	100
Iringa Urban	713	56	78	6	481	38	1,271	100
Kilolo	12,355	33	9,840	26	15,744	41	37,938	100
Njombe Mji	6,848	45	4,061	27	4,380	29	15,289	100
<b>Total</b>	<b>114,052</b>	<b>43</b>	<b>63,343</b>	<b>24</b>	<b>90,836</b>	<b>34</b>	<b>268,231</b>	<b>100</b>



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

District	Yes		No		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	8,619	20	28,776	68	4,865	12	42,260	100
Mufindi	15,903	27	36,418	62	6,838	12	59,159	100
Makete	3,591	14	18,388	72	3,735	15	25,715	100
Njombe	21,984	35	35,175	56	5,581	9	62,739	100
Ludewa	4,022	17	17,668	74	2,307	10	23,998	100
Iringa Urban	171	13	961	76	140	11	1,271	100
Kilolo	7,435	20	26,896	71	3,608	10	37,938	100
Njombe Mji	7,685	50	6,848	45	757	5	15,289	100
<b>Total</b>	<b>69,409</b>	<b>26</b>	<b>171,130</b>	<b>64</b>	<b>27,831</b>	<b>10</b>	<b>268,370</b>	<b>100</b>

**9.43: Number of Livestock Rearing Households by Method of Fowl Typhoid Disease Control and District During 2007/08 Agriculture Year**

District	Vaccination		Local Herbs		None		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	2,919	7	12,094	29	27,247	64	42,260	100
Mufindi	9,542	16	14,472	24	35,146	59	59,159	100
Makete	1,077	4	4,094	16	20,543	80	25,715	100
Njombe	11,330	18	14,205	23	37,204	59	62,739	100
Ludewa	923	4	4,153	17	18,921	79	23,998	100
Iringa Urban	16	1	47	4	1,209	95	1,271	100
Kilolo	1,203	3	8,528	22	28,208	74	37,938	100
Njombe Mji	4,897	32	3,783	25	6,610	43	15,289	100
<b>Total</b>	<b>31,907</b>	<b>12</b>	<b>61,376</b>	<b>23</b>	<b>175,087</b>	<b>65</b>	<b>268,370</b>	<b>100</b>

**9.44: Number of Livestock Rearing Households Normally Encountering Foot and Mouth Disease Problems by District during 2007/08 Agriculture Year**

District	Household Encountering Foot and Mouth Disease		Household NOT Encountering Foot and Mouth Disease		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	417	1	6,534	16	35,031	83	41,982	100
Mufindi	2,067	3	9,701	16	47,550	80	59,318	100
Makete	215	1	7,398	30	17,167	69	24,781	100
Njombe	3,551	6	15,389	24	43,968	70	62,908	100
Ludewa	66	0	5,802	25	17,207	75	23,075	100
Iringa Urban	0	0	62	5	1,209	95	1,271	100
Kilolo	2,296	6	4,701	12	30,941	82	37,938	100
Njombe Mji	995	7	3,822	25	10,472	68	15,289	100
<b>Total</b>	<b>9,608</b>	<b>4</b>	<b>53,409</b>	<b>20</b>	<b>203,545</b>	<b>76</b>	<b>266,563</b>	<b>100</b>

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

District	Household Encountering Lympyskin Disease		Household NOT Encountering Lympyskin Disease		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	695	2	6,117	15	35,170	84	41,982	100
Mufindi	1,272	2	10,337	17	47,709	80	59,318	100
Makete	287	1	7,183	29	17,311	70	24,781	100
Njombe	1,184	2	17,587	28	44,137	70	62,908	100
Ludewa	264	1	5,670	25	17,075	74	23,009	100
Iringa Urban	0	0	47	4	1,225	96	1,271	100
Kilolo	656	2	5,904	16	31,378	83	37,938	100
Njombe Mji	796	5	3,783	25	10,711	70	15,289	100
<b>Total</b>	<b>5,154</b>	<b>2</b>	<b>56,626</b>	<b>21</b>	<b>204,716</b>	<b>77</b>	<b>266,497</b>	<b>100</b>

**LIVESTOCK EXTENSION**

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

<b>District</b>	<b>Receiving Livestock services</b>		<b>Not Receiving Livestock Extension services</b>
	<b>Number</b>	<b>%</b>	<b>%</b>
Iringa Rural	26,968	70	30
Mufindi	45,324	77	23
Makete	13,576	54	46
Njombe	37,373	62	38
Ludewa	14,834	63	37
Iringa Urban	822	67	33
Kilolo	27,114	74	26
Njombe Mji	11,905	80	20
<b>Total</b>	<b>177,915</b>	<b>69</b>	<b>31</b>

**9.50: 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	%	
Iringa Rural	25,856	95.9	973	3.6	417	1.5	278	1.0	278	1.0	973	3.6	26,968
Mufindi	43,574	96.1	9,701	21.4	2,544	5.6	795	1.8	2,067	4.6	2,544	5.6	45,324
Makete	12,427	91.5	503	3.7	0	0.0	359	2.6	1,221	9.0	1,580	11.6	13,576
Njombe	32,976	88.2	2,537	6.8	1,522	4.1	0	0.0	3,889	10.4	5,919	15.8	37,373
Ludewa	13,515	91.1	1,516	10.2	66	0.4	330	2.2	527	3.6	1,055	7.1	14,834
Iringa Urban	822	100.0	0	0.0	0	0.0	16	1.9	16	1.9	140	17.0	822
Kilolo	25,912	95.6	2,077	7.7	328	1.2	219	0.8	984	3.6	2,187	8.1	27,114
Njombe Mji	11,507	96.7	1,433	12.0	1,354	11.4	80	0.7	239	2.0	1,314	11.0	11,905
Total	166,589	93.6	18,740	10.5	6,231	3.5	2,076	1.2	9,222	5.2	15,712	8.8	177,915

**9.51: Number of Agriculture Households Receiving Advice on Feeds and Proper Feeding by Source and District During 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)	%	
Iringa Rural	16,543	99.2	139	0.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16,682
Mufindi	26,240	94.3	795	2.9	0	0.0	318	1.1	318	1.1	159	0.6	0	0.0	27,830
Makete	4,741	95.7	144	2.9	0	0.0	0	0.0	72	1.4	0	0.0	0	0.0	4,956
Njombe	18,264	83.1	1,015	4.6	507	2.3	0	0.0	676	3.1	1,522	6.9	0	0.0	21,984
Ludewa	5,538	92.3	330	5.5	0	0.0	0	0.0	0	0.0	132	2.2	0	0.0	5,999
Iringa Urban	574	90.2	0	0.0	0	0.0	16	2.4	16	2.4	31	4.9	0	0.0	636
Kilolo	10,387	90.5	219	1.9	109	1.0	109	1.0	328	2.9	328	2.9	0	0.0	11,480
Njombe Mji	6,610	85.6	478	6.2	0	0.0	0	0.0	40	0.5	597	7.7	0	0.0	7,724
Total	88,894	91.4	3,119	3.2	617	0.6	443	0.5	1,450	1.5	2,769	2.8	0	0.0	97,291

**9.52: Number of households receiving extension advice on Proper Livestock Housing 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)	%	
Iringa Rural	17,238	91.9	278	1.5	0	0.0	278	1.5	139	0.7	834	4.4	0	0.0	18,767
Mufindi	28,148	80.8	4,771	13.7	0	0.0	477	1.4	159	0.5	1,272	3.7	0	0.0	34,828
Makete	7,686	94.7	72	0.9	0	0.0	72	0.9	72	0.9	215	2.7	0	0.0	8,117
Njombe	17,756	77.8	1,522	6.7	169	0.7	0	0.0	846	3.7	2,368	10.4	169	0.7	22,830
Ludewa	7,779	85.5	791	8.7	0	0.0	66	0.7	132	1.4	330	3.6	0	0.0	9,098
Iringa Urban	419	90.0	0	0.0	0	0.0	0	0.0	16	3.3	31	6.7	0	0.0	465
Kilolo	19,570	95.7	109	0.5	0	0.0	109	0.5	109	0.5	547	2.7	0	0.0	20,445
Njombe Mji	8,282	89.3	518	5.6	0	0.0	40	0.4	119	1.3	319	3.4	0	0.0	9,277
Total	106,878	86.3	8,061	6.5	169	0.1	1,042	0.8	1,592	1.3	5,915	4.8	169	0.1	123,826

**9.53: Number of households receiving extension advice on Proper Milking and Milk Hygiene 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)	%	
Iringa Rural	834	85.7	0	0.0	0	0.0	0	0.0	139	14.3	0	0.0	0	0.0	973
Mufindi	8,588	88.5	636	6.6	0	0.0	0	0.0	0	0.0	318	3.3	159	1.6	9,701
Makete	3,017	93.3	72	2.2	0	0.0	0	0.0	0	0.0	144	4.4	0	0.0	3,232
Njombe	6,933	80.4	169	2.0	0	0.0	0	0.0	676	7.8	846	9.8	0	0.0	8,625
Ludewa	1,450	81.5	198	11.1	0	0.0	66	3.7	0	0.0	66	3.7	0	0.0	1,780
Iringa Urban	109	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	109
Kilolo	2,952	90.0	109	3.3	0	0.0	109	3.3	0	0.0	109	3.3	0	0.0	3,280
Njombe Mji	1,672	85.7	199	10.2	0	0.0	80	4.1	0	0.0	0	0.0	0	0.0	1,951
Total	25,555	86.2	1,383	4.7	0	0.0	255	0.9	815	2.8	1,483	5.0	159	0.5	29,650

**9.54: Number of households receiving extension advice on Livestock fattening 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)	%	
Iringa Rural	834	85.7	0	0.0	0	0.0	0	0.0	139	14.3	0	0.0	0	0.0	973
Mufindi	8,747	93.2	477	5.1	0	0.0	159	1.7	0	0.0	0	0.0	0	0.0	9,383
Makete	1,868	81.3	144	6.3	0	0.0	0	0.0	215	9.4	72	3.1	0	0.0	2,299
Njombe	10,146	87.0	0	0.0	0	0.0	0	0.0	676	5.8	846	7.2	0	0.0	11,668
Ludewa	1,516	85.2	198	11.1	0	0.0	0	0.0	66	3.7	0	0.0	0	0.0	1,780
Iringa Urban	140	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	140
Kilolo	2,733	89.3	109	3.6	0	0.0	109	3.6	0	0.0	109	3.6	0	0.0	3,061
Njombe Mji	1,234	86.1	159	11.1	0	0.0	0	0.0	40	2.8	0	0.0	0	0.0	1,433
<b>Total</b>	<b>27,218</b>	<b>88.6</b>	<b>1,087</b>	<b>3.5</b>	<b>0</b>	<b>0.0</b>	<b>268</b>	<b>0.9</b>	<b>1,137</b>	<b>3.7</b>	<b>1,027</b>	<b>3.3</b>	<b>0</b>	<b>0.0</b>	<b>30,737</b>

**9.55: Number of households receiving extension advice on Disease control (dipping/spraying) 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)	%	
Iringa Rural	18,211	98.5	0	0.0	0	0.0	139	0.8	0	0.0	139	0.8	0	0.0	18,489
Mufindi	36,577	92.4	2,704	6.8	0	0.0	0	0.0	0	0.0	318	0.8	0	0.0	39,598
Makete	9,769	95.8	144	1.4	0	0.0	0	0.0	0	0.0	287	2.8	0	0.0	10,200
Njombe	26,212	87.1	676	2.2	0	0.0	0	0.0	1,184	3.9	2,029	6.7	0	0.0	30,101
Ludewa	8,636	88.5	264	2.7	0	0.0	132	1.4	264	2.7	461	4.7	0	0.0	9,757
Iringa Urban	558	94.7	0	0.0	0	0.0	0	0.0	0	0.0	31	5.3	0	0.0	589
Kilolo	17,821	94.2	109	0.6	0	0.0	109	0.6	437	2.3	437	2.3	0	0.0	18,914
Njombe Mji	8,242	93.2	239	2.7	0	0.0	40	0.5	40	0.5	279	3.2	0	0.0	8,839
<b>Total</b>	<b>126,026</b>	<b>92.3</b>	<b>4,136</b>	<b>3.0</b>	<b>0</b>	<b>0.0</b>	<b>420</b>	<b>0.3</b>	<b>1,925</b>	<b>1.4</b>	<b>3,982</b>	<b>2.9</b>	<b>0</b>	<b>0.0</b>	<b>136,488</b>

**9.56: Number of households receiving extension advice on Herd/Flock size and selection 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)	%	
Iringa Rural	2,363	94.4	0	0.0	0	0.0	0	0.0	139	5.6	0	0.0	0	0.0	2,502
Mufindi	12,881	94.2	318	2.3	0	0.0	0	0.0	318	2.3	159	1.2	0	0.0	13,677
Makete	2,658	78.7	72	2.1	0	0.0	0	0.0	359	10.6	287	8.5	0	0.0	3,376
Njombe	10,485	82.7	0	0.0	0	0.0	0	0.0	846	6.7	1,353	10.7	0	0.0	12,683
Ludewa	3,890	92.2	132	3.1	0	0.0	66	1.6	132	3.1	0	0.0	0	0.0	4,219
Iringa Urban	124	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	124
Kilolo	6,341	87.9	437	6.1	0	0.0	109	1.5	109	1.5	219	3.0	0	0.0	7,216
Njombe Mji	3,902	92.5	159	3.8	0	0.0	0	0.0	0	0.0	159	3.8	0	0.0	4,221
Total	42,644	88.8	1,118	2.3	0	0.0	175	0.4	1,903	4.0	2,177	4.5	0	0.0	48,018

**9.57: Number of households receiving extension advice on Pasture Establishment 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)	%	
Iringa Rural	695	71.4	139	14.3	0	0.0	0	0.0	139	14.3	0	0.0	0	0.0	973
Mufindi	11,927	93.8	636	5.0	0	0.0	0	0.0	159	1.3	0	0.0	0	0.0	12,722
Makete	2,873	97.6	72	2.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,945
Njombe	7,948	82.5	0	0.0	0	0.0	0	0.0	507	5.3	1,184	12.3	0	0.0	9,639
Ludewa	1,648	80.6	198	9.7	0	0.0	66	3.2	66	3.2	66	3.2	0	0.0	2,044
Iringa Urban	109	87.5	0	0.0	0	0.0	0	0.0	0	0.0	16	12.5	0	0.0	124
Kilolo	2,515	92.0	109	4.0	0	0.0	0	0.0	0	0.0	109	4.0	0	0.0	2,733
Njombe Mji	2,588	95.6	119	4.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	2,708
Total	30,303	89.4	1,274	3.8	0	0.0	66	0.2	871	2.6	1,375	4.1	0	0.0	33,888



**9.58: Number of households receiving extension advice on Group formation 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)	%	
Iringa Rural	8,480	95.3	278	3.1	139	1.6	0	0.0	0	0.0	0	0.0	0	0.0	8,897
Mufindi	24,968	80.1	3,817	12.2	2,226	7.1	0	0.0	0	0.0	159	0.5	0	0.0	31,170
Makete	3,520	90.7	215	5.6	0	0.0	72	1.9	0	0.0	72	1.9	0	0.0	3,879
Njombe	12,852	75.2	507	3.0	1,015	5.9	0	0.0	676	4.0	2,029	11.9	0	0.0	17,080
Ludewa	3,296	83.3	527	13.3	66	1.7	0	0.0	0	0.0	66	1.7	0	0.0	3,956
Iringa Urban	171	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	171
Kilolo	10,496	91.4	656	5.7	219	1.9	0	0.0	0	0.0	109	1.0	0	0.0	11,480
Njombe Mji	4,698	75.2	279	4.5	1,194	19.1	0	0.0	0	0.0	80	1.3	0	0.0	6,251
Total	68,480	82.6	6,280	7.6	4,859	5.9	72	0.1	676	0.8	2,515	3.0	0	0.0	82,883

**9.59: Number of households receiving extension advice on Calf Rearing 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)	%	
Iringa Rural	973	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	973
Mufindi	11,927	88.2	795	5.9	0	0.0	0	0.0	159	1.2	636	4.7	0	0.0	13,518
Makete	2,801	92.9	72	2.4	0	0.0	72	2.4	0	0.0	72	2.4	0	0.0	3,017
Njombe	7,779	82.1	0	0.0	0	0.0	0	0.0	338	3.6	1,353	14.3	0	0.0	9,470
Ludewa	3,033	86.8	330	9.4	0	0.0	66	1.9	0	0.0	66	1.9	0	0.0	3,494
Iringa Urban	124	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	124
Kilolo	3,936	94.7	219	5.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4,155
Njombe Mji	2,110	81.5	239	9.2	159	6.2	0	0.0	0	0.0	80	3.1	0	0.0	2,588
Total	32,684	87.5	1,654	4.4	159	0.4	138	0.4	497	1.3	2,206	5.9	0	0.0	37,338

**9.60: Number of households receiving extension advice on Use of improved Bulls 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)	%	
Iringa Rural	1,112	88.9	0	0.0	0	0.0	0	0.0	139	11.1	0	0.0	0	0.0	1,251
Mufindi	8,270	94.5	159	1.8	0	0.0	0	0.0	318	3.6	0	0.0	0	0.0	8,747
Makete	1,939	87.1	72	3.2	0	0.0	0	0.0	215	9.7	0	0.0	0	0.0	2,227
Njombe	4,228	58.1	0	0.0	0	0.0	0	0.0	1,691	23.3	1,353	18.6	0	0.0	7,272
Ludewa	396	66.7	198	33.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	593
Iringa Urban	93	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	93
Kilolo	1,421	86.7	0	0.0	0	0.0	109	6.7	0	0.0	109	6.7	0	0.0	1,640
Njombe Mji	1,234	96.9	40	3.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,274
<b>Total</b>	<b>18,693</b>	<b>80.9</b>	<b>468</b>	<b>2.0</b>	<b>0</b>	<b>0.0</b>	<b>109</b>	<b>0.5</b>	<b>2,364</b>	<b>10.2</b>	<b>1,462</b>	<b>6.3</b>	<b>0</b>	<b>0.0</b>	<b>23,097</b>

**9.61: 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)	%	
Iringa Rural	5,004	97.3	0	0.0	0	0.0	0	0.0	139	2.7	0	0.0	0	0.0	5,143
Mufindi	22,741	96.6	636	2.7	0	0.0	0	0.0	0	0.0	159	0.7	0	0.0	23,536
Makete	2,801	90.7	144	4.7	0	0.0	144	4.7	0	0.0	0	0.0	0	0.0	3,089
Njombe	8,117	76.2	338	3.2	0	0.0	0	0.0	846	7.9	1,353	12.7	0	0.0	10,654
Ludewa	989	83.3	132	11.1	0	0.0	0	0.0	0	0.0	66	5.6	0	0.0	1,187
Iringa Urban	388	92.6	0	0.0	0	0.0	0	0.0	0	0.0	31	7.4	0	0.0	419
Kilolo	4,045	90.2	109	2.4	0	0.0	109	2.4	0	0.0	219	4.9	0	0.0	4,483
Njombe Mji	3,145	90.8	199	5.7	0	0.0	0	0.0	0	0.0	119	3.4	0	0.0	3,464
Total	47,232	90.9	1,558	3.0	0	0.0	253	0.5	985	1.9	1,947	3.7	0	0.0	51,974

**FISH FARMING**

**9.62: Number of Agriculture Households Practising Fish Farming by District during the 2007/08 Agriculture Year**

District	Agricultural Households Doing Fish Farming		Agricultural Households NOT Doing Fish Farming		Total Agriculture Households
	Number	%	Number	%	
Iringa Rural	0	0	56,300	100	56,300
Mufindi	795	1.2	63,453	98.8	64,248
Makete	0	0	29,091	100	29,091
Njombe	507	0.7	67,981	99.3	68,489
Ludewa	330	1.2	26,371	98.8	26,701
Iringa Urban	0	0	1,395	100	1,395
Kilolo	109	0.2	44,170	99.8	44,279
Njombe Mji	80	0.5	16,046	99.5	16,126
<b>Total</b>	<b>1,821</b>	<b>0.6</b>	<b>304,808</b>	<b>99.4</b>	<b>306,629</b>

**9.63: Number of Agriculture Households by System of Fish Farming and District during the 2007/08 Agriculture Year**

District	system of fish farming			
	Natural Pond	Dug out Pond	Water Reservoir	Total
Iringa Rural	0	0	0	0
Mufindi	0	795	0	795
Makete	0	0	0	0
Njombe	169	338	0	507
Ludewa	0	330	0	330
Iringa Urban	0	0	0	0
Kilolo	0	109	0	109
Njombe Mji	0	159	0	159
<b>Total</b>	<b>169</b>	<b>1,732</b>	<b>0</b>	<b>1,901</b>

**9.64: Number of Agriculture Households by Source of Fingerling and District during the 2007/08 Agriculture Year**

District	Source of fingerlings							Total
	Own Pond	Government Institution	NGOs / Project	Neighbour	Private Trader	Natural pond	Other	
Iringa Rural	0	0	0	0	0	0	0	0
Mufindi	0	159	318	159	0	159	0	795
Makete	0	0	0	0	0	0	0	0
Njombe	0	0	169	169	169	0	0	507
Ludewa	0	66	66	198	0	0	0	330
Iringa Urban	0	0	0	0	0	0	0	0
Kilolo	109	0	0	0	0	0	0	109
Njombe Mji	0	0	0	119	40	0	0	159
<b>Total</b>	<b>109</b>	<b>225</b>	<b>553</b>	<b>645</b>	<b>209</b>	<b>159</b>	<b>0</b>	<b>1,901</b>

**9.65: Number of Agriculture Households by Location of Selling Fish and District during the 2007/08 Agriculture Year**

District	where sold						Total
	Neighbour	Local Market	Processing Industry	Trader at Farm	Did not Sell	Other	
Iringa Rural	0	0	0	0	477	0	477
Mufindi	318	0	0	0	0	0	318
Makete	0	0	0	0	0	0	0
Njombe	0	0	0	0	338	169	507
Ludewa	66	0	0	0	264	0	330
Iringa Urban	0	0	0	0	0	0	0
Kilolo	109	0	0	0	0	0	109
Njombe Mji	159	0	0	0	0	0	159
<b>Total</b>	<b>652</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,079</b>	<b>169</b>	<b>1,901</b>

**9.66: Number of Agricultural Households By Location of Selling Fish and District, 2007/08 Agricultural Year**

District	Neighbour	Did not sell	Total
Mufindi	318	477	795
Njombe	0	338	507
Ludewa	66	264	330
Kilolo	109	0	109
Njombe Mji	159	0	159
<b>Total</b>	<b>653</b>	<b>1,079</b>	<b>1,901</b>

**9.67: Number of Agricultural Households By frequency of stocking of Fingerings in fish ponds and District, 2007/08 Agricultural Year**

District	Frequency of stocking		
	1	2	Total
Mufindi	477	159	795
Njombe	338	169	507
Ludewa	198	132	330
Kilolo	0	109	109
Njombe Mji	40	119	159
<b>Total</b>	<b>1,053</b>	<b>689</b>	<b>1,901</b>

**9.68: Number of Agricultural Households By level of care of fish ponds and District, 2007/08 Agricultural Year**

District	Level of Care of Fish Ponds	
	Meadium/Average	Total
Mufindi	318	795
Njombe	338	507
Ludewa	66	330
Kilolo	0	109
Njombe Mji	119	159
<b>Total</b>	<b>842</b>	<b>1,901</b>

**9.69: Mean Size of Fish Pond and average Number of fingerings stocked by District, 2007/08 Agricultural Year**

District	Mean Size of Pond (Sq.metre)	Tilapia	Milk Fish	Prawns/Crabs	Lulu
Mufindi	23	83	0	0	0
Njombe	73	39	0	0	0
Ludewa	55	26	0	0	0
Kilolo	64	25	0	0	0
Njombe Mji	77	222	0	0	0
<b>Total</b>	<b>49</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>0</b>

**9.70: Total Number of Fish Harvested by Type and District, 2007/08 Agricultural Year**

District	Fish Harvested				Fish Sold	
	Number of fish harvested	%	Quantity(Kg)	%	Quantity(Kg)	%
Mufindi	66,793	32	10,655	31	19,084	46
Njombe	5,073	2	1,353	4	0	0
Ludewa	17,141	8	12,790	37	19,778	47
Kilolo	109,332	52	2,733	8	2,187	5
Njombe Mji	11,945	6	7,087	20	876	2
<b>Total</b>	<b>210,284</b>	<b>100</b>	<b>34,618</b>	<b>100</b>	<b>41,924</b>	

**BEE KEEPING**

**9.71: 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
Iringa Rural	695	55,605	56,300
Mufindi	1,908	62,340	64,248
Makete	503	28,588	29,091
Njombe	3,044	65,445	68,489
Ludewa	2,044	24,657	26,701
Iringa Urban	16	1,380	1,395
Kilolo	1,093	43,186	44,279
Njombe Mji	1,274	14,852	16,126
<b>Total</b>	<b>10,577</b>	<b>296,052</b>	<b>306,629</b>

**9.72: Number of Agriculture Households Harvesting Honey by Type of Bee and District during the 2007/08 Agriculture Year**

District	Was Honey Harvested?								
	Number of Agricultural Households that Poduced/Collected Honey			Number of Agricultural Households that did NOT Poduce/Collect Honey			Total		
	Stingless Bee	Sting Bee	Total	Stingless Bee	Sting Bee	Total	Stingless Bee	Sting Bee	Total
Iringa Rural	139	417	556	139	0	139	278	417	695
Mufindi	636	1,272	1,908	159	0	159	795	1,272	2,067
Makete	0	503	503	0	0	0	0	503	503
Njombe	1,184	2,029	3,213	169	0	169	1,353	2,029	3,382
Ludewa	330	1,714	2,044	0	66	66	330	1,780	2,110
Iringa Urban	0	16	16	0	0	0	0	16	16
Kilolo	219	765	984	109	0	109	328	765	1,093
Njombe Mji	597	637	1,234	0	40	40	597	677	1,274
<b>Total</b>	<b>3,104</b>	<b>7,353</b>	<b>10,458</b>	<b>576</b>	<b>106</b>	<b>682</b>	<b>3,681</b>	<b>7,459</b>	<b>11,140</b>

**9.73: Number of Agricultural Households, type of bee Hives and type of bees and District , 2007/08 Agricultural Year**

District	Number of Improved Bee Hives						Number of Local Bee Hives					
	Stingless Bee		Sting Bee		Total		Stingless Bee		Sting Bee		Total	
	Number of Household	Number Hives	Number of Household	Number Hives	Number of Household	Number Hives	Number of Household	Number Hives	Number of Household	Number Hives	Number of Household	Number Hives
Iringa Rural	278	0	417	695	695	695	278	695	417	1,807	695	2,502
Mufindi	795	636	1,272	477	2,067	1,113	795	2,704	1,272	10,655	2,067	13,359
Makete	0	.	503	1,508	503	1,508	0	.	503	1,293	503	1,293
Njombe	1,353	2,029	2,029	507	3,382	2,537	1,353	8,963	2,029	13,360	3,382	22,322
Ludewa	330	0	1,780	1,978	2,110	1,978	330	3,362	1,780	14,768	2,110	18,130
Iringa Urban	0	.	16	31	16	31	0	.	16	62	16	62
Kilolo	328	656	765	765	1,093	1,421	328	437	765	5,467	1,093	5,904
Njombe Mji	597	0	677	279	1,274	279	597	13,179	677	15,329	1,274	28,509
<b>Total</b>	<b>3,681</b>	<b>3,321</b>	<b>7,459</b>	<b>6,241</b>	<b>11,140</b>	<b>9,562</b>	<b>3,681</b>	<b>29,340</b>	<b>7,459</b>	<b>62,740</b>	<b>11,140</b>	<b>92,080</b>



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

District	Stingless Bee				StingBee				Total	
	Honey Harvested		Honey Sold		Honey Harvested		Honey Sold		Honey Sold	Honey Harvested
	Quantity (lts)	%	Quantity (lts)	%	Quantity (lts)	%	Quantity (lts)	%		
Iringa Rural	3,336	27	2,780	43	9,036	73	3,753	57	6,534	12,372
Mufindi	15,108	0	8,270	0	278,462	95	165,073	95	173,343	293,569
Makete	.	0	.	0	12,786	100	10,128	100	10,128	12,786
Njombe	40,586	60	33,314	58	27,226	40	24,352	42	57,666	67,812
Ludewa	7,911	18	4,615	15	37,117	82	26,305	85	30,920	45,028
Iringa Urban	.	0	.	0	0	0	0	0	0	0
Kilolo	6779	0	6779	0	14432	0	7763	0	14,541	21,210
Njombe Mji	50,965	0	37,985	0	43,320	46	42,006	53	79,991	94,285
<b>Total</b>	<b>124,685</b>	<b>23</b>	<b>93,742</b>	<b>25</b>	<b>422,379</b>	<b>77</b>	<b>279,380</b>	<b>75</b>	<b>373,122</b>	<b>547,063</b>

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

District	Stingless Bee (Price per Litre)	Bee (Price per Litre)	Average Price Per Litre
Iringa Rural	900	1,083	1,010
Mufindi	321	1,775	1,216
Makete	.	2,429	2,429
Njombe	1,094	750	888
Ludewa	1,300	1,388	1,374
Iringa Urban	.	0	0
Kilolo	1500	2028.57	1,870
Njombe Mji	1,480	1,747	1,622
<b>Total</b>	<b>1,029</b>	<b>1,429</b>	<b>1,296</b>

**9.76: Number of Agricultural Households By Location of Selling Fish and District , 2007/08 Agricultural Year**

District	Neighbour		Local 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
Iringa Rural	139	278	0	0	0	0	139	139	0	0	278	417
Mufindi	477	954	0	0	0	159	318	159	0	0	795	1,272
Makete	0	431	0	0	0	0	0	72	0	0	0	503
Njombe	507	846	169	338	338	169	338	676	0	0	1,353	2,029
Ludewa	264	791	0	0	0	198	66	659	0	66	330	1,714
Iringa Urban	0	0	0	0	0	0	0	16	0	0	0	16
Kilolo	219	656	0	109	0	0	0	0	109	0	328	765
Njombe Mji	40	438	0	0	0	199	80	40	478	0	597	677
<b>Total</b>	<b>1,646</b>	<b>4,394</b>	<b>169</b>	<b>448</b>	<b>338</b>	<b>725</b>	<b>941</b>	<b>1,761</b>	<b>587</b>	<b>66</b>	<b>3,681</b>	<b>7,393</b>

**POVERTY MODULE**

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

District	Number of rooms	Iron Sheets		Tiles		Concrete		Asbestos		Grass/leaves.		Grass & mud.		Other (Specify)		Total	
	Mean	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	3	30,166	54	278	0	0	0	278	0	18,211	32	7,368	13	0	0	56,300	100
Mufindi	3	32,760	51	1,431	2	159	0	2,067	3	26,240	41	1,590	2	0	0	64,248	100
Makete	2	21,046	72	1,508	5	72	0	0	0	5,746	20	718	2	0	0	29,091	100
Njombe	3	46,167	67	0	0	0	0	169	0	20,124	29	2,029	3	0	0	68,489	100
Ludewa	3	16,746	63	0	0	66	0	0	0	9,625	36	264	1	0	0	26,701	100
Iringa Urban	2	713	51	0	0	0	0	233	17	419	30	31	2	0	0	1,395	100
Kilolo	3	21,976	50	109	0	0	0	656	1	19,789	45	1,749	4	0	0	44,279	100
Njombe Mji	3	10,910	68	199	1	80	0	239	1	4,539	28	159	1	0	0	16,126	100
<b>Total</b>	<b>3</b>	<b>180,483</b>	<b>59</b>	<b>3,526</b>	<b>1</b>	<b>376</b>	<b>0</b>	<b>3,642</b>	<b>1</b>	<b>104,693</b>	<b>34</b>	<b>13,909</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>306,629</b>	<b>100</b>

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

District	Number of rooms	Earth, Sand, Dung		Wood Planks, Bamboo, Palm.		Parquet Or Polished Wood		Ceramic Tiles, Terrazzo		Cement		Other		Total	
	Mean	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	3	44,623	79	556	1	0	0	0	0	11,121	20	0	0	56,300	100
Mufindi	3	47,073	73	1,908	3	318	0	159	0	14,790	23	0	0	64,248	100
Makete	2	21,477	74	1,437	5	0	0	144	0	6,034	21	0	0	29,091	100
Njombe	3	45,659	67	1,015	1	507	1	169	0	21,139	31	0	0	68,489	100
Ludewa	3	23,207	86	461	2	66	0	66	0	2,901	11	0	0	26,701	100
Iringa Urban	2	1,054	76	0	0	0	0	0	0	341	24	0	0	1,395	100
Kilolo	3	34,658	78	1,093	2	0	0	0	0	8,528	19	0	0	44,279	100
Njombe Mji	3	9,596	60	557	3	40	0	119	1	5,813	36	0	0	16,126	100
<b>Total</b>	<b>3</b>	<b>227,076</b>	<b>74</b>	<b>7,028</b>	<b>2</b>	<b>931</b>	<b>0</b>	<b>657</b>	<b>0</b>	<b>70,666</b>	<b>23</b>	<b>3,027</b>	<b>1</b>	<b>306,629</b>	<b>100</b>

**10.3: Number of households by type of Wall Materials and District, 2007/08 Agricultural Year**

District	Mean	Wall Materials																	
		Grass		Poles And Mud		Sun-Dried Bricks		Baked Bricks		Wood, Timber		Cement Blocks		Stones		Other (specify)		Total	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	3	6,256	11	35,170	62	4,865	9	8,758	16	556	1	417	1	139	0	139	0	56,300	100
Mufindi	3	1,749	3	20,515	32	20,833	32	20,833	32	159	0	159	0	0	0	0	0	64,248	100
Makete	2	1,652	6	1,652	6	3,735	13	21,405	74	72	0	144	0	0	0	431	1	29,091	100
Njombe	3	1,184	2	8,455	12	7,779	11	50,056	73	0	0	676	1	0	0	338	0	68,489	100
Ludewa	3	527	2	1,714	6	989	4	23,338	87	66	0	0	0	0	0	66	0	26,701	100
Iringa Urban	2	16	1	636	46	512	37	233	17	0	0	0	0	0	0	0	0	1,395	100
Kilolo	3	6,779	15	22,304	50	5,904	13	8,419	19	765	2	109	0	0	0	0	0	44,279	100
Njombe Mji	3	478	3	717	4	8,003	50	6,809	42	80	0	40	0	0	0	0	0	16,126	100
Total	3	18,640	6	91,163	30	52,620	17	139,850	46	1,698	1	1,545	1	139	0	974	0	306,629	100

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

District	Radio			Landline phone			Mobile phone			Iron			Wheelbarrow		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Iringa Rural	38,646	17,655	56,300	417	55,883	56,300	15,847	40,453	56,300	15,430	40,870	56,300	5,700	50,601	56,300
Mufindi	45,005	19,243	64,248	159	64,089	64,248	19,879	44,369	64,248	21,787	42,461	64,248	5,248	59,000	64,248
Makete	17,455	11,636	29,091	646	28,445	29,091	6,608	22,483	29,091	8,620	20,471	29,091	1,580	27,511	29,091
Njombe	50,732	17,756	68,489	846	67,643	68,489	19,786	48,703	68,489	21,815	46,674	68,489	4,397	64,092	68,489
Ludewa	15,888	10,812	26,701	66	26,635	26,701	5,208	21,492	26,701	6,791	19,910	26,701	1,384	25,316	26,701
Iringa Urban	1,101	295	1,395	16	1,380	1,395	543	853	1,395	434	961	1,395	124	1,271	1,395
Kilolo	30,832	13,448	44,279	328	43,951	44,279	11,808	32,472	44,279	12,245	32,034	44,279	1,421	42,858	44,279
Njombe Mji	12,383	3,743	16,126	199	15,927	16,126	7,446	8,680	16,126	7,087	9,038	16,126	2,827	13,299	16,126
Total	212,042	94,587	306,629	2,677	303,952	306,629	87,125	219,504	306,629	94,209	212,420	306,629	22,681	283,948	306,629

Cont.....

## ...cont 10.4: Number of Agricultural Households reporting ownership of Assets by District, 2007/08 Agricultural Year

District	Bicycle			Vehicle			Television / Video			Refrigerator			Motor Cycle		
	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total	Yes	No	Total
Iringa Rural	27,803	28,498	56,300	973	55,327	56,300	1,807	54,493	56,300	556	55,744	56,300	1,529	54,771	56,300
Mufindi	35,305	28,943	64,248	1,272	62,976	64,248	3,022	61,227	64,248	954	63,294	64,248	3,658	60,590	64,248
Makete	8,835	20,256	29,091	1,006	28,085	29,091	1,149	27,942	29,091	215	28,875	29,091	862	28,229	29,091
Njombe	39,910	28,579	68,489	1,691	66,798	68,489	1,184	67,305	68,489	338	68,151	68,489	1,015	67,474	68,489
Ludewa	7,582	19,119	26,701	330	26,371	26,701	527	26,173	26,701	132	26,569	26,701	264	26,437	26,701
Iringa Urban	543	853	1,395	78	1,318	1,395	16	1,380	1,395	16	1,380	1,395	0	1,395	1,395
Kilolo	16,618	27,661	44,279	1,531	42,749	44,279	875	43,405	44,279	109	44,170	44,279	875	43,405	44,279
Njombe Mji	9,914	6,211	16,126	995	15,130	16,126	319	15,807	16,126	159	15,966	16,126	279	15,847	16,126
<b>Total</b>	<b>146,509</b>	<b>160,120</b>	<b>306,629</b>	<b>7,875</b>	<b>298,754</b>	<b>306,629</b>	<b>8,898</b>	<b>297,731</b>	<b>306,629</b>	<b>2,480</b>	<b>304,149</b>	<b>306,629</b>	<b>8,481</b>	<b>298,148</b>	<b>306,629</b>

## 10.5: Number of Agricultural Households Reporting Main Source of Energy for Lighting by District, 2007/08 Agricultural Year

District	Mains electricity		Solar		Gas (hh biogas)		Hurican Lamp		Pressure Lamp		Wick Lamp		Candles		Fire Wood		Other (specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	1,112	2	417	1	0	0	26,968	48	1,668	3	25,022	44	139	0	973	2	0	0	56,300	100
Mufindi	1,431	2	636	1	0	0	31,329	49	1,908	3	28,466	44	159	0	318	0	0	0	64,248	100
Makete	431	1	431	1	72	0	14,007	48	503	2	12,857	44	72	0	646	2	72	0	29,091	100
Njombe	1,353	2	1,184	2	0	0	41,601	61	1,691	2	21,308	31	169	0	1,015	1	169	0	68,489	100
Ludewa	1,121	4	198	1	66	0	15,559	58	527	2	8,768	33	132	0	264	1	66	0	26,701	100
Iringa Urban	0	0	16	1	0	0	698	50	124	9	558	40	0	0	0	0	0	0	1,395	100
Kilolo	437	1	328	1	109	0	25,474	58	656	1	16,400	37	219	0	656	1	0	0	44,279	100
Njombe Mji	319	2	119	1	0	0	9,835	61	358	2	4,818	30	80	0	597	4	0	0	16,126	100
<b>Total</b>	<b>6,204</b>	<b>2</b>	<b>3,329</b>	<b>1</b>	<b>247</b>	<b>0</b>	<b>165,470</b>	<b>54</b>	<b>7,436</b>	<b>2</b>	<b>118,198</b>	<b>39</b>	<b>969</b>	<b>0</b>	<b>4,469</b>	<b>1</b>	<b>307</b>	<b>0</b>	<b>306,629</b>	<b>100</b>

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

District	Mains electricity		Solar		Gas (hh biogas)		Bottled gas		Paraffin/kerocine.		Charcoal		Firewood		Crop Residues		Livestock dung		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	0	0	139	0	0	0	139	0	139	0	1,112	2	54,632	97	139	0	0	0	56,300	100
Mufindi	159	0	159	0	0	0	159	0	0	0	795	1	62,499	97	477	1	0	0	64,248	100
Makete	72	0	72	0	72	0	0	0	215	1	287	1	28,229	97	72	0	72	0	29,091	100
Njombe	338	0	169	0	0	0	338	0	169	0	1,353	2	65,952	96	169	0	0	0	68,489	100
Ludewa	66	0	0	0	66	0	0	0	0	0	0	0	26,503	99	66	0	0	0	26,701	100
Iringa Urban	0	0	0	0	0	0	47	3	0	0	16	1	1,333	96	0	0	0	0	1,395	100
Kilolo	0	0	0	0	0	0	0	0	0	0	437	1	43,514	98	219	0	109	0	44,279	100
Njombe Mji	40	0	0	0	80	0	80	0	80	0	239	1	15,528	96	40	0	40	0	16,126	100
<b>Total</b>	<b>675</b>	<b>0</b>	<b>539</b>	<b>0</b>	<b>217</b>	<b>0</b>	<b>762</b>	<b>0</b>	<b>603</b>	<b>0</b>	<b>4,239</b>	<b>1</b>	<b>298,190</b>	<b>97</b>	<b>1,181</b>	<b>0</b>	<b>221</b>	<b>0</b>	<b>306,629</b>	<b>100</b>

**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		Upprotected Well		Unprotected Spring		Surface Water (Lake / Dam / River / Stream)		Covered Rainwater Catchment		Uncovered Rainwater Catchment		Water Vendor		Tanker Truck		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	22,937	41	3,197	6	139	0	5,282	9	5,143	9	12,233	22	139	0	5,422	10	0	0	139	0	1,668	3	56,300	100
Mufindi	11,132	17	8,270	13	3,181	5	14,154	22	12,404	19	8,429	13	2,067	3	2,385	4	0	0	0	0	2,226	3	64,248	100
Makete	15,803	54	1,221	4	575	2	4,382	15	718	2	3,663	13	359	1	503	2	0	0	0	0	1,868	6	29,091	100
Njombe	38,557	56	4,566	7	2,537	4	10,316	15	5,242	8	4,735	7	1,522	2	507	1	0	0	0	0	507	1	68,489	100
Ludewa	9,757	37	198	1	132	0	5,538	21	3,230	12	5,208	20	0	0	857	3	0	0	0	0	1,780	7	26,701	100
Iringa Urban	496	36	217	16	186	13	78	6	217	16	171	12	0	0	31	2	0	0	0	0	0	0	1,395	100
Kilolo	15,853	36	3,061	7	1,421	3	10,496	24	6,997	16	5,685	13	0	0	656	1	109	0	0	0	0	0	44,279	100
Njombe Mji	4,659	29	956	6	438	3	5,654	35	2,070	13	1,871	12	0	0	239	1	0	0	0	0	239	1	16,126	100
<b>Total</b>	<b>119,193</b>	<b>39</b>	<b>21,686</b>	<b>7</b>	<b>8,608</b>	<b>3</b>	<b>55,899</b>	<b>18</b>	<b>36,024</b>	<b>12</b>	<b>41,995</b>	<b>14</b>	<b>4,088</b>	<b>1</b>	<b>10,600</b>	<b>3</b>	<b>109</b>	<b>0</b>	<b>139</b>	<b>0</b>	<b>8,288</b>	<b>3</b>	<b>306,629</b>	<b>100</b>

**10.8 : Number of Agriculture Households by Distance to Main Source of Drinking Water in wet Season and District during, 2007/08 Agricultural Year**

District	Less than 100 Metres		100 - 299 m	300 - 499 m	500 - 999 m		1.00 - 1.99 Km		3.00 - 4.99 Km		Total	
	Number	%	Number	Number	Number	%	Number	%	Number	%	Number	%
Iringa Rural	22,937	41	4,170	2,085	20,852	37	6,256	11	0	0	56,300	100
Mufindi	16,698	26	7,156	4,771	11,927	19	21,310	33	2,385	4	64,248	100
Makete	15,084	52	7,542	1,077	4,310	15	1,077	4	0	0	29,091	100
Njombe	30,439	44	12,683	5,073	10,146	15	10,146	15	0	0	68,489	100
Ludewa	13,845	52	5,933	989	3,956	15	1,978	7	0	0	26,701	100
Iringa Urban	233	17	698	0	233	17	233	17	0	0	1,395	100
Kilolo	6,560	15	9,840	0	19,680	44	8,200	19	0	0	44,279	100
Njombe Mji	8,361	52	2,389	1,194	4,181	26	0	0	0	0	16,126	100
<b>Total</b>	<b>114,158</b>	<b>37</b>	<b>50,412</b>	<b>15,190</b>	<b>75,284</b>	<b>25</b>	<b>49,200</b>	<b>16</b>	<b>2,385</b>	<b>1</b>	<b>306,629</b>	<b>100</b>

**10.9: 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 Minutes		10 - 19 Minutes		20 - 29 Minutes		30 - 39 Minutes		40 - 49 Minutes		50 - 59 Minutes		Above 1 Hour		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	20,852	37	6,256	11	4,170	7	14,596	26	0	0	2,085	4	8,341	15	56,300	100
Mufindi	14,313	22	4,771	7	7,156	11	30,852	48	0	0	0	0	7,156	11	64,248	100
Makete	20,471	70	1,077	4	2,155	7	5,387	19	0	0	0	0	0	0	29,091	100
Njombe	38,049	56	7,610	11	2,537	4	17,756	26	0	0	0	0	2,537	4	68,489	100
Ludewa	14,834	56	3,956	15	1,978	7	4,945	19	0	0	0	0	989	4	26,701	100
Iringa Urban	233	17	698	50	0	0	233	17	0	0	0	0	233	17	1,395	100
Kilolo	9,840	22	3,280	7	9,840	22	11,480	26	3,280	7	1,640	4	4,920	11	44,279	100
Njombe Mji	5,375	33	2,986	19	3,583	22	2,986	19	1,194	7	0	0	0	0	16,126	100
<b>Total</b>	<b>123,967</b>	<b>40</b>	<b>30,633</b>	<b>10</b>	<b>31,419</b>	<b>10</b>	<b>88,235</b>	<b>29</b>	<b>4,474</b>	<b>1</b>	<b>3,725</b>	<b>1</b>	<b>24,175</b>	<b>8</b>	<b>306,629</b>	<b>100</b>

**10.10: Number of Agricultural Households Reporting Main Source of Drinking Water during Dry season and 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		Tanker Truck		Other		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	23,632	42	3,058	5	139	0	5,978	11	5,143	9	16,682	30	417	1	278	0	0	0	973	2	56,300	100
Mufindi	12,881	20	10,019	16	3,340	5	14,949	23	12,881	20	9,860	15	159	0	159	0	0	0	0	0	64,248	100
Makete	15,443	53	1,365	5	503	2	6,536	22	790	3	4,238	15	0	0	144	0	72	0	0	0	29,091	100
Njombe	30,947	45	4,397	6	2,706	4	15,220	22	6,426	9	8,117	12	0	0	507	1	0	0	169	0	68,489	100
Ludewa	9,691	36	198	1	132	0	6,725	25	3,230	12	6,593	25	0	0	0	0	0	0	132	0	26,701	100
Iringa Urban	496	36	233	17	186	13	93	7	171	12	202	14	0	0	16	1	0	0	0	0	1,395	100
Kilolo	15,744	36	3,171	7	1,968	4	10,715	24	6,997	16	5,576	13	0	0	0	0	109	0	0	0	44,279	100
Njombe Mji	4,738	29	916	6	478	3	5,853	36	2,031	13	1,911	12	0	0	40	0	0	0	159	1	16,126	100
<b>Total</b>	113,573	37	23,355	8	9,451	3	66,068	22	37,670	12	53,178	17	576	0	1,143	0	181	0	1,433	0	306,629	100

**10.11: Number of Agriculture Households by Distance to Main Source of Drinking Water in Dry Season and District during, 2007/08 Agricultural Year**

District	Less than 100 Metres		100 - 299 m		300 - 499 m		500 - 999 m		1.00- 1.99 Km		2.00 - 2.99 Km		3.00 - 4.99 Km		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	20,852	37	4,170	7	4,170	7	16,682	30	6,256	11	2,085	4	2,085	4	56,300	100
Mufindi	7,156	11	7,156	11	9,542	15	11,927	19	26,081	41	0	0	2,385	4	64,248	100
Makete	12,929	44	7,542	26	2,155	7	4,310	15	2,155	7	0	0	0	0	29,091	100
Njombe	22,830	33	7,610	11	7,610	11	5,073	7	22,830	33	2,537	4	0	0	68,489	100
Ludewa	8,900	33	5,933	22	989	4	6,922	26	3,956	15	0	0	0	0	26,701	100
Iringa Urban	233	17	698	50	0	0	233	17	233	17	0	0	0	0	1,395	100
Kilolo	4,920	11	9,840	22	0	0	21,320	48	8,200	19	0	0	0	0	44,279	100
Njombe Mji	8,959	56	2,389	15	1,194	7	3,583	22	0	0	0	0	0	0	16,126	100
<b>Total</b>	86,779	28	45,339	15	25,660	8	70,050	23	69,709	23	4,622	2	4,471	1	306,629	100



**10.12: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water in Dry season and District , 2007/08 Agricultural Year**

District	Less than 10 Minutes		10 - 19 Minutes		20 - 29 Minutes		30 - 39 Minutes		40 - 49 Minutes		50 - 59 Minutes		Above 1 Hour		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	18,767	33	10,426	19	4,170	7	8,341	15	0	0	4,170	7	10,426	19	56,300	100
Mufindi	7,156	11	4,771	7	9,542	15	28,466	44	2,385	4	0	0	11,927	19	64,248	100
Makete	15,084	52	3,232	11	2,155	7	7,542	26	0	0	0	0	1,077	4	29,091	100
Njombe	30,439	44	7,610	11	0	0	15,220	22	0	0	0	0	15,220	22	68,489	100
Ludewa	11,867	44	4,945	19	1,978	7	6,922	26	0	0	0	0	989	4	26,701	100
Iringa Urban	233	17	698	50	0	0	233	17	0	0	0	0	233	17	1,395	100
Kilolo	8,200	19	4,920	11	9,840	22	9,840	22	4,920	11	1,640	4	4,920	11	44,279	100
Njombe Mji	4,778	30	2,986	19	2,986	19	3,583	22	1,792	11	0	0	0	0	16,126	100
<b>Total</b>	96,524	31	39,587	13	30,671	10	80,147	26	9,097	3	5,810	2	44,792	15	306,629	100

**10.13: Number of Agricultural Households Reporting type of TOILET the household normally use by District , 2007/08 Agricultural Year**

District	No toilet/bush		Flush toilet		Pit latrine - traditional		Improved pit latrine - hh owned		Other type (specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	0	0	1,112	2	54,354	97	834	1	0	0	56,300	100
Mufindi	636	1	477	1	55,024	86	8,111	13	0	0	64,248	100
Makete	72	0	215	1	27,367	94	1,437	5	0	0	29,091	100
Njombe	507	1	846	1	65,445	96	1,691	2	0	0	68,489	100
Ludewa	132	0	396	1	25,646	96	527	2	0	0	26,701	100
Iringa Urban	16	1	16	1	1,333	96	31	2	0	0	1,395	100
Kilolo	328	1	437	1	41,437	94	2,077	5	0	0	44,279	100
Njombe Mji	40	0	199	1	13,737	85	2,150	13	0	0	16,126	100
<b>Total</b>	<b>1,730</b>	<b>1</b>	<b>3,698</b>	<b>1</b>	<b>284,343</b>	<b>93</b>	<b>16,858</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>306,629</b>	<b>100</b>

**10.14: Number of Agricultural Households Reporting Number of meals the household normally has per day by District, 2007/08 Agricultural Year**

District	Number of Meals							
	1		2		3		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	278	0	29,888	53	26,134	46	56,300	100
Mufindi	477	1	29,898	47	33,873	53	64,248	100
Makete	646	2	14,581	50	13,863	48	29,091	100
Njombe	676	1	38,557	56	29,256	43	68,489	100
Ludewa	461	2	15,823	59	10,417	39	26,701	100
Iringa Urban	47	3	713	51	636	46	1,395	100
Kilolo	1,531	3	27,770	63	14,978	34	44,279	100
Njombe Mji	358	2	8,123	50	7,645	47	16,126	100
<b>Total</b>	<b>4,475</b>	<b>1</b>	<b>165,352</b>	<b>54</b>	<b>136,802</b>	<b>45</b>	<b>306,629</b>	<b>100</b>

**10.15: Number of Agricultural Households Reporting Number of days the household Consumed Meat during the Preceeding Week by District, 2007/08 Agricultural Year**

District	0		1		2		3		4		5		6		7		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	7,507	13	22,798	40	19,184	34	5,282	9	1,251	2	278	0	0	0	0	0	56,300	100
Mufindi	15,903	25	27,830	43	15,585	24	3,817	6	1,113	2	0	0	0	0	0	0	64,248	100
Makete	6,608	23	13,432	46	6,752	23	1,796	6	359	1	0	0	0	0	144	0	29,091	100
Njombe	22,322	33	31,285	46	12,345	18	1,860	3	507	1	0	0	0	0	169	0	68,489	100
Ludewa	6,922	26	13,054	49	4,945	19	1,121	4	330	1	330	1	0	0	0	0	26,701	100
Iringa Urban	109	8	1,101	79	109	8	47	3	0	0	16	1	0	0	16	1	1,395	100
Kilolo	6,451	15	18,914	43	11,152	25	5,904	13	1,640	4	109	0	0	0	109	0	44,279	100
Njombe Mji	2,110	13	8,282	51	4,818	30	518	3	319	2	40	0	40	0	0	0	16,126	100
<b>Total</b>	<b>67,932</b>	<b>22</b>	<b>136,696</b>	<b>45</b>	<b>74,888</b>	<b>24</b>	<b>20,344</b>	<b>7</b>	<b>5,519</b>	<b>2</b>	<b>772</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>438</b>	<b>0</b>	<b>306,629</b>	<b>100</b>

**10.16: Number of Agricultural Households Reporting Number of days the household Consumed Fish during the Preceeding Week by District, 2007/08 Agricultural Year**

District	0		1		2		3		4		5		6		7		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	10,565	19	20,852	37	15,569	28	7,229	13	1,529	3	278	0	0	0	278	0	56,300	100
Mufindi	21,628	34	31,011	48	8,429	13	1,908	3	954	1	318	0	0	0	0	0	64,248	100
Makete	11,708	40	12,427	43	3,520	12	934	3	215	1	144	0	0	0	144	0	29,091	100
Njombe	36,189	53	23,337	34	6,764	10	1,691	2	338	0	169	0	0	0	0	0	68,489	100
Ludewa	5,933	22	11,801	44	4,153	16	2,967	11	989	4	659	2	66	0	132	0	26,701	100
Iringa Urban	78	6	1,023	73	233	17	47	3	16	1	0	0	0	0	0	0	1,395	100
Kilolo	11,699	26	22,304	50	7,763	18	2,405	5	109	0	0	0	0	0	0	0	44,279	100
Njombe Mji	7,804	48	4,499	28	3,424	21	358	2	40	0	0	0	0	0	0	0	16,126	100
<b>Total</b>	105,604	34	127,253	42	49,855	16	17,539	6	4,191	1	1,568	1	66	0	554	0	306,629	100

**10.17: Number of Agricultural Households Reporting the status of food satisfaction of the household during the Preceeding Year by District, 2007/08 Agricultural Year**

District	Never		Seldom		Sometimes		Often		Always		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	29,054	52	15,847	28	4,726	8	4,309	8	2,363	4	56,300	100
Mufindi	40,394	63	13,836	22	4,294	7	4,294	7	1,431	2	64,248	100
Makete	23,273	80	4,166	14	790	3	646	2	215	1	29,091	100
Njombe	48,196	70	12,852	19	3,551	5	2,368	3	1,522	2	68,489	100
Ludewa	17,537	66	4,483	17	2,967	11	1,319	5	396	1	26,701	100
Iringa Urban	512	37	388	28	155	11	264	19	78	6	1,395	100
Kilolo	21,210	48	14,213	32	3,608	8	2,187	5	3,061	7	44,279	100
Njombe Mji	13,100	81	1,593	10	995	6	279	2	159	1	16,126	100
<b>Total</b>	193,274	63	67,378	22	21,087	7	15,665	5	9,226	3	306,629	100

**10.18: Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year**





District	Sale of food crops		Sale of Livestock		Sale of livestock products		Sale of cash crops		Sale of forest products		Business income		Wages or salaries in cash		ther casual cash earnings		Cash remittances	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa Rural	39,619	70	417	1	556	1	695	1	278	0	4,726	8	2,363	4	5,422	10	1,529	3
Mufindi	32,919	51	954	1	3,499	5	3,022	5	636	1	5,884	9	3,658	6	10,655	17	2,226	3
Makete	19,897	68	1,077	4	575	2	431	1	862	3	1,796	6	1,006	3	2,083	7	1,006	3
Njombe	42,108	61	2,029	3	676	1	7,272	11	1,860	3	3,382	5	2,368	3	6,257	9	2,198	3
Ludewa	19,449	73	923	3	264	1	198	1	396	1	1,187	4	527	2	2,835	11	198	1
Iringa Urban	729	52	16	1	31	2	0	0	0	0	186	13	31	2	217	16	62	4
Kilolo	31,050	70	875	2	219	0	2,624	6	219	0	2,624	6	1,093	2	4,811	11	437	1
Njombe Mji	9,914	61	637	4	199	1	438	3	995	6	956	6	557	3	1,314	8	876	5
<b>Total</b>	<b>195,684</b>	<b>64</b>	<b>6,928</b>	<b>2</b>	<b>6,018</b>	<b>2</b>	<b>14,679</b>	<b>5</b>	<b>5,246</b>	<b>2</b>	<b>20,741</b>	<b>7</b>	<b>11,603</b>	<b>4</b>	<b>33,593</b>	<b>11</b>	<b>8,533</b>	<b>3</b>

**10.19: Number of Agricultural Households Reporting Main Source of Income by District , 2007/08 Agricultural Year**

District	Fishing		Other		Not applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Iringa Rural	0	0	278	0	417	1	56,300	100
Mufindi	159	0	477	1	159	0	64,248	100
Makete	0	0	287	1	72	0	29,091	100
Njombe	0	0	0	0	338	0	68,489	100
Ludewa	461	2	132	0	132	0	26,701	100
Iringa Urban	16	1	0	0	109	8	1,395	100
Kilolo	0	0	219	0	109	0	44,279	100
Njombe Mji	0	0	239	1	0	0	16,126	100
<b>Total</b>	<b>636</b>	<b>0</b>	<b>1,632</b>	<b>1</b>	<b>1,336</b>	<b>0</b>	<b>306,629</b>	<b>100</b>



**APPENDIX III: QUESTIONNAIRE**

<b>United Republic of Tanzania</b>							
<b>ACQI</b>	<b>CONFIDENTIAL</b>						
							
<b>Small holder/Small Scale Farmer questionnaire</b>							
Identification <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 20px;"></span>							
<b>Agricultural Sample Census 2007/2008</b>							
							
							
<b>Enumerator Name</b> ..... <b>Signature</b> .....							
<b>Date of Enumeration</b>							
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">d</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">d</div> <div style="margin: 0 5px;">/</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">m</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">m</div> <div style="margin: 0 5px;">/</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">y</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">y</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">y</div> <div style="border: 1px solid black; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;">y</div> </div>	<b>Start Time</b>  <b>End Time</b>						
<table border="1" style="margin: auto;"> <tr> <th style="padding: 5px;">Hour</th> <th style="padding: 5px;">Minutes</th> </tr> <tr> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> </tr> <tr> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> </tr> </table>		Hour	Minutes				
Hour	Minutes						
<b>Field level checking by:</b>							
District Supervisor	Name ..... Signature ..... Date ..... / ..... / .....						
Regional Supervisor	Name ..... Signature ..... Date ..... / ..... / .....						
National Supervisor	Name ..... Signature ..... Date ..... / ..... / .....						
<b>Distric checking in Office</b>							
District Supervisor	Name ..... Signature ..... Date ..... / ..... / .....						
<b>For Use at Regional Level Only</b>							
Data entered by:	Name ..... Signature ..... Date ..... / ..... / .....						
Queried	Name ..... Signature ..... Date ..... / ..... / .....						
Ministry of Agriculture and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Administration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Government of Zanzibar							

## 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 or part one or more housing units and makes joint provision for food and/or other household items. Usually such a group comprises a husband, wife, and their children. Other relatives may be members of the household if they happen to live and get food provisions from the same household. People who live together and eat from the same pot may be considered as members of the same household even if they stay in separate dwellings. An individual who lives and eat alone is considered as an independent household.

**Household Head:** A person who is acknowledged by all other members of the household either by virtue of his age or standing in the household as the head. He/she should be a permanent resident of the house and he/she is the main person responsible for decision making regarding use of household resources..

**Agricultural Holding:** This is an economic unit of agricultural production under single management. This unit may have been grown various crops. For the purpose of the survey, the agricultural holdings are restricted to those which meet one of the following conditions:

- Having or operated at least 25 sq meter of arable land
- Own or keep at least one head of cattle or five goats/sheep/five pigs or fifty chicken/ducks/turkeys during the agricultural year 2007/08 (from October 2007 to September 2008).

### Question Specific Definitions:

#### Type of Agriculture holding Codes (Q2.1):

**Crops only:** A holding is referred to be a crop only holding if it has cultivated at least one piece of land. This also applies to all households owning or have kept livestock whose number does not qualify such households to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/rabbits).

**Livestock only:** A holding is referred to be a livestock only holding if it has exercised livestock husbandry only during the 2007/08 agricultural year.

#### NOTE

For agricultural holding only and pastoralist holding only; the number of livestock should be at least one head of cattle, not less than five goats/sheep/pigs, not less than 50 chickens /turkeys /rabbits. This also applies to households having or operated less than 25 sq meter of cultivated land (which does not qualify the household to be considered as agricultural holding) but has the number of livestock that makes the holding qualifies to be considered as livestock holding.

**Pastoralist holding:** This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they have no permanent place of residence.

**Both crops and livestock:** A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq meter and if such households have own or kept livestock whose number qualify such household be considered as an agricultural holding.

### Procedures for questions:

#### Q 2.1 Type of agriculture household/holding

Using the options under the question classify the type of agriculture household/holding

Note: If the household had an acre of crops and raised 40 chickens during 2007/08, it is classified as 'Crops only' as the number of chickens does not qualify the household as a livestock holding.



1.0 IDENTIFICATION DETAILS		
1.1 Location		Identification <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Na.</b>	<b>Location Name</b>	<b>Codes</b>
1.1.1	Region .....	<input type="text"/> <input type="text"/>
1.1.2	District .....	<input type="text"/>
1.1.3	Ward .....	<input type="text"/> <input type="text"/> <input type="text"/>
1.1.4	Village .....	<input type="text"/> <input type="text"/> <input type="text"/>
1.2 Details of the respondent or household head		
<b>Na.</b>		<b>Codes</b>
1.2.1	Name and number of local leader	<input type="text"/> <input type="text"/> <input type="text"/>
1.2.2	Name and number of household head .....	<input type="text"/> <input type="text"/>
1.2.3	<b>Sex of household head</b>	<input type="text"/>
1.2.4	Name of respondent .....	
1.2.5	<b>Relationship of Respondent to household head</b>	<input type="text"/>
<b>Relationship to household head codes (Q 1.2.5)</b> Head of Household .....1      Son /Daughter.....3      Grandson/Granddaughter.....5      No relationship.....7 Spouse.....2      Father/Mother.....4      Other relatives.....6		
2.0 ACTIVITIES OF THE HOUSEHOLD		
2.1	Type of Agriculture Household	<input type="text"/>
<b>Household agricultural activities codes(Q 2.1)</b> 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 correct code is 2. Code 4 should only be used for any other language which is not English or Kiswahili.

**Education Level Reached (Col 10):**

Ask the respondent the highest educational level reached. This aims at establishing whether at the time of enumeration the member of the household is studying has completed or has never studied. Make further enquiry for the level of education reached for those who have completed studies. Establish if the member had attained any training after graduation for the purposes for completing column number 9. For those who still continue attending studies during the period of this survey, establish their learning stage. For instance for a household member who studied up to Standard Three but did not complete his/her education at this level, then his/her highest education level reached is Standard Two. For those indicated under code 3 (not studied) in column 8 should be marked code 99 (Not applicable) in column 9.

**Section 3.0 Note**

Make sure that you define the hh proper to ensure that all the members of the hh are included. Ensure that you stress that the hh is not just the hh heads direct family and that it includes other people living and eating together with the family.

If you notice that the hh is large or you see many people around the hh and you have been given a smaller number of the hh members, make further enquiries until you are sure that you have captured all the hh members.

**Section 3.0 Household information.**

- ii) For each household member complete columns 1,2,3 and 3  
After completing columns 1, 2, 3 and 3 for each household member, go back to the first household member and complete the remaining columns for that member.
- iii) Repeat step 2 for the rest of the household members.

3.0 HOUSEHOLD INFORMATION													
3.1 Give details of personal particulars of all hh members beginning with hh head							Identification						
Na.	Names of hh members (Start with hh Head)	Ex Start with hh Head	Sex M = 1 F = 2	Age (98 years or more enter 97, under one year old write 00)	Marit al Status	Parental Survival		Reard and Write	Education status	Level of education attained	On farm engagem ents	Main activity	Off farm income  yes=1 no=2
						Mother	Father						
						Not applicable for children under 5 years							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
01	.....	1											
02	.....												
03	.....												
04	.....												
05	.....												
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28	.....												
29	.....												
30	.....												
31	.....												
32	.....												
33	.....												

**Relationship to household head (Col 2)**

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

**Marital Status(Col 4)**

Married.....1  
 Single.....2  
 Co-habiting .....3  
 Divorced  
 Separated.....4  
 Widow/widower.....5

**Survival of Parents( Col 6 & 7)**

Yes.....1 No .....2  
 Don't know .....3

**Education Level(Col 9)**

Studying .....1  
 Has completed.....2  
 Never been to school .....3

**Reading and writing (Col 8)**

Kiswahili.....1  
 English .....2  
 Kiswahili and English.....3  
 Lugha nyingine.....4  
 Cannot read or write.....5

**Education Level (Col 10)**
**Primary education**

Below Standard One.....00  
 Standard One .....01  
 Standard Two.....02  
 Standard Three.....03  
 Standard Four.....04  
 Standard Five.....05  
 Standard Six .....06  
 Standard Seven.....07  
 Standard Eight ..08  
 Education.....19  
 Training after Primary Ed...09  
 Pre Form One.....10

**Secondary Education**

Form One.....11  
 Form Two .....12  
 Form Three.....13  
 Form Four .....14  
 Form Five .....15  
 Form Six .....16  
 Training after Secondary Ed....17  
 University and other Tertiary Ed...8  
 Adult  
 Not applicable .....99

**Involvement in farming activities (Col 11)**

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

**Off-farm Income (Col 13)**

These are income made from activities NOT on the HH's farming activities. This can be from formal employment (e.g. in government etc.), temporary jobs, casual labourers and income generation activity and includes working for cash on other people's farms. Indicate whether each member was involved in an off farm income generating activity during 2007/08

**Main activity (Col 12)**

Crop farming: .....01.  
 Livestock farming/herding: ....02.  
 Pastoralist .....03  
 Fishing .....04  
 Fish farming .....05  
 Paid employment/  
 Government/parastatal.....06  
 Private/NGOs .....07  
 Self employee (Off-farm activities)  
 - With employees .....08  
 - Without employees .....09  
 Non paid household member (off-farm activities) .....10.  
 Unemployed but available for work ....11  
 Unemployed but unavailable for work..12  
 House mother .....13  
 Student .....14  
 Unable to work too old, too young, retired, disabled, child 15  
 Others (specify) .....98

### Definitions and working page for page 3

#### Definitions for Key Specific Questions

##### Section 4.1 – Land Access/Ownership

These are areas that were used by the households for the 2007/08 farming season

**Lease/Certificate of Ownership:** Area under lease/certificate of ownership refers to the areas which were issued by the government. The household possesses government issued leasehold title or certificate of ownership. The land will normally be officially surveyed and boundaries marked. This includes leased land bought from others where the lease/certificate of ownership has been transferred.

**Customary Law:** This refers to the land which the household does not have an official government but its right of use is granted by the traditional leaders.

**Bought:** This refers to the areas of customary land that has been bought from others. This land does not have an official title and therefore is not leasehold.

**Rented from others:** Land rented from others for cash or for a fixed amount in crop produce (e.g. fixed number of bags at harvest).

**Borrowed:** use granted by land owner free of charge. Land owner can either be a lease holder or has right of access through customary law.

**Share cropping:** where the household is permitted to use land which is then paid for from a percentage of the harvested crop

#### Section 4.2 Land Use

Temporary crops: are sown and harvested during the same agricultural year

Permanent crops: are crops once sown or planted last for some years and need not to be replanted after each annual harvest.

Permanent crops /mixed crops: This is a mixture of permanent and seasonal crops. The two crops can either be randomly planted together or in a particular pattern e; for example intercropping (1 row of maize and 1 row of beans). A field that has been divided into plots for different crops is not mixed).

This is further subdivided into:

Mixture of Permanent crops – two or more permanent crops grown together

Mixture of Permanent and Temporary crops – permanent crop and annual crop together

Mixture of Temporary crops– two or more temporary, annual crops grown together

**Pasture land:** this is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or where other means have been applied to improve the pasture. Or it can be natural pasture.

**Natural Bush:** Land which has naturally grown shrubs and trees and is considered productive but is not utilized for farming or livestock production.

### Overview to section 4

#### Overview to section 4

##### Section 4.0: Preliminary note

##### Land Access/Ownership

Land access/ownership refers to the area utilized by the members of the household. This does not include communal land where the resources are shared between household members. It does not include official communal land that the household has sole access to for example a plot for crop farming in the communal area.

### Procedures for questions

#### Section 4.0 – Land Ownership

1. Ask the respondent if he knows the total areas of land the household has sole access to. If he knows make a note in the calculation space
2. Ask the respondent the area of the different land ownership categories the household has sole access to (Q4.1, 1 to 4.1.7) and record in the appropriate spaces.
3. Add up the area of the different categories of land and compare it with the total area obtained in step 1 (if the respondent provided the information)
4. If the total area is different find out which one is correct and make

#### Section 4.2: Land Use

1. Ask the respondent the area of the different land use categories the household has sole access to (Q4.2.1 to 4.2.12) and record in the appropriate spaces.
2. Add up the area of the different categories of land and compare it with the total area obtained in section 4.0. The total area should be the same.
3. If the total area is different find out which one is correct and make amendments where appropriate.

4.0 LAND ACCESS/OWNERSHIP/TENURE			
4.1 LAND ACCESS/OWNERSHIP/TENURE		Identification <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Give details on Area owned by the household during 2007/08 agricultural season.			
Give area as reported by the respondent in acres		Area in Acre	
		4.1.8 Was the whole household area used during the 2007/08 agricultural season? (Yes=1, No=2) <input type="checkbox"/>	
4.1.1	Area under certificate of ownership	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.1.2	Area owned under customary law	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.1.3	Area bought	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	4.1.9 Do you consider to have enough land for your household? (Yes=1, No=2) <input type="checkbox"/>
4.1.4	Area rented from others	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.1.5	Area borrowed from others	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.1.6	Area share cropped from others	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	4.1.10 Is there any female who owns land or has customary rights to land ownership in this household? (Yes=1, No=2) <input type="checkbox"/>
4.1.7	Area under other forms of tenure	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2 LAND USE			
Area used by the household for various agricultural activities during 2007/08 agricultural season			
Enter area as reported by the respondent in acres		Area in acre	Working space for calculations
4.2.1	Area planted temporary monocrops	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.2	Area planted temporary mixed crops (e.g. maize and beans)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.3	Area planted permanent monocrops	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.4	Area planted permanent mixed crops (e.g. banana, coffee, trees)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.5	Area planted permanent and temporary mixed crops (e.g. maize and banana)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.6	Area under pasture	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.7	Area under fallow	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.8	Area under natural forest	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.9	Area planted trees	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.10	Area rented to others	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.11	Area unsuitable for agriculture	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
4.2.12	Uncultivated arable land (minus area under fallow)	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	
Total area		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/>	

## Definitions and working page for page 4

Working table for the calculation area for annual mixed crops					
Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
Total Area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			% of temporary	Area for permanent crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

Mixed crops	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
Total area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			% of temporary	Area for temporary crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

**Planted Area:** Area in acre the household was able to plant

**Harvested Area:** Area in acre the household was able to harvest a large portion of harvests. this is the same as the area planted minus the area that was destroyed by floods/ pets /

**Temporary/Annual Crops**  
Crops planted and harvested within 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal base.

**Cash crop codes:**

Code	Crop
50	Cotton
51	Tobacco
53	Payrethrum
62	Jute
19	Seaweed

**Crop Codes(Cereal / Tubers/ Roots):**

Code	Crop
11	Maize
12	Paddy
13	Sorghum
14	Buirush Millet
15	Finger Millet
16	Wheat
17	Barley
22	Sweet Potatoes
23	Irish Potatoes
24	Yams
25	Cocoyams
26	Onions
27	Ginger

**Vegetable Codes:**

Code	Crop
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranths
92	Pumpkin
93	Cucumber
94	Egg plant
95	Water melon
96	Cauliflower
06	Mellon
05	nyanyachungu
02	Ocra
03	Radish
01	Green Beans
04	Bizari

**Crop Codes Legumes and Oil**

Code	Crop
31	Beans
32	Cowpeas
33	Green Gram
34	Chick Peas
35	Dengu
36	Bambara nuts
37	Njegere
41	Sun flower
42	Simsim
43	Ground uts
47	Soya beans
48	Caster Seed

**Instructions for calculating the area of mixed crops in a mixture**

**A.** If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions.

**B.** If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.

**C:** Number of trees method to calculate annual crop areas in a permanent-annual crop mix.:

- List each of the permanent crop in column b and enter the ground area per acre for each permanent crop ( from instructions for page 8) in column d.
- Enter the number of permanent trees in the mix in column e as will be provided to you by the respondent
- Calculate the area occpied by each crop by multiplying column d and collumn e and sum up these to obatin the total area of permanent crops in the mix.
- To obatin the area for temporary crops , subtract (-) the area fro permanent crops from thne total area of crop mix and enter the result in in the total area under temporary crops.
- Proceed to step 1 to calculate the area under each temporary crop.

**1.** Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop.

**2. Using the percentage for each crop, calculate the are for each crop from the remaining area under temporary crop.**

**3.** After completing the excrise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1 Collumn 3.

**4. Once the quantity harvested is obtained , caklulate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly difference, check the area and the amouint harvested..**

5.0	PERMANENT AND TEMPORARY CROP PRODUCTION	Identification																	
5.1	ANNUAL CROPS AND VEGATBLE PRODUCTION-SHORT RAINY SEASON																		
Did your household palnted any crop duding short rainy season for 2007/08 agricultural year? Yes = 1, No = 2.(If the answer is yes proceed to Section 5.3)																			
5.1.1	Provide the following details for each crop planted during the short rainy season for 2007/08 agricultural year																		
Name of Crop	Planting		Main crop owner: Enetr the number of the hh member from page 2 on informati on for hh members	Use of Seeds					Irriga ted area	Pembejeo					Use of chemicals agaist weeds (If 6 is the answer in col 11 proceed to col 20)				
	Crop code	Actual area plnated (acre)		The type of seed plant ed	Use of seeds	Quantity		Cost (Tshs)		Cultiv ated area	Tyep of fertili sers used	Quantity of fertilisers		Coist (Ths)	Cultiv ated areaE neo lililot umik a	Quantaity of agrochemicals	Cost		
						Quant ity	Quantity used					Meas urem ent	Quantity used						
(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 old the whole crop.....4

Under 1/4 of the whole crop...5

**Qunatity ( Col 7)**

Kg .....1

Seedlings....2

Gram.....3

**Use of farm inputs (SCol10,11 & 16)**

For the whole crop.....1

3/4 of the wholecrop.....2

1/2 of tyhe whole crop.....3

1/4 old the whole crop.....4

Under 1/4 of the whole crop....5

Not used .....6

**Type of fertilisers ( Col 12)**

Organic fertiliser.....1

Inorganic fertilisers.....2

**Quantity ( Col 17)**

Kig .....1

Litre.....2

Gram.....3

Millilitre.....6

**Kipimo ( Shwima 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



[illegible]

## Definitions and working page for page 5

**Storage (Col. 30, Q 5.1.1):**

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storagesrutures improved through modern technology.

**Marketing Challenges Q 5.1.1 Col. 33:**

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulatinda transportation and selling of crops.

**Inputs (Q 5.1.1)**

- Farm Yard Manure:** An organics fertliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical usde in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

## Questions specific definitions

**Q 5.1.1. Instructions on crops storage:**

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

**Crops storage is keeping/reserving crops in a container or a special place for future use.**

**Q 5.1.1 Col 31**

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

**Working area/calculation space**

**Definitions and working page for page 6**

*Working table for the calculation area for annual mixed crops*

Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1		0.000			n .
Permanent crop 2		0.000			n .
Permanent crop 3		0.000			n .
Permanent crop 4		0.000			n .
Total Area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			% of temporary	Area for permanent crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

Mazao mchanganyiko 2	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	(b)	(c)	(d)	(e)	(f)=(d)*(e)
Permanent crop 1		0.000			n .
Permanent crop 2		0.000			n .
Permanent crop 3		0.000			n .
Permanent crop 4		0.000			n .
Total area for mixed crops			Total area for permanent crops		
The remaining area for temp crops			% of temporary	Area for permanent crop	
Name of the crop temp/permanent 1					
Name of the crop temp/permanent 2					
Name of the crop temp/permanent 3					
Check total area			Check total area for temporary crops		

**Planted Area:** Area in acre the household was able to plant  
**Harvested Area:** Area in acre the household was able to harvest a large portion of harvests. this is the same as the area planted minus the area that was destroyed by floods/ pets /

**Temporary/Annual Crops**  
 Crops planted and harvested within 12 months after which time the plants die. Most annual crops are planted and harvested on a seasonal base.

**Cash crop codes:**  
 Code Crop  
 50 Cotton  
 51 Tobacco  
 53 Payrethrum  
 62 Jute  
 19 Seaweed

**Crop Codes(Creal / Tubers/ Roots):**  
 Code Crop  
 11 Maize  
 12 Paddy  
 13 Sorghum  
 14 Buirush Millet  
 15 Finger Millet  
 16 Wheat  
 17 Barley  
 22 Sweet Potatoes  
 23 Irish Potatoes  
 24 Yams  
 25 Cocoyams  
 26 Onions  
 27 Ginger

**Vegetable Codes:**  
 Code Crop  
 86 Cabbage  
 87 Tomatoes  
 88 Spinach  
 89 Carrot  
 90 Chillies  
 91 Amaranths  
 92 Pumpkin  
 93 Cucumber  
 94 Egg plant  
 95 Water melon  
 96 Cauliflower  
 06 Mellon  
 05 nyanyachungu  
 02 Ocra  
 03 Radish  
 01 Green Beans  
 04 Bizari

**Crop Codes Legumes and Oil**  
 Code Crop  
 31 Beans  
 32 Cowpeas  
 33 Green Gram  
 34 Chick Peas  
 35 Dengu  
 36 Bambara nuts  
 37 Njegere  
 41 Sun flower  
 42 Simsim  
 43 Ground uts  
 47 Soya beans  
 48 Caster Seed

**Instructions for calculating the area of mixed crops in a mixture**  
**A.** If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions  
**B.** If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calcaulet the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.  
**C:** Number of trees method to calculate annual crop areas in a permanent-annual crop mix.:  
 (i) List each of tyhe permanent crop in column b and enter the ground area per acre for each permanent crop (from instructions for page 8) in colum d.  
 (ii) Enter the number of permanent trees in the mix in column e as will be provided to you by the respondent.  
 (iii) Calculate the area occupied by each crop by multiplying column d and column e and sum up these to obatin the total area of permanent crops in the mix.  
 iv) To obatin the area for tempofary crops , subtract (-) the area fro permanent crops from thne total area of crop mix and enter the result in in the total area under temporary crops.  
 (v) Proceed to step 1 to calculate the area under each temporary crop.  
**1.** Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop.  
**2. Using the percentage for each crop, calculate the are for each crop from the remaining area under temporary crop.**  
**3.** After completing the excrise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1 Column 3.  
**4. Once the quantity harvested is obtained , cakculate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly difference, check the area and the amount harvested..**

## 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
-------	--

[illegible]

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

**Main crop owner (Col 6):**  
Enter the number of the hh member from page 2 on information for hh members in Q 3

**Area cultivated ( col. 8)**  
 For the whole crop.....1  
 3/4 of the whole crop.....2  
 1/2 of the whole crop.....3  
 1/4 of the whole crop.....4  
 Under 1/4 of the whole crop...

**Quantity ( Col 9)**  
Kg .....1  
Seedlings....2  
Gram.....3

**Use of farm inputs**  
**( Col 12 & 13)**

For the whole crop.....	1
3/4 of the whole crop.....	2
1/2 of the whole crop.....	3
1/4 of the whole crop.....	4
Under 1/4 of the whole crop...	5
Not used .....	6

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

[illegible]

## Definitions and working page for page 7

**Storage (Col. 30, Q 5.2.1):**

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storages structures improved through modern technology.

**Marketing Challenges Q 5.2.1 Col. 33:**

- **Farmers' Association:** Village farmers who came together and started an association for the purposes of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulating transportation and selling of crops.

**Inputs (Q 5.2.1)**

- Farm Yard Manure:** An organics fertiliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical used in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

## Questions specific definitions

**Q 5.2.1. Instructions on crops storage:**

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

**Crops storage is keeping/reserving crops in a container or a special place for future use.**

**Q 5.2.1 Col 33**

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

**Working area/calculation space**

Definitions and working page for page 8																																																																																																																																																						
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Permanent Crops:</b> These are crops once planted last longer in the farm and need not be replanted after each annual harvest. Most of the permanent plants include tress such as coconut tress, apple trees, grape trees, banana trees, pineapple trees etc.</p> <p><b>Number of Trees:</b> These include manure trees and premature trees.</p> <p><b>Number of mature plants:</b> A total of fruit bearing tress (e.g. mango trees, orange trees, avocado trees e.t.c).</p> <p><b>Instructions for permanent monocrops and crop mix:</b>  <b>A.</b> For a field with permanent monocrop enter farm size in collumn. 3.  <b>B.</b> For a field with a permanent crop mix or a temporary crop mix, enter the number of trees only in collumn 4.  <b>C.</b> For a field with a permanent crop mix /temporary annual crops , either:            -Enter the area in collumn 4, if the total arae for permanent crops was obtained through calcaultion of percentages of each crop            OR            Enter the number of tree in collumn 5, if the number of plants/ seedlings of permanent crops was evcluded</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>21 Cassava:</b> Cassava is a temporary crop, in order to simplify data collection on areas of production, data on cassava will be collected from areas under permanent crops.</p> </div> </div> <div style="width: 50%;"> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Permanent crops:( crop oils)</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Code</th> <th style="text-align: left;">Crop</th> <th style="text-align: left;">Area per crop</th> </tr> </thead> <tbody> <tr><td>44</td><td>Palm Trees</td><td>0.00049</td></tr> <tr><td>45</td><td>Coconut tree</td><td>0.00037</td></tr> <tr><td>46</td><td>Cashew nut tress</td><td>0.00062</td></tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Permanent crops ( Cash crops)</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Code</th> <th style="text-align: left;">Crop</th> <th style="text-align: left;">Area per crop</th> </tr> </thead> <tbody> <tr><td>53</td><td>Sisal</td><td>0.00012</td></tr> <tr><td>54</td><td>Coffee</td><td>0.00049</td></tr> <tr><td>55</td><td>Tea</td><td>0.00037</td></tr> <tr><td>56</td><td>Cocoa</td><td>0.00049</td></tr> <tr><td>57</td><td>Rubber</td><td>0.00099</td></tr> <tr><td>58</td><td>Wattle</td><td>0.00099</td></tr> <tr><td>59</td><td>Kapok</td><td>0.00124</td></tr> <tr><td>60</td><td>Sugar-cane</td><td>0.00012</td></tr> <tr><td>61</td><td>Cardamon</td><td>0.00049</td></tr> <tr><td>63</td><td>Tamarin</td><td>0.00099</td></tr> <tr><td>64</td><td>Cinarmon</td><td>0.00124</td></tr> <tr><td>65</td><td>Nutmeg</td><td>0.00099</td></tr> <tr><td>66</td><td>Clove</td><td>0.00074</td></tr> <tr><td>18</td><td>Black pepper</td><td>0.00037</td></tr> <tr><td>34</td><td>Pigeon Peas</td><td>0.00025</td></tr> <tr><td>21</td><td>Cassava</td><td>0.00019</td></tr> <tr><td>75</td><td>Pineapple</td><td>0.00006</td></tr> <tr><td>86</td><td>Lemon Grass</td><td></td></tr> </tbody> </table> </div> <div style="border: 1px solid black; 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## Definitions and working page for page 9

**Storage (Col. 33, Q 5.3.1):**

- **Traditionally Made structures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of traditional storages structures improved through modern technology.

**Marketing Challenges Q 5.3.1 Col. 35:**

- **Farmers' Association:** Village farmers who came together and started an association for the purposes of purchasing inputs/selling/storage of crops aiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulating transportation and selling of crops.

**Inputs (Q 5.3.1)**

- Farm Yard Manure:** An organics fertiliser made on farm from animal dung. .
- Compost:** An organic fertiliser made on farm from decomposed plant materials.
- Insecticides:** This is the chemical used in protecting plants or killing pests.
- Fungicides:** Protects plants from fungi attack.
- Herbicide:** Chemicals used to control or kills weeds.
- Improved seeds:** Scientifically attested to be suitable for agricultural use.

## Questions specific definitions

**Q 5.3.1. Instructions on crops storage:**

1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.
2. For the listed crops give explanations on storage.

**Q 5.3.1 Col 35**

1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

**Working area/calculation space**



## Definitions and working page for page 10

**Investment in agriculture****Investment activities:**

Investment activities refer to medium to long term farm development structures and projects. This can be irrigation structures, erosion control and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

**Irrigated farming: Section 6.5:**

**Source of irrigation water** (Col 1): The main source of the water used for irrigation.

**Method of obtaining water** (Col 2): The mechanism by which the water is extracted from the source

**Irrigatable area** (Col 3): The area the irrigation system is designed to cover in acreage

Area of irrigated land during the 2007/08 (Col 5): Area of land under irrigation during the 2007/08 agricultural year. This is the actual area and NOT the cumulative areas recultivated in 2 or more cropping seasons.

**Farm Implements (Col. 1):**

**Machette** : Include all implements use in tree cutting namely cicle, etc.

**Sprinkler**: The pump carried on the back or a hand used water pump

**Hand used small tractor**: A small tractor used in cultivation while the user walks on foot (see photo).

**Section 6.2 Use of draft animals**

Animals used in agricultural activities by the household during 2007/08 agricultural season.

**Castrated Bulls**: Castrated oxen meant for use in agricultural production.

**Uncastrated Bulls**: mature bulls used for agricultural 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 donkeys are also used for agricultural production.

**Q 6.5 Irrigation.**

1. If a household uses irrigated farming give explanations on source and method of obtaining 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. Column 2 Indicate whether or not inputs were used

2. Complete column 3 by entering the number of inputs used.

**Farm inputs: Sections 6.3 and 6.4**

1. Column 2 Indicate whether or not inputs were used.

2. Complete column 3 by indicating where the inputs were obtained and column 4 by indicating the distance from where the inputs were obtained

**Compost**: An organic fertiliser made on farm from decomposed plant materials.

**Insecticides**: This is the chemical used in protecting plants or killing pests.

**Fungicides**: Protects plants from fungi attack.

**Herbicide**: Chemicals used to control or kills weeds.

**Improved seeds**: Scientifically attested to be suitable for agricultural use.

Tractor tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.2.6 Power Tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tractor hallow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Castrated bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<b>6.3 USE OF ORGANIC FERTILISERS</b>					
Uncastrated bulls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3.1 Give details on the use of organic fertilisers during 2007/08 agriculture year					
Cows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Type of fertiliser	Used	Yes=1, No=2	Quantity	Quantity used	Area used (Acre)
Donkeys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	(1)	(2)	(3)	(4)	(5)	
Shredding Machine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3.2 Manure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power Tiller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.3.3 Compost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxen pulled plough for making terraces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

<b>ACCES TO INPUTS</b>			
Give details on inputs used during 2007/08 agricultural year			
Name of inputs	Used (Yes=1, No=2)	Source	Distance
(1)	(2)	(3)	(4)
Inorganic fertilisers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm yard manure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Insecticides/Fungicide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pest and weeds control chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Improved seeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>Source (Col.3)</b>	
Government.....01	
Cooperative Union.....02	
Farm inputs store/market.....03	
Auction.....04	
Development project.....05	
Corp buyers.....06	
Large Scake farms.....07	
Made by the household.....08	
Form neighbour.....09	
Cooperative Union.....10	
Others.....98	
Not applicable.....99	

<b>Distance from the source (Col.4)</b>	
Under 1 kilometre.....1	
Between One and three kilometres.....2	
Between three and 10 kilometres.....3	
Between 10 and 20 Kilometres.....4	
Over 20 Kilometres.....5	
Not applicable.....9	

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

<b>Means of obtaining water(Col2)</b>	
Flowing. (gravity).....1	
Using a bucket.....2	
Water pump (using hand or leg).....3	
Electric /fuel driven pump/ mafuta.....4	
Other (Specify).....8	

<b>IRRIGATED FARMING</b>				
Did the household use irrigated farming during 2007/08 agriculture year? Yes=1, No = 2 <input type="checkbox"/>				
If the answer is yes proceed to Section 6.6				
Na.	Main source of water for irrigation	Main source of obtaining water	Area that can be irrigated (Acre)	Area irrigated during 2007/08 agriculture year (Acre)
	(1)	(2)	(3)	(4)
6.5.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Definitions and working page for page 11

## Q 6.6

**The type of erosion control/Water harvesting (Col 1)**

**Terraces:** Structures constructed on mountain slopes to provide flat terrain for crop planting.

**Erosion control bunds:** these are bunks of earth/stones built perpendicular to the slope to slow down the speed of water and thus preventing soil erosion. Its differs from terraces in that the soils on these banks are not at ground level .

**Gabions:** A box like structure made of wire and filled with large stones to prevent gully erosion.

**Sand bags:** Are used in controlling and preventing gully erosion  
**Tree belt/wind breaks:** Trees planted against the wind direction for breaking wind speed..

**Section 7.0 Acces to credit for crop or livestock production**

Credit refers to something provided in cash or in kind (such as farm inputs, machines, livestock and other things) for crop or livestock production. The value of the credit must be repaid back to the lender. An Interest may or may not be attached to the value of the credit

The credit may be repaid either in cash or through farm produce to be harvested .

In this question the enumerator is at liberty to inquire up to three sources of credit where the farmer accessed credit from more than one source.

**Section 8.0 Agricultural Extension Services**

**Agricultural Extension Services:** Refers to educational services provided to farmers by extension officers for the purposes of increasing crop and livestock production.

**Share-cropping:** Refers to farming where smallholder / Smallscale farmer enters into an agreement with large scale farmer where the former sells produce to the latter in exchange of provisions of farm inputs and the like. .

**Contract farming Farming:** Farming agreement entered between smallscale and large scale farmers with regards to markets of farm produce and provision of farm inputs

**Q 6.6 Number of water harvesting structures and year of construction**

1. The number water harvesting structures refers to the number of working / maintained structures and does not include derelict or irreparable structures.

2. Year of construction refers to the year in which the structures were built, and not the year the structures were last repaired. The year should be written in figures e.g. 1998, 2006.

**Section 7.0 Source of agriculture credit**

If the farmer obtained credit from more than one source the use the code from the list provided. Start with the main source of credit in Section "7.1.1".a

**Section 8.0 Agricultural extension services**

1. Ask if the household did receive agricultural extension services during 2007/08 agricultural season from the respondents listed in column 1, then enter column 2.

2. Complete all columns for every extension officer.

<b>6.6 SOIL EROSION</b>										<b>Identification</b> <input type="text"/>																																												
6.6.1 Did the household experience soil erosion during 2007/08 agriculture year?										<input type="checkbox"/>																																												
(Yes=1, No=2)																																																						
6.6.2 Did the household applied any methods for erosion control/water harvesting during 2007/08 agricultural year?										<input type="checkbox"/>																																												
(Yes=1, No=2) (If the answer is No, Proceed to Section 7.0)																																																						
<table border="1"> <thead> <tr> <th>N.a.</th> <th>Mechanisms of controlling erosion/ Water harvesting (1)</th> <th>Number of water harvesting (2)</th> <th>Year of construction (3)</th> <th>Type of erosion control/water harvesting (1)</th> <th>Number of water harvesting (2)</th> <th>Year of construction (3)</th> </tr> </thead> <tbody> <tr> <td>6.6.3</td> <td>Terraces</td> <td><input type="text"/></td> <td><input type="text"/></td> <td>6.6.7</td> <td>Tree belt</td> <td><input type="text"/></td> </tr> <tr> <td>6.6.4</td> <td>Bunks for erosion control</td> <td><input type="text"/></td> <td><input type="text"/></td> <td>6.6.8</td> <td>Soil bunks of water harvesting</td> <td><input type="text"/></td> </tr> <tr> <td>6.6.5</td> <td>Gabions/sand bags</td> <td><input type="text"/></td> <td><input type="text"/></td> <td>6.6.9</td> <td>Trenches</td> <td><input type="text"/></td> </tr> <tr> <td>6.6.6</td> <td>Vetiva leaves</td> <td><input type="text"/></td> <td><input type="text"/></td> <td>6.6.10</td> <td>Other</td> <td><input type="text"/></td> </tr> </tbody> </table>										N.a.	Mechanisms of controlling erosion/ Water harvesting (1)	Number of water harvesting (2)	Year of construction (3)	Type of erosion control/water harvesting (1)	Number of water harvesting (2)	Year of construction (3)	6.6.3	Terraces	<input type="text"/>	<input type="text"/>	6.6.7	Tree belt	<input type="text"/>	6.6.4	Bunks for erosion control	<input type="text"/>	<input type="text"/>	6.6.8	Soil bunks of water harvesting	<input type="text"/>	6.6.5	Gabions/sand bags	<input type="text"/>	<input type="text"/>	6.6.9	Trenches	<input type="text"/>	6.6.6	Vetiva leaves	<input type="text"/>	<input type="text"/>	6.6.10	Other	<input type="text"/>										
N.a.	Mechanisms of controlling erosion/ Water harvesting (1)	Number of water harvesting (2)	Year of construction (3)	Type of erosion control/water harvesting (1)	Number of water harvesting (2)	Year of construction (3)																																																
6.6.3	Terraces	<input type="text"/>	<input type="text"/>	6.6.7	Tree belt	<input type="text"/>																																																
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6.6.6	Vetiva leaves	<input type="text"/>	<input type="text"/>	6.6.10	Other	<input type="text"/>																																																
<b>7.0 ACCESS TO ON FARM CREDITS</b>																																																						
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)																																																						
<b>SELECT UP TO THREE SOURCES AND PROCEED TO QUESTION 8.0</b> [Source of credit Q 7.1.1, 7.1.2, 7.1.3] Relative.....1 Saccos.....4 NGO/Development projects.....7 Bank.....2 Businessman/Shop.....5 Cooperative Union.....3 Private individuals.....6 Other.....9										Source of credit 7.1.1a 7.1.2a 7.1.3a <input type="text"/> <input type="text"/> <input type="text"/> Credit provided to 7.1.1b 7.1.2b 7.1.3b <input type="text"/> <input type="text"/> <input type="text"/> (Male=1, Female=2)																																												
7.2 IF THE ANSWER TO QUESTION 7.1 IS NO																																																						
Give reasons for not accessing credit [Reasons for not accessing credit (Q 7.2) COL Not required .....1 Did not to be indebted.....3 Did not know how to access credit.....5 Credit delayed.....7 Did not credit existed.....9 Not available .....2 High interest rates.....4 Bureaucracy.....6 Other (Specify).....8       ]																																																						
<b>8.0 ADVISORY SERVICES IN AGRICULTURE</b>																																																						
8.1 Did the household participate in outgrowers scheme during 2007/08 agriculture year? (Yes=1, No=2)																																																						
<input type="checkbox"/>																																																						
8.2 Did the household participate in the contract farming during 2007/08 agriculture year? (Yes=1, No=2)																																																						
<input type="checkbox"/>																																																						
8.3 Did your household receive agricultural advise on the following : (IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION)																																																						
N.a. Advise on agriculture										Received advice (Yes=1, No=2)																																												
(1)										(2)																																												
8.3.1 Spacing										<input type="checkbox"/>																																												
8.3.2 Use of agrochemicals										<input type="checkbox"/>																																												
8.3.3 Soil erosion control										<input type="checkbox"/>																																												
8.3.4 Use of organic manure										<input type="checkbox"/>																																												
8.3.5 Matumizi ya mbolea za viwandani										<input type="checkbox"/>																																												
8.3.6 Use of improved seeds										<input type="checkbox"/>																																												
8.3.7 Use of modern farm implements										<input type="checkbox"/>																																												
8.3.8 Irrigation										<input type="checkbox"/>																																												
8.3.9 Crop Storage										<input type="checkbox"/>																																												
8.3.10 Pest control										<input type="checkbox"/>																																												
8.3.11 Other (Specify)										<input type="text"/>																																												
[Source of agricultural advice (Col. 3) Government.....1 NGO/Development project.....2 Cooperative.....3 Large Scale farmer.....4 Radio/Newspapers.....5 Neighbour .....6 Other source .....8       ]																																																						

### Definitions and working page for page 12

**Q 9.1 and 9.3 :** What is required is to establish whether or not the household kept or raised the listed livestock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

**Keeping or raising livestock** is to 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 household keep mature fecund female cattle, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

#### Type of cattle (section 9.1.1 to 9.1.7)

**Bull:** Mature uncastrated male cattle used for breeding

**Cow:** Mature female cattle that has given birth at least once

**Ox:** Castrated male cattle used for farm work

**Steer:** Castrated male cattle used for meat

**Heifer:** Female cattle of 1 year up to the first calving

#### Section 9.3 Goat

**Note:**

**Question 9.3** is for the actual number of owned or raised by the household (as of 1st October 2008) This number does not include goats kept on behalf by relatives or neighbours, that is the goat outside the residential area of the household under survey.

1. If the household has she goats, you would normally expect them to have kids

#### Type of Goat (Qs 9.3.1 to 9.3.5)

**Billy Goat (he-goat):** Mature Uncastrated male goat used for breeding

**Castrated goat:** Male goat that has been castrated

**She Goat:** Mature female goat over 9 months of age

9.0	<b>LIVESTOCK (LIVESTOCK AND FISH)</b>					
9.1	<b>CATTLE</b>					
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3)						
Number of cattle as of 1.10.2008						
No.	Type of cattle	Number of indigenous cattle (2)	Number of improved cattle for meat (3) Dairy (4)		Total (5)	
9.1.1	Castrated bulls					
9.1.2	uncastrated bulls					
9.1.3	Cows					
9.1.4	Steers					
9.1.5	Heifer					
9.1.6	Male calves					
9.1.7	Female calves					
Grand total						
9.1.8	What main methods do you use to identify your cattle?					
<b>Cattle identification methods</b> Iron stamp (chapa moto).....1 Throat.....2 Ear/tail cutting.....3 Colour.....4 Earrings.....5 Other .....8						
9.2	<b>Milk production: CATTLE</b>					
Na.	Season (1)	Type of cattle (2)	Number of milked cows (3)	Average of milk per cow per day (litre) (4)	Average number of days which your cows were milked (5)	Average price per litre per season (6)
9.2.1	Rainy	Improved				
9.2.2		Indigenous				
9.2.3	Dry	Improved				
9.2.4		Indigenous				
9.3	<b>GOAT</b>					
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3)						
Number of goats as of 1.10.2008						
Na.	Type of goat (1)	Number of indigenous goat (2)	Number of improved for meat (3) Dairy (4)		Total (5)	
9.3.1	Male uncastrated goat					
9.3.2	Male castrated goat					
9.3.3	She goat					
9.3.4	Male kid					
9.3.5	She kid					
Grand total						
<b>Milk Production: GOAT</b>						
Na.	Season (1)	Number of milked goats (2)	Average of milk per goat per day (litre) (3)	Average number of days which your she goats were milked (4)	Average price per litre per season (5)	
9.3.6	Rainy					
9.3.7	Dry					

### Definitions and working page for page 13

**Q 9.1 and 9.3 :** What is required is to establish whether or not the household kept or raised the listed livestock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

**Keeping or raising livestock** is to keep livestock at home while providing the livestock with animal feeds and medication and other services. The livestock could be owned by the farmer or kept on behalf of relatives or neighbours .

### Sections 9.4 Sheep

**Note:**

**Q 9.4 is for the actual number of sheep owned or kept by the household (as of 1st October 2008). This number does not include sheep kept on behalf by relatives or neighbours; that is, the sheep outside the residential area of the household under survey.**

1. If the the household keep ewes, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

### Type of Sheepe (Section 9.4.1 to 9.4.5)

**Ram:** Mature Uncastrated male sheept used for breeding

**Castrated sheep:** Male sheep that has been castrated

**Ewe:** Mature female sheep over 9 months of age

**Lamb:** Young sheep under 9 months of age.

### Section 9.5 Pigs

**Note:**

**Question 9.3 is for the actual number of pigs owned or raised by the household (as of 1st October 2008). This number does not include pigs kept on behalf by relatives or neighbours, that is the cattle outside the residential area of the household under survey. .**

1. If the household has she goats, you would normally expect them to have kids in column

### Type of Pigs (Qs 9.5.1 to 9.5.5)

**Boar:** Mature Uncastrated male pig used for breeing

**Sow:** Mature female pig that has given birth to at least one ltter of pigs.

**Gilt;** Female pig of over 3 months up to the first farrowing

**Piglet:** Young pig less than 3 months of age

Identification <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span>									
<b>9.4 SHEEP</b>					<b>9.5 PIGS</b>				
Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No=2 (If the answer is No proceed to Section 9.5) <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span>					Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No=2 (If the answer is No proceed to Section 9.6) <span style="float: right;"> <div style="border: 1px solid black; width: 20px; height: 20px; display: inline-block;"></div> </span>				
Number of sheep as of 1.10.2008					Number of pigsp as of 1.10.2008				
Na.	Type of sheep	Number of indigenous sheep	Number of improved	Total	Na.	Type Pigs	Number of pigs		
	(1)	(2)	(3)	(5)		(1)	(2)		
9.4.1	Ram	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.1	Boar	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.2	Castrated sheep	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.2	Castrated male	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.3	She sheep	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.3	Sow/Gilt	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.4	Male lamb	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.4	Male piglet	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.4.5	Female lamb	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	9.5.5	Female piglet	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
Grand total				<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	Grand total				<div style="border: 1px solid black; width: 20px; height: 20px;"></div>
<b>9.6 OTHER LIVESTOCK</b>									
	Type of animal	Number as of 1 October 2008	Number of eggs 2007/08 agriculture year			Type of animal	Number as of 1 October 2008	Number of Eggs 2007/08 agriculture year	
	(1)	(2)	(3)			1	(2)	(3)	
9.6.1	Local chicken	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 40px; height: 20px;"></div>		9.6.6	Turkeys	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 40px; height: 20px;"></div>	
9.6.2	Layers	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 40px; height: 20px;"></div>		9.6.7	Rabbit	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.6.3	Broilers	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>			9.6.8	Donkeys	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.6.4	Ducks	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>	<div style="border: 1px solid black; width: 40px; height: 20px;"></div>		9.6.9	Horses	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		
9.6.5	Guinea pigs	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>			9.6.10	Dogs	<div style="border: 1px solid black; width: 20px; height: 20px;"></div>		

### Definitions and working page for page 14

### Control of livestock diseases causing bugs

**Livestock worm control medicine:** Medicine used to kill or control livestock on livestock. It is often used for cattle, goats, sheep and pigs.

**Tiick:** Is a dangerous bug that sucks blood from livestock and transmits animal diseases from one to the other animal.

**Tse tse fly:** A fly like bug that sucks blood from livestock and transmits sleeping sickness from one to the other animal.

### Livestock advice (Section 9.8)

IA service provided by extension officers to livestock keepers for increasing livestock production.



9.7 LIVESTOCK DISEASES AND PEST CONTROL			Identificatio
Did you livestock during 2007/08 agriculture year? (Yes=1, No=2) (If the answer is No proceed to Section 9.7.5)		<input type="checkbox"/>	<input type="checkbox"/>
Which animals did your deworm? ( Yes=1, No =2, Not applicable=3 in the relevant box)			<input type="checkbox"/>
9.7.1 Cattle <input type="checkbox"/>	9.7.2 Goat/Sheep <input type="checkbox"/>	9.7.3 Pigs <input type="checkbox"/>	9.7.4 Poultry <input type="checkbox"/>
9.7.5 Do you experience tick problem with your livestock? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	<input type="checkbox"/>
9.7.6 How did you control tick problem? <u>Control method (Q. 9.7.6):</u> Dipping.....1 Spaying.....2 Application of medicine on back bone.....3 None..4 ..... Other.....8		<input type="checkbox"/>	<b>NOTE :</b> If answers to Qs 9.1 to 9.6 is No (THAT IS THE HOUSEHOLD DOES NOT RAISE LIVESTOCK,) Proceed to q.9.9
9.7.7 Do you experience Tse tse problem with your livestock? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	
9.7.8 How did you control Tse tse problem with your livestock? <u>Control method (Q. 9.7.8):</u> Dipping.....1 Spaying.....2 Traps.....3 None..4 ..... Other.....8		<input type="checkbox"/>	
9.7.9 Do you experience Newcastle disease problem with your poultry? (Yes =1, No = 2, Not applicable 3)		<input type="checkbox"/>	
9.7.10 How do you control Newcastle disease problem with your poultry? <u>Control/Curative methods (Q. 9.7.10):</u> Vaccination..1 Herbs.....2 None..3		<input type="checkbox"/>	
9.7.11 Did you experience Fowl Typhoid with your poultry? Yes=1, No=2 , Not applicable=3		<input type="checkbox"/>	
9.7.12 How did you control/cure Fowl Typhoid with your poultry? <u>Control/curative methods (Swali 9.7.12):</u> Vaccination..1 Herbs.....2 None..3		<input type="checkbox"/>	
9.7.13 Were your cattle vaccinated against the following diseases? (Yes = 1, No = 2, Not applicable=3). 9.7.13 A: Foot and Mouth diseases <input type="checkbox"/> 9.7.13 B: Skin disease <input type="checkbox"/>			
<b>9.8 Extension services on livestock</b> Did you receive the following extension advice on the following? (IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION)			
Na.	Livestock extension advice	Received Extension advice (Yes=1, No=2)	Source of Extension
	(1)	(2)	(3)
9.8.1	Feed and better feeding methods	<input type="checkbox"/>	<input type="checkbox"/>
9.8.2	Improved livestock shed (Goat, Dairy cattle, Poultry and pigs)	<input type="checkbox"/>	<input type="checkbox"/>
9.8.3	Milking and hygiene	<input type="checkbox"/>	<input type="checkbox"/>
9.8.4	Cattle fattening	<input type="checkbox"/>	<input type="checkbox"/>
9.8.5	Livestock diseases control	<input type="checkbox"/>	<input type="checkbox"/>
9.8.6	Livestock keeping in line with land availability	<input type="checkbox"/>	<input type="checkbox"/>
9.8.7	Pasture establishment and maintenance	<input type="checkbox"/>	<input type="checkbox"/>
9.8.8	Forming and strengthening groups/cooperatives	<input type="checkbox"/>	<input type="checkbox"/>
9.8.9	Calf rearing	<input type="checkbox"/>	<input type="checkbox"/>
9.8.10	Basics of production and use of improved bulls (AI)	<input type="checkbox"/>	<input type="checkbox"/>
9.8.11	Animals feed production	<input type="checkbox"/>	<input type="checkbox"/>
9.8.12	Other extension advice (Specify) .....	<input type="checkbox"/>	<input type="checkbox"/>
<u>Source of agriculture extension (Swali 3)</u> Government.....1 NGO/Development project.....2 Cooperative Union.....3 Large Scale farmer.....4 Radio/TV/Newspapers.....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, type of fish etc. eg. a farmer may have 3 fish ponds (each one is a separate production unit).

Frequency of stocking (Col . 5): What is the number of time the farmer puts new fingerlings into the pond each year.

Fingerlings: These are young immature fish used for stocking ponds.

**Sols: (Col 10 & 11)**

If no fish were sold enter "0" in column 10 and 11`

## Fish sold (Col.12)

Kama hakuna samaki waliouzwa jaza "0" katika safuwima 12

## Working space for page 15

9.9 FISH FARMING														Identification <span style="border: 1px solid black; padding: 2px;">  </span> <span style="border: 1px solid black; padding: 2px;">  </span> <span style="border: 1px solid black; padding: 2px;">  </span> <span style="border: 1px solid black; padding: 2px;">  </span> <span style="border: 1px solid black; padding: 2px;">  </span> <span style="border: 1px solid black; padding: 2px;">  </span> <span style="border: 1px solid black; padding: 2px;">  </span> <span style="border: 1px solid black; padding: 2px;">  </span>			
Did your household practice fish farming? Yes=1, No=2 (If the answer is no proceed to section 9.10) <span style="float:right; border: 1px solid black; padding: 2px;">  </span>																	
Give details on the fish farming during 2007/08 agriculture year																	
No.	Number of Ponds	Aina ya ufugaji	Square area of pond (m <sup>2</sup> )	Source of fingerings	What is the frequency of stocking during the period?	Kiwango cha Huduma ya bwawa	Total number of stoked fish				Total number of fish harvested	Total weight of all fish		What is the main fish outlet?			
							Tialpia	Mwatiko	Crabs	Lulu		waliovuliwa (kg)	waliouzwa (kg)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
9.9.1	1																
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 services to the pond (Col 6)**  
 High leve .....1  
 Intermediate level.....2  
 Low leve.....3  
 Don't know.....8

**Source of fingerings(Col 4)**  
 From the pond.....1 Neighbour.....4  
 Government.....2 Business man.....5  
 NGO/Development Project...3 Natural Pond.....6  
 Other .....8

**mainly sold to? (Col 14)**  
 Neighbour...1 Auction.....3 Large Scale farmers.....5  
 Open market....2 Fish processing industry..4 Private business people ....6  
 Did not sell.....7 Other .....8

9.10 HONEY PRODUCTION									
Is there honey production/harvesting in your household? Yes=1, No=2 (If answer is no PROCEED to Section 9.11)									
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 ownership  
 03 Poor farm implementso  
 04 Soil fertility  
 05 Availability of improved seeds  
 06 Irrigation services  
 07 Availability of agrochemicals  
 08 Cists of farm inputs  
 09 Extension services  
 10 Availability of forest resources  
 11 Huntinf and collection problems  
 12 Water availability  
 13 Access to credits  
 pastoralists

14 Lack of off farm incomes  
 15 Harvesting problems  
 16 Kupukuchua  
 17 Crop stiorage  
 18 Crop processing  
 19 Market information  
 20 High transportation costs  
 21 Destructive animals  
 22 Crop theft  
 23 Pests and diseases  
 24 Advice from Local government  
 25 Long dry spells  
 26 Conflicts between livetsock keepera and

**Definitions and working page for page 16****10.0 Household poverty indicators****Number of rooms used for sleeping in the household (Q 10.1.4)**

Include sitting room, dining room, kitchen, etc if used for sleeping.

It also includes rooms outside the main dwelling

A room is defined as a space which is separate from the rest of the building by a permanent wall or division. A building / house that is not divided into rooms is considered to have one room.

**Household assets (Q 10.2):**

These assets must be functional. Do not include if broken.

**Access to drinking water (Q 10.4):**

If there is more than one source use the one, which the hh uses most frequently.

**Main source of hh cash income:(Q 10.7:**





Activity that provides the hh with the most cash during 2007/08 agricultural season.

10.0 POVERTY INDICATORS				Identification <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>																																			
<b>10.1 HOUSE CONSTRUCTION</b> Specify materials used in the construction of the following sehemu zifuatazo		<b>10.2 Household property</b> Does your household own the following? (Yes=1 No=2)																																					
<b>10.1.1 Roof</b> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	<b>10.1.2 Floor</b> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Number</th> <th style="width: 60%;">Property</th> <th style="width: 30%;">Yes=1, No=2</th> </tr> <tr> <th></th> <th>(1)</th> <th>(2)</th> </tr> </thead> <tbody> <tr> <td>10.2.1</td> <td>Radio (Radio, Radio Casette, music system)</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.2</td> <td>Land line</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.3</td> <td>Celkl phone</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.4</td> <td>Iron</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.5</td> <td>Trolley</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.6</td> <td>Bycicle</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.7</td> <td>Vehicle</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.8</td> <td>TV/ Video</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.9</td> <td>Refrigerator</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.2.10</td> <td>Motorbike/vespa</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> </tbody> </table>		Number	Property	Yes=1, No=2		(1)	(2)	10.2.1	Radio (Radio, Radio Casette, music system)	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.2	Land line	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.3	Celkl phone	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.4	Iron	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.5	Trolley	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.6	Bycicle	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.7	Vehicle	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.8	TV/ Video	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.9	Refrigerator	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.2.10	Motorbike/vespa	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>
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<b>10.1.3 Wall</b> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>																																							
<div style="border: 1px solid black; padding: 5px;"> <b>Roofing materials</b>            Iron sheets.....1            Tiles.....2            Concrete.....3            Asbestos.....4            Grass/Makuti.....5            Grass and mud.....6            Other.....8         </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>Floor materials</b>            Earthen material.....1            Wood.....2            Wooden tiles.....3            Tiles.....4            Cement.....5            Other.....8         </div> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <b>Main materials</b>            Grass and pieces of woods.....1 Mud.....2            Wet bricks.....3 Burnt bricks.....4            Wood.....5 Block bricks.....6            Stonese.....7 Bricks /Mawe ya kichanga.....8         </div>																																							
<b>10.1.4 Number of bedrooms</b> <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>																																							
<b>10.3 Energy use and availability in the household</b>		<b>10.4 Availability of drinking water</b>																																					
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<b>Note: Code 01, Bomba kwa Zanzibar hujulikana kama Mfereji</b>																																							
<b>10.5 Toilet facilities</b> <b>10.5.1</b> What type of toilet does your household use? <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>		<b>10.6 Eating patterns</b>																																					
<div style="border: 1px solid black; padding: 5px;"> <b>Type of toilet</b>            No toilet in the bush.....1 Pit latrine.....4            Flush toilet.....2 Other type (Specify).....8            Ordinal pit latrine.....3         </div>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 80%;">10.6.1 How many meals does your household usually get per day ?</td> <td style="width: 20%;"><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.6.2 How days did the household eat meat last week?</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.6.3 How days did the household eat fish last week?</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> <tr> <td>10.6.4 How many times did the household experience food shortages last year?</td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> </tbody> </table>		10.6.1 How many meals does your household usually get per day ?	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.6.2 How days did the household eat meat last week?	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.6.3 How days did the household eat fish last week?	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	10.6.4 How many times did the household experience food shortages last year?	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>																												
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<b>10.7 Main source of household cash income?</b> <b>10.7.1</b> What are the sources of household income? <span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>		<div style="border: 1px solid black; padding: 5px;"> <b>Food shortage problems</b>  <b>(Swali 10.6.4)</b>            Never.....1            Few times.....2            Sometimes.....3            Many times.....4            Often.....5         </div>																																					
<div style="border: 1px solid black; padding: 5px;"> <b>Code for source of income</b>            Selling food crops.....01 Sales of forest products.....05 Cash assistance.....09            Sales of livestock.....02 Business.....06 Fishing.....10            Sales of livestock products.....03 Salaries.....07 Other.....98            Sales of cash crops.....04 Casual labour.....08 None.....99         </div>																																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">TIME OF FINISHING THE INTERVIEW</th> <th style="width: 20%;">Hour</th> <th style="width: 20%;">Minutes</th> </tr> </thead> <tbody> <tr> <td></td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> <td><span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span></td> </tr> </tbody> </table>				TIME OF FINISHING THE INTERVIEW	Hour	Minutes		<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>																														
TIME OF FINISHING THE INTERVIEW	Hour	Minutes																																					
	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>	<span style="border: 1px solid black; display: inline-block; width: 20px; height: 15px;"></span>																																					

Average/maximum yields per area									
Use this table to compare the yields calculated in Sections 5.1, 5.2 and 5.3.									
These stats are strictly to be used as a guide for the purpose of assisting to get the correct area and yields for each crop.									
Name of Crop	Kilogram/ha		Kilogram/acre		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 Fungur 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 Mahazr 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

<b>ACQ 3</b>		<b>United Republic of Tanzania</b>		<b>CONFIDENTIAL</b>							
											
		<b>Village/Community Level Formats</b> Access to and Use of Community Resources Farming Gate Prices of commodities produced by the village									
 <b>Agricultural Sample Census</b> <b>2007/2008</b>				<b>NUMBER OF FARMERS HH IN THE VIALAGE</b> To be filled by the enumerator after completing form ACLF2  <b>NUMBER OF HH MEMBERS</b> To be filled by the enumerator after completing form ACLF2							
Region			Ward								
District			Village								
Enumerator Name _____ Signature _____ Date of Enumeration _____ <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div> <div style="text-align: center;">d d</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; width: 30px; height: 30px; margin: 0 auto;"></div> <div style="text-align: center;">m m</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; width: 60px; height: 30px; margin: 0 auto;"></div> <div style="text-align: center;">y y y y</div> </div> </div> <div style="margin-left: 20px;">         Start Time _____          End Time _____       </div> <div style="float: right; text-align: center;"> <table border="1" style="border-collapse: collapse;"> <tr> <td style="padding: 2px;">Hour</td> <td style="padding: 2px;">Minutes</td> </tr> <tr> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> </tr> <tr> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> <td style="border: 1px solid black; width: 30px; height: 30px;"></td> </tr> </table> </div>						Hour	Minutes				
Hour	Minutes										
<b>Field level checking by:</b> 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  All questionnaires must be checked at the district office.							
<b>District checking in Office</b> District Supervisor Name _____ Signature _____ Date ____/____/____											
<b>For Use at Regional Level Only</b> Data entered by: Name _____ Signature _____ Date ____/____/____ Queried Name _____ Signature _____ Date ____/____/____				See the back page for details of queries							
Ministry of Agriculture and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Administration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Government of Zanzibar											

## Definitions and working page for page 3

## Question Specific Definitions:

Obtain answers to the following questions from the meeting between the enumerator and influential farmers in the village. Influential people can be Village Chairman, Village Government Executive Officer, Councillor, Ward Chairman, Extension Officer in the village or any other person in the village and who is well informed about village matters. It is important to not that these questions must be asked in groups (of more than one people) to obtain answers discussed and approved by many people.

## Definitions of some specific terms

**Access to community resources. Section 1.0**

**Community Resources:** Resources in which the hh members have no individual claim to and which are shared together by all the village

**Community Land:** The area official demarcated by the village as shared/public land.

**Squatting farmers Land:** Communal land where individual hhs make sole claim to (for crop farming or fenced livestock) without official rights to ownership.

**Available remaining Land:** Official area of communal land minus areas of squatting farmers.

**Government Land Reserve:** Area set aside by the government as national reserve

**Community tree planting scheme(Section 14.3)**

**Community Forest:** A forest planted on the communal land which is planted, replanted or spt planted by the members of the village.

**Plant Planting:** An area designated by the village for planting a block of trees.

**Spot Planted:** Replanting an area where selective logging has been carried out. A tree is planted to replace the one that has been cut.

**Indigenous Trees:** Trees that are native to Tanzania

**Exotic Trees:** Trees that are not native to Tanzania

**Non Government Organisation:** Is managed by people from outside the village and it normally covers more than one village/District/R region. Its function is to provide deveoopment assistance to the farmer and is free from direct government links.

**Village level organization:** is managed by members of the village. Its purpose is normally to access/provide development assistance to the village



## ACCESS TO COMMUNAL RESOURCES

1 ACCESS TO COMMUNITY RESOURCES										
1.1 Does the village set aside an area for communal resources e.g. forest, grazing, etc. (Yes=1 No=2)									<input type="checkbox"/>	
Are of Community, Village, Ward resources					Area in acre					
1.1.1 Total area of communal land					<input type="text"/>					Official figures from the leader
1.1.2 Area of squatting farmers in communal land					<input type="text"/>					Key informant (Leader/Extension officer etc.)
1.1.3 Remaining available communal land					<input type="text"/>					Key informant (Leader/Extension officer etc.)
1.1.4 Government reserve land					<input type="text"/>					Key informant (Leader/Extension officer etc.)
1.2 UPATIKANAJI NA MATUMIZI YA MALIASILI ZA JUMUIYA/KILIFI/SHEHIA										
Community Resources		Distance from the resource in Km -season			Main Use		Instructions on distance from the resource (Cols 2 and 3): Distance is estimated from the centre of the village.  If under 1 km 1, enter 0 If above 1 km 1 enter whole number, eg. 1.5km= 2km, 1.25km= 1km  <b>Main uses (Col. 4)</b> Home or farm livestock consumption...1 Sold to traders in the village.....2 Sold to the village market.....3 Sold to local wholesalers.....4 Sold to Big wholesalers.....5 Not available.....6			
(1)		Dry (2)			Rainy (3)					(4)
1.2.1 Water for human consumption		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.2 Water for livestock		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.3 Communal grazing land		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.4 Communal firewood		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.5 Wood for charcoal burning		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.6 Wood for building poles		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.7 Forest for bee keeping (honey)		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.8 Hunting		<input type="text"/>			<input type="text"/>		<input type="text"/>			
1.2.9 Fishing		<input type="text"/>			<input type="text"/>		<input type="text"/>			
2.0 COMMUNITY PLANTED TREES										
2.1 Did your village have community planted trees during 2007/08 agriculture year? (Yes=1, No=2)									<input type="checkbox"/>	
If the answer is no proceed to Section 3.0										
Details of the community tree planting scheme										
No.	Distance from the community forest	Forest Area (acre)	Type of Planting	Type of Trees	Source of seeds/ Seedlings	Number of Years since the start of planting	Main uses 2007/08 agriculture year	Main uses of communal forest products		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
2.2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		
<b>Type of planting (Col. 3)</b> Plantation planting.....1 Spot planting.....2  <b>Type of trees (Col. 4)</b> Indigenous trees.....1 Exotic tree.....2 Both types.....3		<b>Source of seedlings (Col. 5)</b> Seeds collection and planting.....1  Village Nursery.....2 Department of Forestry.....3 Private Individuals.....4			<b>Main Uses (Col. 7)</b> Poles.....1 Wood.....2 Charcoal.....3 Firewood.....4 Other (Specify).....8		<b>Main use of revenue (Col. 8)</b> Village development fund.....1 Household use.....2 Household income.....3			
3.0 Non governmental Organisation (NGOs) Contact					4.0 Community Based Organisation					
3.1 Did any NGO visit the village during 2007/08 agriculture year? (Yes=1, No=2) (If no proceed to Section 4)					4.1 Did the village have any CBO during the 2007/08 agriculture year? (Yes=1, No=2)					
Na. Type of NGO		Visited Yes=1, No=2	Number of visits	Distance to the Office (km)	Na. Type of CBO		Nid=1, Nap=2			
3.2 Extension/ Research		<input type="text"/>	<input type="text"/>	<input type="text"/>	4.2 Extension/ Research		<input type="text"/>			
3.3 Service /input provision		<input type="text"/>	<input type="text"/>	<input type="text"/>	4.3 Service /input provision		<input type="text"/>			
3.4 Community Development		<input type="text"/>	<input type="text"/>	<input type="text"/>	4.4 Community Development		<input type="text"/>			
3.5 Other		<input type="text"/>	<input type="text"/>	<input type="text"/>	4.5 Other		<input type="text"/>			
5.1 Did the village have Field farm schools during 2007/08, agriculture year? (Yes=1, No=2)					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)					
5.3 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)					5.5 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.					
5.4 Number of local ironsmiths					5.6 Number of training centres for draft animals					

**Procedure:** Administer this from after completing all smallholder questionnaires for the village.

1. Copy the name of all crops from Sections 5.1, 5.2 and 5.3 grown in the village from smallholder questionnaires. This should also include livestock raised by the household from questions 9.1, 9.3, 9.4 and 9.5 and enter them in col na 1 of this form. Also see codes for livestock below.
2. Enter price estimates per kg in col 5 and 6.

[illegible]

Type of livestock (Col 2)		
Cattle.....01	Ducks.....07	
Goat.....02	Turkey.....08	
Sheep.....03	Rabbit.....09	
Pigs.....04	Kanga.....10	
Poultry.....05	Simbilisi.....11	
Donkeys.....06		

**main produce CROPS (50%)**

Cereals.....01	Flowers eg. Pyrethrum.....07
Green maize.....02	Vegetables.....08
Green leaves and stem.....03	Fruit.....09
Straw, dry stems etc..04	Other.....10
Roots and tubers, etc.....05	
Leaves (Tobacco etc).....06	

(Col. 4)  
Live animals.....01  
Meat .....02  
Milk.....03  
Eggs.....04

Kg.....1  
Number.....2  
Litre.....3  
A portion/piece 1.4


## 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)
<input type="text"/> <input type="text"/> <input type="text"/>		<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	
<input type="text"/> <input type="text"/> <input type="text"/>		<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	
<input type="text"/> <input type="text"/> <input type="text"/>		<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	
<input type="text"/> <input type="text"/> <input type="text"/>		<input type="text"/> <input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/> <input type="text"/>	

UNITED REPUBLIC OF TANZANIA

**CONFIDENTIAL**

**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	Fields a	Number of								If the Respondent Qualifies X	Farmer Serial Number	
			Cattle				Goats	Sheep	Pigs	Kuku/Bata/ Rabbit			
			Total	Bulls	Cows	Calves							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
<input type="text"/> <input type="text"/> <input type="text"/>													
<input type="text"/> <input type="text"/> <input type="text"/>													
<input type="text"/> <input type="text"/> <input type="text"/>													

Mara Region Agriculture Sample Census – 2007/08