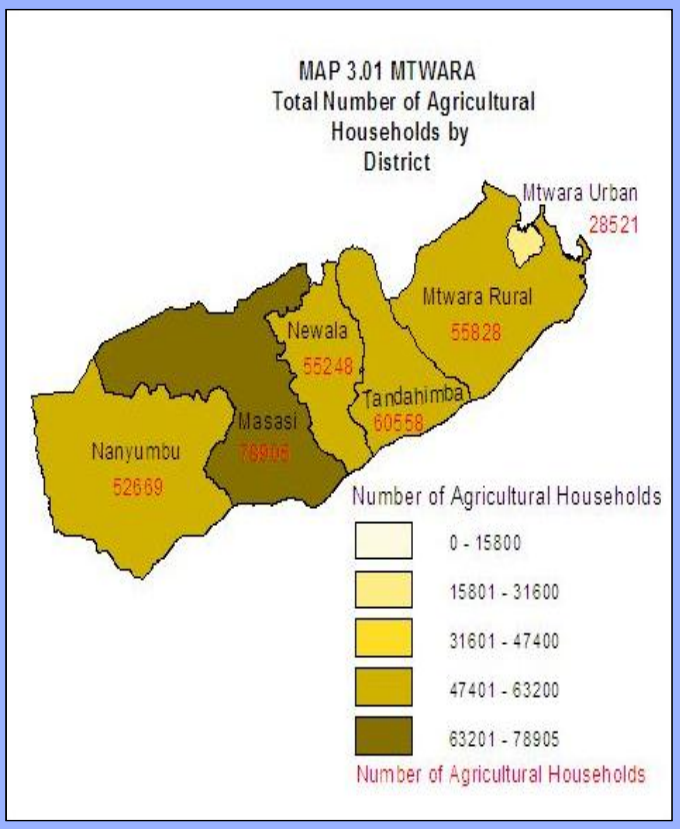
The United Republic of Tanzania

NATIONAL SAMPLE CENSUS OF AGRICULTURE 2007/2008

VOLUME Vi: REGIONAL REPORT: MTWARA REGION



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

JULY 2012

The United Republic of Tanzania

NATIONAL SAMPLE CENSUS OF AGRICULTURE
2007/2008 SMALL HOLDER AGRICULTURE

Volume Vi: REGIONAL REPORT: MTWARA REGION

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Table of Contents

ACRONYMS v

PREFACE vii

EXECUTIVE SUMMARY ix

ILLUSTRATIONS xvi

1 BACKGROUND INFORMATION 1

1.1 Introduction 1

1.2 Geographical Location and Boundaries 1

1.3 Land Area 1

1.4 Climate 1

1.4.1 Temperature 1

1.5 Population 1

1.6 Socio - Economic Indicators 2

2 INTRODUCTION 1

2.1 The Rationale for Conducting the National Sample Census of Agriculture 1

2.2 Census Objectives 2

2.3 Census Scope and Coverage. 2

2.4 Census Methodology 3

2.4.1 Census Organization 4

2.4.2 Tabulation Plan Preparation 5

2.4.3 Sample Design 5

2.4.4 Questionnaire Design and Other Census Instruments 6

2.4.5 Field Pilot-Testing of the Census Instruments 7

2.4.6 Training of Trainers, Supervisors and Enumerators 7

2.4.7 Information, Education and Communication (IEC) Campaign 7

2.4.8 Data Collection 7

2.4.9 Field Supervision and Consistency Checks 8

2.4.10 Data Processing 8

2.5 Funding Arrangements 10

3 CENSUS RESULTS AND ANALYSIS 11

3.1 Introduction 11
3.2 Household Characteristics 11
3.2.1 Type of Holdings 11
3.2.2 Livelihood Main Activities/Source of Income 11
3.2.3 Sex and Age of heads of Households 15
3.2.4 Number and Age of Households Members 15
3.2.5 Level of Education 15
3.2.6 Off-farm Income 17
3.3 Land Use 18
3.3.1 Area of Land Utilized 18
3.3.2 Types of Land Use 19
3.4 Annual Crop and Vegetable Production 19
3.4.1 Area Planted 19
3.4.2 Crop Importance 23
3.4.3 Crop Types 23
3.4.3.1 Cereal Crop Production 24
3.4.3.1.1 Maize 25
3.4.3.1.2 Paddy 25
3.4.3.1.3 Sorghum 26
3.4.3.2 Roots and Tuber Crops Production 27
3.4.3.2.1 Sweet potatoes 27
3.4.3.2.2 Yams 28
3.4.3.2.3 Cassava 28
3.4.3.3 Pulse Crops Production 31
3.4.3.3.1 Cowpeas 31
3.4.3.3.2 Bambaranuts 32
3.4.3.4 Oil Seed Production 33
3.4.3.4.1 Groundnuts 33
3.4.3.4.2 Simsim 34
3.4.3.5 Fruits and Vegetables 36
3.4.3.5.1 Tomatoes 36
3.4.3.5.2 Okra 37
3.4.3.6 Other Annual Crop Production 39

3.5 Perennial Crop Production 39
3.5.1 Cashewnut 40
3.5.2 Pigeon peas 40
3.5.3 Coconut 41
3.5.4 Mango 42
3.6 Input/Implement Use 47
3.6.1 Agricultural Implements 47
3.6.2 Improved Seed Use 48
3.6.3 Fertilizer Use 48
3.6.4 Insecticide, Fungicides and Herbicide Use 49
3.7 Irrigation 51
3.8 Crop Storage and Marketing 52
3.8.1 Crop Storage 52
3.8.2 Crop Marketing 53
3.9 Access to Crop Production Services 54
3.9.1 Access to and Source of Agricultural Credit 54
3.9.2 Erosion Control Facilities 54
3.9.3 Sources and type of Crop Extension Messages 55
3.10 LIVESTOCK RESULTS 58
3.10.1 Cattle Production 58
3.10.1.1 Cattle Population 58
3.10.1.2 Herd Size 59
3.10.1.3 Cattle Population Trend 59
3.10.1.4 Improved Cattle Breeds 59
3.10.2 Goat Production 61
3.10.2.1 Goat Population 61
3.10.2.2 Goat Flock Size 61
3.10.2.3 Goat Population Trend 61
3.10.3 Sheep Production 62
3.10.3.1 Sheep Population 62
3.10.3.2 Sheep Population Trend 62
3.10.4 Pig Production 65
3.10.4.1 Pig Population Trend 65

3.10.5 Chicken Production 67
3.10.5.1 Chicken Population 67
3.10.5.2 Chicken Population Trend 67
3.10.5.3 Improved Chickens (layers and broilers) 68
3.11 Pest and Parasite Incidence and Control 70
3.11.1 Deworming 70
3.11.2 Tick and Tsetse Problem 70
3.11.3 Newcastle disease 71
3.11.4 Foot and Mouth Disease 72
3.11.5 Fowl Typhoid Disease 72
3.12 Bee keeping and Honey Production 73
3.12.1 Bee keeping 73
3.12.2 Honey Production 73
3.13 Access to Livestock Extension Services 73
3.14 Fish Farming 74
3.15 POVERTY INDICATORS 76
3.15.1 Access to Drinking Water 76
3.15.2 Type of Toilets 77
3.15.3 Food Consumption Pattern 79
3.15.3.1 Meat Consumption Frequency 79
3.15.4 Food Security 80
3.15.5 Main Sources of Cash Income. 80
4 MTWARA PROFILES 83
4.1 Mtwara Region Profile 83
4.2 District Profile 85
4.2.1 Masasi 85
4.2.2 Mtwara Rural 88
4.2.3 Newala 91
4.2.4 Tandahimba 93
4.2.5 Mtwara Urban 95
4.2.6 Nanyumbu 97

ACRONYMS

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

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

PREFACE

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

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

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

EXECUTIVE SUMMARY

The executive summary highlights the main survey results obtained during the National Sample Census of Agriculture 2007/08. This report covers small-scale agriculture households in Mtwara region who were selected using statistical sampling techniques. The results in the report do not cover large-scale farmers.

The highlights describe the important findings on agricultural production, productivity, husbandry, access to resources, levels of involvement in agricultural related activities and poverty in Mtwara region. These are indicators to obtain an overview of the rural agricultural households and their levels of involvement in agricultural and related activities at regional and district levels.

i) Household Characteristics

The number of agricultural households in Mtwara region was 249,373 out of which 214,234 (86%) were involved in growing crops only, 317 (0.13%) rearing livestock only and 34,822 (14%) were involved in crop production as well as livestock keeping. Most of the agricultural households were involved in crop farming/sea weed and employment as activity that provides most of their cash income.

The mean age of the head of household was 46 years where, male heads mean age was 45 years and 50 years for female heads. There were 957,659 household members of which 439,740 (46%) were males and 517,919 (54%) were females. Majority of the males and females members of the households had age between 10 and 24 years.

The region has a literacy rate of 69 percent. The highest literacy rate is in Masasi (80%) and the lowest was Tandahimba (61%). The literacy rate for the heads of households in the region was 80% for males and 19% for females.

Forty four percent of the population aged 5 years and above in agricultural households in the region had completed different levels of education and 29 percent were still attending school. Those who had never attended school were 27 percent. Agricultural households in Masasi district had the highest percentage (31%) of population aged 5 years and above who had completed various levels of education.

Off-farm income is important amongst agriculture households and about 33% of the households in the region reported to have at least one member with off-farm income.

ii) Crop Production

Land Area

The total area of land available to smallholders was 494,343 ha. The regional average land area utilized for agricultural production per agricultural growing household was only 1.1 ha. Highest percent utilization of agricultural land was found in Tandahimba (99%) and was lowest in Mtwara Rural (90%).

Planted Area

The area of land under permanent/annual mixed crops was 104,457 hectares (21.1% of the total land available to smallholders in Mtwara region). It was followed by area under permanent mono crops (94,074 ha, 19%), temporary Mono crops (92,225 ha, 18.6%), temporary mixed crops was (84,282 ha, 17%) and 62,464 (13%) ha fallow.

Annual Crops and Vegetable Production

The area planted with annual crops and vegetables was 185,466 hectares. Out of which 666 hectares (0.36%) were planted during short rains season and 184,800 hectares (99.6%) during the long rain season.

Area Planted

The average areas planted per household during the wet seasons was 0.4 ha. The districts with the largest area planted per household (the average of the two seasons) were Nanyumbu 0.5 ha, followed by Masasi and Mtwara rural (0.4).

iii) Crop Types

Cereals

- **Maize**

The number of households growing maize in Mtwara region during the long rainy season was 164,717. Masasi district had the highest number of household growing maize (41,922) and Mtwara urban was the least. The total production of maize in 2007/08 was 63,470 tonnes from a planted area of 77,970 hectares resulting in a yield of 0.47 t/ha. Masasi district had the largest percent of maize production (47.8% as a proportion of total maize yield in Mtwara) followed by Newala (20%), Nanyumbu (18.7%), Tandahimba (8.2%), Mtwara rural (5%) and Mtwara urban (0.3%).

- **Paddy**

Paddy was grown by 42,890 households representing 17.2 percent of agricultural households. The total area under paddy was 21,419 ha with an average of 0.5 ha per household. Masasi district had the highest area planted with paddy (7,728 ha, 36.1 percent of total area under paddy in the region) but, the average area planted per household was highest in Tandahimba district (0.64 ha) followed by Masasi (0.56 ha). Paddy production had increased from 4,932 tonnes in 2002/03 to 22,420 tonnes in 2007/08 agricultural year representing a 355 percent increase. The average yield per hectare was 1.1 tonnes.

- **Sorghum**

Sorghum was grown by 60,428 households representing 24 percent of agricultural households. The total area under sorghum was 19,616 ha with an average of 0.3 ha per household. Mtwara rural district had the highest area planted with sorghum (7,375 ha, 38 percent of total area under sorghum in the region) followed by Tandahimba (4,196 ha, 21%), Masasi (3,643 ha, 19%) and Newala (3,612 ha, 18%).

Other cereals

Other cereals were produced in small quantities i.e. bulrush millet (9 tonnes) and finger millets (120 tonnes).

Roots and Tubers

The total production of roots and tubers was 69,593 tonnes. Cassava production was the highest for roots and tuber crops in the region with a total production of 68,355 tonnes representing 98.2 percent of the total root and tuber crops production.

- **Sweet potatoes**

Sweet potatoes production was the second highest for roots and tuber crops in the region with a total production of 1,065 tonnes representing 1.5 percent of the total root and tuber crops production. Sweet potatoes had the highest yield per hectares (3.45 tonnes) and was planted in smaller area (308 ha). Newala had the highest production of sweet potatoes in Mtwara with an estimated area of 181 ha, followed by Tandahimba (82 ha) and Mtwara (48 ha).

- **Yams**

Yams were the third most important roots and tuber crop grown in Mtwara region and was grown by 592 household on 101 ha and the total production of yams during the census year was 112 tonnes with an average yield of 1.1 tonnes per ha.

Pulses

A total of 102,164 household grew various pulses on area of 25,814 hectares. Out of which 11,441 ha were planted with bambaranuts (44.3 percent of the total area planted with pulses), followed by cow peas (9,946 ha, 38.5%), green gram (2,993 ha, 11.6%), beans (1,329 ha, 5.1%) and chick peas (105 ha, 0.4%). The total production of pulses was 13,829 tonnes. Bambaranuts were the most cultivated crop producing 6,157 tonnes equivalent to 44.7 percent of the total pulse production.

Oil and Seed Crop

The total production of oilseed crops (Groundnuts and Simsim) was 22,663 tonnes planted from an area of 37,908 hectares. Groundnuts had the highest area planted (28,287 ha, 75% of area under groundnuts) while simsim was planted in 9,621 ha (25%). Total yield of groundnuts and yield per ha was 28,287 tonnes and 0.65 tonnes respectively, while for simsim it was 37,908 tonnes and 0.45 tonnes per ha.

Fruit and Vegetables

The total production of fruits and vegetables was 7,197 tonnes planted by 6,910 households on 1,564 ha. The most cultivated fruit and vegetable crop was tomatoes with a production of 6,378 tonnes (88.6% of the total fruit and vegetables produced) followed by egg plant (406 t, 5.6%) and okra (222t, 3.1%). The production of the other fruit and vegetables crops was relative small.

Permanent Crops

The most important permanent crop in Mtwara region was Cashewnut which had a planted area of 185,179 ha under Mono and Mixed crops (71.6% of the planted area of all permanent crops). Followed by pigeon peas (7,705 ha, 3%), coconut (3,586 ha, 1.4%), Orange (772 ha, 0.3%). A total of 63,490 tonnes of cashew were harvested in 2007/08 agricultural year with and average yield of 890 kg per hectare from a planted area of 185,179 hectares. Other crops were grown in small area and the bigger area had a mix of other crops.

iv) Agricultural inputs

Improved Seeds

The area planted using improved seeds was 12,247 ha which represented 7 percent of the total area planted area with annual crops and vegetables.

Use of Fertilizers

The use of fertilizers on annual crops is very small with a planted area of only 7,728 ha (3% of the total planted area in the region). The planted area without fertilizer for annual crops was 177,738 hectares representing 90 percent of the total planted area with annual crops. Of the planted area with fertilizer application, farm yard manure was applied to 1,818 ha which represents 1 percent of the total planted area, while inorganic fertilizer were applied to 5,910 ha.

Insecticides and Herbicides

The planted area applied with insecticides was estimated at 4,253 ha which represented 2.4 percent of the total planted area for annual crops and vegetables. A total of 2,717 ha was planted with insecticide represented 64 percent of total planted area, while fungicide was applied to 1,345 ha (32%). Only 191 ha (4% was applied with fungicides).

Insecticide use was not common in Mtwara region, however, Mtwara Urban had the highest percent of planted area with insecticides.

v) Irrigation

The area of annual crops under irrigation in Mtwara region was 2,717 ha representing 0.6 percent of the total area utilized. To a large percent, the main sources of irrigation were rivers whereby 2,770 ha equivalent to 45% of all irrigated land used this source. The other source was canals (2,444 ha, 40%).

vi) Agricultural Credit

In Mtwara region, few agricultural households (2,048 hh) accessed credits in 2007/08 agricultural year (0.82 % of all agricultural households in the region). The major agricultural credit provider were SACCOS which provided credit to 831 households (40.6% of the total number of households that accessed credit), banks (504 household; 24.6%), NGOs/Projects (407 household, 24.6%), family and friends (153 household, 7.5%) and Cooperatives (153 households, 7.5%).

vii) Soil Erosion and Water Harvesting Facilities

The number of agricultural households that had soil erosion and water harvesting facilities on their farms was 1,942 which represent 1 percent of the total number of agricultural households in the region. The proportion of households with soil erosion control and water harvesting facilities was highest in Masasi (39%) and followed by Nanyumbu (37%)), Newala (12%), Mtwara rural and Tandahimba (6% each). Tree belts accounted for 60.4 percent of the total number of structures, followed by terraces (25%), erosion control bunds (11.1%).

viii) Crop Extension Services

About 63,970 households received extension advices representing 25.5 percent of the total agricultural household. Government provided the greatest proportion (183,042 households; 73%). Other sources include NGOs and Projects, Cooperatives, large scale farms, local Radio/ Television and neighbours. Most households received advices on spacing (46% of the total agricultural households), followed by agrochemical use (37%) and use of improved seeds (32%).

ix) Livestock and Poultry Production

- **Cattle**

The total number of cattle in Mtwara region was 18,115 which is 0.1 percent of the total cattle population in the country. Out of which 17,415 (96.1%) were indigenous, 394 (2.2%) were dairy breeds and 305 (1.7%) were improved beef cattle. This was kept by 3,291 livestock rearing households in the region (1.3% of total agricultural households) kept cattle. This was equivalent to an average of 6 heads of cattle per cattle rearing household. The district with the largest number of cattle was Masasi which had about 9,011 cattle (49.7% of the total number of cattle in the region). This was followed by Nanyumbu with 7,442 cattle (41.1%).

- **Goats**

The number of goat-rearing-households in Mtwara region was 35,203 (14% of all agricultural households in the region) with a total of 234,564 goats giving an average of 7 head of goats per goat-rearing-household. Newala had the largest proportion of goats (41% of all goats in the region), followed by Tandahimba (22%), Mtwara rural (18%), and Masasi (11%) and Nanyumbu (7%).

- **Sheep**

The number of sheep rearing households was 2,536 (2% of all agricultural households in Mtwara region) rearing 16,794 sheep, giving an average of 8 heads of sheep per sheep rearing household. The district with the largest number of sheep was Tandahimba with 8,131 sheep (48.4% of total sheep in Mtwara region).

- **Pigs**

The number of pig rearing agricultural households in Mtwara region was 4,062 (2% of the total agricultural households in the region) rearing 6,293 pigs. This gives an average of 2 pigs per pig rearing household. The district with the largest number of pigs was Masasi with 6,720 pigs (61% of the total pig population in the region) while Mtwara Urban had the lowest number of pigs (794; 7%).

- **Chicken**

The number of households keeping chicken was 138,147 raising about 1,496,854 chickens. This gives an average of 11 chickens per chicken-rearing household. In terms of total number of chickens in the country, Mtwara region was ranked sixteenth out of the 21 Mainland regions. There were 13,553 layers and 12,908 broilers constituting 1 percent each to the entire chicken population in the region. The District with largest number of chickens was Masasi (29%) followed by Newala (22%), Tandahimba (22%), Mtwara rural (14%), Nanyumbu (11%).

Fish Farming

About 153 households (0.1 percent of the total agricultural households in the region) were involved in fish farming in Mtwara region. This figure was only reported in Masasi district. About 458 households reported raising fish in dug out ponds and the main fish species planted was Tilapia. The main source of fingerlings was from Government institutions. A total of 18,328 kg of fish were harvested and sold to neighbours in the region.

x) Poverty Indicators

Availability of Toilets

It was estimated that 95.percent of all rural agricultural households used the traditional pit latrines, one percent had flush toilets and two percent used improved pit latrine. Households with no toilet facilities accounted for 2 percent of the total agriculture households in the region.

Number of Meals per Day

The majority of households in Mtwara region normally had 2 meals per day (58 % of the households in the region). This was followed by 3 meals per day (37 %) and one meal per day (5 %). Masasi and Mtwara rural districts had the largest percent of households eating one meal per day, followed by Tandahimba, Newala and Nanyumbu.

Food Security

About 91,200 household equivalent to 37% of the total agricultural households in the region reported that they rarely experience problems in satisfying the household food requirement. Other households reported experiencing food problems at different levels. Nevertheless, 90,319 households (36%) reported to have never experienced any food problems. Tandahimba had the highest percentage (30%) of the households who reported that they never experienced food problems while Masasi had the highest percentage (39%) of the households that reported to have always experienced food problems.

ILLUSTRATIONS

List of Tables

Table 2.1:Census Sample Size....6
Table 3.1:Area, Production and Yield of Cereal Crops by Season 24
Table 3.2:Area, production and Yield of Major Roots and Tuber Crops 27
Table 3.3: Area, production and Yield of Major Pulses 31
Table 3.4: Area, Production and Yield of Major Oil Seeds and Oil nuts 33
Table 3.5: Numberof Household and Planted area with Simsim....34
Table 3.6:Tomato Area Planted, Quantity Harvested, Yield and Planted area per Household by District 36
Table 3.7:Number of Household Owning Various Agricultural Equipments/Assets....47
Table 3.8: Method of Crop storage by District....53

List of Charts

3.1 Agriculture Household by Type 11

3.2 Number of Heads of Agricultural Households by Main activity 11

3.3 Distribution of Agricultural Households by Age and Sex 15

3.4 Number of Households Members and Literacy Level 15

3.5 Percentage Literacy Rate by Sex and District 16

3.6 Percentage of Persons Aged 5 years and Above by Education Status 16

3.7 Percentage of Persons Aged 5 years and Above by Education Status and District 16

3.8 Percentage Distribution of Heads of Households by Education Attainment 17

3.9 Percentage of Households with off –farm Income 17

3.10 Percentage Distribution of Agricultural Households by Number of off-farm Activities 18

3.11 Utilized and Usable Land per Household by District 18

3.12 Land Area by Type of Land Use Title 19

3.13 Area Planted with Annual Crops by Season 19

3.14 Area Planted During Long Rains season by District 19

3.15 Percentage Distribution of Area Planted with Annual Crops by Crop Type 20

3.16 Percentage of Area under Annual Crops by District 20

3.17 Planted Area for Various Crops 23

3.18 Cereal Production and Yield per Hectare by District 24

3.19 Area Planted with Maize and Area per Household by District 25

3.22 Paddy Planted Area and Area per Household by District 25

3.23 Sorghum Planted Area and Area per Household by District 26

3.24 Area Planted and Area per Household Planted with Sweet Potatoes by District 27

3.25 Quantity Harvested and Yield of Sweet Potatoes by District 27

3.26 Actual Planted Area and Quantity harvested of Cassava by District 28

3.27 Area Planted and Yields of Major Pulse Crops 31

3.28 Total Area Planted with Cowpeas and Area per Household by District 31

3.29 Total Yield and Area Planted with Cowpeas by District 32

3.30 Planted Area and Area per Household Planted with Bambara nuts by District 32

3.31 Comparison of Yields of Groundnuts and Simsim between 2002/2003 and 2007/2008 Years 33

3.32 Area Planted with Groundnut and Area per Household by District 33

3.33 Production and Percentage Production of Groundnuts by District 34

3.34 Production and Percentage Production of Simsim by District 34

3.35 Percentage Production of Fruits and Vegetables in Mtwara Region 36

3.37 Quantity Harvested and Yield of Okra by District 37

3.38 Area and Percentage of Area under Annual/Permanent Crops by District 39

3.39 Area Planted with Main Perennial Crops 39

3.40 Area Planted with Perennial Crops and Average Planted Area per Household by District 40

3.41 Planted Area and Percentage of Area Planted with Cashew nuts by District 40

3.42 Area Planted with Pigeon Peas and Average Planted Area per Household by District 41

3.43 Area Planted with Coconut and Average Planted Area per Household by District 41

3.44 Area Planted with Mangoes and Average Planted Area per Household by District 42

3.45a Percentage of Area Planted with or without Improved Seeds 48

3.45b Percentage of Area Planted with or without Fertilizers 48

3.46 Area Planted with Organic and Inorganic Fertilizers by District 48

3.47 Planted Area with Insecticides, Fungicides and Herbicides 49

3.48 Proportion of Area Planted with Fungicides, Herbicides and Insecticides by District 49

3.49 Number of Household and Percentage of Households with Irrigation Facilities 51

3.50 Planted Area Using Irrigation 51

3.51 Time Series Data on Area under Irrigation 51

3.52 Number and Percentage of Households by Method of Obtaining Water for Irrigation 51

3.53 Percentage of Households Storing Crops by District 52

3.54 Proportion of Households by Storage Methods 52

3.55 Percentage of Households Selling Crops by District 53

3.56 Number of Households Experiencing Crop marketing Problems 53

3.57 Percentage of Households Receiving Credit by Main Source of Credit and District 54
3.58 Percentage of Households Receiving Credit by Main Source of Credit and District 54
3.59 Number of Households with or without Erosion Control/Water Harvesting Facilities 54
3.60 Number of Households with or without Erosion Control/Water Harvesting Facilities and District 55
3.61 Number of Erosion Control and Water Harvesting Facilities/Structure by Type 55
3.62 Percentage of Households by Extension Messages 55
3.63 Total Number of Cattle by District 58
3.64 Percentage of Cattle by Type and District 58
3.65 Cattle Population Trend – Mtwara Region 59
3.66 Improved Dairy Cattle Population Trend – Mtwara region 59
3.67 Goat Population by District 61
3.68 Goat Population Trend and Percentage Change 61
3.69 Sheep Population by District 62
3.70 Sheep Population Trend 62
3.71 Pig Population and Percentage by District 65
3.72 Pig Population Trend 65
3.73 Chicken Population by District 67
3.74 Chicken Population Trend 67
3.75 Improved Chicken (Layers and Broilers) 68
3.76 Number of Households Deworming their Livestock by District 70
3.77 Number of Households Deworming their Livestock by Type 70
3.78 Number of Households Encountering Ticks and Tsetse Flies Problems by District 70
3.79 Percentage of Households Controlling Tick by Method of Control 70
3.80 Percentage of Households Controlling Tsetse Flies by Method of Control 71
3.81 Number and Percentage of Households Encountering Newcastle Disease by District 71
3.82 Number of Livestock Rearing Households by Newcastle Disease Control 71
3.83 Number of Livestock Rearing Households Normally Encountering FMD Problem by District 72

3.84 Number of Households Encountering Fowl Typhoid Disease Problem by District..... 72

3.85 Number of Agricultural Households Involved in Beekeeping by District 73

3.86 Quantity of Honey harvested by District 73

3.87 Number of Households Receiving Livestock Advice by Source of Extension by District 73

3.88 Number of Households Receiving Various Extension Advices 74

3.89 Percentage of Households by Source of Drinking Water during the Dry Season 76

3.90 Percentage of Households by Distance to Source of Drinking water during Dry Season....76

3.91 Percentage of Agricultural Households by Distance to Main Source of Drinking Water during the Dry Season and District..... 76

3.92 Number of Agricultural Households Reporting Type of Toilet Facilities by District.....77

3.93 Percentage of Households with No Toilet Facilities by District 77

3.94 Percentage of Households by Number of Meals per day by District 79

3.95 Percentage of Households having One Meal per day by District 79

3.96 Number of Households by Frequency of Meat and Fish Consumption 79

3.97 Percentage of Households and Status of Food Satisfaction of Household 80

3.98 Percentage Distribution of number of Households by Main Source of Income.....

List of Maps

3.01 Total Number of Agriculture households by District 12

3.02 Number of Agriculture Households per Square Kilometer of Land by District.....12

3.03 Number of Crop Growing Households by District 13

3.04 Percent of Crop Growing Households by District 13

3. 05 Percent of Crop and Livestock Households by District..... 14

3. 07 Utilised Land Area Expressed as a Percentage of Available Land by District 21

3. 08 Total Planted Area by District 21

3. 09 Area Planted with Cereals and Percent of Total Land Planted with Cereals by District 22

3.10 Planted Area and Yield of Maize by District..... 29

3.11 Area Planted per Maize Growing Household by District 29

3.12 Planted Area and Yield of Sorghum by District 30

3.13 Area Planted per Sorghum Growing Household by District 30

3.14 Planted Area and Yield of Groundnutsby District..... 35

3.15 Area Planted per Groundnuts Growing Household by District 35

3.16 Area Planted per Tomatoes Growing Household by District 38

3.17 Planted Area and Yield of Cashewnuts by District 43

3.18 Area Planted per Cashewnuts Growing Household by District..... 43

3.19 Planted Area and Yield of Pegion Peas Nuts by District..... 44

3.20 Area Planted per Pegion Peas Nuts Growing Household by District 44

3.21 Planted Area and Yield of Coconuts by District 45

3.22 Area Planted per Coconuts Growing Household by District 45

3.23 Planted Area and Yield of Mangoes by District 46

3.24 Area Planted per Mangoes Growing Household by District 46

3.25 Planted Area and Percentage of Planted Area with No Application of Fertiliser by District..... 50

3.26 Area Planted and Percentage of Total Planted Area with Irrigation by District 50

3.27 Number of Households and Percentage of Total Households Selling Crops by District 56

3.28 Number of Households and Percentage of Total Number of Households Receiving Crop Extension Services by District 56

3.29 Number and Percentage of Crop Growing Households Using Improved Seed by District. 57

3.30 Cattle Population as of 1st October, 2008 60

3.31 Cattle Density by District as of 1st October, 2008 60

3.32 Goat Population by District as of 1st October, 2008 63

3.33 Goat Density as of 1st October by District 63

3.34 Sheep Population by District as of 1st October 64

3.35 Sheep Density as of 1st October by District 64

3.36 Pig Population by District as of 1st October 2008 66

3.37 Pig Density as of 1st October by District 66

3.38 Chicken Population by District as of 1st October 2008 69

3.39 Chicken Density as of 1st October by District 69

3.40 Number and Percentage of Households Infected by Tsetse by District 75

3.41 Number and Percentage of Households without Toilets by District 78

3.43 Number and Percentage of Households Eating 3 Meals per Day by District..... 81

3.44 Number and Percentage of Households Eating Once Meat per Week by District 81

3.45 Number and Percentage of Households Eating Fish Once per Week by District.....82

1 BACKGROUND INFORMATION

1.1 Introduction

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

1.2 Geographical Location and Boundaries

Mtwara region is situated at the Southern-East corner of Tanzania between 100 and 110 degrees below the Equartor and 380 – 40030' degrees East of the Greenwich Meridian. Mtwara shares borders with Lindi region to the North, the Indian Ocean, to the east and the southern boundary is the great Ruvuma River, which separates Tanzania from the Republic of Mozambique and Ruvuma region to the west. The region comprises six districts namely Mtwara Rural, Newala, Masasi, Tandahimba, Mtwara Urban and Nanyumbu. The region headquarters is located in the Mtwara Urban District.

1.3 Land Area

The region has an area of 16,720 square kilometers, it accounts for 1.9% of the total area of Tanzania Mainland, which is 885,978 square kilometers.

1.4 Climate

The region receives only the long rains which normally start from November/December to April/may. This is the wet rainy (Masika) season.

1.4.1 Temperature

The dominant climate is warm and wet. The mean annual maximum temperature in the region varies between 23^0C during July and 27^0C during December.

1.5 Population

According to the 2002 Population and Housing Census, there were 1,128,523 inhabitants in Mtwara region. The population of Mtwara region ranked 16th of the 21 regions on Tanzania Mainland.

1.6 Socio - Economic Indicators

Mtwara region has agriculture as its main economic activity, employing about 90% of the economically active population. It has variety of tourist attractions, which include; virgin beaches on a 125 – kilometer coastline, scenic Msimbati bay, the Mikindani historical old town and Monuments. The Game reserves are Msanjesi and Lukwisa/Lumese, which are rich in a variety of wildlife species. The region is famous for producing both food and cash crops. The main food crops produced in Mtwara region include: maize, paddy, cassava and sorghum. The main cash crop is cashewnut. Livestock keeping is also an important economic activity in the region.

The regional Gross Domestic Product (GDP) at current prices for the year 2008 was estimated to be TShs 608,814 million with a per capita income of shillings 478,660. The region held 18th position among regions on GDP and contributed about 2.46 percent to the national GDP.

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 Vi) 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 Vi 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 was managed by District Agricultural Development Officers (DADOs). In addition, there was a national mobile team to supervise the census operations.

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

2.4.2 Tabulation Plan Preparation

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

2.4.3 Sample Design

The Mainland sample consisted of 3,192 villages. These villages were drawn from the National Master Sample (NMS) developed by the National Bureau of Statistics (NBS) to serve as national framework for the conduct of household based surveys in the country. The National Master Sample was developed from the 2002 Population and Housing Census. The total Mainland sample was 47,880 agricultural households. In Zanzibar, a total of 317 Enumeration Areas (EAs) were selected and 4,755 agricultural households were covered. National wide, all regions and districts were sampled except four urban districts (three from Mainland and one from Zanzibar).

In both Mainland and Zanzibar, a two stage sample was used. The number of villages/Enumeration Areas (EAs) was selected for the first stage with a probability proportional to the number of villages/EAs in each district. In the second stage, 15 households were selected from a list of households in each village/EA using systematic random sampling. Table 2.1 gives the sample size of households, villages and districts for the Mainland and Zanzibar.

Table 2.1: Census Sample Size

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

2.4.4 Questionnaire Design and Other Census Instruments

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

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

Three other instruments were used:

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

2.4.5 Field Pilot-Testing of the Census Instruments

The questionnaire was pilot-tested in four locations (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 cmpiling and report writing.

Data Quality Control

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

2.5 Funding Arrangements

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

3 CENSUS RESULTS AND ANALYSIS

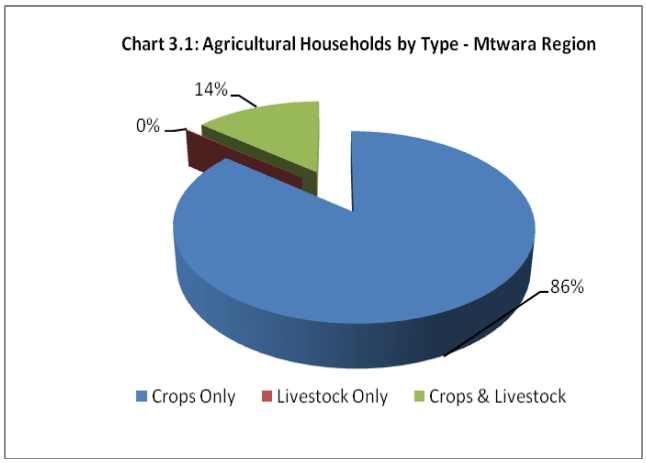
3.1 Introduction

This part of the report presents the results of the census for Mtwara region based on the statistical tables presented in Appendix A2. The results are presented in different forms including brief summaries, charts, condensed tables, graphs and maps in order to make it easier for the users to understand. Comparisons are made between related variables and between districts. Comparisons are also made with past censuses and surveys' results including the National Sample Census of Agriculture 2002/2003. The results are divided into four main sections which are household characteristics, crop results, livestock results and poverty indicators.

3.2 Household Characteristics

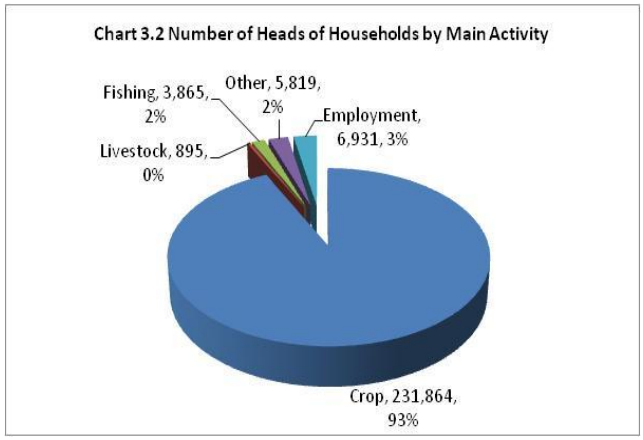
3.2.1 Type of Holdings

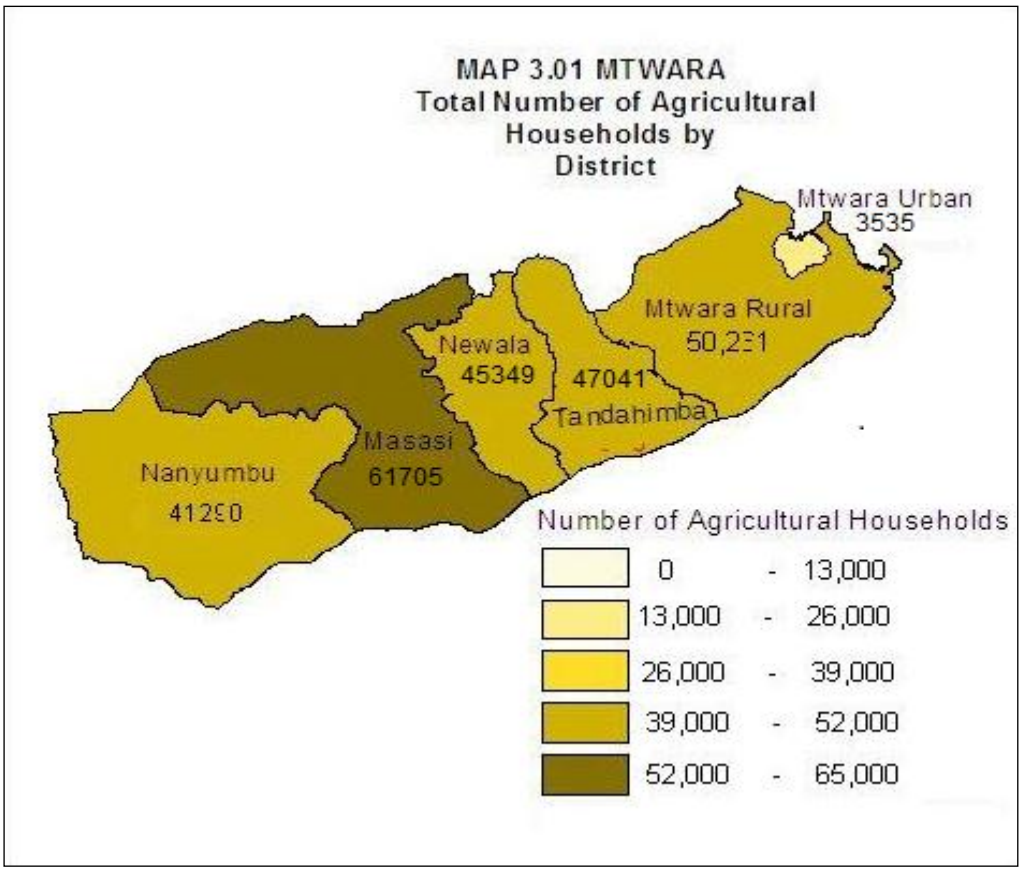
The number of agricultural households in Mtwara region was 249,373. The largest number of agriculture households was in Masasi (61,858) followed by Mtwara rural (50,261), Newala (45,349), Tandahimba (47,041), Nanyumbu (41,290) and Mtwara urban (3,575) as reflected in Map 3.1. The highest density of households was found in Mtwara urban (4,462/km^2) followed by Tandahimba (697/km^2) (Map 3.2). Most households 214,234, (86%) were involved in growing crops only, 317 (0.13%) rearing livestock only and 34,822 (14%) were involved in crop production as well as livestock keeping (Chart 3.1, Map 3.3, 3.4, 3.5).

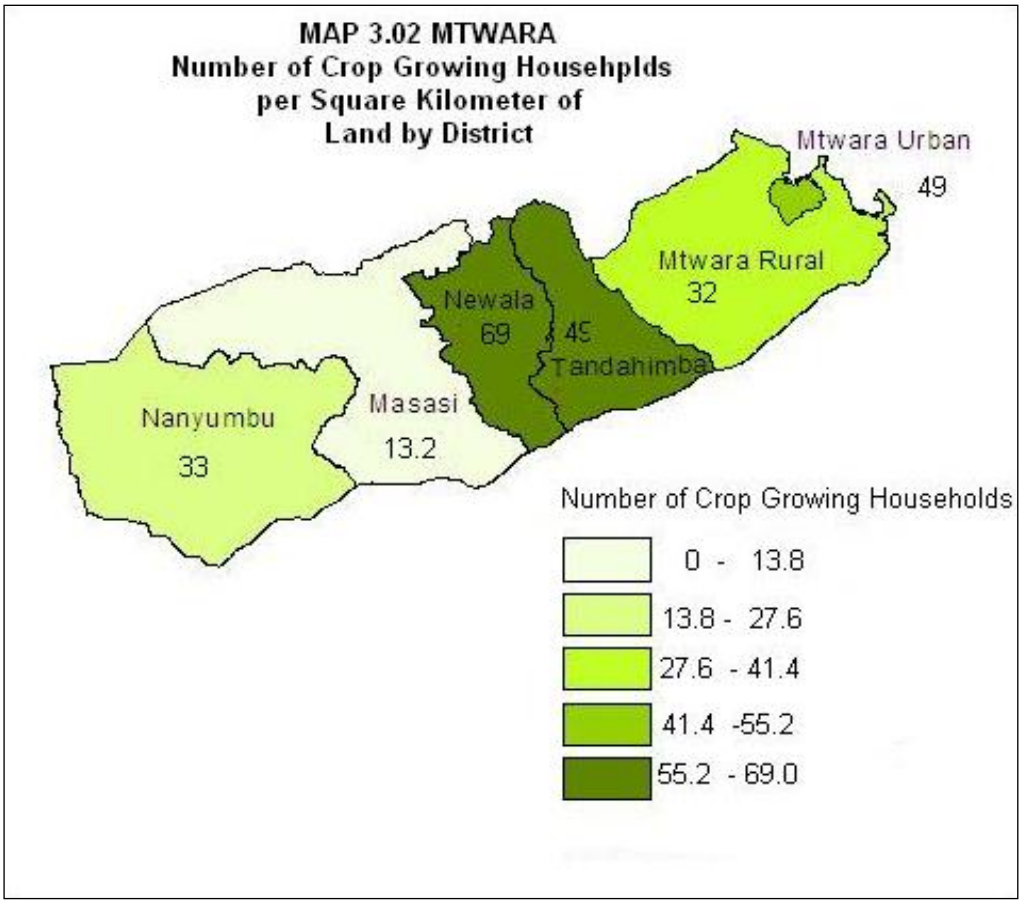


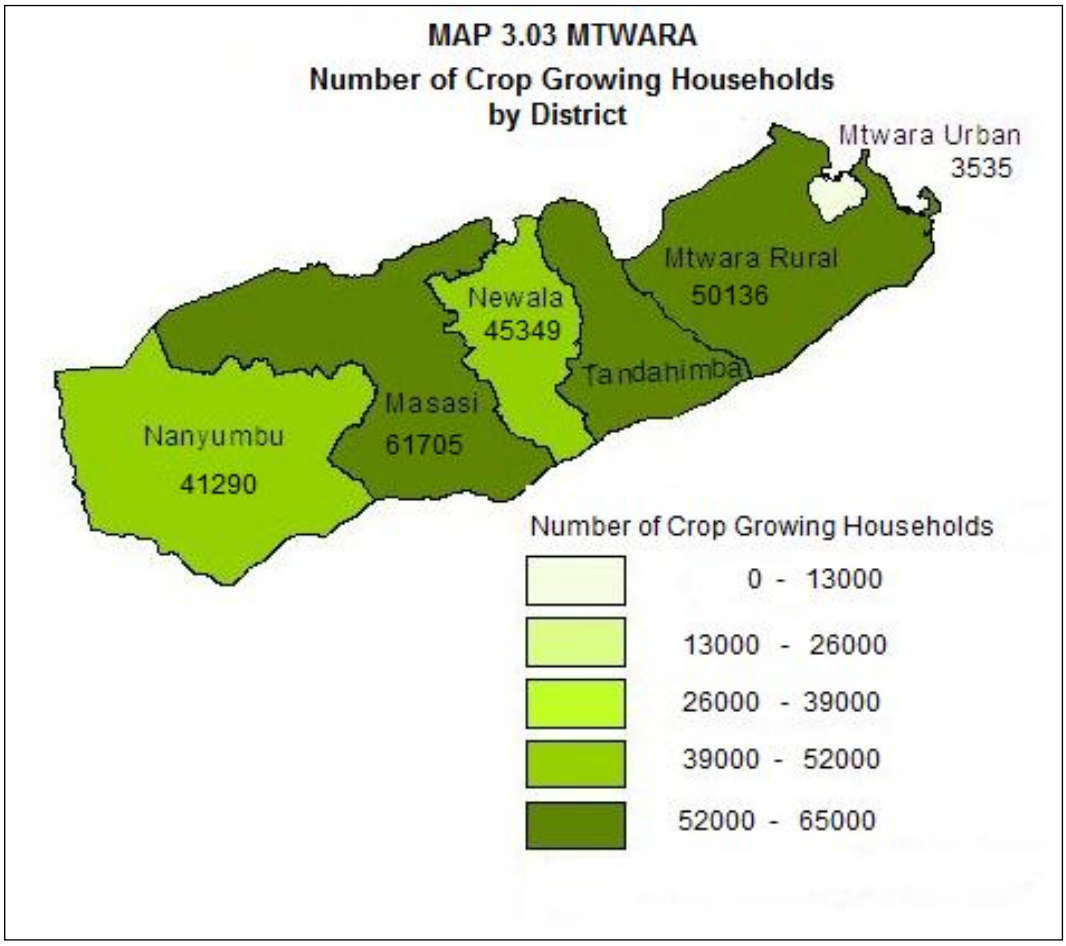
3.2.2 Livelihood Main Activities/Source of Income

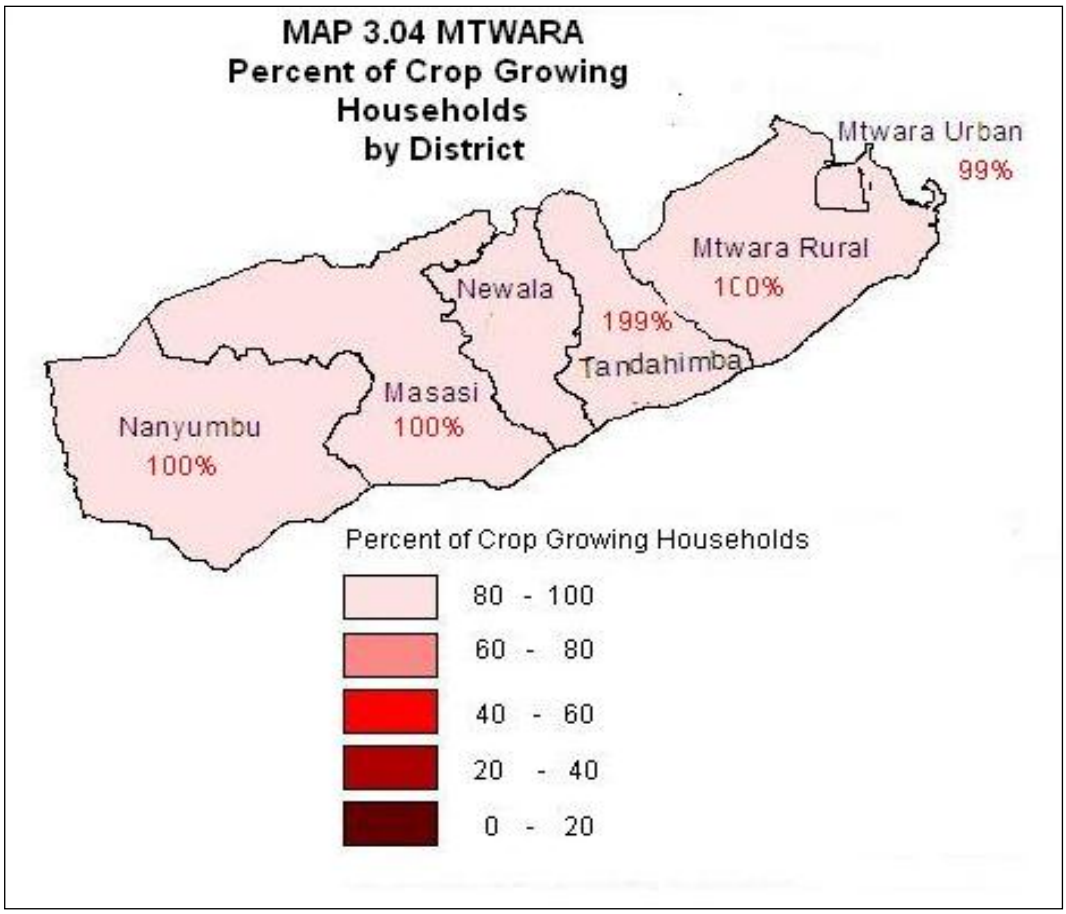
The main activity reported by many heads of households was crop/seaweed farming (231,864; 93%) followed by employment (6,931; 3%), fishing 3,865 (2%) and livestock 895 (0.4%), (Chart 3.2).

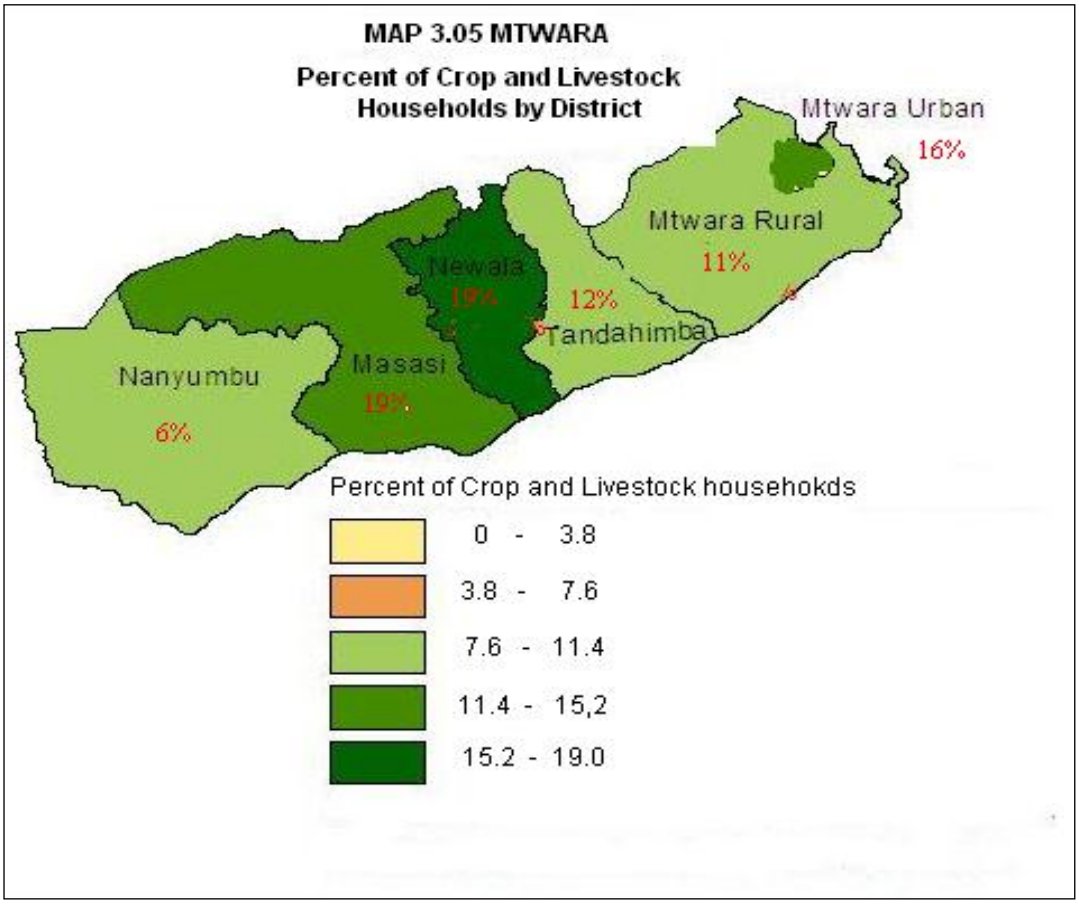



MAP 3.01 MTWARA
Total Number of Agricultural Households by District
Mtwara Urban
3535
Mtwara Rural
50,231
Newala
45349
47041
Tandahimba
Masasi
61705
Nanyumbu
41290
Number of Agricultural Households
0 - 13,000
13,000 - 26,000
26,000 - 39,000
39,000 - 52,000
52,000 - 65,000


MAP 3.02 MTWARA
Number of Crop Growing Household per Square Kilometer of Land by District
Mtwara Urban
49
Mtwara Rural
32
Newala
69
45
Tandahimba
Masasi
13.2
Nanyumbu
33
Number of Crop Growing Households
0 - 13.8
13.8 - 27.6
27.6 - 41.4
41.4 -55.2
55.2 - 69.0


MAP 3.03 MTWARA
Number of Crop Growing Households
by District
Mtwara Urban
3535
Mtwara Rural
50136
Newala
45349
Tandahimba
Masasi
61705
Nanyumbu
41290
Number of Crop Growing Households
0 - 13000
13000 - 26000
26000 - 39000
39000 - 52000
52000 - 65000


MAP 3.04 MTWARA
Percent of Crop Growing
Households
by District
Mtwara Urban
99%
Mtwara Rural
100%
Newala
199%
Tandahimba
Masasi
100%
Nanyumbu
100%
Percent of Crop Growing Households
80 - 100
60 - 80
40 - 60
20 - 40
0 - 20

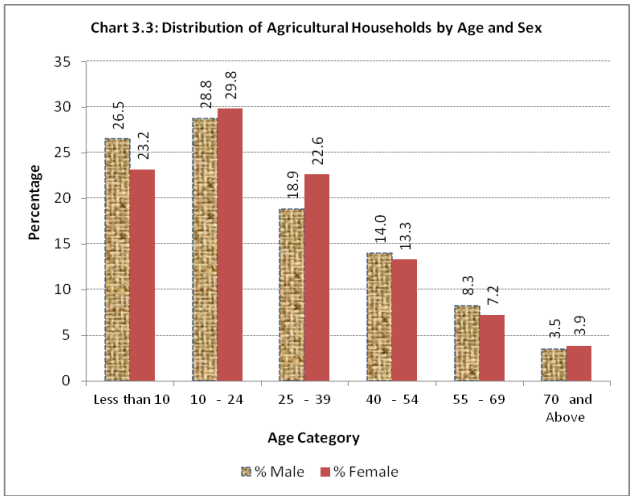

MAP 3.05 MTWARA
Percent of Crop and Livestock Households by District
Mtwara Urban
16%
Mtwara Rural
11%
Newala
19%
12%
Tandahimba
Masasi
19%
Nanyumbu
6%
Percent of Crop and Livestock househokds
0 - 3.8
3.8 - 7.6
7.6 - 11.4
11.4 - 15,2
15.2 - 19.0

3.2.3 Sex and Age of heads of Households

The number of male headed agricultural households in Mtwara region was 179,942 (72% of the total agricultural households) whilst the female headed households were 69,431 (28 % of the total agricultural households). The mean age of household head was 46 years (45 years for male headed households and 50 years for female headed households).

3.2.4 Number and Age of Households Members

Mtwara region had a total rural agricultural population of 957,659 of which 439,740 (46%) were males and 517,919 (54%) were females. The result shows that majority of the males and females in the surveyed household were aged between 10 and 24 years, followed by those under 10 years. The proportion of males and females declined as the age category increase from 25 to above 60 years. In the age category between 10 to 39 years there were slightly more female than males. Similarly, higher proportion of female was observed in age 70 and above years (Chart 3.3).



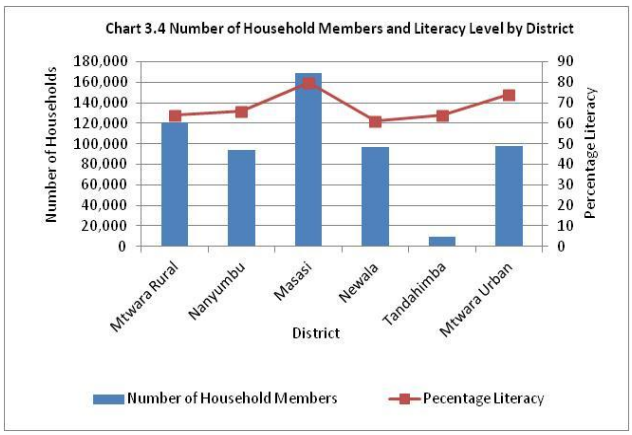
3.2.5 Level of Education

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

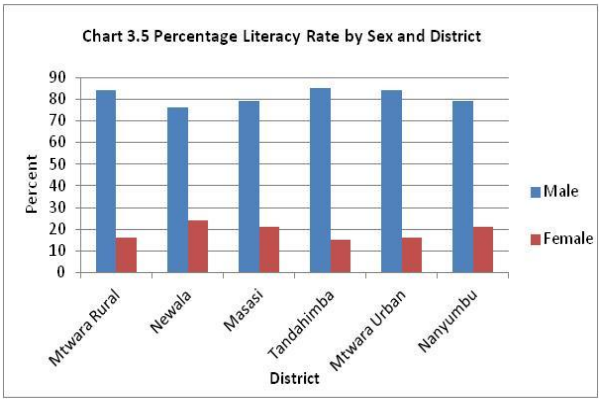
The information on literacy level for family members aged five years and above was obtained by asking individual private households if their respective family members could read and write in Kiswahili only, English only, both English and Swahili or in any other language. Literacy is based on the ability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



Literacy Level for Household Members

Mtwara region had a total literacy rate of 69.2 percent, an increase of 11% compared to levels registered in the 2002/03 NSCA where the literacy level was 62%. The highest literacy rate was found in Masasi (80%) followed by Nanyumbu (74%), Newala (66%) Mtwara rural (64%), Mtwara Urban (64%) and lastly Tandahimba (61%) (Chart 3.4). More literate households were found in Masasi and Mtwara rural. Mtwara Urban had proportionally lower number of household members that were literate although the literacy rate was moderately high.

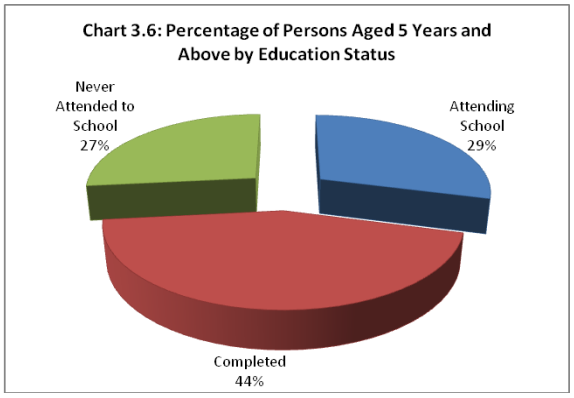
Literacy Rates for Heads of Households

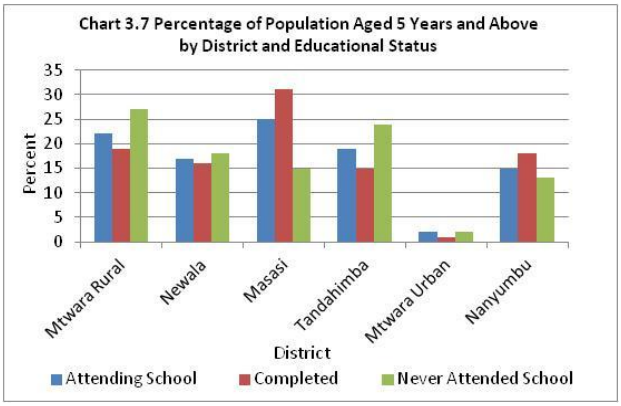


The literacy rate for the male heads was 80 percent and that of female heads was 19 percent. The literacy rate of female head dropped for 42 percent in 2002/03 to the current figure of about 20 percent. The literacy rate of male heads was higher than that of females in all districts. The district with the highest literacy rate amongst heads of households was Tandahimba (85%), followed by Mtwara rural and Mtwara urban (84% each). In the remaining districts, the literacy rate among male head of household was 79 percent for Nanyumbu, Masasi (79%) and Newala (76%). Low literacy rate among female headed household was reported in Mtwara urban and Mtwara rural and highest level was in Newala district (Chart 3.5).

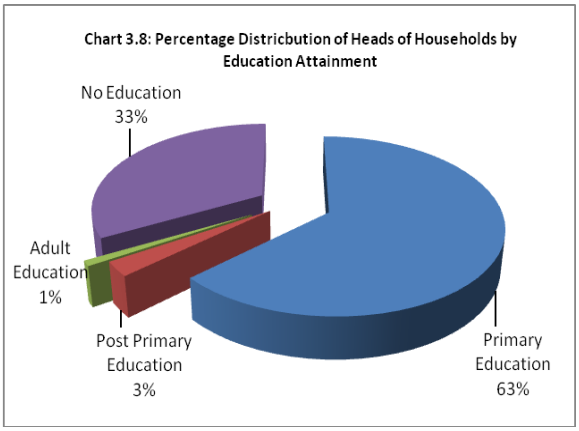
Education Status

Information on educational status was collected from individual agricultural households. The results show that 44 percent of the population aged 5 years and above in agricultural households in the region had completed different levels of education, 29 percent were still attending school and those who had never attended school were 27 percent (Chart 3.6). Agricultural households in Masasi district had the highest percentage (31%) of population aged 5 years and above who had completed various levels of education. This was followed by Mtwara rural (19%), Nanyumbu (18%), Newala (16%), Tandahimba districts (15%) and Mtwara urban (1%) (Chart 3.7).





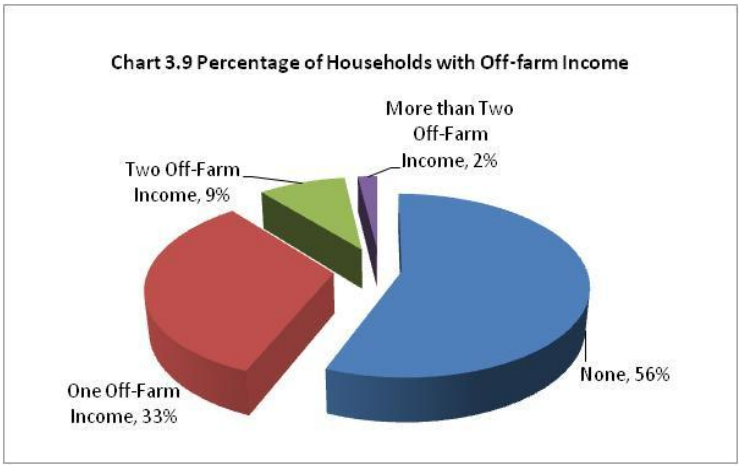
The number of heads of agricultural households with formal education in Mtwara region was 176,123 (67%), those without education were 82,249 (33%) and those with adult education were 2,464 (1%). The majority of heads of agricultural households 157,912 (63%) had primary level education whereas only 6,747 (3%) had post primary education (Chart 3.8).



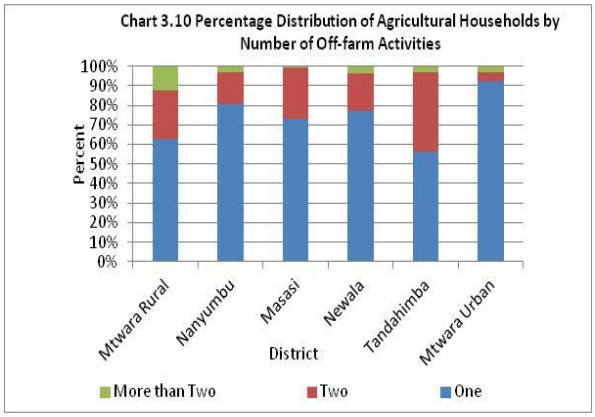
With regards to the heads of households with primary and post primary education in Mtwara region, Masasi district had the highest percentages (30% for primary and 29% for post primary education. This was followed by Nanyumbu (19%) primary and (18%) post primary, Mtwara rural (18%) primary and 18% post primary and Newala (16%) primary and (15%) post primary. Mtwara urban had the lowest percentage of heads of agricultural households with both primary education (1%) and post primary (7%).

3.2.6 Off-farm Income

Off-farm income refers to cash generated from non-farm agricultural activities. This can be either from permanent employment (i.e. government, private sector or other), temporary employment or laborers. It also includes cash generated from working on farms belonging to other farmers. Off-farm income is important amongst agriculture households in Mtwara region with 44 percent of households having at least one member with off-farm income. In the agricultural household more than two members involved in off-farm income generating activities 82,337 households (33%) had only one member aged 5 and above involved in only one off-farm income generating activity and 23,325 households (9%) had two members involved in off-farm income generating activities, (Chart 3.9).



Mtwara Rural district had the highest percentage of agriculture households with off-farm income of about 26% of total households with off-farm income activities in the region. Other districts with highest percentage of agriculture households with off-farm income activities were Tandahimba (25%), Masasi (21%) and 17% for Newala. Districts with lowest percentage of off-farm income were Nanyumbu and Mtwara Urban with 9% and 2 % respectively, Chart 3.10).

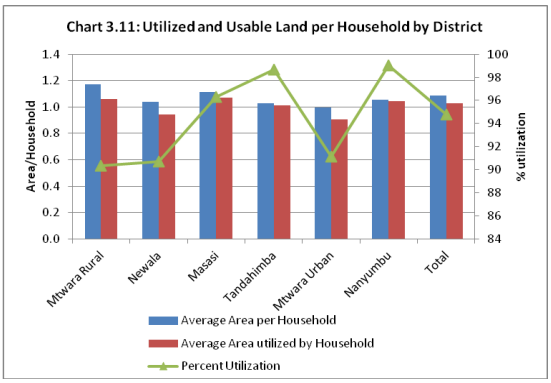


3.3 Land Use

Land area and planted area are two different types of area measurements. Land area refers to the physical area of land and is the same regardless of the number of crops planted on it in one year. Planted area is the total area of crops planted in a year and the area is summed if there were more than one crop on the same land per year.

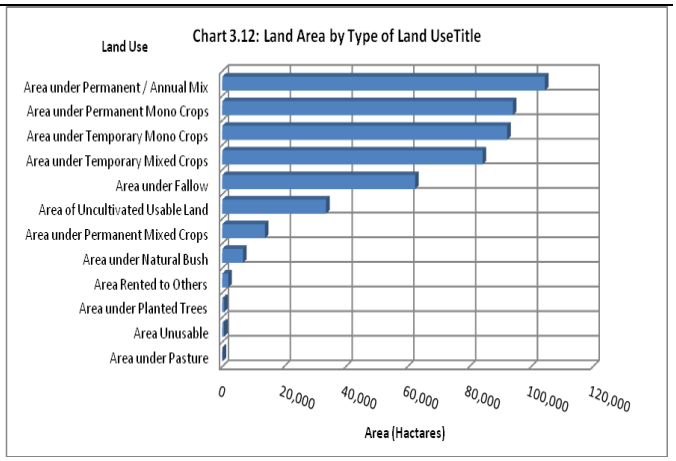
Following are some of the terms used in this section as defined for clarity. Land available refers to the area of land that has been allocated to smallholders through customary law, official title or other forms of ownership. Land available does not mean the total area of land that is designated as agriculture land in the country, but it is the land that is available to smallholders given the location of villages and lack of access to more remote parcels of unused agriculture designated land. Usable land refers to the available 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, utilized land refers to the land that was used during the year.

3.3.1 Area of Land Utilized



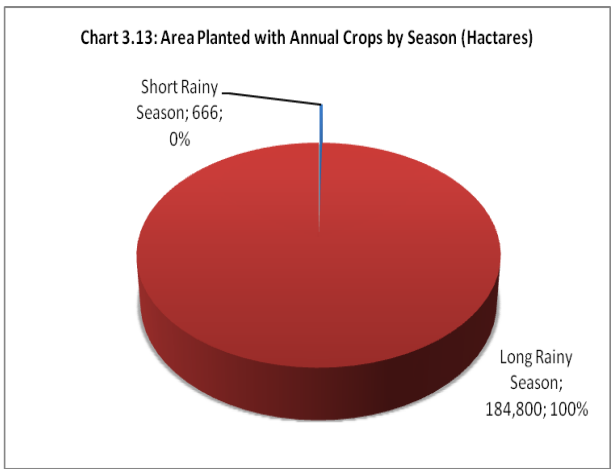
The total area of land available to smallholders was 494,346 ha. The regional average land area planted per household was only 1.1 ha. This figure is below the national average which is estimated at 2.0 hectares. Ninety five percent (423,795 ha) of the total land available to smallholders was utilized. Slight differences in land area utilized per household exist between districts. The percentage utilization of the usable land per household was highest in Nanyumbu and Tandahimba utilizing about 99 percent of the available land, followed by Masasi (96%), Newala (91%), Mtwara Rural (91%) and lowest in Mtwara Rural (90%) (Chart 3.11).

3.3.2 Types of Land Use



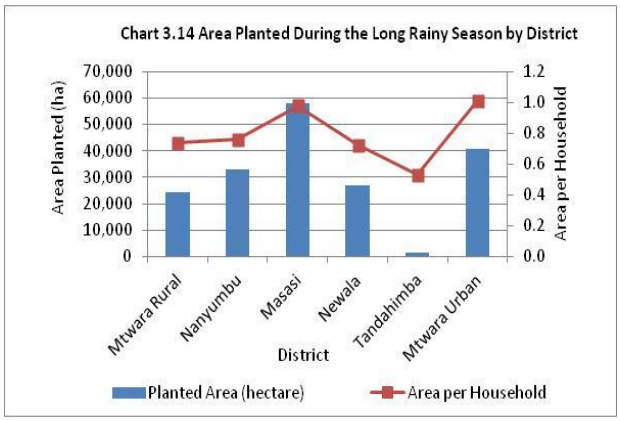
The area of land under permanent/annual mixed crops was 104,457 hectares (21.1% of the total land available to smallholders in Mtwara). It was followed by area under permanent mono crops (94,074 ha, 19%), temporary Mono crops (92,225 ha, 18.6%), temporary mixed crops was (84,282 ha, 17%), fallow (62,464 ha, 13%) and 33,630 ha (7%) for uncultivated usable land. Other use included permanent/annual mixed crops (13,811 ha, 2.8%), natural bush (6,723 ha 1.4%). Other land use occupied less than 3,283 ha (0.7%) (Chart 3.12). Compared to the National Sample Census of Agriculture 2002/2003, there's a large increase in area under temporary mono crops and fallow while area under permanent mixed crops, permanent mono crops and temporary mixed crops has decreased slightly.

3.4 Annual Crop and Vegetable Production



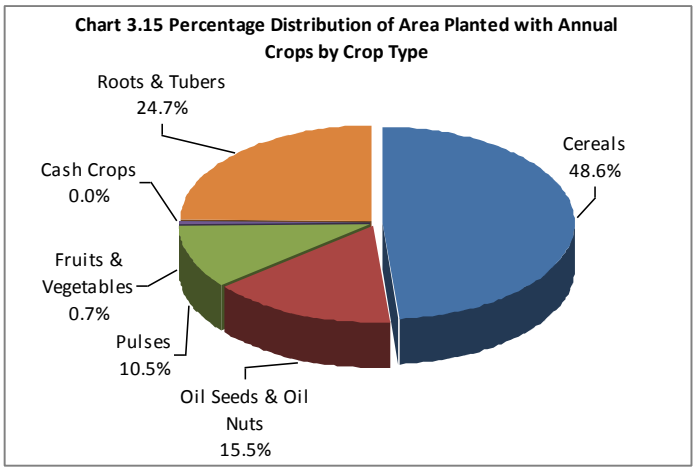
Mtwara region has two seasons, namely the Short rainy season and the Long rainy season. The quantity of crops produced in both seasons is used as a base for comparison with the past surveys and censuses. The area planted with annual crops and vegetables was 185,466 hectares. Out of which 666 hectares (0.36%) were planted during short rainy season and 184,800 hectares (99.6%) during the long rainy season (Chart 3.13). The percent of planted areas during the two seasons did not differ much from that recorded in 2002/03 National Agriculture Sample Census

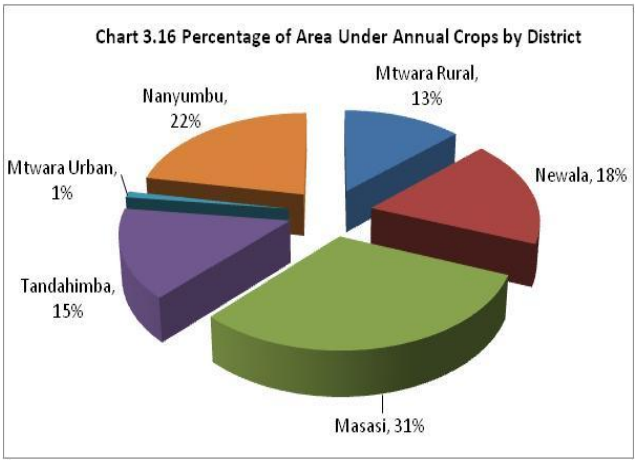
3.4.1 Area Planted

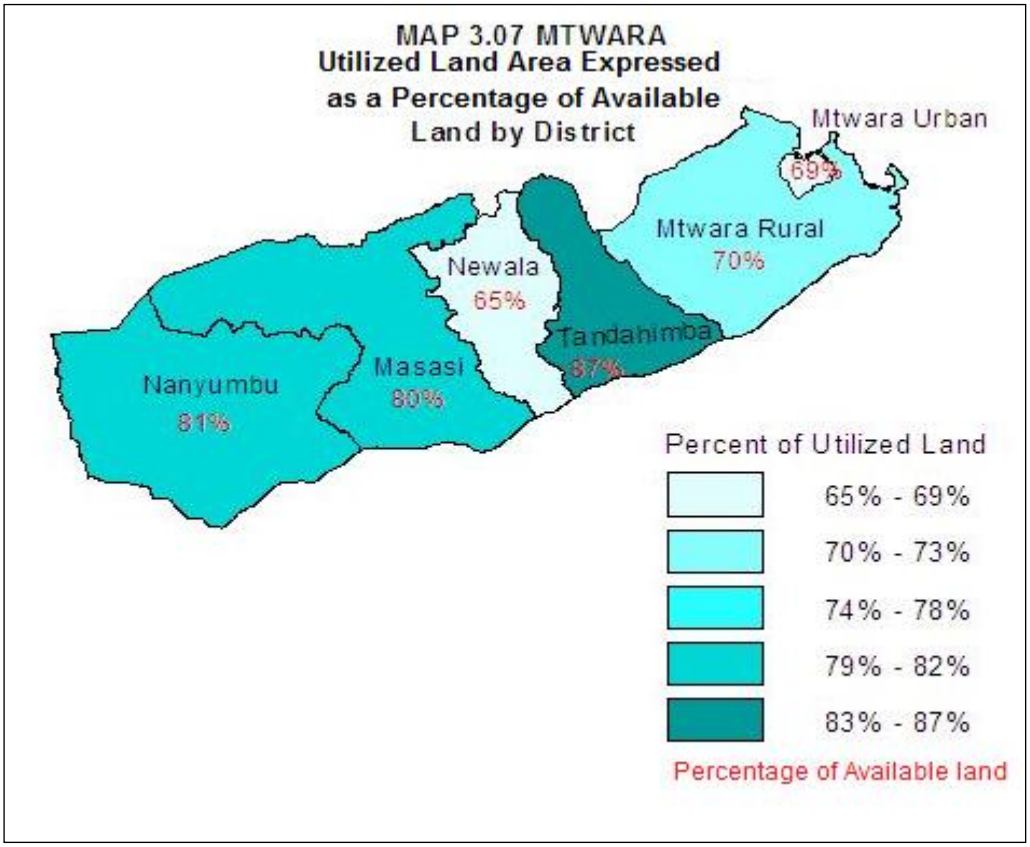


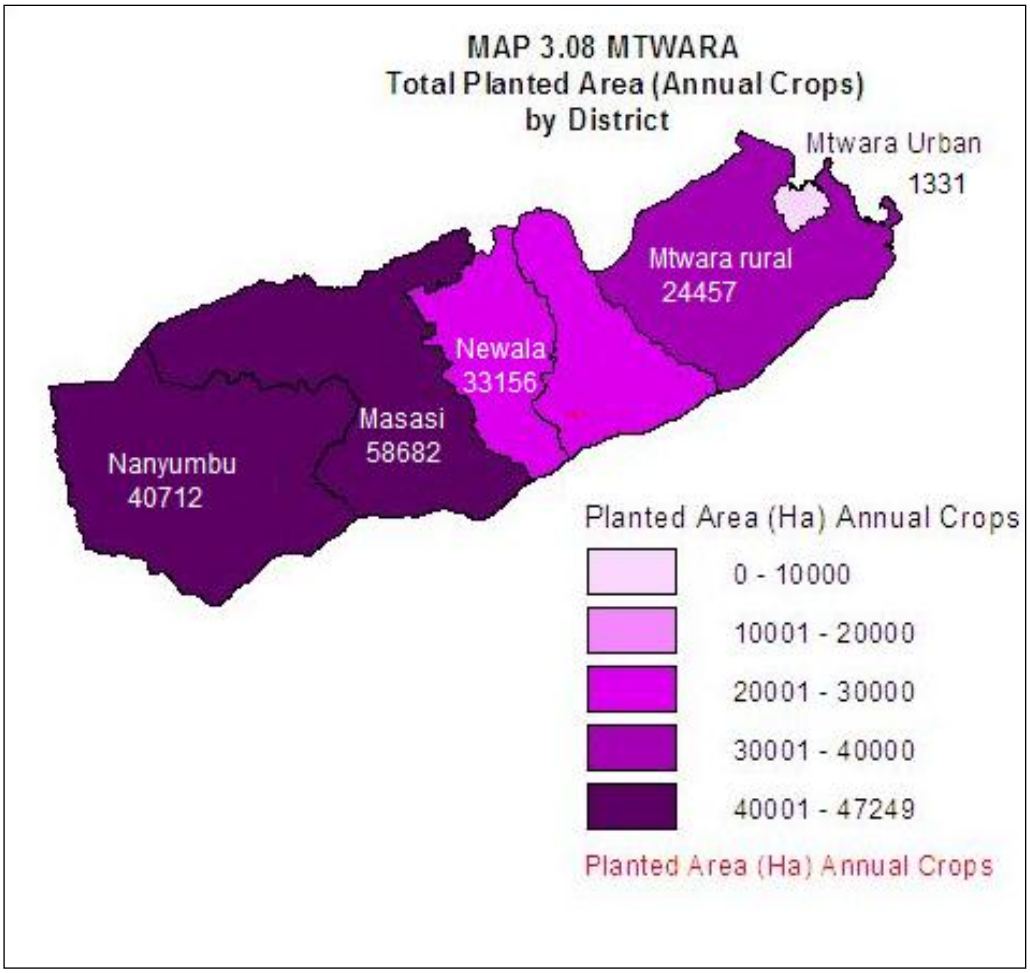
The average areas planted per household during the long rainy season was 0.4 ha. During the short rainy very few household cultivated annual crops and vegetables. The districts with the largest area planted per household (the average of the two seasons) were Nanyumbu 0.5 ha, followed by Masasi and Mtwara rural (0.4), Tandahimba and Newala (0.3 ha) and lastly Mtwara urban (0.2 ha) (Chart 3.14 and Map 3.8).

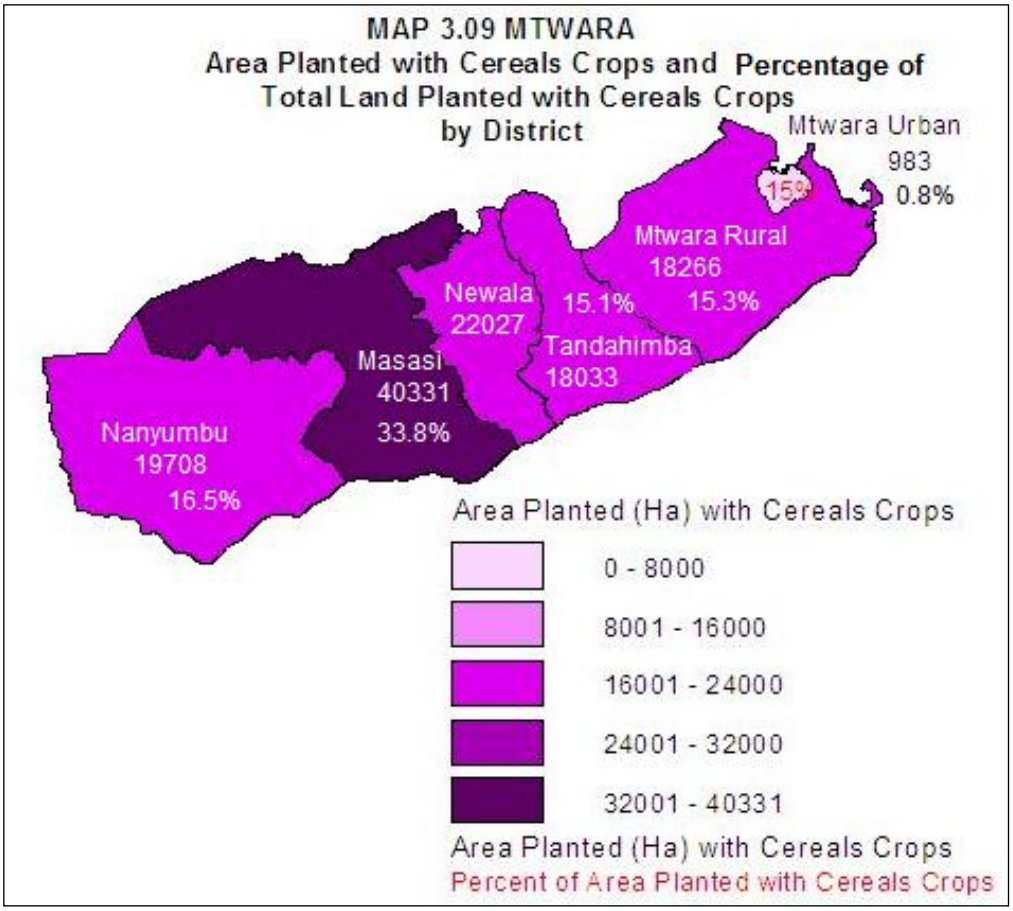
The planted area occupied by cereals was 119,913 ha (48.6% of the total area planted with annual crops). This was followed by roots and ruber (60,055 ha, 24.7%), Oil seeds and nuts (37,908 hectares, 15.5%), Pulses (25,814 hectares, 10.5%), Fruits and Vegetables (1,564 ha, 0.7%), and cash crops (118 ha, 0.0 %) (Chart 3.15). The average area planted per household for annual crops during the long rainy season in Mtwara region was 1.3 hectares. There were also large district differences in terms of percent total area under annual crops. Masasi had the largest percentage of planted area (31% of the total planted area in the region) followed by Nanyumbu (22%), Newala 18%, Tandahimba (15%) and Mtwara rural 13%. Mtwara Urban had the smallest total area planted with annual crops (1%) (Chart 3.16).






MAP 3.07 MTWARA
Utilized Land Area Expressed as a Percentage of Available Land by District
Mtwara Urban
69%
Mtwara Rural
70%
Newala
65%
Tandahimba
87%
Masasi
80%
Nanyumbu
81%
Percent of Utilized Land
65% - 69%
70% - 73%
74% - 78%
79% - 82%
83% - 87%
Percentage of Available land


MAP 3.08 MTWARA
Total Planted Area (Annual Crops) by District
Mtwara Urban
1331
Mtwara rural
24457
Newala
33156
Masasi
58682
Nanyumbu
40712
Planted Area (Ha) Annual Crops
0 - 10000
10001 - 20000
20001 - 30000
30001 - 40000
40001 - 47249
Planted Area (Ha) Annual Crops

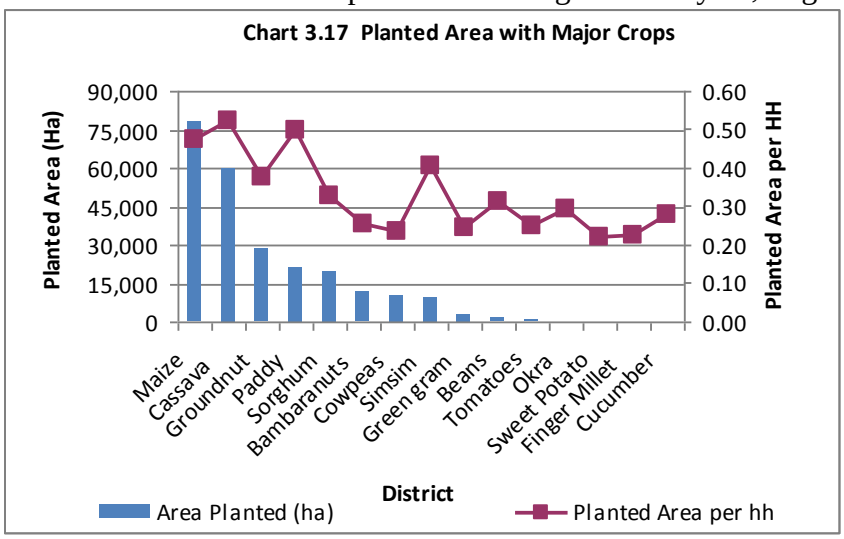

MAP 3.09 MTWARA
Area Planted with Cereals Crops and Percentage of Total Land Planted with Cereals Crops by District
Mtwara Urban
983
0.8%
Mtwara Rural
18266
15.3%
Newala
22027
15.1%
Tandahimba
18033
Masasi
40331
33.8%
Nanyumbu
19708
16.5%
Area Planted (Ha) with Cereals Crops
0 - 8000
8001 - 16000
16001 - 24000
24001 - 32000
32001 - 40331
Area Planted (Ha) with Cereals Crops
Percent of Area Planted with Cereals Crops

Analysis of the Most Important Crops

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

3.4.2 Crop Importance

While cassava was the dominant annual crop grown in Mtwara region in 2002/2003 agricultural year, in 2007/20008 it ranked second in terms of area under main crops. In 2007/08 agricultural year, largest area was planted with maize (77,970 ha, 31.9% of total planted area) followed by cassava (60,055 ha, 24.5%), Groundnuts (28,287 ha, 11.6%), Paddy (21,419 ha, 8.8%), Sorghum (19,616 ha, 8.0%), Bambara nuts (11,441 ha, 4.7%), Cowpeas (9,946 ha, 4.1%) Simsim (9,621 ha, 3.9%) and greengram (2,993 ha, 1.2%).



Other crops were grown in small area less than 2000 ha and cumulatively they contributed to only 1.3 percent of planted area. Cassava had the highest area planted per household (0.52 ha), followed by padd (0.5 ha), maize (0.47 ha) and Simsim (0.41 ha). For the remaining crops area planted per household ranged from 0.22 ha to about 0.41 ha (Chart 3.17).

3.4.3 Crop Types

Cereals were the main crops grown in the region planted on 119,319 hectares, followed by roots and tuber (60,055 ha), oil seeds and nuts (37,908 hectares) and pulses (25,814 hectares). Other crops grown in Mtwara region were in less proportion.

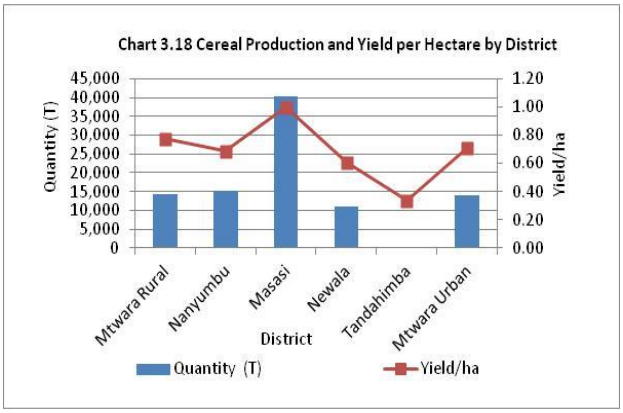
Cereals, roots and tuber and oil seeds and nuts were the dominant crops in both seasons. Other crop types are of minor importance in comparison. There was large difference in the proportions of the different crop types grown between seasons and the dry season's production was very small compared to the wet season. Therefore it is inappropriate to make detailed comparisons between the two seasons.

3.4.3.1 Cereal Crop Production

Cereals were the most important crop grown in Mtwara and accounted for 48.6 percent of the total agricultural area. The total production of cereals was 95,053 tonnes. Maize was the dominant cereal crop with a production of 63,470 tonnes which was 67 percent of total cereal crops produced, followed by paddy (24%) and sorghum (9.5%). Finger millet and bulrush millet contributed an insignificant proportion in total cereal production during the short rain season was very small (Table 3.1). Production during the short rain season was only 502 tonnes (1%) contributed from maize (458 tonnes) and Paddy (43 tonnes).

Table 3.1:Area, Production and Yield of Cereal Crops by Season

Crop	Short Rainy Season			Long Rainy Season			Short & Long Rainy Season		
	Area Planted (Ha)	Amount Harvested (T)	Yield (T/Ha)	Area Planted (Ha)	Amount Harvested (T)	Yield (T/Ha)	Area Planted (Ha)	Amount Harvested (T)	Yield (T/Ha)
Maize	314	458	1.5	77,656	63,012	0.8	77,970	63,470	0.8
Paddy	50	43	0.9	21,369	22,377	1.0	21,419	22,420	1.0
Sorghum	-	-	-	19,616	9,035	-	19,616	9,035	0.5
Bulrush Millet	-	-	-	27	9	-	27	9	0.3
Finger Millet	-	-	-	288	120	-	288	120	0.4
Total	**364**	**502**		**118,955**	**94,552**		**119,319**	**95,053**	



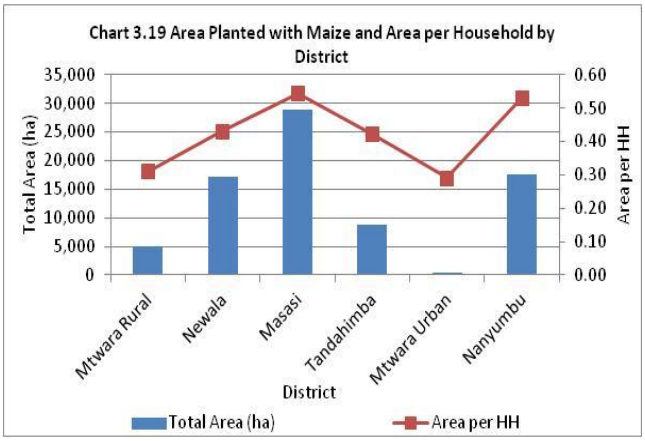
Masasi district had the largest planted area of cereals in the region (40,331 ha) followed by Newala, (22,027ha), Nanyumbu (19,708ha), Tandahimba (18, 003ha), Mtwara rural (18,266 ha) and Mtwara urban (983 ha) (Chart 3.16 and Map 3.9). The total area planted with cereals during the year was 119,319 ha out of which 364 ha were planted in dry season and 118,955 ha were planted during the wet season. The wet season accounted for 99.8 percent of the total cereals produced in both seasons. The area planted with maize during the dry season was nearly 100 percent of the total area planted with cereals in that season.

The production of cereals were highest in Masasi (40,450 tonnes) followed by Newala (15,251 tonnes) (14,177 tonnes), Mtwara rural (14,178), Nanyumbu (13,934 tonnes), Tandahimba (10,902 tonnes) and Mtwara Urban had lowest yield (337 tonnes) (Chart 3.18). Yield per hectare of cereals was highest in

Masasi (1 ton), followed by Mtwara rural (0.78 ton), Nanyumbu (0.71 ton), Newala (0.69 ton) and Tandahimba (0.61 ton). Mtwara urban had the lowest yield of 0.34 ton.

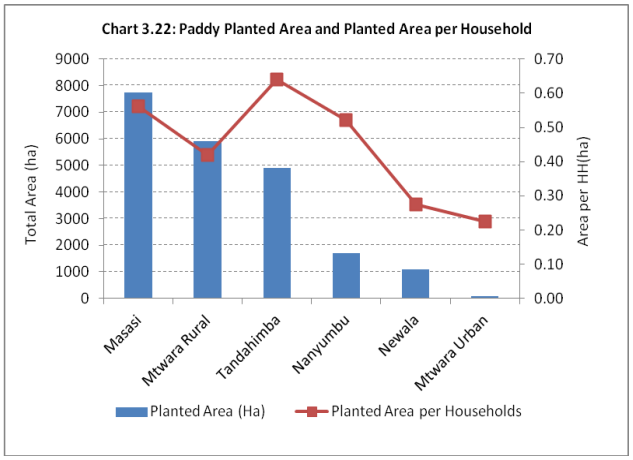
3.4.3.1.1 Maize

Maize dominated the production of cereal crops in the region. The number of households growing maize in Mtwara region during the wet season was 164,717 (66% of the total household growing annual crops in the region during the wet season). The total production of maize was 63,470 tons from a planted area of 77,970 hectares resulting in yield of 0.8 t/ha. Masasi district had the highest area planted with maize (28,923 ha), followed by Nanyumbu (17,587 ha), Newala (17,234 ha), Tandahimba (8,845 ha), Mtwara rural (4,929 ha) and Mtwara urban (451 ha). Masasi district and Nanyumbu had highest area planted with maize per household and the least was Mtwara urban (Chart 3.19, Map 3.10, Map 3.11).



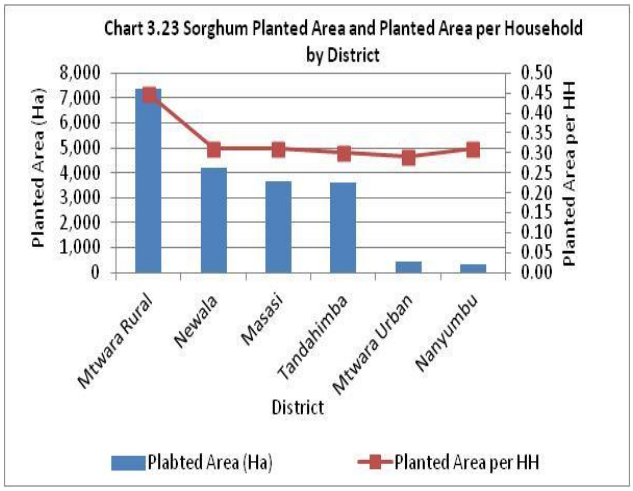
3.4.3.1.2 Paddy

Paddy was the second most important cereal crop produced in Mtwara region in terms of planted area. It was grown by 42,890 households representing 17.2 percent of agricultural households. The total area under paddy was 21,419 ha with an average of 0.5 ha per household. Masasi district had the highest area planted with paddy (7,728 ha, 36.1 percent of total area under paddy in the region) followed by Mtwara rural (5,906 ha, 27.6%), Tandahimba (4,914 ha, 22.9%), Nanyumbu (1,703 ha, 7.9%), Newala (1,080 ha, 5.0%) and Mtwara urban (89 ha, 0.4%) (Chart 3.22). The average area planted per household was highest in Tandahimba district (0.64 ha) followed by Masasi (0.56 ha), Nanyumbu 0.52 ha, Mtwara rural 0.42 ha. Other district with less than 0.3 ha per household was Newala (0.28 ha) and Mtwara urban (0.22 ha). Paddy production had increased tremendously from 4,932 tonnes in 2002/03 to 22,420 tonnes in 2007/08 agricultural year representing a 355 percent increase. The average yield per hectare was 1.1 tonnes



3.4.3.1.3 Sorghum

Sorghum was the third most important cereal crop in the region in terms of planted area. (Map 3.12 & Map 3.14). It was grown by 60,428 households representing 24 percent of agricultural households. The total area under sorghum was 19,616 ha with an average of 0.3 ha per household. Mtwara rural district had the highest area planted with sorghum (7,375 ha, 38 percent of total area under sorghum in the region) followed by Tandahimba (4,196 ha, 21%), Masasi (3,643 ha, 19%), Newala (3,612 ha, 18%). Mtwara urban (443 ha, 2%) and Nanyumbu (346 ha, 2%) had the lowest planted area (Chart 3.23). The average area planted per household was highest in Mtwara rural district (0.45 ha) followed by Masasi (0.31 ha) and Nanyumbu (0.31 ha), Tandahimba 0.3 ha. Other district with less than 0.3 ha per household was Newala (0.23 ha) and Mtwara urban (0.29 ha). Sorghum production had increased from 5,048 tonnes in 2002/03 to 9,035 tonnes in 2007/08 agricultural year representing a 44 percent increase. The average yield per hectare was 0.46 tonnes.



Other Cereals

Other cereals were produced in small quantities. A small quantity of Bulrush Millet (9 tonnes), Finger millets (120 tonnes) were harvested in 2007/08 (Table 3.2).

3.4.3.2 Roots and Tuber Crops Production

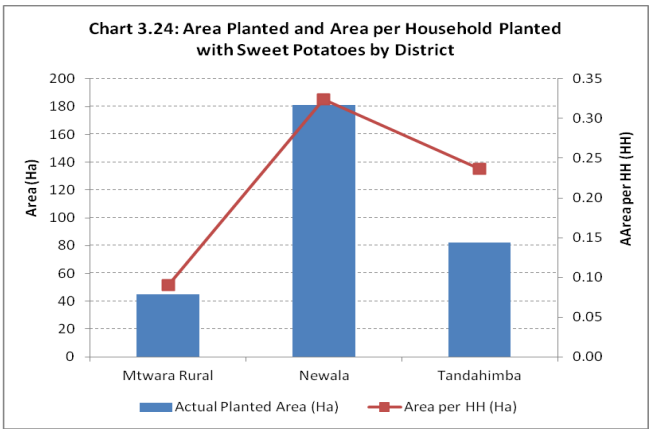
The total production of roots and tubers was 69,593 tonnes. Cassava production was the highest for roots and tuber crops in the region with a total production of 68,355 tonnes representing 77.5 percent of the total root and tuber crops production. This was followed by sweet potatoes with 1,065 tonnes (9.9%), yams (112 tonnes, 8.2%) and Irish potatoes (61 tonnes, 4.5%). Sweet potatoes had the highest yield per hectare (3.45 tonnes/ha) followed by cassava and yams. It was followed by yams (1.11 tonnes/ha), cassava (0.10 tonnes/ha) and Irish potatoes (0.74 tonnes/ha) (Table 3.2).

Table 3.2: Area, production and Yield of Major Roots and Tuber Crops

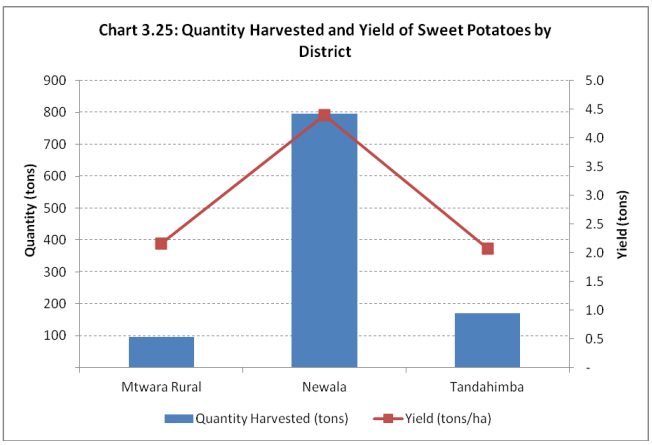
Crop	Number of Household	Planted Area (hectare)	Quantity Harvested (tonnes)	Yield (tonnes)
Cassava	115,374	60,055	68,355	1.10
Sweet Potato	1,405	308	1,065	3.45
Irish potatoes	102	83	61	0.74
Yams	592	101	112	1.11
Total	**117,472**	**60,547**	**69,593**	**1.15**

3.4.3.2.1 Sweet potatoes

Sweet potatoes were mainly produced in Newala, Tandahimba and Mtwara rural. Newala had the highest production of sweat potatoes in Mtwara region with an estimated area of 181 ha, followed by Tandahimba (82 ha) and Mtwara (48 ha). The area planted per household was 0.32 ha in Newala, 0.24 ha in Tandahimba and 0.1 ha per household in Mtwara rural (Chart 3.24).



Total sweet potatoes production in year 2007/2008 was 1,065 tonnes, of which Newala produced 797 tonnes, followed by Tandahimba 171 tonnes and Mtwara rural 97 tonnes. Other districts had insignificant production of sweet potatoes. The yield was rather low, whereby production per hectare in Newala was 0.3 tonnes, Tandahimba 0.2 tonnes and 0.1 tonnes for Mtwara rural (Chart 3.25).



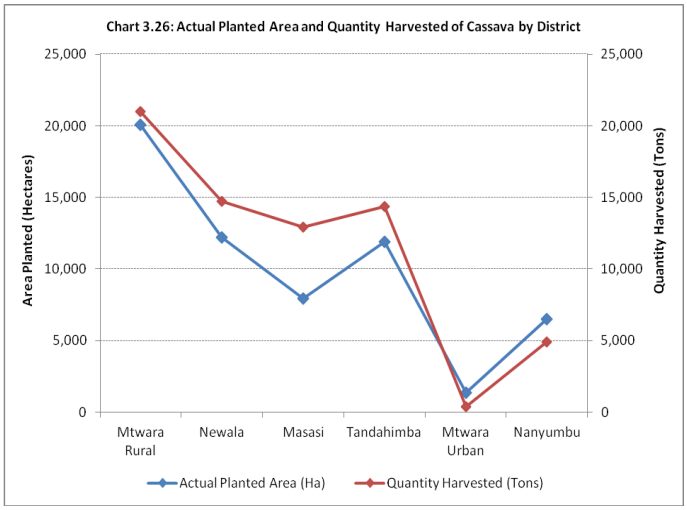
3.4.3.2.2 Yams

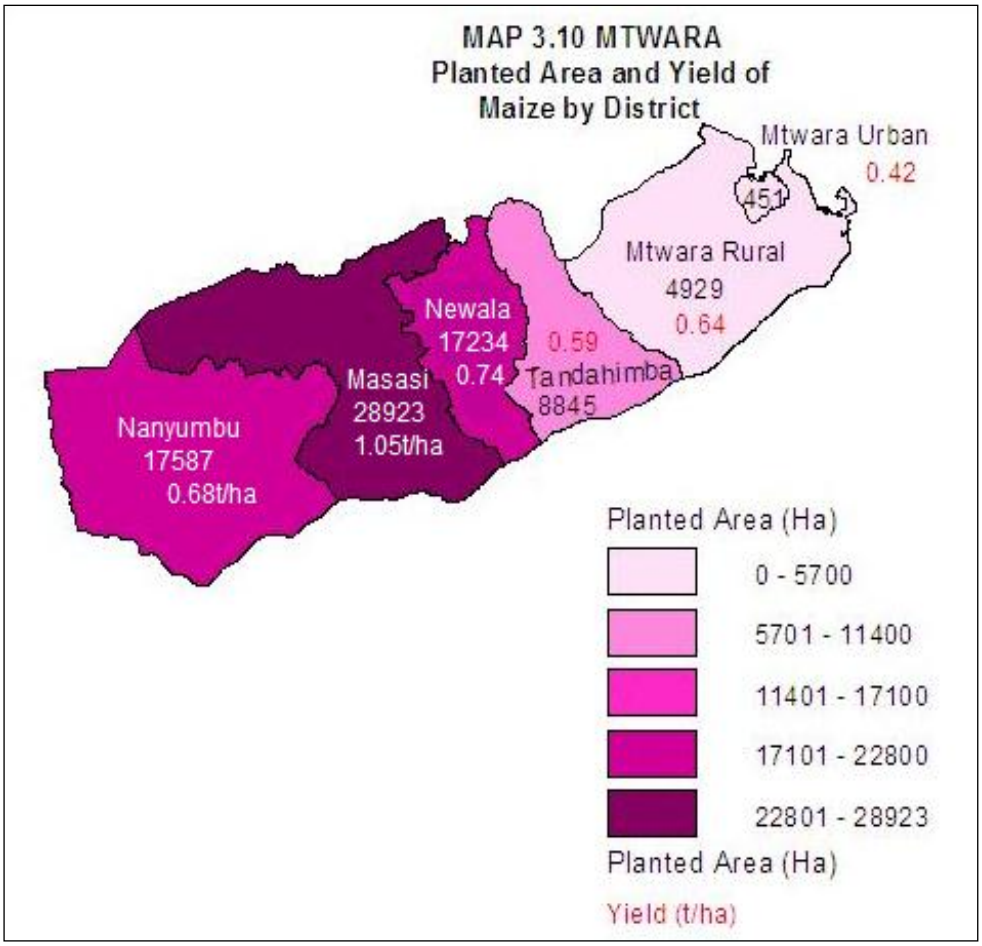
Yam was the third most important root and tuber crop grown in Mtwara region although it was grown by few households. The number of households growing yam in Mtwara region was 592 (0.2 percent of agricultural households). It was grown on 101 ha and the total production of yams during the census year was 112 tonnes with an average yield of 1.1 tonnes per ha.

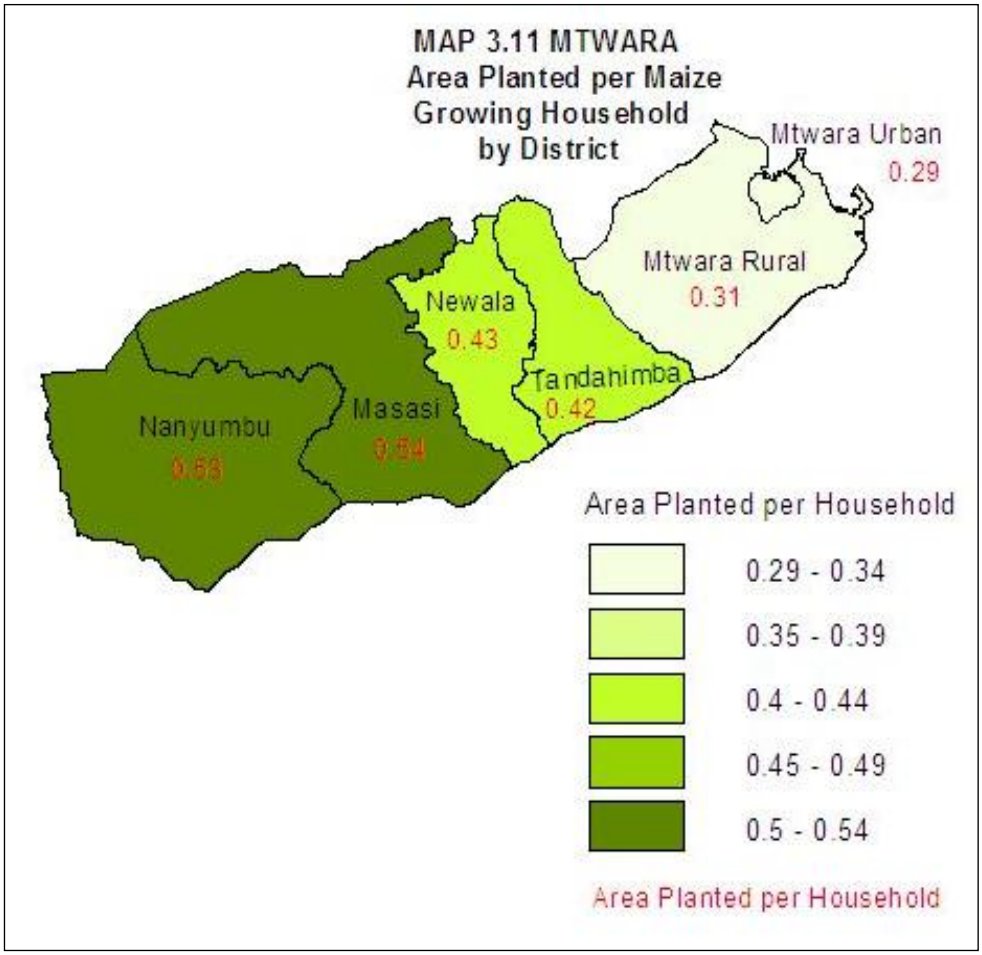
3.4.3.2.3 Cassava

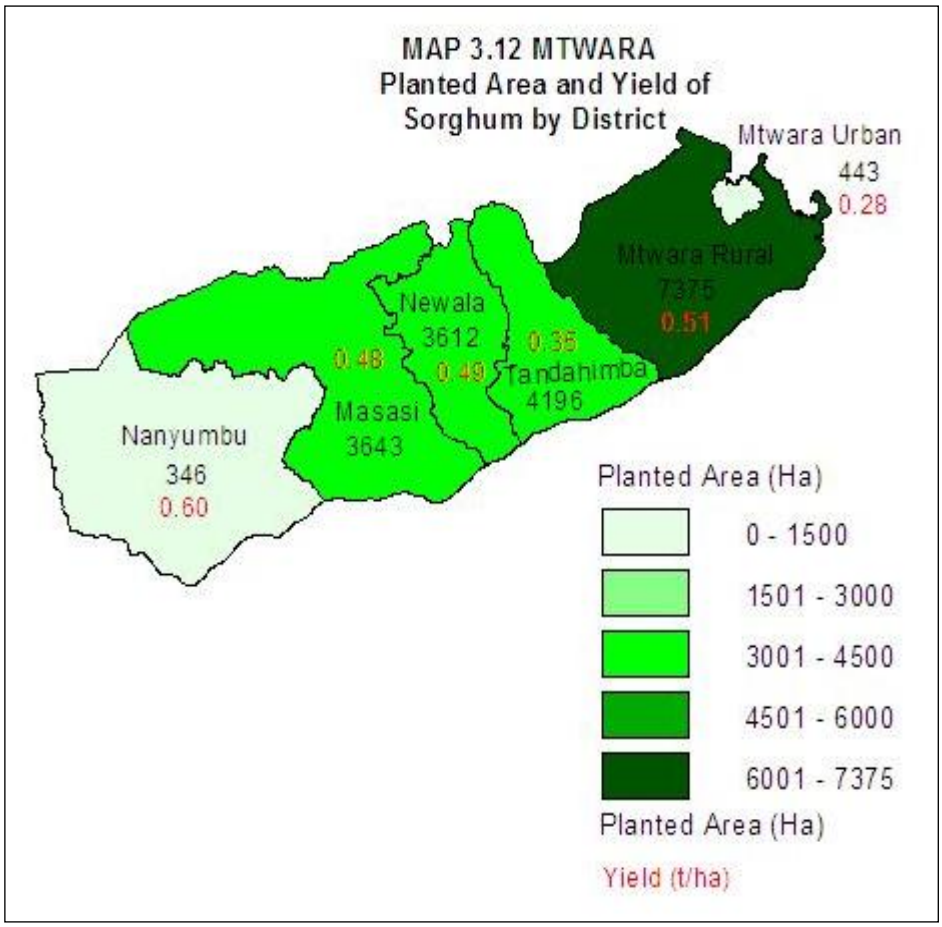
Cassava was most important crop grown by 115,374 agricultural households (46% of the total households growing crops) in all districts in Mtwara region. It was grown as mono and mixed stands in all districts.

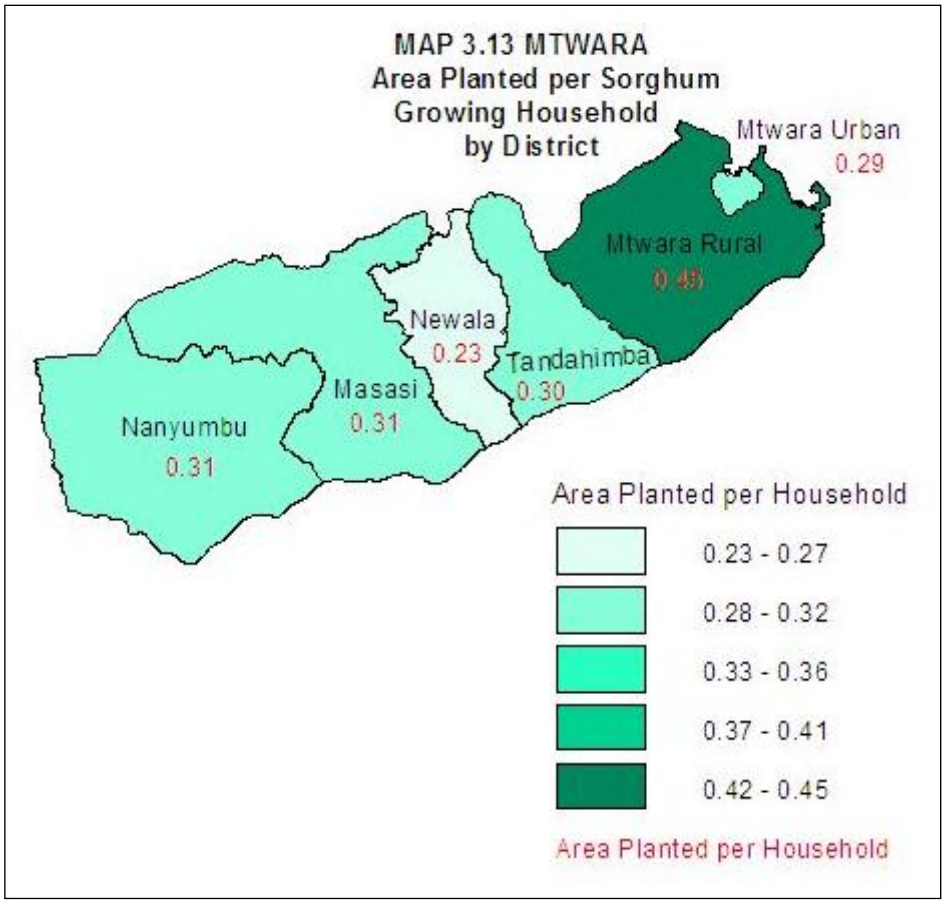
Mtwara Rural had the largest area planted with cassava of 20,101 hectares, followed by Newala (12,224 ha) and Tandahimba (11,907 ha). Other districts with cassava planting were Masasi (7,936 ha), Nanyumbu (6,521 ha) and Mtwara Urban (1,365 ha). The total production of cassava during the census year was 68,355 tonnes from a planted area of 60,055 hectares resulting in a yield of 1.1 tons per hectare (Chart 3.26). The total production has decreased from 72,087 tonnes in 2003 to 68,355 tonnes in 2007 representing a decrease of 5.5 percent over five year period. Mtwara Rural had the highest production of 20,998 tonnes/ha, followed by Newala (14,756 tonnes/ha), Tandahimba (14,363 tonnes/ha) and Masasi (12,919 tonnes/ha). Other districts which produced low were Nanyumbu (4,931 tonnes) and Mtwara urban 387 tonnes. Masasi district recorded the highest yield of 1.6 tonnes per hectare, followed by Newala (1.2 tonnne/ha) and Tanadahimba (1.2 toones/ha).




MAP 3.10 MTWARA
Planted Area and Yield of
Maize by District
Mtwara Urban
0.42
451
Mtwara Rural
4929
0.64
Newala
17234
0.74
0.59
Tandahimba
8845
Masasi
28923
1.05t/ha
Nanyumbu
17587
0.68t/ha
Planted Area (Ha)
0 - 5700
5701 - 11400
11401 - 17100
17101 - 22800
22801 - 28923
Planted Area (Ha)
Yield (t/ha)


MAP 3.11 MTWARA
Area Planted per Maize
Growing Household
by District
Mtwara Urban
0.29
Mtwara Rural
0.31
Newala
0.43
Tandahimba
0.42
Masasi
0.54
Nanyumbu
0.68
Area Planted per Household
0.29 - 0.34
0.35 - 0.39
0.4 - 0.44
0.45 - 0.49
0.5 - 0.54
Area Planted per Household


MAP 3.12 MTWARA
Planted Area and Yield of
Sorghum by District
Mtwara Urban
443
0.28
Mtwara Rural
7375
0.51
Newala
3612
0.48
0.49
0.35
Tandahimba
4196
Masasi
3643
Nanyumbu
346
0.60
Planted Area (Ha)
0 - 1500
1501 - 3000
3001 - 4500
4501 - 6000
6001 - 7375
Planted Area (Ha)
Yield (t/ha)


MAP 3.13 MTWARA
Area Planted per Sorghum
Growing Household
by District
Mtwara Urban
0.29
Mtwara Rural
0.45
Newala
0.23
Tandahimba
0.30
Masasi
0.31
Nanyumbu
0.31
Area Planted per Household
0.23 - 0.27
0.28 - 0.32
0.33 - 0.36
0.37 - 0.41
0.42 - 0.45
Area Planted per Household

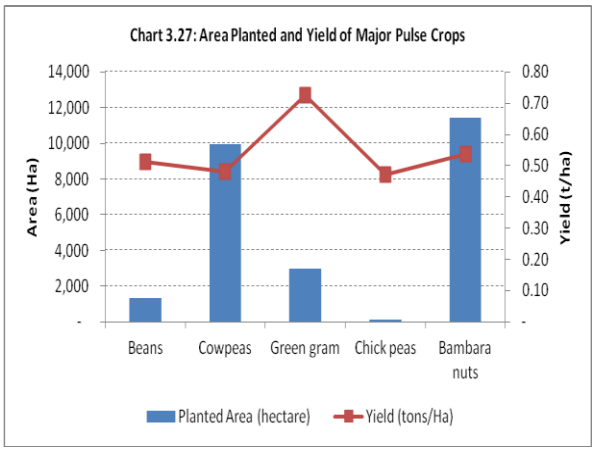
3.4.3.3 Pulse Crops Production

A total of 102,164 household grew various pulses in 2007/8 representing 42 percent of the total number of household growing crops. The total area planted with pulses was 25,814 hectares out of which 11,441 ha were planted with bambara nuts (44.3 percent of the total area planted with pulses), followed by cow peas (9,946 ha, 38.5%), green gram (2,993 ha, 11.6%), beans (1,329 ha, 5.1%) and chick peas (105 ha, 0.4%) (Table 3.3).

Table 3.3: Area, production and Yield of Major Pulses

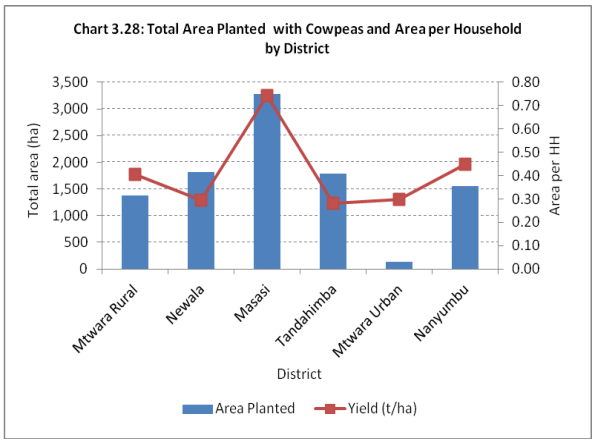
Crop Type	Number of Household	Planted Area (hectare)	Quantity Harvested (tons)	Yield (tons/Ha)
Beans	4,247	1,329	681	0.51
Cowpeas	42,172	9,946	4,770	0.48
Green gram	12,277	2,993	2,171	0.73
Chick peas	574	105	49	0.47
Bambara nuts	44,991	11,441	6,157	0.54
Total	**104,261**	**25,814**	**13,829**	**0.54**

The total production of pulses increased from 4,253 tonnes in 2002/03 to 13,829 tonnes in 2007/08 representing 225 percent increase between the two census periods. Bambara nuts were the most cultivated crop producing 6,157 tonnes which accounted for 44.7 percent of the total pulse production. This was followed by cow peas (4,770 tonnes, 34.5%), green gram (2,171 tonnes, 15.7%), beans (681 tonnes, 5%) (Table 3.3). Green gram had the highest yields of 750 kilograms per hectare. The yields of the rest of the pulses in kilograms per hectare were bambaranuts 540 kgs, beans 510 kgs, cowpeas 480 kgs and 470 kgs for chick peas.



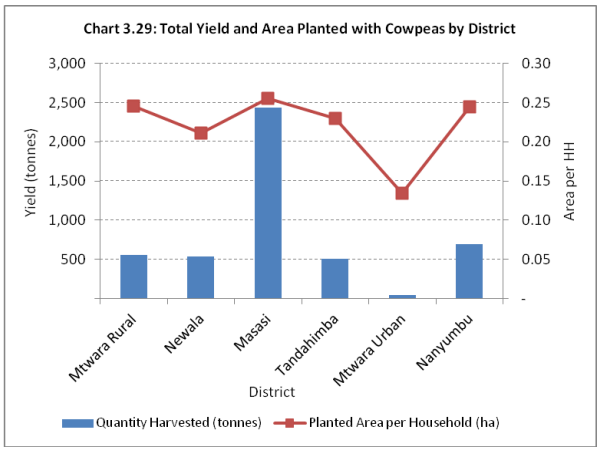
3.4.3.3.1 Cowpeas

In 2007/2008 agricultural year Mtwara region produced 4,770 tonnes of cowpeas from an area of 9,946 ha grown by 42,172 household. On average the yield per hectare was 0.48 tonnes. Masasi district had the highest area under cowpeas (3,281 ha, 33 % of area under cowpeas). The planted area in other districts were 1,821 ha (18%) for Newala, 1,787 ha (18%) for Tandahimba, 1,547 ha (16%) for Nanyumbu and 1,371 ha (14%) for Mtwara rural. Only



139 ha were grown in Mtwara urban. The yield per hectare ranged from 0.3 tonnes in Mtwara urban to 0.74 tonnes in Masasi (Chart 3.28).

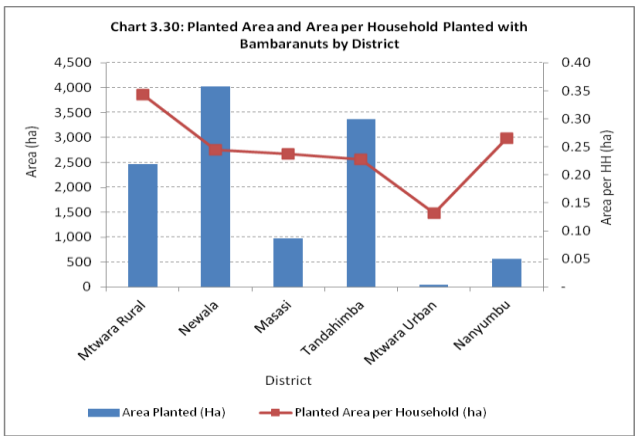
Masasi district had the highest yield of cowpeas (2,440 tonnes, 51% of total harvest). The remaining districts contributed about 10 percent each except Mtwara urban in which it contributed only one percent of the total cowpeas production. Area per household ranged from 0.13 ha in Mtwara urban to 0.26 ha in Masasi (mean 0.24 ha) (Chart 3.29).



3.4.3.3.2 Bambaranuts

Bambaranuts dominated the production of pulse crops in the region. The number of households growing bambaranuts in Mtwara region was 44,991 (94 % of all agricultural households). The total production of bambaranuts in the region was 6,157 tonnes from a planted area of 11,441 hectares.

The largest area planted with bambaranuts in the region was in Newala (4,018 ha, 35%) followed by Tandahimba (3,367 ha, 29%) and Mtwara rural (2,470 ha, 21%). Other districts grew small amounts of the crop. Planted area per household ranged from 0.13 to 0.34 ha. Mtwara rural had the highest area planted per household of 0.34 ha (Chart 3.30). The total production was 6,157 tones of which Newala contributed 2,927 tones (48%), Tandahimba 1,428.4 tones (23.2%), Mtwara rural 994.2 tones (16%) and Masasi 516.24 tones (8.4%). Nanyumbu and Mtwara urban districts were the least producer of bambaranuts. The average yield per hectare in the region during the wet season was 0.54 tonnes and it ranged from 0.1 tonnes in Mtwara urban to 0.7 tonnes in Newala.



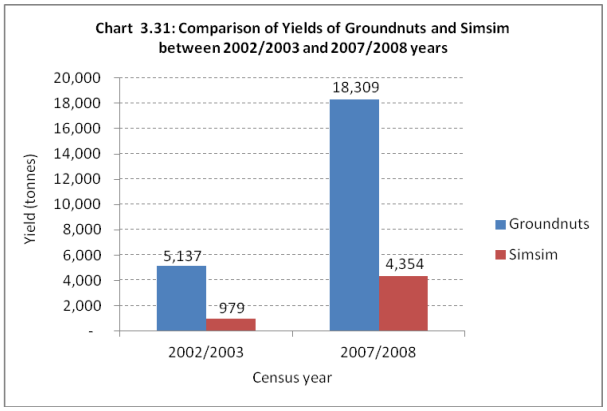
3.4.3.4 Oil Seed Production

Groundnuts and Simsim were the most important seed and oil crops grown in Mtwara region with total production of 22,663 tones realized from planted area of 37,908 hectares. Groundnuts had the highest area planted (28,287 ha, 75% of the total area under oil seeds) while simsim was planted in 9,621 ha (25%). The number of households who grew groundnuts and simsim were 75,272 and 23,739 respectively. The yield per hectare was 0.65 tonnes and 0.45 tonnes per hectare for groundnuts and simsim respectively (Table 3.4).

Table 3.4: Area, Production and Yield of Major Oil Seeds and Oil nuts

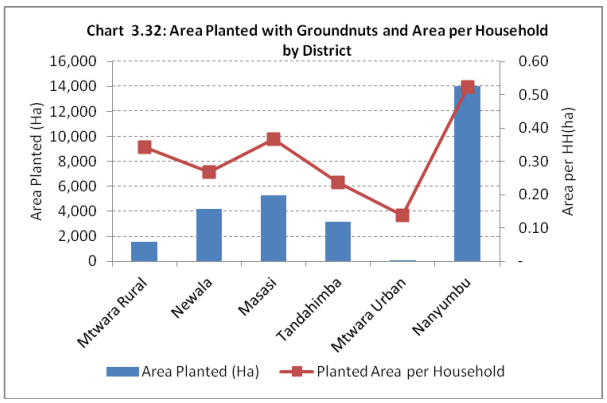
Crop Type	Number of Household	Planted Area (hectare)	Quantity Harvested (tones)	Yield (t/ha)
Simsim	23,739	9,621	4,354	0.45
Groundnut	75,272	28,287	18,309	0.65
Total	99,011	37,908	22,663	0.6

Total area planted with oil seeds and nuts increased from 19,849 in 2002/03 census to 37,908 ha in 2007/08 agricultural year, representing a 90% increase over 5 years. Correspondingly, there was an increase in production from 6,124 tonnes to 22,663 tonnes between the two census periods, an equivalent of 270% increase. The yield increase was contributed by both crops whereby there were 4-fold increases in simsim production and 3-fold increase in groundnut production (Chart 3.31).

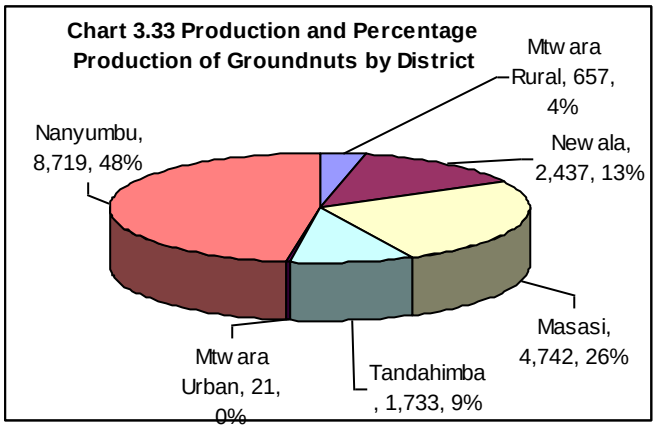


3.4.3.4.1 Groundnuts

The number of households growing groundnuts in Mtwara region was 75,272. The total production of groundnuts in the region was 18,309 tonnes from a planted area of 28,287 hectares resulting in a yield of 0.65 t/ha. About 50 percent of the area planted with groundnuts was located in Nanyumbu district (14,038 ha) followed by Masasi (5,273ha, 18.6%), Newala (4,189 ha, 14.8%), Tandahimba (3,153 ha, 11%), Mtwara rural (1,569 ha, 5.5%) and Mtwara urban (65 ha, 0.2%) (Chart 3.32 and Map 3.14 & Map 3.15).



The highest Production of groundnut was found in Nanyumbu District (8,719 tones, 48%), followed by Masasi (4,742 tones, 26%), Newala (2,437 tones, 13%), Tandahimba (1733 tones, 9%), Mtwara rural (657 tones, 4%) and the lowest was in Mtwara urban (21 tones, 0.1%) (Chart 3.33).



3.4.3.4.2 Simsim

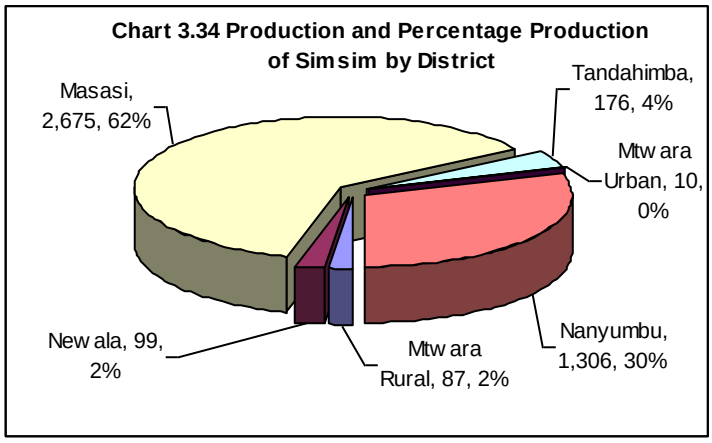
Simsim was the second important oil seed and nuts crop grown in Mtwara. A total of 9,621 ha were cultivated in 2007/08 agricultural year that resulted in production of 4,345 tonnes. The average yield per hectare was 0.45 tonnes (Table 3.5).

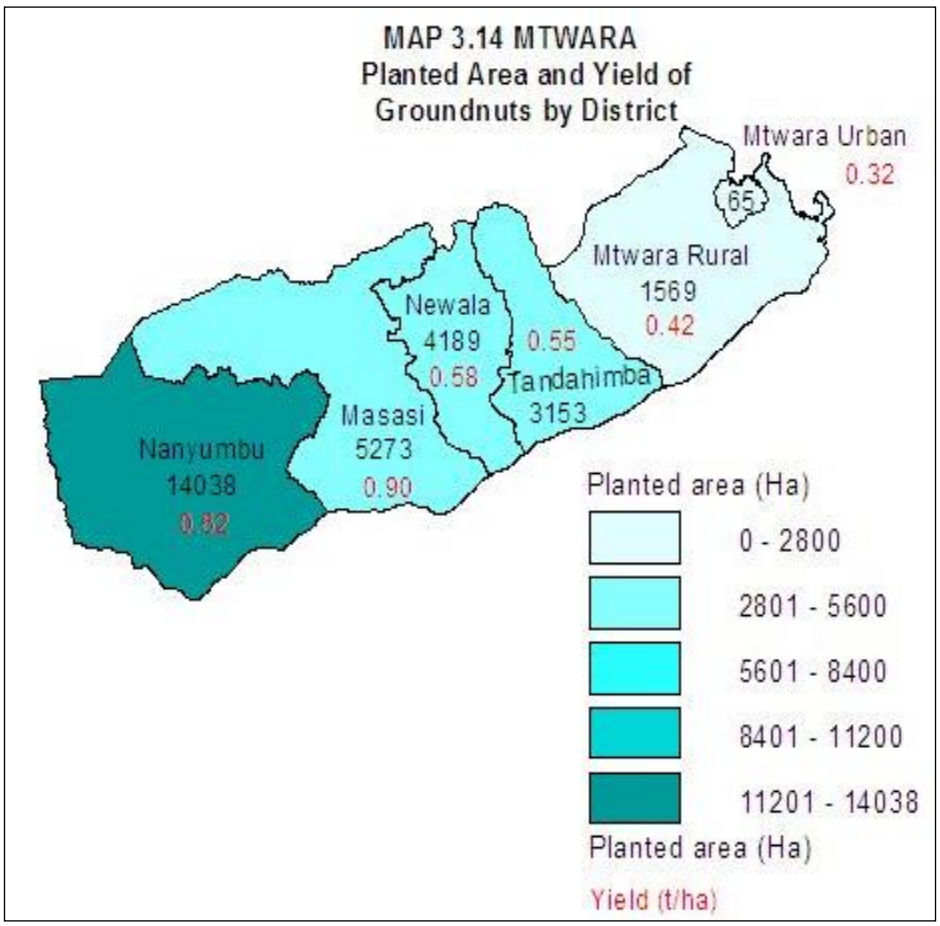
Largest area in which simsim was grown was found in Masasi district (5,448 ha, 57 % of total area with simsim). The district was followed by Nanyumbu (2,933 ha, 30%). The remaining area (13 %) was contributed by the remaining districts, however, Mtwara urban had the smallest area under simsim.

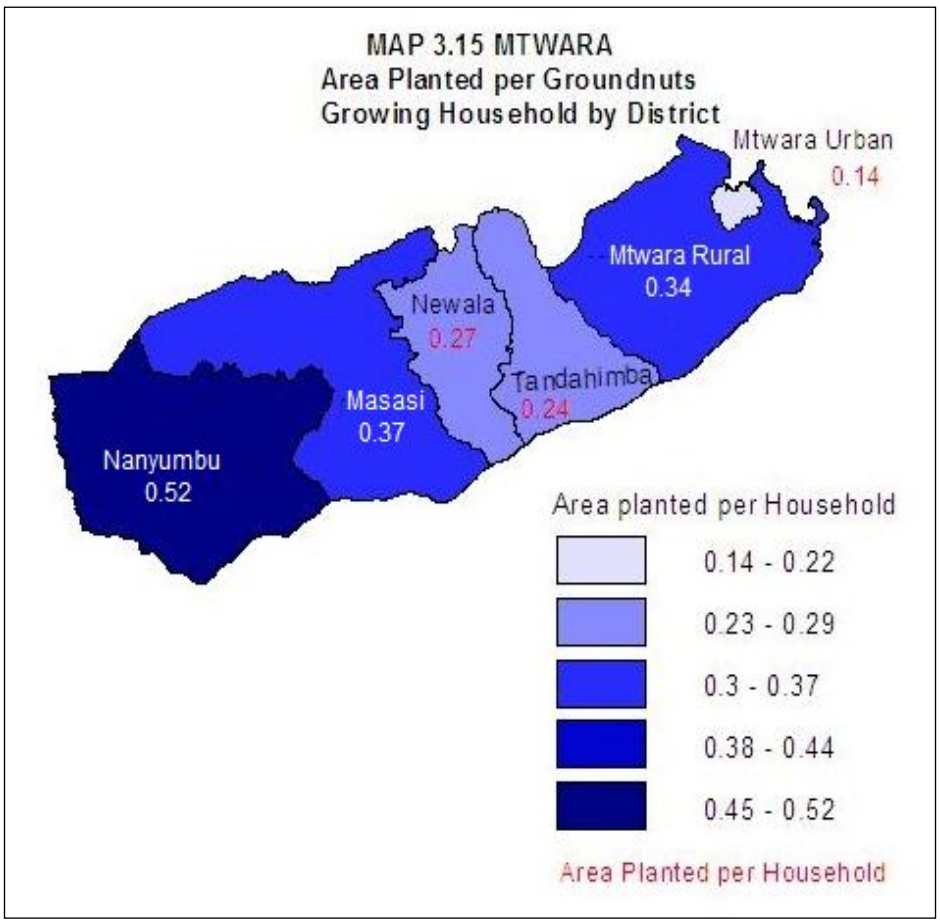
Table 3.5: Numberof Household and Planted area with Simsim

District	Actual Planted Area (ha)	Yield (tons/ha)
Mtwara Rural	369	0.24
Newala	440	0.23
Masasi	5,448	0.49
Tandahimba	371	0.47
Mtwara Urban	60	0.17
Nanyumbu	2,933	0.45
Total	9,621	0.45

Production of simsim was highest in Masasi district and percentage wise the district produced 62 percent of the total simsim production in the region. It was followed by Nanyumbu (30%), Tandahimba (4%), Mtwara rural and Newala (2% each) while Mtwara urban had least production (Chart 3.34).

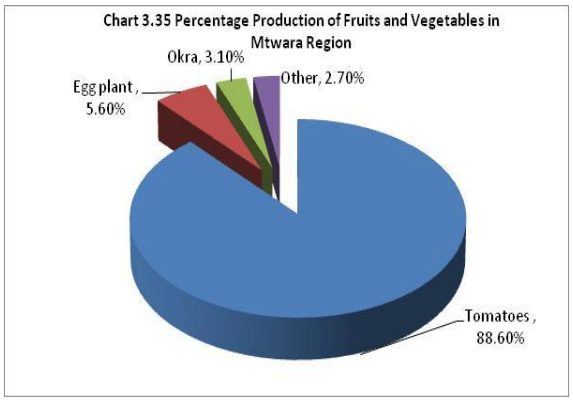



MAP 3.14 MTWARA
Planted Area and Yield of
Groundnuts by District
Mtwara Urban
0.32
65
Mtwara Rural
1569
0.42
Newala
4189
0.58
0.55
Tandahimba
3153
Masasi
5273
0.90
Nanyumbu
14038
0.82
Planted area (Ha)
0 - 2800
2801 - 5600
5601 - 8400
8401 - 11200
11201 - 14038
Planted area (Ha)
Yield (t/ha)


MAP 3.15 MTWARA
Area Planted per Groundnuts
Growing Household by District
Mtwara Urban
0.14
Mtwara Rural
0.34
Newala
0.27
Tandahimba
0.24
Masasi
0.37
Nanyumbu
0.52
Area planted per Household
0.14 - 0.22
0.23 - 0.29
0.3 - 0.37
0.38 - 0.44
0.45 - 0.52
Area Planted per Household

3.4.3.5 Fruits and Vegetables

The collection of fruit 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. Reliable historical data for time series analysis of fruit and vegetables were not available.



The total production of fruits and vegetables was 7,197 tonnes planted by 6,910 households on 1,564 ha. The most cultivated fruit and vegetable crop was tomatoes with a production of 6,378 tonnes (88.6% of the total fruit and vegetables produced) followed by Egg plant (406 t, 5.6%) and okra (222t, 3.1%). The production of the other fruits and vegetables crops was relatively small making 2.7% of the total fruit and vegetables produced (Chart 3.35).

3.4.3.5.1 Tomatoes

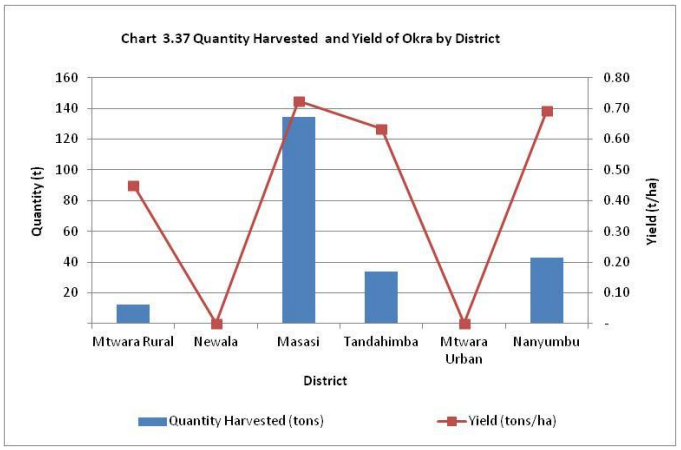
The number of households growing tomatoes in the region was 12,725. This represented 5.1 percent of the total crop growing households in the region. The total production was 44,804 tonnes grown from an area of about 2,326 hectares, with an average yield of 19 tones/ha.

Masasi district had the largest planted area of tomatoes (426 ha, 44% of the total area planted with tomatoes in the region), followed by Mtwara Rural (289 ha, 30%), the rest of the districts have relatively low percentage of land used for tomato production (Map 3.16). The average planted area per household ranged from 0.06 ha in Mtwara Urban to 0.31 ha in Masasi. The average area planted with tomatoes in the region was 0.25 ha per household (Table 3.6). Over the period of five years, the area planted with tomatoes in Mtwara region increased from 521 ha in 2003 to 962 ha in 2008. Consequently, production increased from 1,326 tons to 6,378 tons between the two census periods.

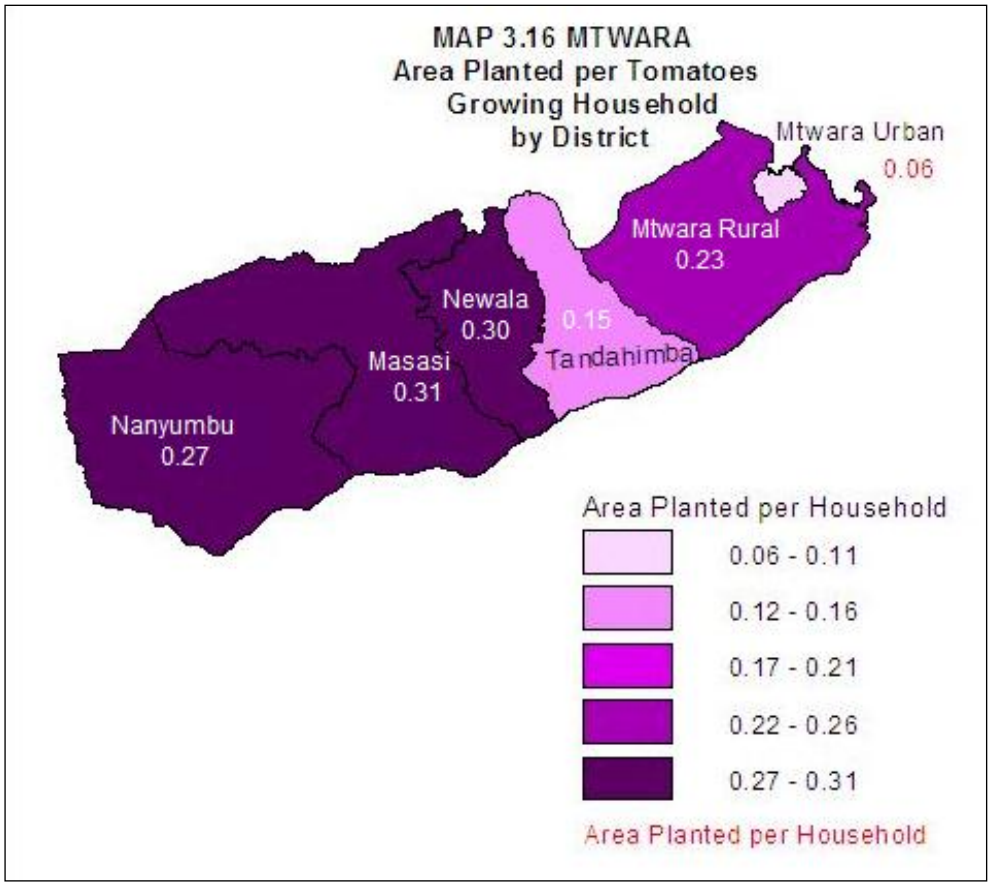
Table 3.6: Tomato Area Planted, Quantity Harvested, Yield and Planted area per Household by District

District	Number of Households	Actual Planted Area (ha)	Percent of Area Planted	Planted Area per Household	Quantity Harvested (tons)	Yield (tons/ha)
Mtwara Rural	1,241	289	30	0.23	575	1.99
Newala	224	68	7	0.30	138	2.03
Masasi	1,375	426	44	0.31	5,033	11.81
Tandahimba	581	89	9	0.15	542	6.07
Mtwara Urban	119	7	1	0.06	16	2.41
Nanyumbu	306	83	9	0.27	74	0.90
Total	3,845	962	100	0.25	6,378	6.63

3.4.3.5.2 Okra



The number of households growing okra in the region was 1,114. This represents a very small number of the total crop growing households in the region. The total area planted with okra (328 ha) accounted for 21 percent of the total agricultural area under vegetables and fruits. In 2007/08 agricultural year 223 tones of okra was produced of which Masasi district contributed 134 tones (60% of total okra production in Mtwara region), Nanyumbu 43 tones, Tandahimba 34 and 12 tones for Mtwara rural. Masasi district had the highest yield of Okra per hectare (0.45 tones). It was followed by Nanyumbu district (0.69 tones), Tandahimba (0.63 tones) and Newala (0.45 tones) (Chart 3.37).


MAP 3.16 MTWARA
Area Planted per Tomatoes
Growing Household
by District
Mtwara Urban
0.06
Mtwara Rural
0.23
Newala
0.30
0.15
Tandahimba
Masasi
0.31
Nanyumbu
0.27
Area Planted per Household
0.06 - 0.11
0.12 - 0.16
0.17 - 0.21
0.22 - 0.26
0.27 - 0.31
Area Planted per Household

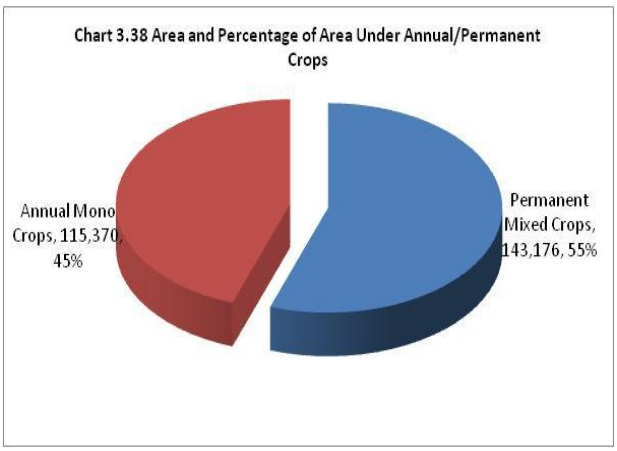
3.4.3.6 Other Annual Crop Production

Tobacco

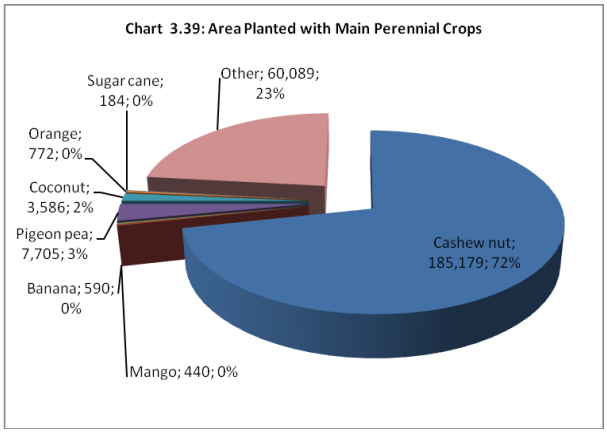
Tobacco was a prominent other annual crops grown as cash crop in Tandahimba district only in the region. The area planted with tobacco in the long rain season was 118 hectares and 34.73 tons were harvested yielding 0.3 tons per hectare.

3.5 Perennial Crop Production

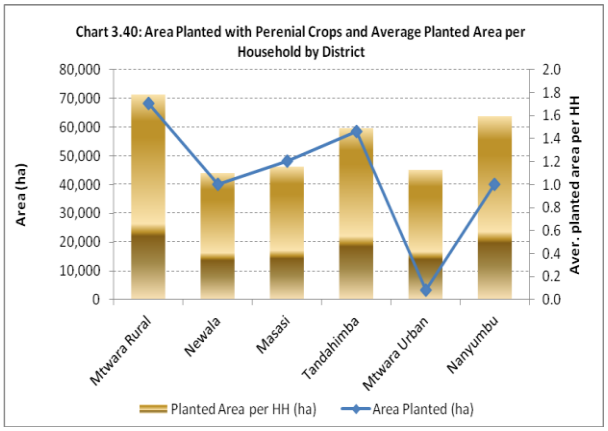
Permanent crops (sometimes referred to perennial crops) are crops that normally take over a year to mature and once mature can be harvest for a number of years. For crops like cassava and bananas the distinction is not so clear. Cassava has varieties that mature within a year and produces only one harvest, whilst other varieties survive for more than one year and produce several harvests. In this census, cassava is treated as an annual crop. Conversely, bananas normally take less than a year to mature, survive for more than one year and are thus treated as a permanent crop. In this report the agriculture census results are presented for the most important permanent crops in terms of production, yield and area planted. The area planted with annual crops is not the actual physical land area as it includes the area of crops planted more than once on the same land, whilst the planted area for permanent crops is the same as physical planted land area. An area of 258,545 ha was planted with permanent crops of which 115,370 ha (22%) was annual mono crops and 143,176 ha (28%) permanent mixed crops (Chart 3.38).



The most important permanent crops in Mtwara region was cashewnuts (72%), pigeon pea (3%), coconut (2%), sugarcane, mango and orange and others (23%), (Chart 3.39). The most important permanent crop in Mtwara region was Cashewnuts which had a planted area of 185,179 ha under Mono and Mixed crops (71.6% of the planted area of all permanent crops). Followed by pigeon peas (7,705 ha, 3%), coconut (3,586 ha, 2%), Orange (772 ha, 0.3%). Other crops were grown in small area and the bigger area had a mix of other crops (Chart 3.39).



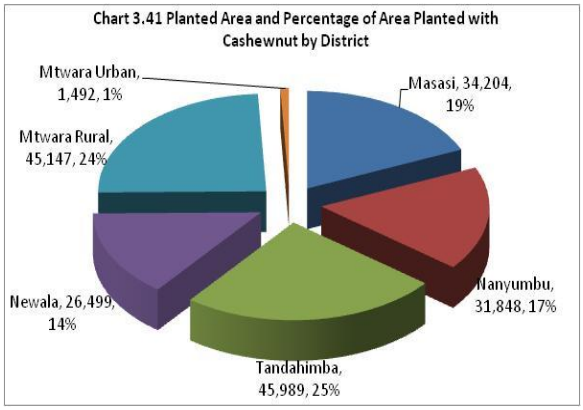
Mtwara rural had the largest area under smallholder planted with permanent crops (68,261 ha; 26%), followed by Tandahimba (58,530 ha, 23%), Masasi district (48,086 ha, 19%), Nanyumbu (40,195 ha, 16%) and Newala (40,167ha, 16%). Mtwara urban had the lowest area of 3,307 ha (2%), (Chart 3.40). However, Tandahimba district had the largest number of household (39,259) growing permanent crops.



3.5.1 Cashewnut

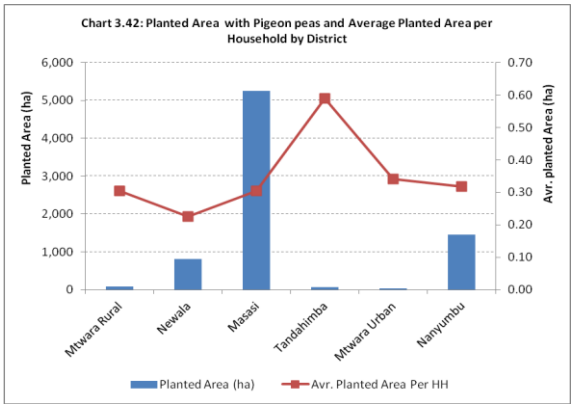
A total of 63,490 tonnes were harvested in 2007/08 agricultural year with and average yield of 0.34 tons per hectare from a planted area of 185,179 hectares. It was the most important permanent crop grown by smallholders in the region. They were grown by 123,558 households (49.6% of the total crop growing households). However, the average area planted with Cashewnuts per household was relatively small at around 1.5 ha per cashewnut growing households.

Tandahimba had the largest area of cashewnuts in the region (45,989 ha, 25%) followed by Mtwara rural (45,147 ha, 24%), Masasi (34,204 ha, 19%), Nanyumbu (31,848 ha, 17%) and Newala (26,499 ha, 14%). Mtwara Urban had the lowest planted area per household of 1,492 ha, (1%) (Chart 3.41 and Map 3.17). Whilst, the average area planted with cashewnuts per cashewnuts growing household was highest in Nanyumbu (2.26 ha) followed by Mtwara rural (1.75) and the Mtwara urban (0.89 ha) was had the least. The regional average area planted area was 1.5 ha (Map 3.18).



3.5.2 Pigeon peas

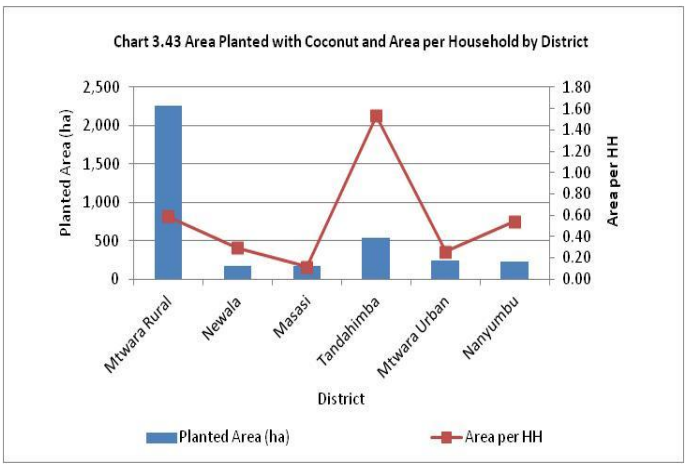
The total production of pigeon peas by smallholders was 4,205 tonnes with Masasi district producing highest (3,113 tons; 74%), followed by Nanyumbu 690 tons (16.4%). In terms of area planted, pigeon peas were the second most important permanent crop grown by smallholders in the region. It was grown by 25,913 households (10.4% of the total crop growing households). The average area planted with pigeon pea per household was relatively small at around 0.3 ha per pigeon pea growing household and the average yield obtained by smallholders was 564 kg/ha from a harvest area of 7,705 hectares.



Masasi had the largest area of pigeon peas in the region (5,254 ha, 68.3%) followed by Nanyumbu (1,455 ha, 19%) and Newala (812 ha, 11%). The area planted with pigeon peas in the remaining districts was very small and each contributed about one percent to the total (Map 3.19). However, the average area planted with pigeon pea per pigeon pea planting household was highest in Tandahimba (0.59 ha), followed by Mtwara Urban (0.34 ha), Nanyumbu (0.32 ha), Mtwara rural (0.31 ha), Masasi (0.30 ha) and Newala (0.23 ha) (Chart 3.42 and Map 3.20).

3.5.3 Coconut

The total production of coconuts by smallholders was 7,473 tonnes. In terms of area planted, coconut was the third most important permanent crop grown by smallholders in the region. It was grown by 7,451 households (3% of the total crop growing households). The average area planted with coconut per household was around 0.48 ha per coconut growing household and the average yield obtained by smallholders was 3.1 t/ha from a harvested area of 3,586 hectares.

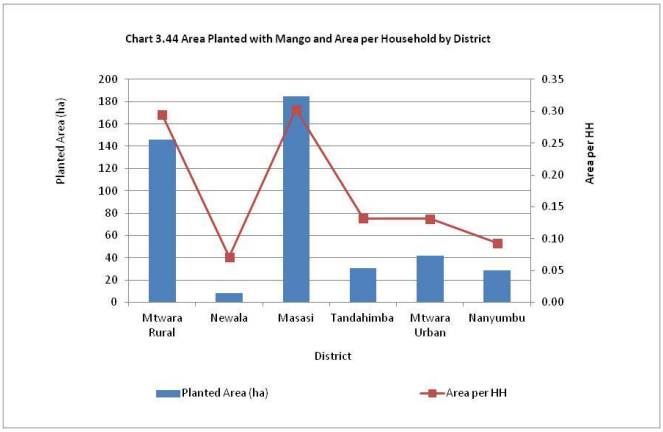


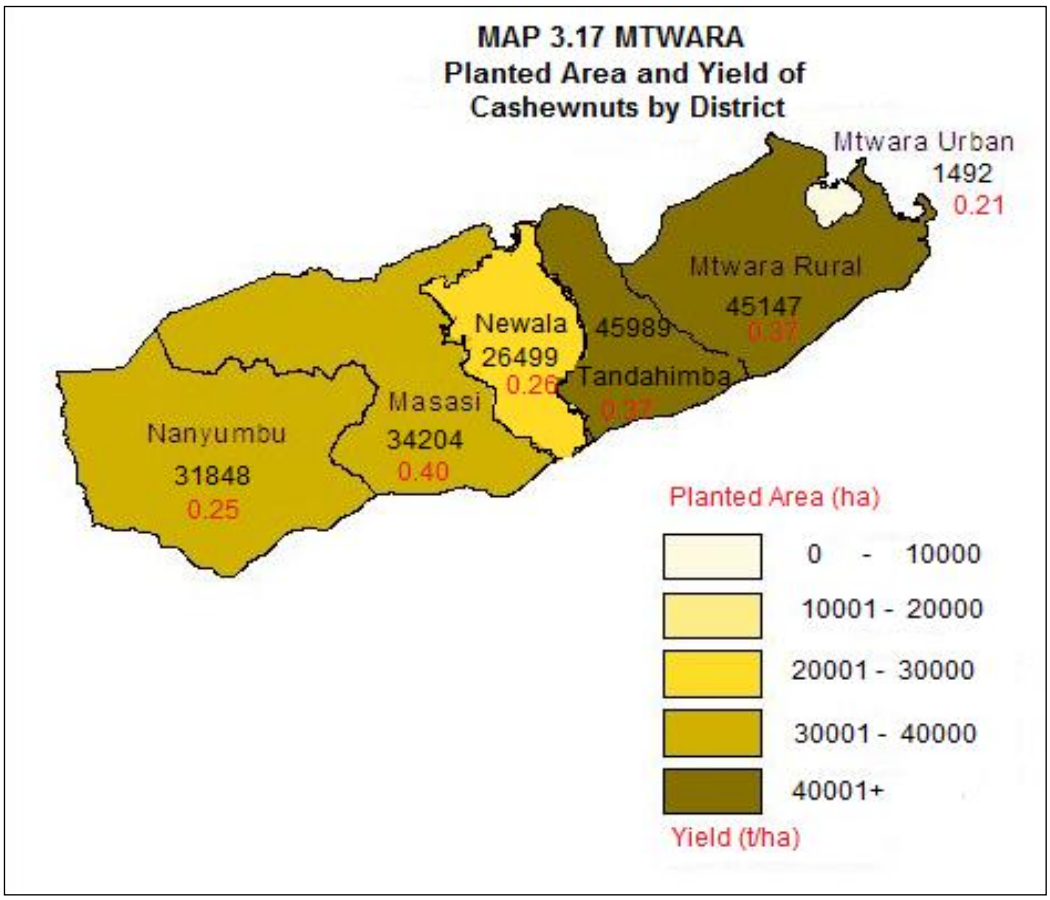
Mtwara rural had the largest planted area of coconut in the region (2,266 ha, 63%) followed by Tandahimba (535 ha, 15%), Mtwara urban (235 ha, 7%), Nanyumbu (221 ha, 6%), Newala and Masasi (165 ha each, 5% each) (Chart 3.43, Map 3.21 & Map 3.22). The average area planted per household was 0.48 ha and the district with the highest area per coconut growing household was Tandahimba (1.53 ha).

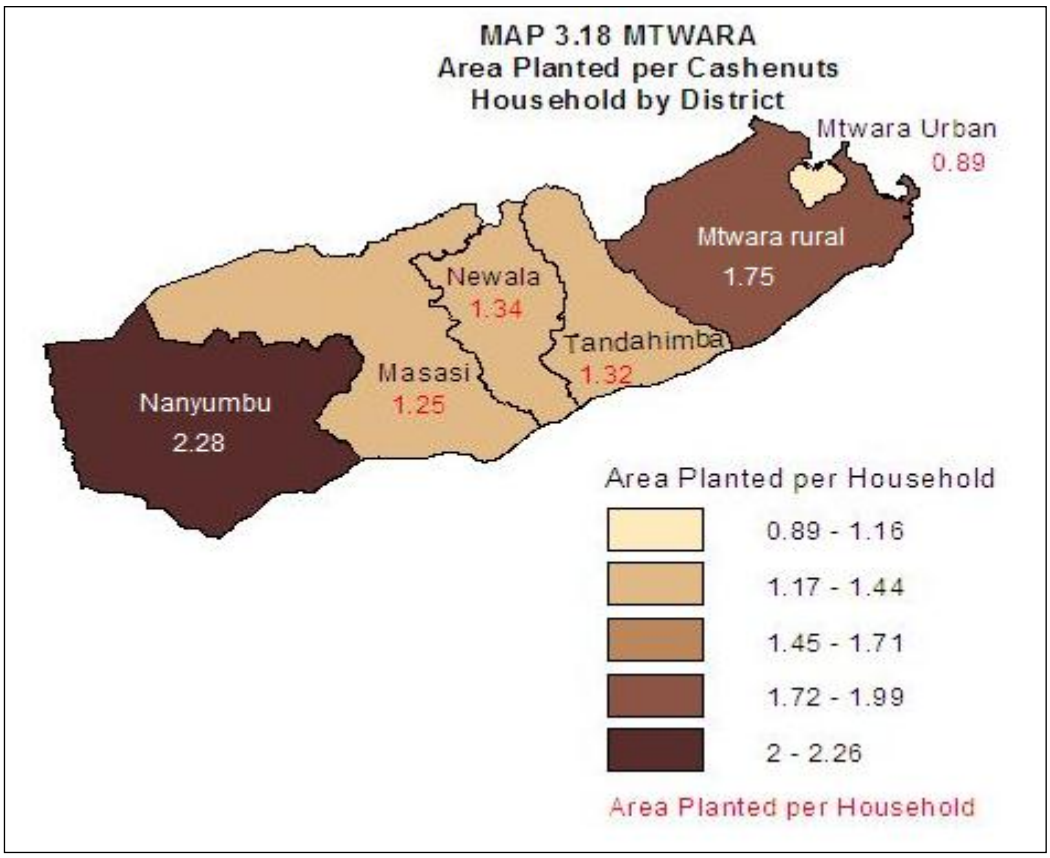
3.5.4 Mango

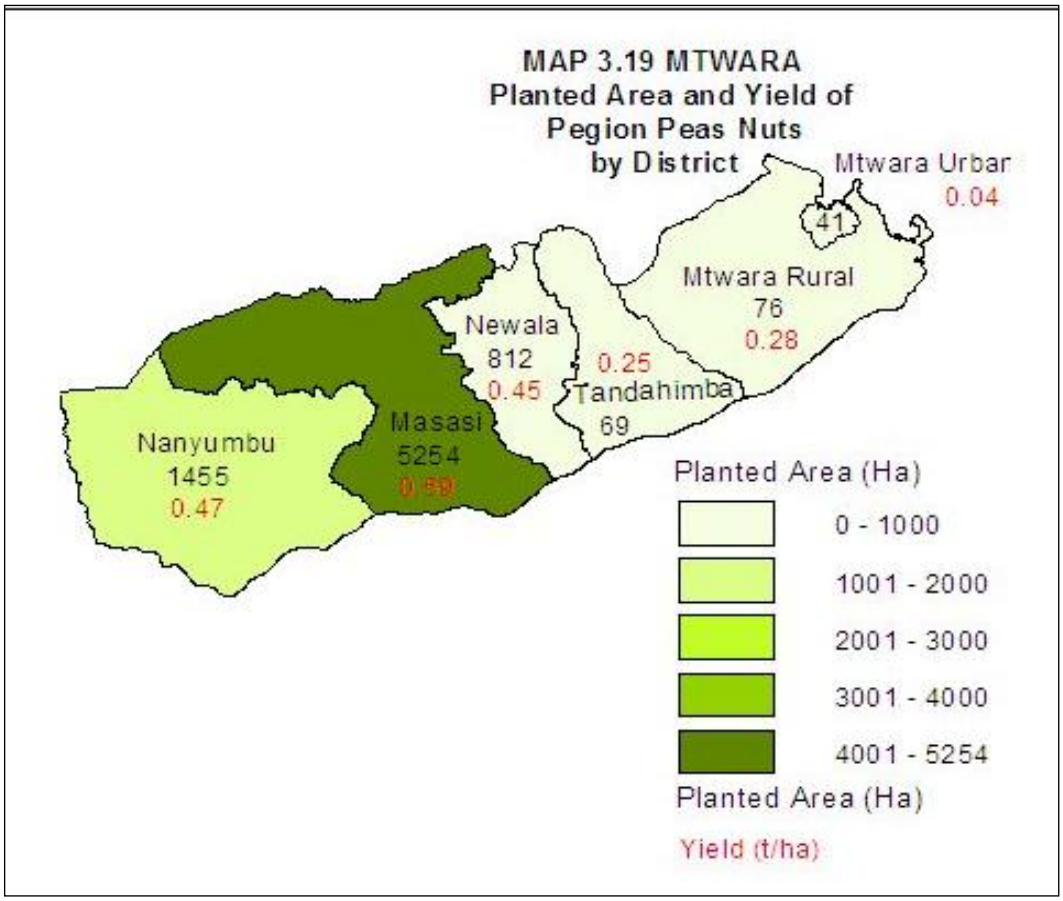
The total production of mangoes by smallholders was 1.116 tonnes. In terms of area planted, mango was the fourth most important permanent crop grown by smallholders in the region. It was grown by 2,075 households (0.8% of the total crop growing households). The average area planted with mango per household was around 0.2 ha per mango growing household and the average yield obtained by smallholders was 3.9 tonnes /ha from a harvest area of 287 hectares.

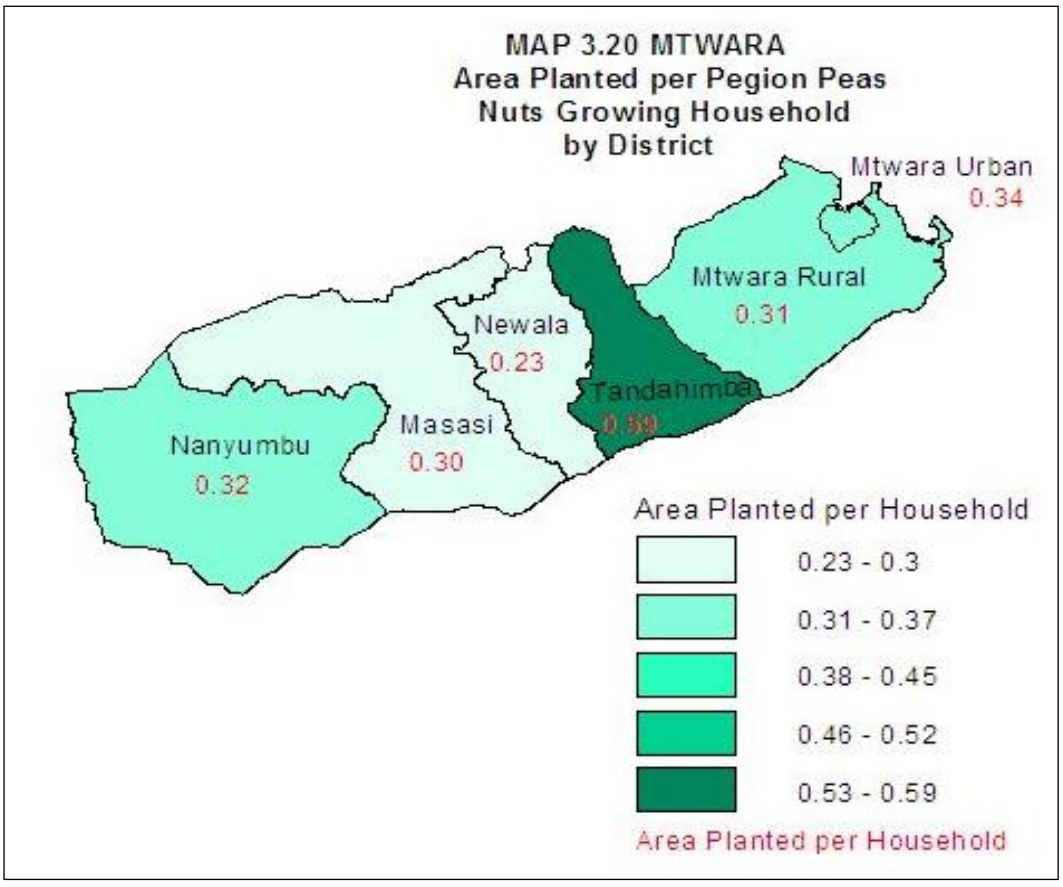
Masasi district has the largest area of mangoes in the region (185 ha, 76%) followed by Mtwara rural (146 ha, 21%). District with small area planted with mangoes are Mtwara urban (42 ha, 9%), Tandahimba (31 ha, 7%), Nanyumbu (21 ha, 6%) and Newala (8 ha, 2%) (Map 3.37). Likewise, the average area planted per mango growing household was highest in Masasi (0.3 ha), followed by Mtwara rural (0.29ha), Tandahimba and Mtwara urban (0.13 ha), Nanyumbu (0.09 ha) and lastly Newala (0.07 ha) (Chart 3.44, Map 3.23 & 3.24).

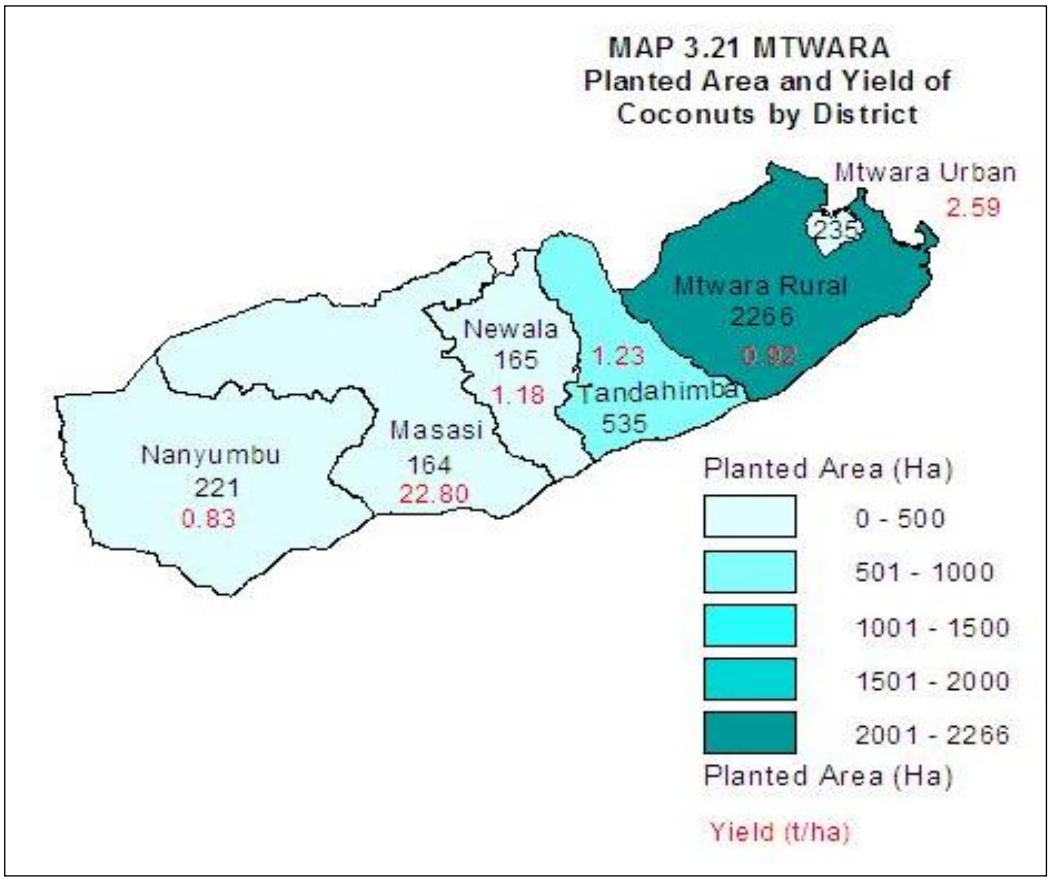


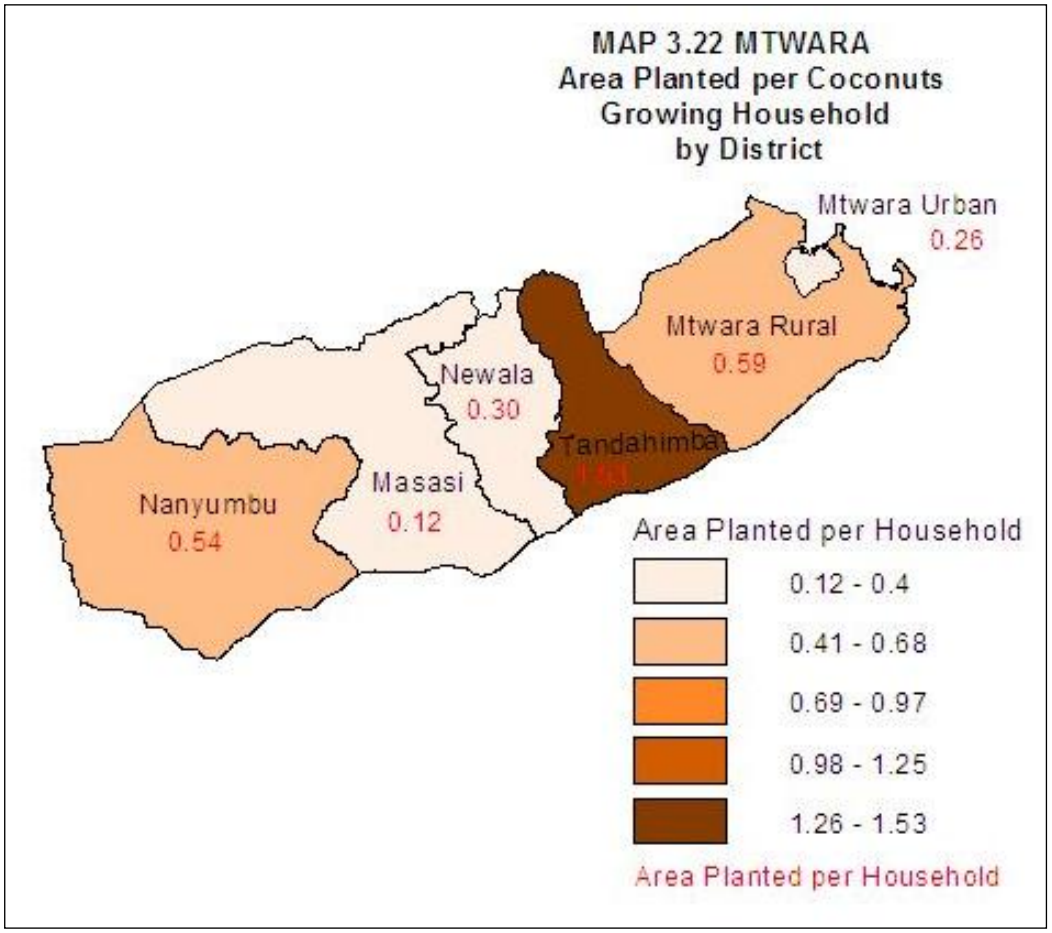

MAP 3.17 MTWARA
Planted Area and Yield of
Cashewnuts by District
Mtwara Urban
1492
0.21
Mtwara Rural
45147
0.37
Newala
26499
0.26
45989
Tandahimba
0.37
Masasi
34204
0.40
Nanyumbu
31848
0.25
Planted Area (ha)
0 - 10000
10001 - 20000
20001 - 30000
30001 - 40000
40001+
Yield (t/ha)

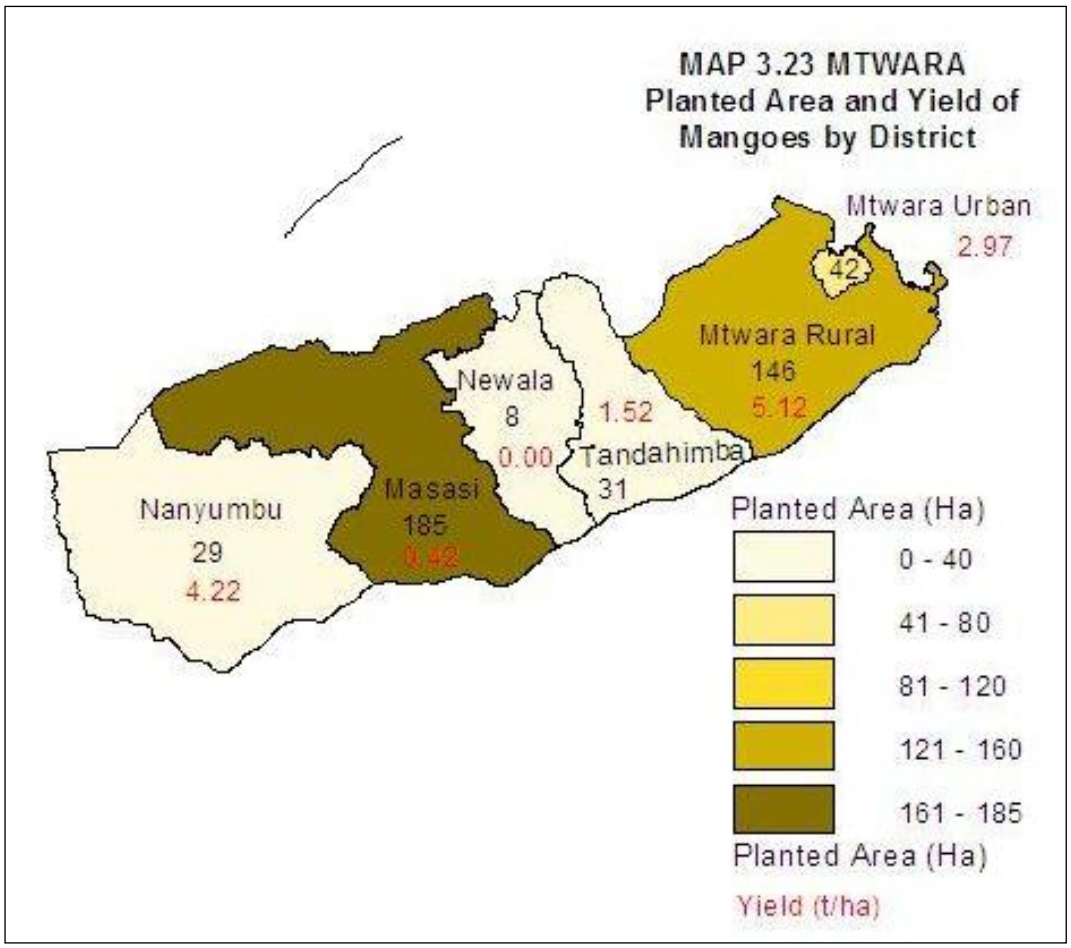

MAP 3.18 MTWARA
Area Planted per Cashenuts
Household by District
Mtwara Urban
0.89
Mtwara rural
1.75
Newala
1.34
Tandahimba
1.32
Masasi
1.25
Nanyumbu
2.28
Area Planted per Household
0.89 - 1.16
1.17 - 1.44
1.45 - 1.71
1.72 - 1.99
2 - 2.26
Area Planted per Household

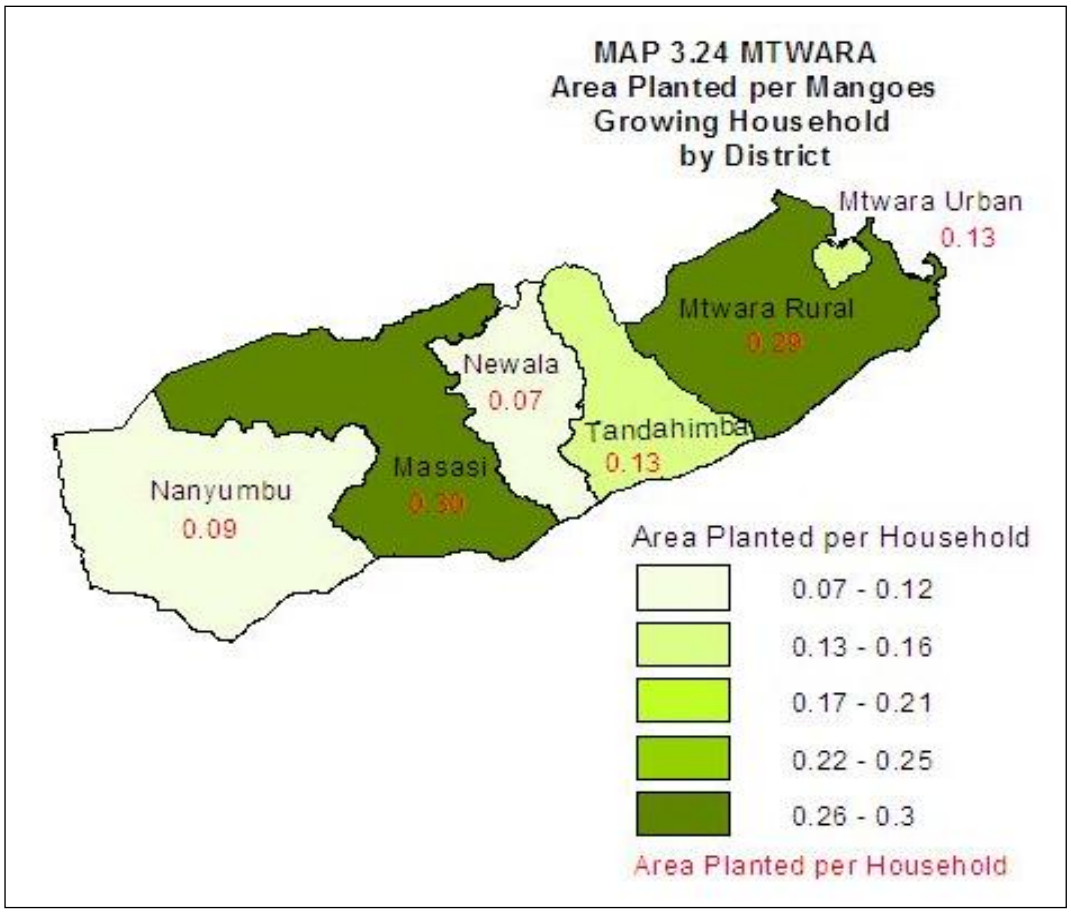

MAP 3.19 MTWARA
Planted Area and Yield of
Pegion Peas Nuts
by District
Mtwara Urbar
0.04
41
Mtwara Rural
76
0.28
Newala
812
0.45
0.25
Tandahimba
69
Masasi
5254
0.59
Nanyumbu
1455
0.47
Planted Area (Ha)
0 - 1000
1001 - 2000
2001 - 3000
3001 - 4000
4001 - 5254
Planted Area (Ha)
Yield (t/ha)


MAP 3.20 MTWARA
Area Planted per Pegion Peas
Nuts Growing Household
by District
Mtwara Urban
0.34
Mtwara Rural
0.31
Newala
0.23
Tandahimba
0.59
Masasi
0.30
Nanyumbu
0.32
Area Planted per Household
0.23 - 0.3
0.31 - 0.37
0.38 - 0.45
0.46 - 0.52
0.53 - 0.59
Area Planted per Household


MAP 3.21 MTWARA
Planted Area and Yield of
Coconuts by District
Mtwara Urban
2.59
235
Mtwara Rural
2266
0.92
Newala
165
1.18
1.23
Tandahimba
535
Masasi
164
22.80
Nanyumbu
221
0.83
Planted Area (Ha)
0 - 500
501 - 1000
1001 - 1500
1501 - 2000
2001 - 2266
Planted Area (Ha)
Yield (t/ha)


MAP 3.22 MTWARA
Area Planted per Coconuts
Growing Household
by District
Mtwara Urban
0.26
Mtwara Rural
0.59
Newala
0.30
Tandahimba
Masasi
0.12
Nanyumbu
0.54
Area Planted per Household
0.12 - 0.4
0.41 - 0.68
0.69 - 0.97
0.98 - 1.25
1.26 - 1.53
Area Planted per Household


MAP 3.23 MTWARA
Planted Area and Yield of
Mangoes by District
Mtwara Urban
2.97
42
Mtwara Rural
146
5.12
Newala
8
0.00
1.52
Tandahimba
31
Masasi
185
Nanyumbu
29
4.22
Planted Area (Ha)
0 - 40
41 - 80
81 - 120
121 - 160
161 - 185
Planted Area (Ha)
Yield (t/ha)


MAP 3.24 MTWARA
Area Planted per Mangoes
Growing Household
by District
Mtwara Urban
0.13
Mtwara Rural
0.29
Newala
0.07
Tandahimba
0.13
Masasi
Nanyumbu
0.09
Area Planted per Household
0.07 - 0.12
0.13 - 0.16
0.17 - 0.21
0.22 - 0.25
0.26 - 0.3
Area Planted per Household

3.6 Input/Implement Use

3.6.1 Agricultural Implements

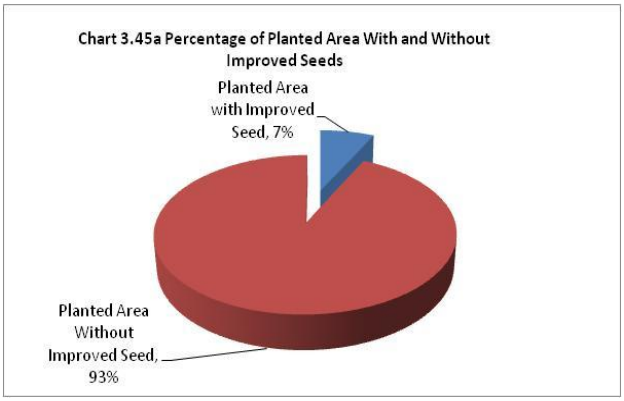
The most common agricultural equipment used was hand hoe and it was owned by 245,639 (49.4%) households, followed by sword (236,388 households; 47.5%), and hand sprayer (8,154 households, 1.6%). Other equipments used include draft power, ox plough, grater, chipper, oil press and oil mill, ox cart, tractor harrow, tractor plough, ox planter, tractor, thrasher, power tiller and rigger. Results show that there were 1,397 household (0.6% of total agricultural household) that uses ox plough and ox carts for farm activities and only 640 households that use donkeys. Threshers were used by 371 households, while power tillers and riggers were used by 854 household and 124 household respectively. Most of the ox ploughs were found in Newala and Masasi, while Ox-planters were owned by more household in Mtwara rural and Tandahimba. Ownership of sprayers was commonly found in Mtwara rural, Tandahimba, Newala and Masasi districts. Donkeys were generally used in Masasi and Tandahimba. These districts also had higher proportion of threshers and power tillers. Riggers were only used in Mtwara rural (Table 3.7).

Table 3.7: Number of Household Owning Various Agricultural Equipments/Assets

Type of Equipment/Asset	Number of Equipment/Assets Owned	Number of Household using Equipment/Assets
Matchet	389,650	236,388
Hand hoe	739,917	245,639
Hand sprayer	18,629	8,154
Grater, Chipper, Oil Press and Oil Mill	9,819	645
Ox Plough	12,493	859
Ox Planter	6,159	280
Ox cart	3,093	538
Tractor	2,616	265
Tractor plough	6,129	417
Tractor harrow	4,807	462
Thrasher	742	371
Power tiller	12,875	854
Rigger	3,723	124
Draft power	40,072	4,732
Total	**1,250,723**	**499,728**

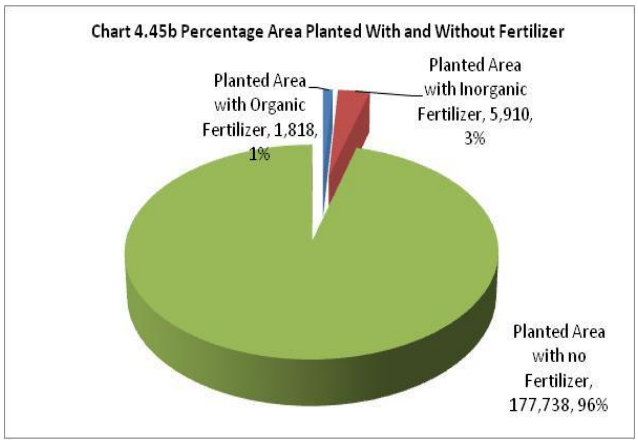
3.6.2 Improved Seed Use

The planted area using improved seeds was estimated at 12,247 ha which represents 7 percent of the total planted with the annual crops and vegetables area. About 12 percent of the total number of households planting in the long rains used improved seed. The percentage use of improved seed was only practiced in the long rains, since there was no use of improved seed in the short rains season (Chart 3.45a, Map 3.29). The percent of planted area with improved seeds was lower (i.e. 7%) than that reported in 2007/2008 (i.e. 13%).

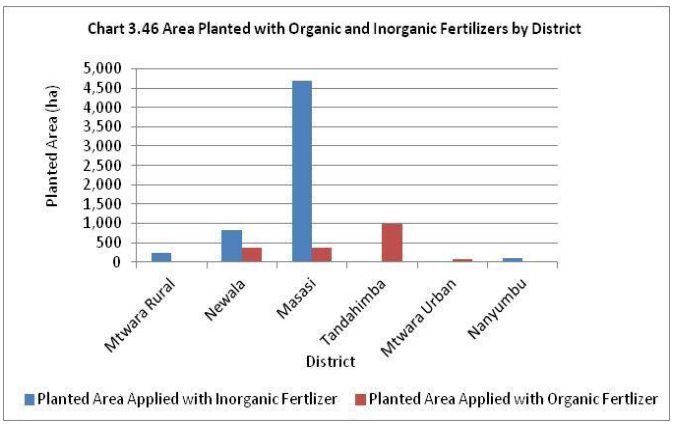


3.6.3 Fertilizer Use

The use of fertilizers both organic and inorganic on annual crops is very small with a planted area of only 7,728 ha (4% of the total planted area in the region). The planted area without fertilizer for annual crops was 177,738 hectares representing 96 percent of the total planted area with annual crops. Of the planted area with fertilizer application, organic fertilizer was applied to 1,818 ha which represents one percent of the total planted area, while inorganic fertilizer were applied to 5,910 ha (3%) (Chart 3.45b, Map 3.25).



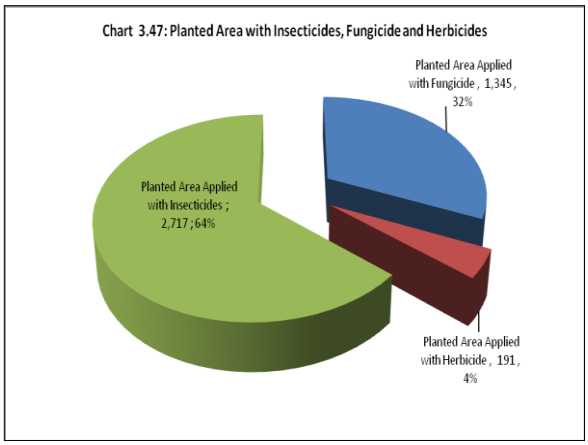
The highest percentage of the area planted with inorganic was reported in Masasi (4,683 ha, 79% of total area applied with inorganic fertilizer), followed by Newala (833 ha, 14%), Mtwara Rural (237 ha, 4%) and Nanyumbu (103 ha, 1.7%). Other district had less than 100 hectare applied with inorganic fertilizers. Use of organic fertilizers was also minimal and the largest area applied with was in Tandahimba district (980 ha, 54%) followed by Masasi (380 ha, 21%) and Newala (362 ha, 20%). Only small amount of organic fertilizer were used in other districts (Chart



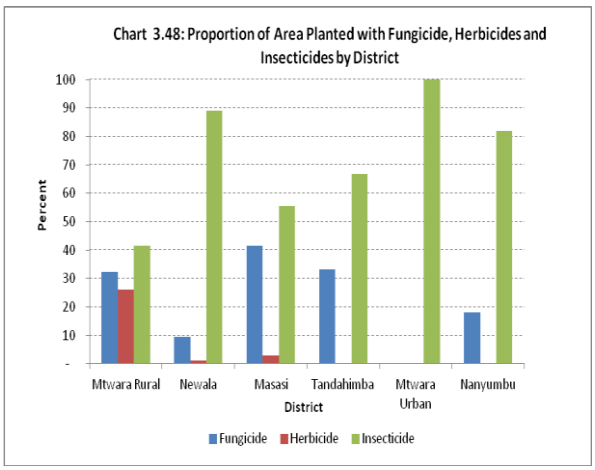
3.46). Area applied with both organic and inorganic fertilizers were: Masasi (5,064 ha, 66%), followed by Newala (1,195 ha, 16%), Tandahimba (1,003 ha, 13%), Mtwara Rural (237 ha, 3%) and Mtwara Urban (105 ha, 1.4%).

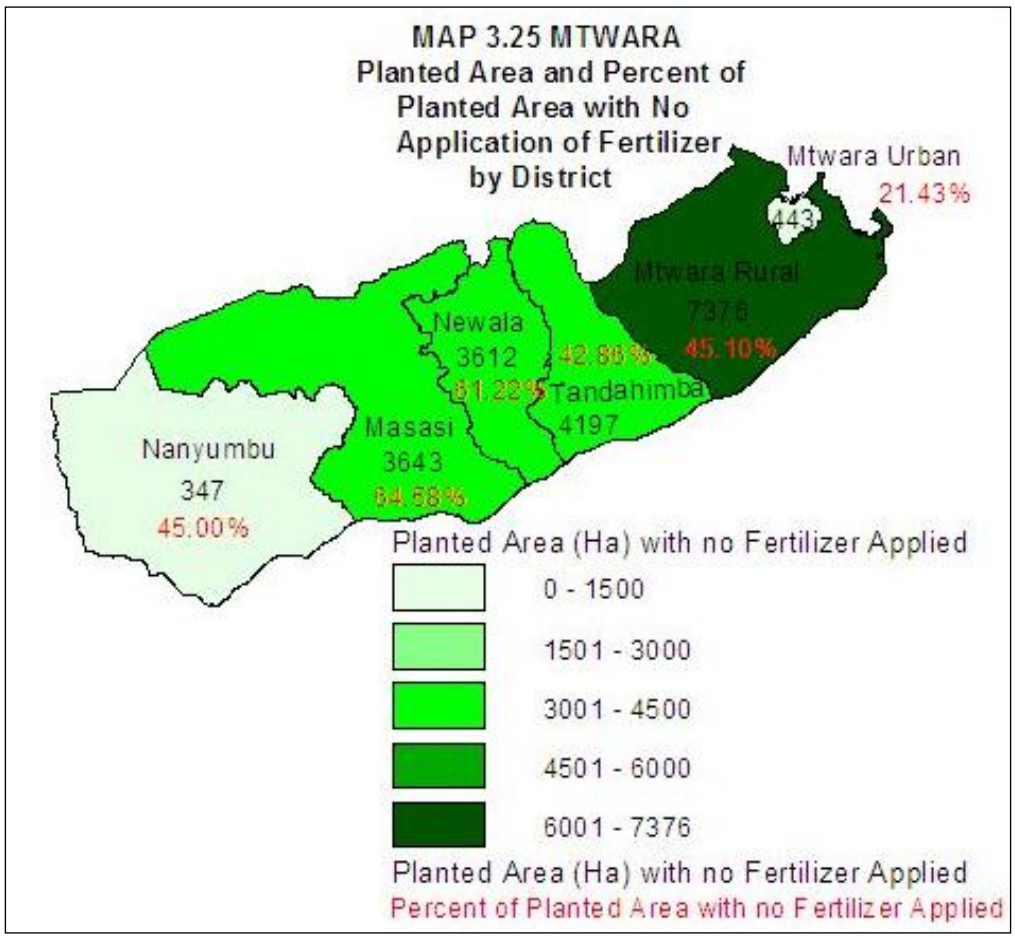
3.6.4 Insecticide, Fungicides and Herbicide Use

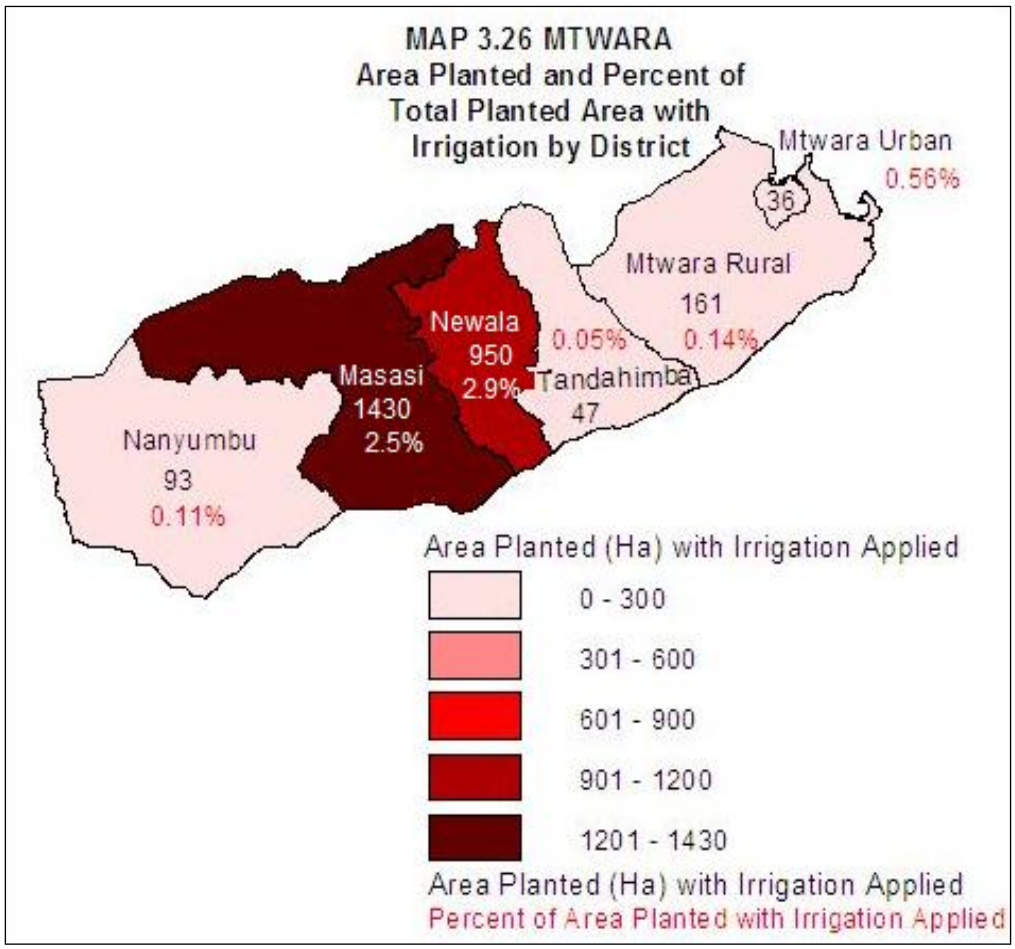
The planted area applied with insecticides, fungicides and herbicides was estimated at 4,253 ha which represented 2.4 percent of the total planted area for annual crops and vegetables. A total of 2,717 ha was planted with insecticide represented 64 percent of total planted area, while fungicide was applied to 1,345 ha (32%). Only 191 ha (4% was applied with fungicides (Chart 3.47).



Mtwara Urban had the highest percent of planted area with insecticides (100%). This was closely followed by Newala (89%) and Nanyumbu (82%). Tandahimba, Masasi and Mtwara rural had moderate application of insecticides. Fungicides application was highest in Masasi (42%) followed by Tandahimba (33%) and Mtwara rural (32%). Nanyumbu and Newala had the least area under fungicides application. Herbicides use was not common in Mtwara region. The leading district was Mtwara rural (26%) while Masasi and Newala had very small proportion of land applied with fungicides. In other districts the application of fungicides was nearly zero (Chart 3.48).



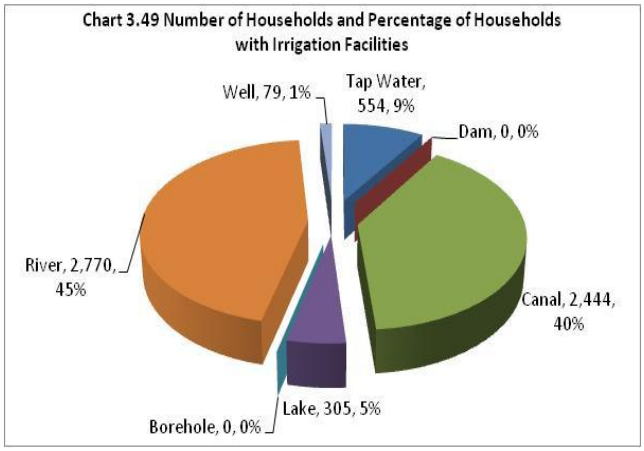

MAP 3.25 MTWARA
Planted Area and Percent of Planted Area with No Application of Fertilizer by District
Mtwara Urban
21.43%
443
Mtwara Rural
7376
45.10%
Newala
3612
61.22%
42.86%
Tandahimba
4197
Masasi
3643
64.58%
Nanyumbu
347
45.00%
Planted Area (Ha) with no Fertilizer Applied
0 - 1500
1501 - 3000
3001 - 4500
4501 - 6000
6001 - 7376
Planted Area (Ha) with no Fertilizer Applied
Percent of Planted Area with no Fertilizer Applied

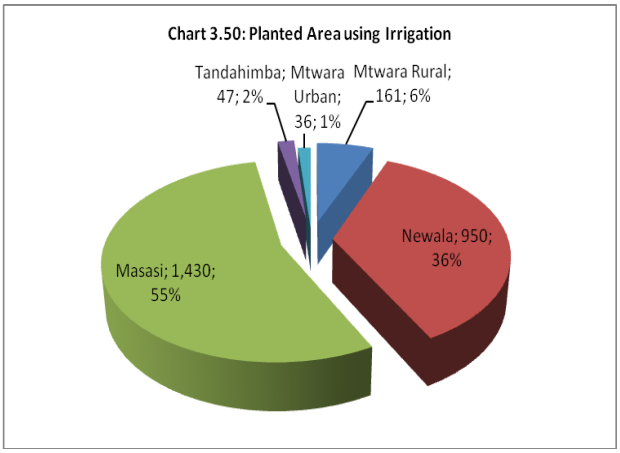

MAP 3.26 MTWARA
Area Planted and Percent of Total Planted Area with Irrigation by District
Mtwara Urban
0.56%
36
Mtwara Rural
161
0.14%
Newala
950
2.9%
0.05%
Tandahimba
47
Masasi
1430
2.5%
Nanyumbu
93
0.11%
Area Planted (Ha) with Irrigation Applied
0 - 300
301 - 600
601 - 900
901 - 1200
1201 - 1430
Area Planted (Ha) with Irrigation Applied
Percent of Area Planted with Irrigation Applied

3.7 Irrigation

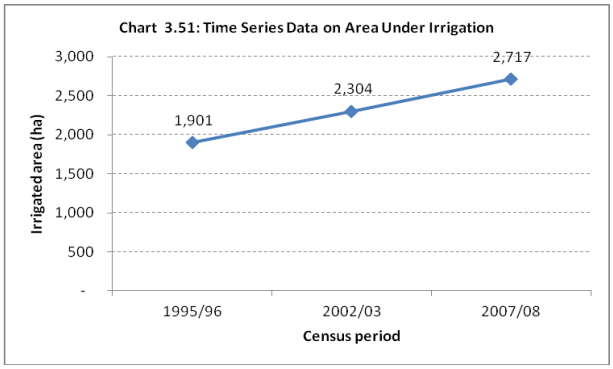
Area under Irrigation

In Mtwara region, the area of annual crops under irrigation was 2,717 ha representing 0.6 percent of the total area utilized (Map 3.26). The main source of irrigation was river whereby 2,770 ha equivalent to 45% of all irrigated land used this source. It was followed by canals (2,444 ha, 40%), tap water (554 ha, 9%) and wells (79 ha, 1%). There was no household which reported dams and boreholes as sources of irrigation (Chart 3.49).

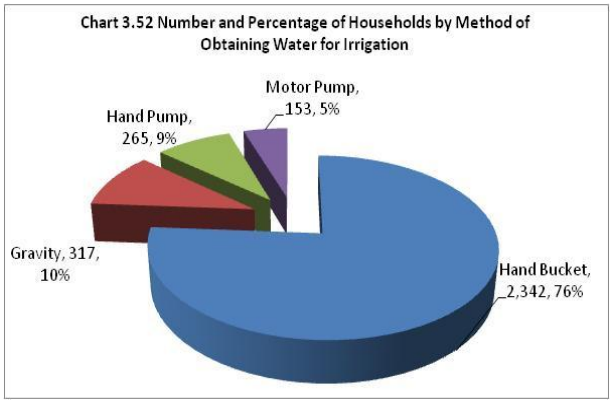




The district with the largest planted area under irrigation with annual crops was Masasi (1,430 ha, 55% of the total irrigated planted area with annual crops in the region). This was closely followed by Newala with (950 ha, 36%), Mtwara rural (161 ha, 6%), Tandahimba (47 ha, 2%) and Mtwara Urban (36 ha, 1%) (Chart 3.50).



The planted area with irrigation in Mtwara region appears to have increased over inter-censal period from 1,901 ha in 1995 to 2,717 hectares in 2007 representing a 42 percent increase (Chart 3.51). Nonetheless, fewer households practiced irrigation despite the increase.

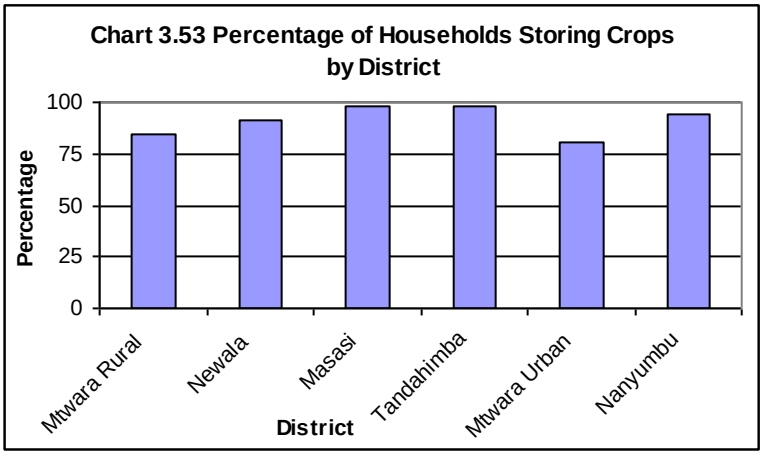


Handy bucket was the most common method getting water for irrigation with 76 percent of households practicing irrigation. This was followed by gravity water which accounted for 10 percent of households; Hand pump (9%) and motor pump (5%), (Chart 3.52).

3.8 Crop Storage and Marketing

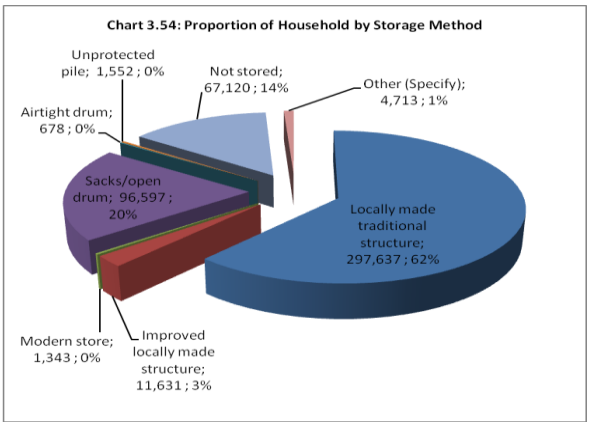
3.8.1 Crop Storage

Crop storage means keeping a crop for a certain period of time as food for the household, in order to sell at a higher price or as seed for planting in the following season. The results for Mtwara region show that there were 203,102 crop growing households (94% of the total crop growing households) that stored various agricultural products in the region Masasi and Tandahimba districts had higher (98%) percentage of households storing crops and was followed by Nanyumbu with 94 percent. Other districts ranged from 81 percent to 91 percent (Chart 3.53).



Methods of Storage

The region had 481,271 crop growing households storing their produce in locally made traditional structures (62% of households that stored crops in the region). The number of households that stored their produce in sacks and/or open drums was 96,597(20%). This was followed by improved locally made structures (11,631 households, 3%) and others 1% (Chart 3.54). Locally made traditional structures were the dominant storage method in all districts and Masasi had the highest number of households using this method. This was followed by Nanyumbu and the least was Mtwara urban.



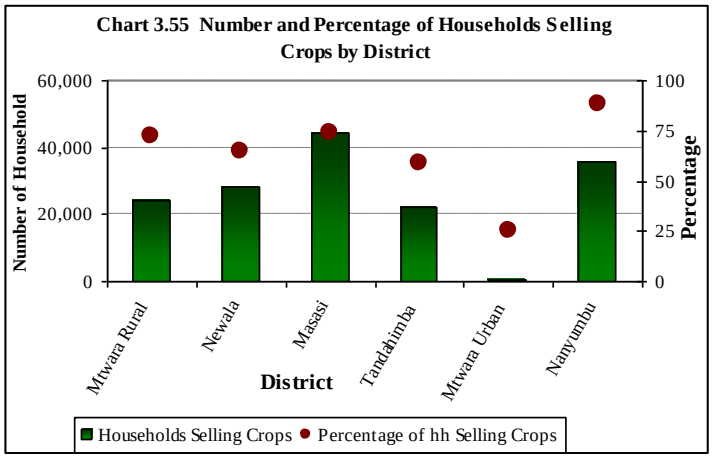
The highest percent of households using sacks and open drum was in Masasi districts with 35,434 households storing crops using this method. It was followed by Newala (21,163 households), Nanyumbu (17,332 households), Tandahimba (16,145 households), Mtwara rural (6,205 household) and Mtwara urban (318 households), (Table 3.8).

Table 3.8: Method of Crop storage by District

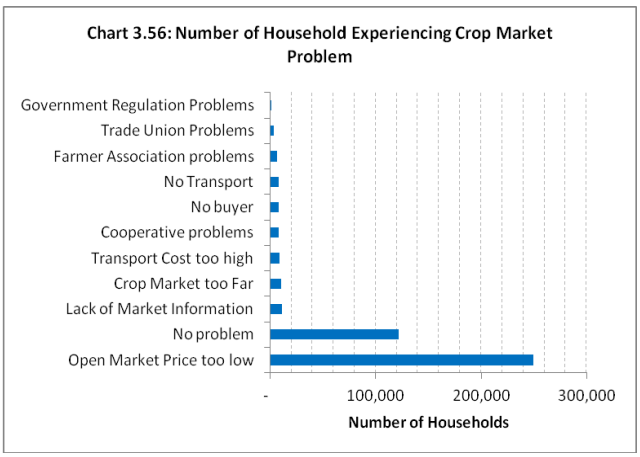
Method	District					
	Mtwara Rural	Newala	Masasi	Tandahimba	Mtwara Urban	Nanyumbu
Locally made traditional structure	42,442	65,056	82,171	58,076	2,383	47,509
Improved locally made structure	0	2,687	1,069	1,394	874	5,607
Modern store	248	896	0	0	199	0
Sacks/open drum	6,205	21,163	35,434	16,145	318	17,332
Airtight drum	496	0	0	0	79	102
Unprotected pile	124	672	0	348	0	408
Not stored	13,775	13,213	15,579	5,808	2,026	16,720
Other (Specify)	3,971	0	0	232	0	510

3.8.2 Crop Marketing

The number of households that reported selling crops was 154,632 which represent 71 percent of the total number of agricultural households. The percent of crop growing households selling crops was highest in Nanyumbu (89%) followed by Masasi (74%) and Mtwara Rural (73%). Other district accounted for less than 70 percent (Chart 3.55, Map 3.27).

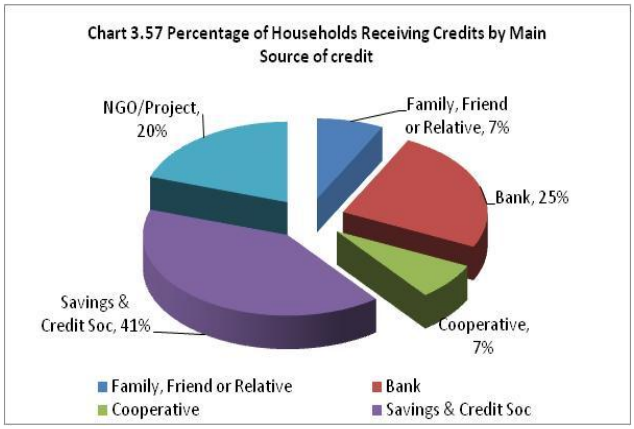


Low price in open market for agricultural produce was the main marketing problem reported by almost all households. Other problems in order of their magnitude were lack of market information, crop market too far, transport cost too high, cooperative problems, no buyer, no transport, farmers association problems, Trade union problems and lastly, government regulation problems. However, these problems were reported by few households. About half of the household reported not to experience marketing problems (Chart 3.56).



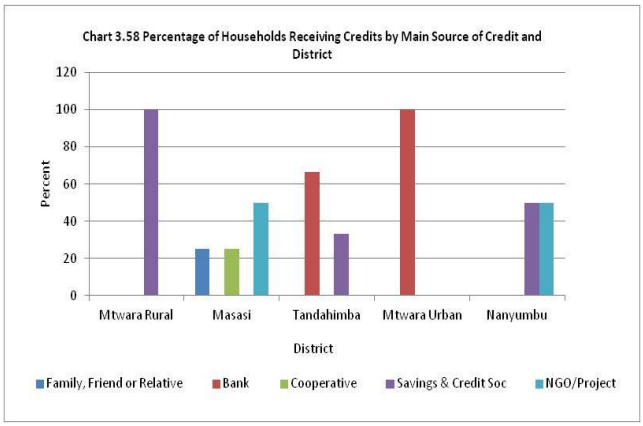
3.9 Access to Crop Production Services

3.9.1 Access to and Source of Agricultural Credit



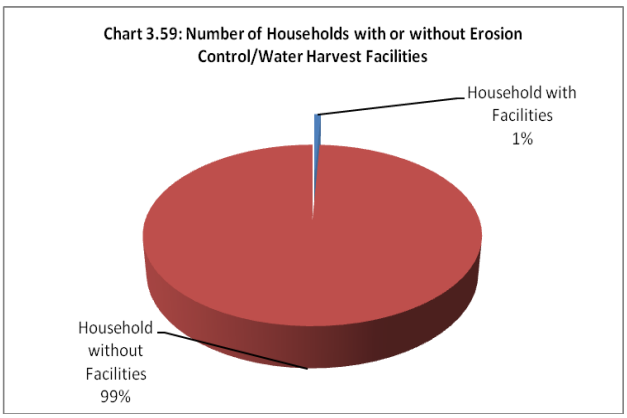
The census result shows that in Mtwara region a total of 2,048 agricultural household received credits in 2007/08 agricultural year (0.82 % of all agricultural households in the region). The major agricultural credit provider were SACCOS which provided credit to 831 households (40.6% of the total number of households that accessed credit), banks (504 household; 24.6%), NGOs/Projects (407 households; 19.9%), family and friends (153 households; 7.5%) and Cooperatives (153 households; 7.5%), (Chart 3.57).

SACCOS were the sole source of credit in Mtwara rural (100%), while banks provided all credits in Mtwara urban (100%). In Nanyumbu farmers depended on SACCOS (50%) and NGOs/development project (50%) for agricultural credits, while in Masasi NGOs provided a quarter of the credits, Family and friends (25%) and the remaining half were from cooperatives. Banks were important in Tandahimba and provides two third of the credits (66.7%) and the remaining one third was provided by SACCOS (33.3%), (Chart 3.58).

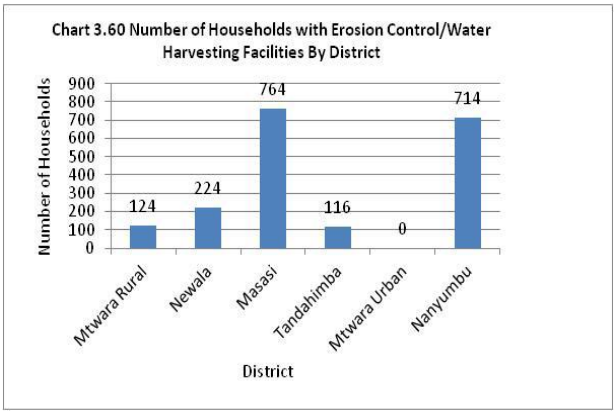


3.9.2 Erosion Control Facilities

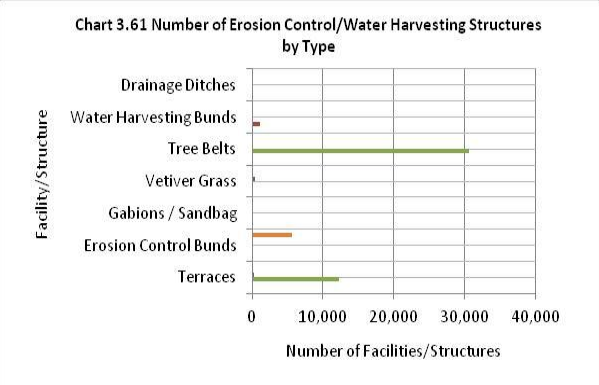
Erosion control and water harvesting facilities are grouped together as they normally have dual purposes of reducing erosion and increasing the amount of water available for crop production. The number of agricultural households that had soil erosion and water harvesting facilities on their farms was 1,942 which represent 1 percent of the total number of agricultural households in the region (Chart 3.59).



The proportion of households with soil erosion control and water harvesting facilities was highest in Masasi (39%) and followed by Nanyumbu (37%)), Newala (12%), Mtwara and Tandahimba (6% each). No irrigation facilities were reported in Mtwara urban (Chart 3.60).

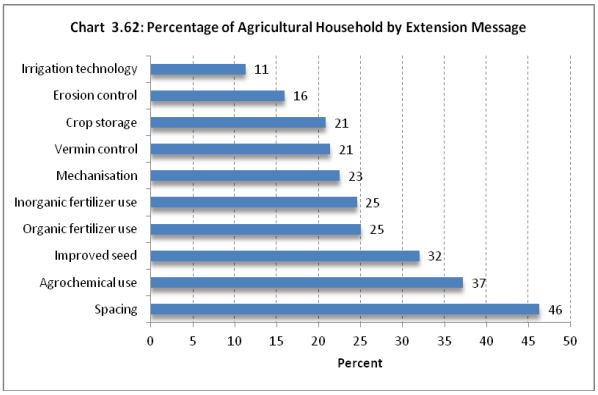


Tree belts were the commonly used soil/water harvesting facilities which accounted for 60.4 percent of the total number of soil erosion and water harvesting facilities (30,547) followed by terraces (12,655; 25%), erosion control bunds (5,607; 11.1%). The remaining structures accounted for three percent of the total (Chart 3.61).

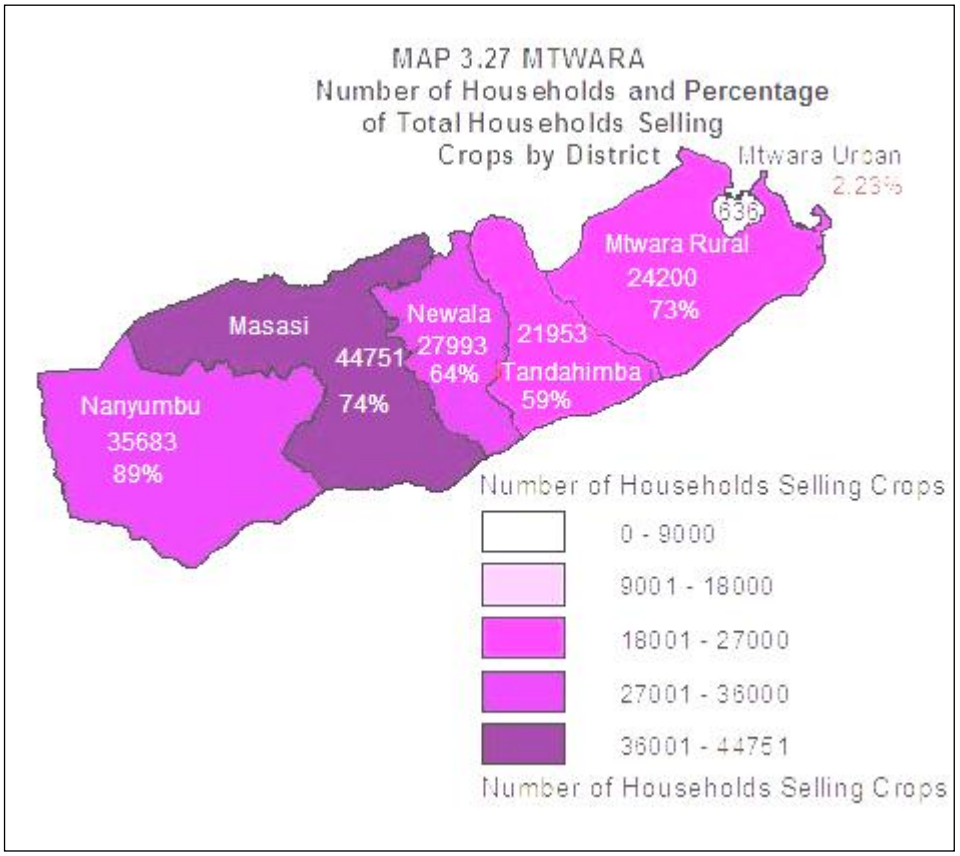


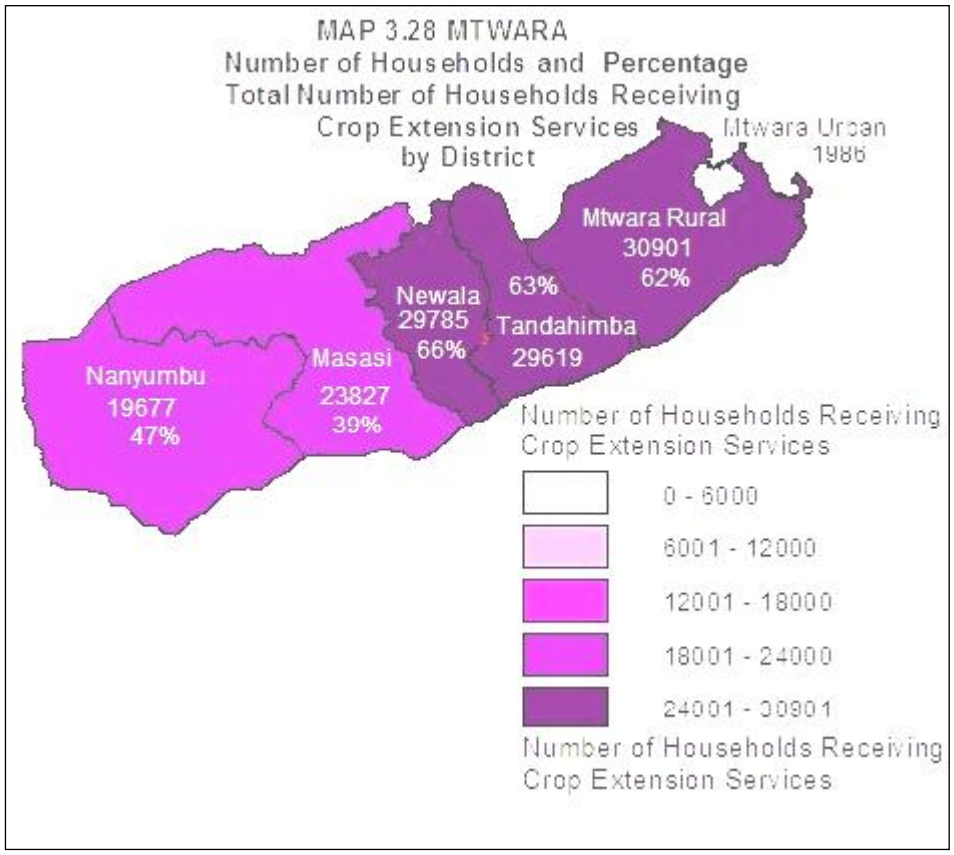
3.9.3 Sources and type of Crop Extension Messages

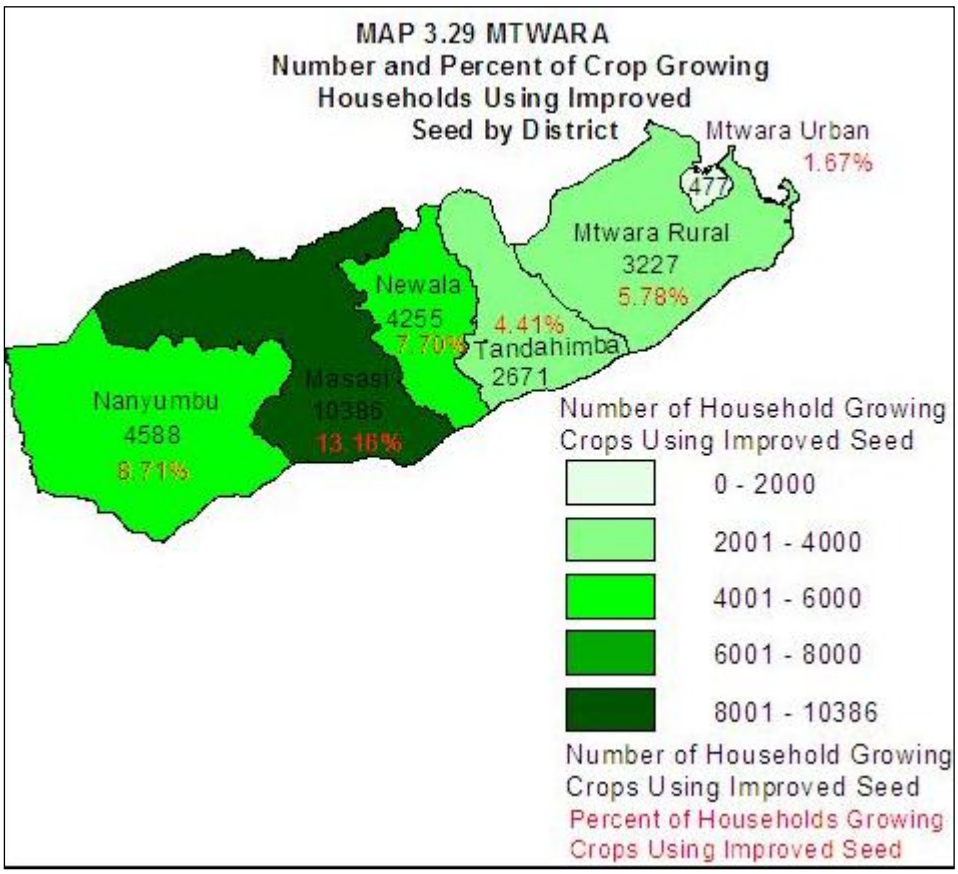
There were on average 63,970 households receiving extension advices representing 25.5 percent of the total agricultural household. Of the households receiving extension advice the government provided the greatest proportion (183,042 households; 73%). Other sources include NGOs and Projects, Cooperatives, large scale farms, local Radio/Television and neighbours.



Most households received advices on spacing (46% of the total agricultural households), followed by agrochemical use (375), use of improved seeds (32%), use of organic fertilizers (25%), use of inorganic fertilizers (25%), Mechanization (23%), Vermin control and crop storage (21% each), erosion control (16%) and irrigation technology (11%), (Chart 3.62, Map 3.28).


MAP 3.27 MTWARA
Number of Households and Percentage
of Total Households Selling
Crops by District
Mtwara Urban
2.23%
636
Mtwara Rural
24200
73%
Masasi
44751
74%
Newala
27993
64%
21953
Tandahimba
59%
Nanyumbu
35683
89%
Number of Households Selling Crops
0 - 9000
9001 - 18000
18001 - 27000
27001 - 36000
36001 - 44751
Number of Households Selling Crops


MAP 3.28 MTWARA
Number of Households and Percentage
Total Number of Households Receiving
Crop Extension Services
by District
Mtwara Urban
1986
Mtwara Rural
30901
62%
63%
Newala
29785
66%
Tandahimba
29619
Masasi
23827
39%
Nanyumbu
19677
47%
Number of Households Receiving
Crop Extension Services
0 - 6000
6001 - 12000
12001 - 18000
18001 - 24000
24001 - 30901
Number of Households Receiving
Crop Extension Services


MAP 3.29 MTWARA
Number and Percent of Crop Growing Households Using Improved Seed by District
Mtwara Urban
1.67%
477
Mtwara Rural
3227
5.78%
Newala
4255
7.70%
4.41%
Tandahimba
2671
Masasi
10386
13.16%
Nanyumbu
4588
8.71%
Number of Household Growing Crops Using Improved Seed
0 - 2000
2001 - 4000
4001 - 6000
6001 - 8000
8001 - 10386
Number of Household Growing Crops Using Improved Seed
Percent of Households Growing Crops Using Improved Seed

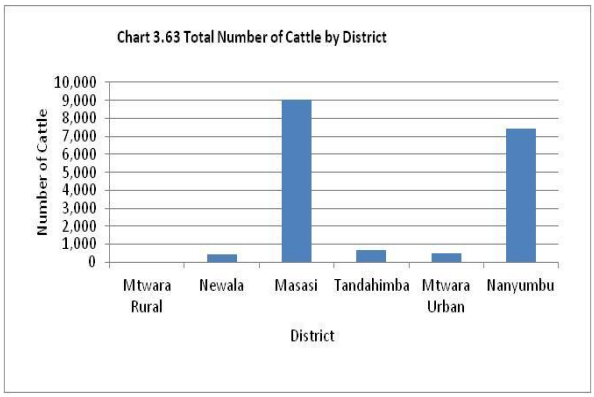
3.10 LIVESTOCK RESULTS

3.10.1 Cattle Production

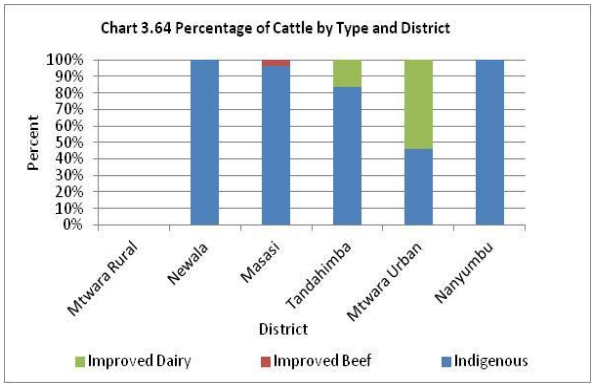
The total number of cattle in the region was 18,115 reared by 3,291 households. Cattle were the second most dominant livestock type in the region followed by pigs. The region had 0.1 percent of the total number of cattle population on Tanzania Mainland.

3.10.1.1 Cattle Population

The number of indigenous cattle in Mtwara region was 17,415 of which 96.1% was of indigenous type, 394 cattle (2.2%) were dairy breeds and 305 heads (1.7%) were improved beef cattle. The census results show that 3,291 households in the region (1.3% of total agricultural households) kept cattle. This was equivalent to an average of 6 heads of cattle per cattle-keeping-household.



The district with the largest number of cattle was Masasi which had about 9,011 cattle (49.7% of the total number of cattle in the region). This was followed by Nanyumbu (7,442 cattle, 41.1%), Tandahimba (697 cattle, 3.8%), Mtwara urban (516 cattle, 2.9%) and Newala (448 cattle, 2.5%). However Mtwara Rural had insignificant number of cattle (Chart 3.63 and Map 3.30). In Masasi district 96.6 percent of the cattle kept was indigineous and 3.6 percent was improved beef, improved dairy was not kept in Masasi. Improved dairy cattle were raised in Mtwara urban (278 cattle, 70.5%) and the remaining 116 (29.5%) were in Tandahimba. Other districts did keep neither improved dairy cattle nor improved beef cattle (Chart 3.64).

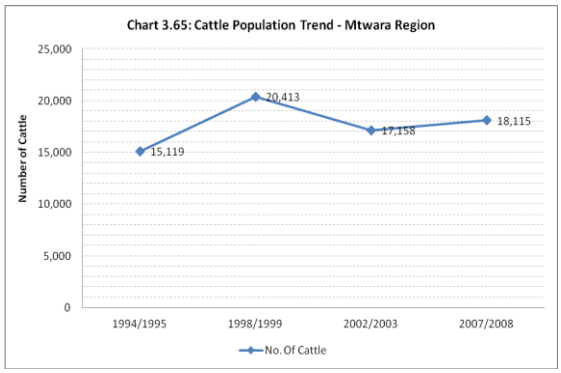


3.10.1.2 Herd Size

About 80 percent of the cattle rearing households had herd size 1-5 cattle with an average of three (3) cattle per household. Herd size of 6-10 accounted for 17 percent of cattle rearing households in region while household with herd size of 61-100 accounted for three (3) percent. Generally, all cattle rearing households had an average herd size of 6 cattle per household. Highest cattle density per square kilometer was registered in Nanyumbu (90.4) and Masasi (73.8), (Map 3.31).

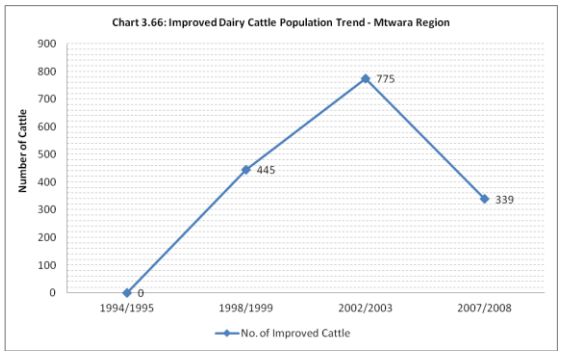
3.10.1.3 Cattle Population Trend

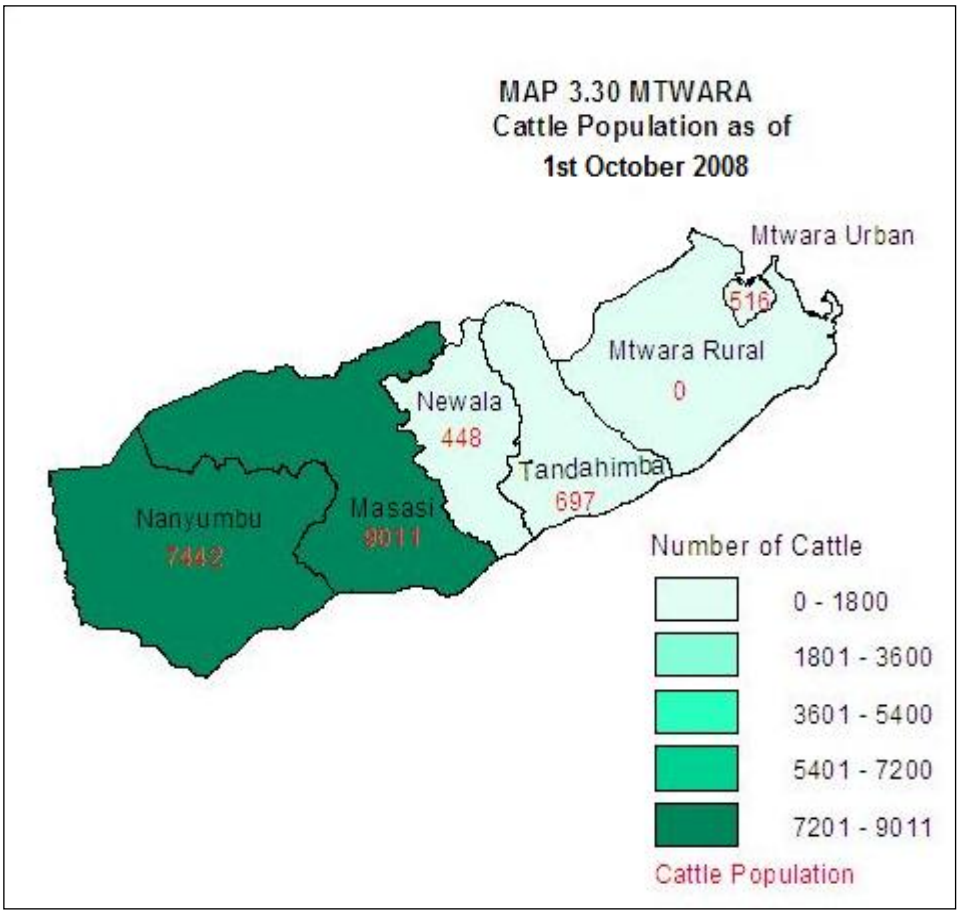
During the 13-year period cattle population in Mtwara increased from 15,119 in 1995 to 18,115 cattle in 2008. This implies an overall positive annual growth rate of 1.4 percent. There was an increase in number of cattle over the 4-year period from 1995 to 1999 at an annual rate of 7.81 percent whereby the number increased from 15,119 to 20,412. However, the number of cattle decreased from 20,412 in1999 to 17,158 in 2003 at the negative annual growth rate of –ve 4.25 percent. The number of cattle improved slightly by about 5 percent in the period between 2003 and 2008 (Chart 3.65).

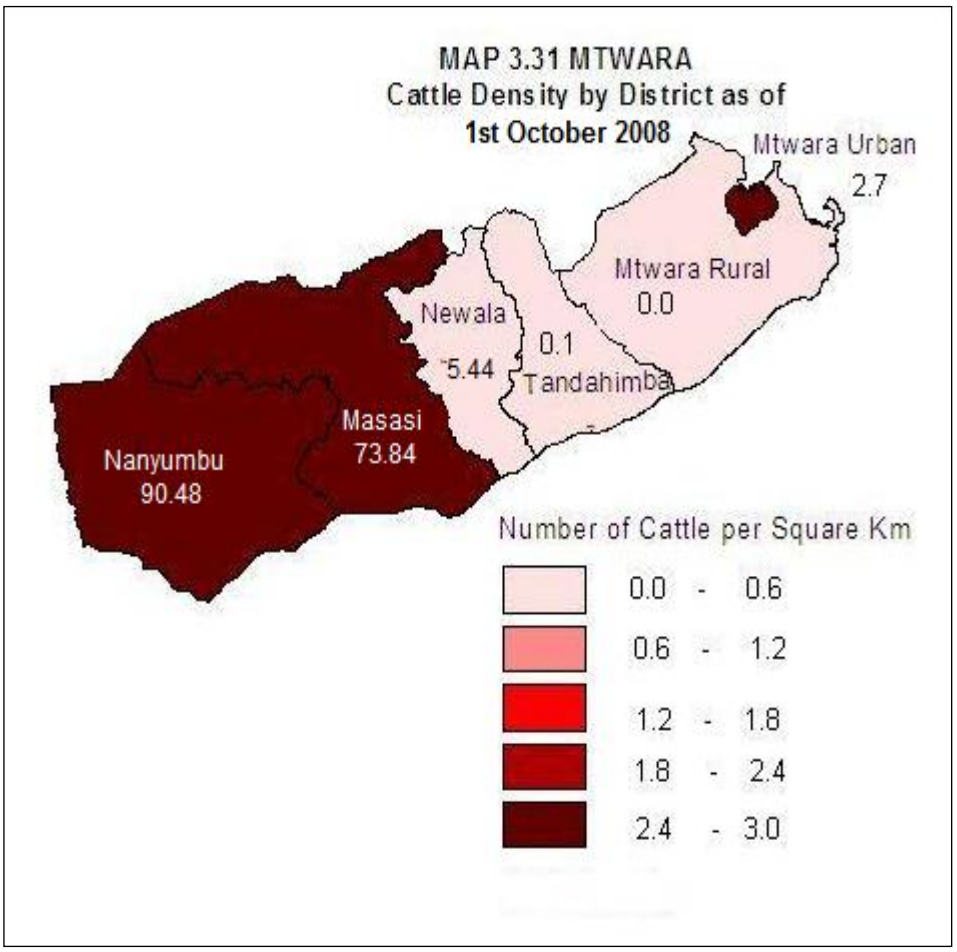


3.10.1.4 Improved Cattle Breeds

The total numbers of improved dairy cattle in Mtwara region was 394 and constituted 2.1 percent of the total cattle. The number of dairy cattle increased from 445 in 1999 to 775 in 2003 at an annual growth rate of 14.9 percent. However, in the following years (2003 to 2008) there was a decline in number of dairy cattle to 394 heads equivalent to 49% decline (Chart 3.66). Beef cattle on the other hand increased from zero in 2003 to 305 in 2008.




MAP 3.30 MTWARA
Cattle Population as of
1st October 2008
Mtwara Urban
516
Mtwara Rural
0
Newala
448
Tandahimba
697
Masasi
9011
Nanyumbu
7442
Number of Cattle
0 - 1800
1801 - 3600
3601 - 5400
5401 - 7200
7201 - 9011
Cattle Population

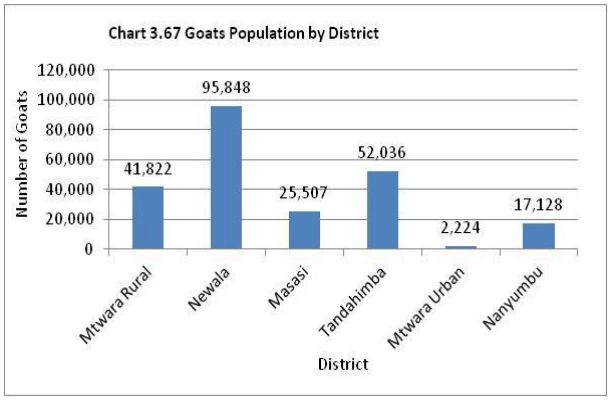

MAP 3.31 MTWARA
Cattle Density by District as of
1st October 2008
Mtwara Urban
2.7
Mtwara Rural
0.0
Newala
5.44
0.1
Tandahimba
Masasi
73.84
Nanyumbu
90.48
Number of Cattle per Square Km
0.0 - 0.6
0.6 - 1.2
1.2 - 1.8
1.8 - 2.4
2.4 - 3.0

3.10.2 Goat Production

Goat rearing is among the most important livestock keeping activity in the region followed by sheep and pig rearing. In terms of total number of goats on the Mainland, Mtwara region ranked 18 out of the 21 regions with 1.6 percent of the total goats on the Mainland. Goat husbandry in the region was dominated by the indigenous breeds that constituted 99.7 percent of the total goats in Mtwara region.

3.10.2.1 Goat Population

The number of goat-rearing-households in Mtwara region was 35,203 (14% of all agricultural households in the region) with a total of 234,564 goats giving an average of 7 head of goats per goat-rearing-household.



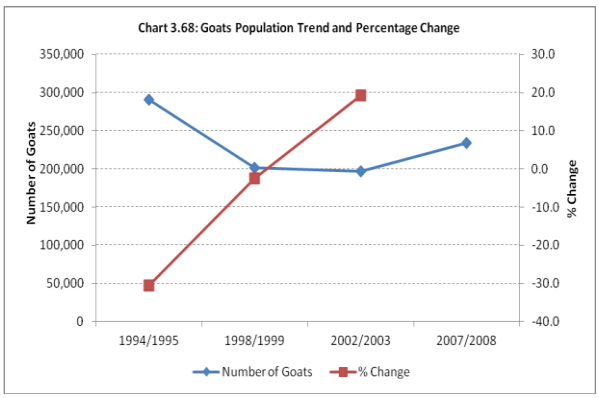
Newala had the largest number of goats (95,848 goats, 41% of all goats in the region), followed by Tandahimba (52,036 goats, 22%), Mtwara rural (41,822 goats, 18%), and Masasi (25,507 goats, 11%) and Nanyumbu (17,128 goats, 7%). Mtwara Urban district had the least number of goats (2,224 goats, 1%), (Chart 3.67 and Map 3.32 & 3.33). Newala district had also the highest density (361 heads per km^2).

3.10.2.2 Goat Flock Size

About 45.4 percent of goat rearing households had flock size of 1-4 goats with an average of 3 goats per household. Goat rearing households with flock size of 5-9 accounted for 31.3 percent with an average of 7 goats per household while those with flock size of 10-14 accounted for 14 percent averaging 12 goats per household. The remaining had herd size of 15-34 goats and accounted for 9 percent.

3.10.2.3 Goat Population Trend

The overall average annual growth rate of goat population from 1995 to 2008 was -1.7 percent. This negative trend implies eight years of population decrease from 290,444 in 1995 to 196,675 in 2003. However, from 2003 to 2008 goat population increased by 19.3% with an annual growth rate of 3.4 percent (Chart 3.68).

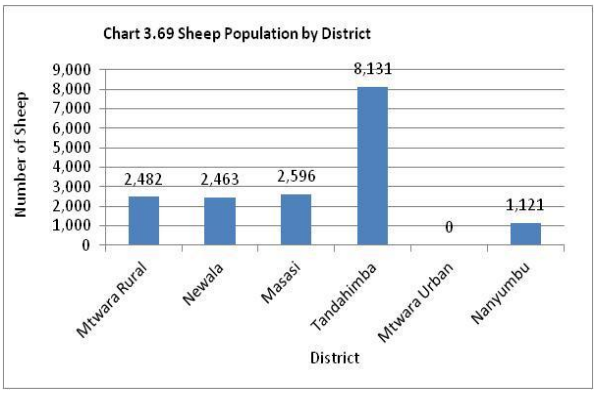


3.10.3 Sheep Production

Sheep rearing was the third most important livestock keeping activity in Mtwara region after goats. The region ranked 17 out of 21 Mainland regions and had 0.6 percent of all sheep on Tanzania Mainland.

3.10.3.1 Sheep Population

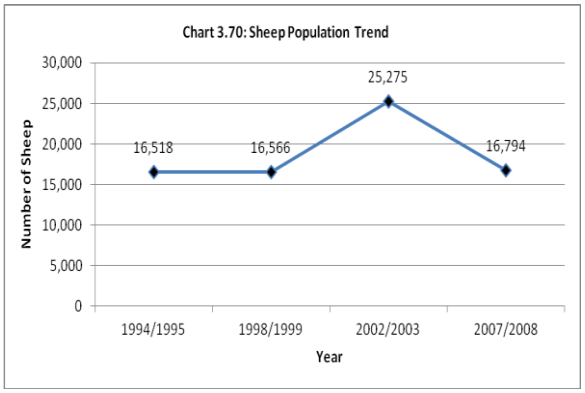
The number of sheep-rearing households was 2,536 (1% of all agricultural households in Mtwara region) rearing 16,794 sheep, giving an average of 8 heads of sheep per sheep rearing household.

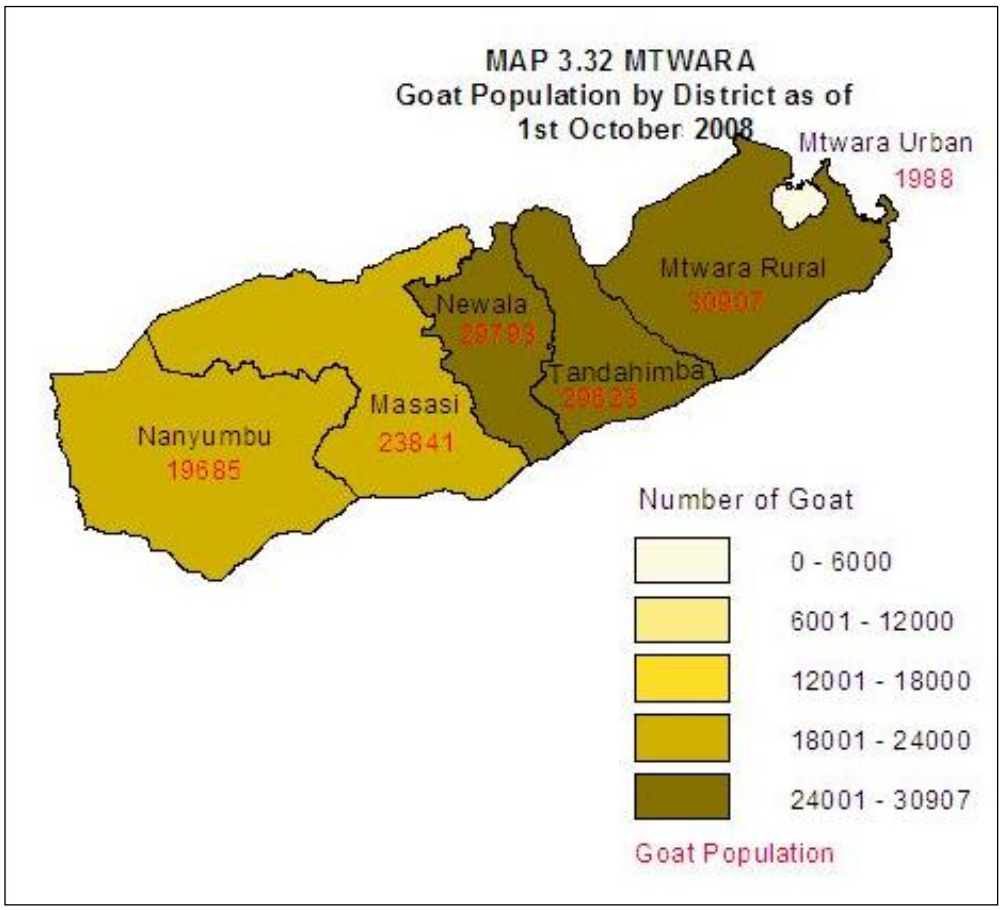


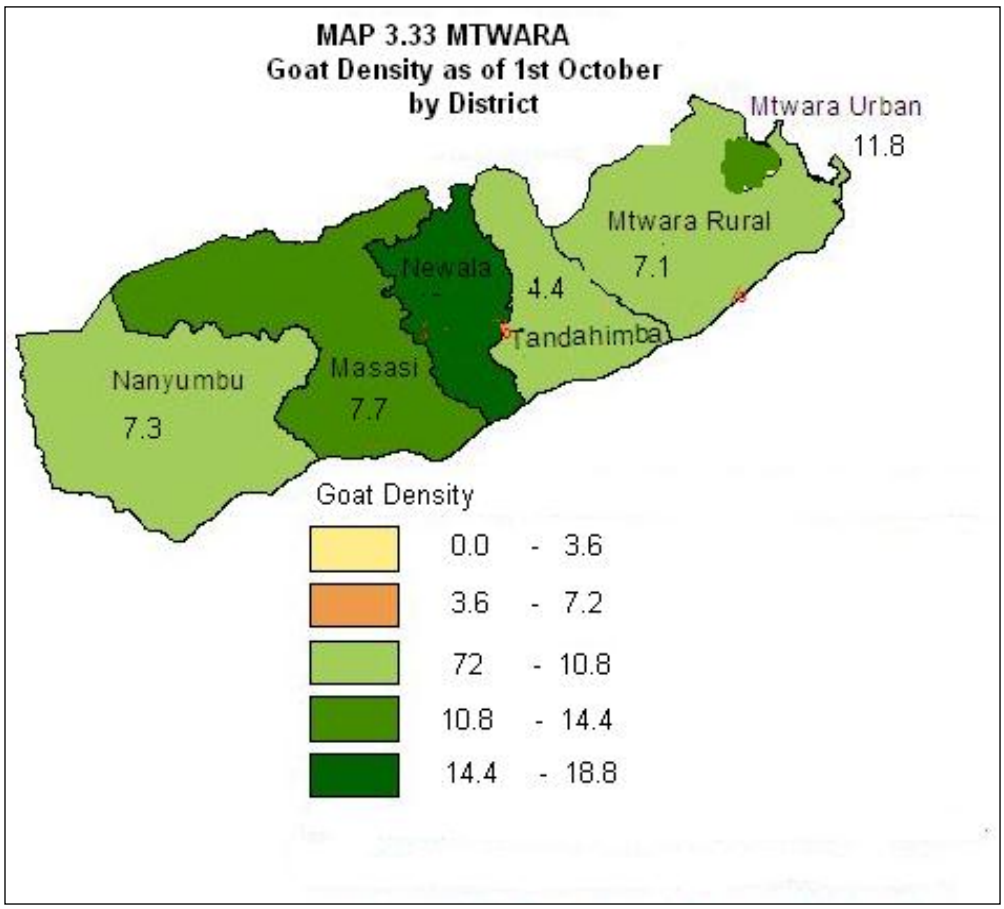
The district with the largest number of sheep was Tandahimba with 8,131 sheep (48.4% of total sheep in Mtwara region) followed by Masasi (2,596 sheep, 15.5%), Mtwara rural (2,482 sheep, 14.8%), Newala (2,463 sheep, 14.7%). Nanyumbu district had the least number of sheep (1,121 sheep, 6.7%), (Chart 3.69, Map 3.34 & Map 3.35). Sheep rearing was dominated by indigenous breeds which accounted for all sheep kept in the region.

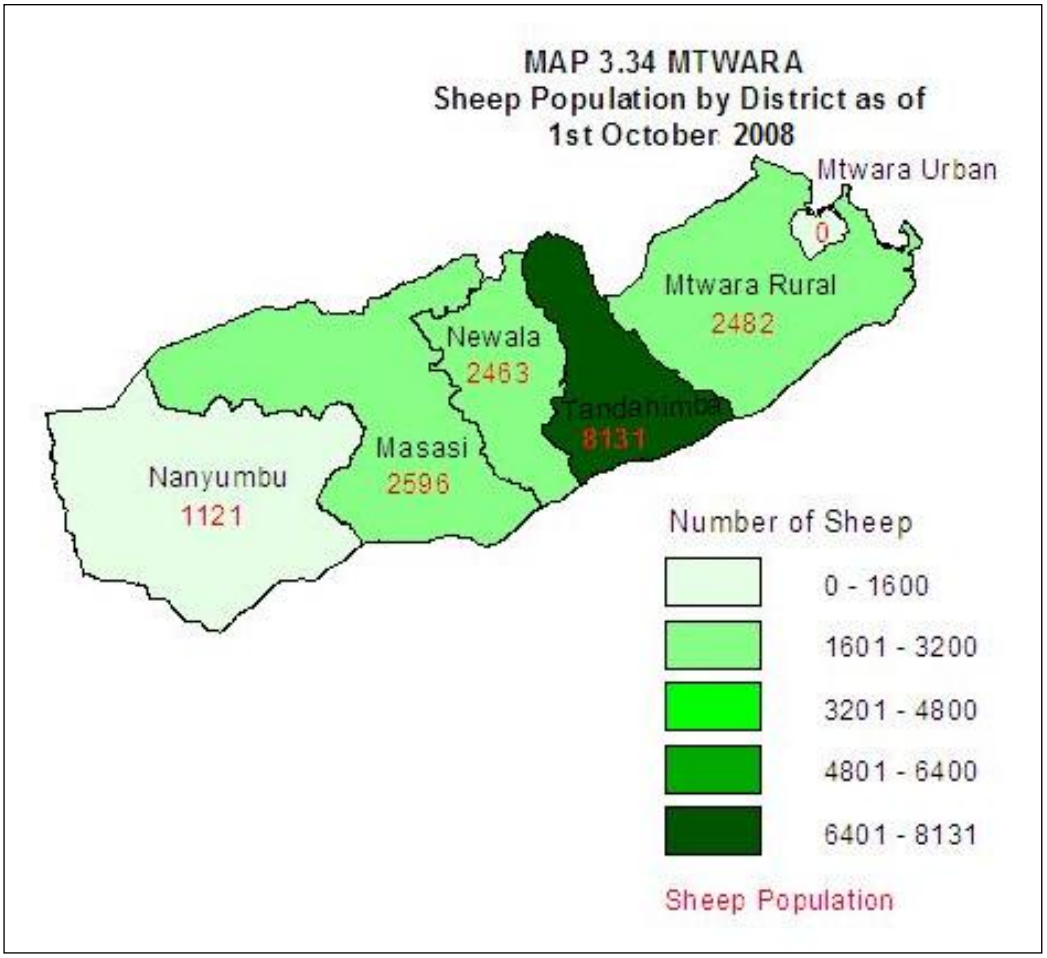
3.10.3.2 Sheep Population Trend

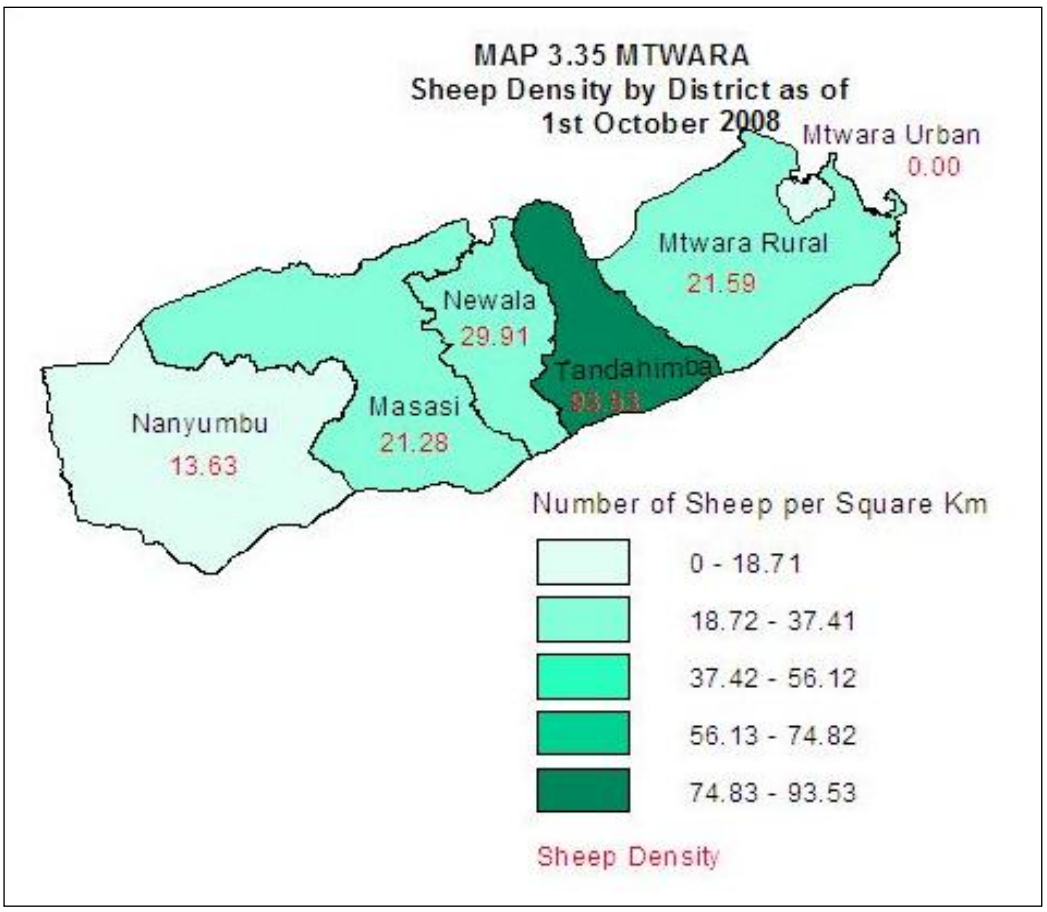
The overall annual growth rate of the sheep population over the thirteen-year period from 1995 to 2008 is estimated at 0.13 percent. The population increased at an average annual rate of growth of 0.1 percent from 16,518 in 1995 to 16,566 in 1999. From 1999 to 2003, sheep population increased at an average annual rate of growth of 11.1 percent, but the trend reversed and number of sheep declined to 16,794 (-33%), (Chart 3.70).




MAP 3.32 MTWARA
Goat Population by District as of
1st October 2008
Mtwara Urban
1988
Mtwara Rural
30907
Newala
28793
Tandahimba
29633
Masasi
23841
Nanyumbu
19685
Number of Goat
0 - 6000
6001 - 12000
12001 - 18000
18001 - 24000
24001 - 30907
Goat Population

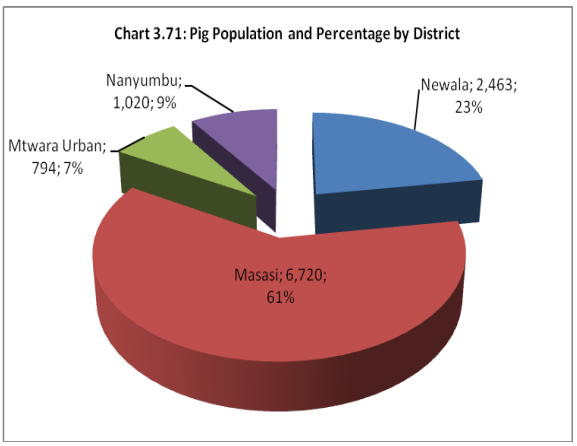

MAP 3.33 MTWARA
Goat Density as of 1st October
by District
Mtwara Urban
11.8
Mtwara Rural
7.1
Newala
4.4
Tandahimba
Masasi
7.7
Nanyumbu
7.3
Goat Density
0.0 - 3.6
3.6 - 7.2
72 - 10.8
10.8 - 14.4
14.4 - 18.8


MAP 3.34 MTWARA
Sheep Population by District as of
1st October 2008
Mtwara Urban
0
Mtwara Rural
2482
Newala
2463
Tandahimba
8131
Masasi
2596
Nanyumbu
1121
Number of Sheep
0 - 1600
1601 - 3200
3201 - 4800
4801 - 6400
6401 - 8131
Sheep Population


MAP 3.35 MTWARA
Sheep Density by District as of
1st October 2008
Mtwara Urban
0.00
Mtwara Rural
21.59
Newala
29.91
Tandahimba
93.53
Masasi
21.28
Nanyumbu
13.63
Number of Sheep per Square Km
0 - 18.71
18.72 - 37.41
37.42 - 56.12
56.13 - 74.82
74.83 - 93.53
Sheep Density

3.10.4 Pig Production

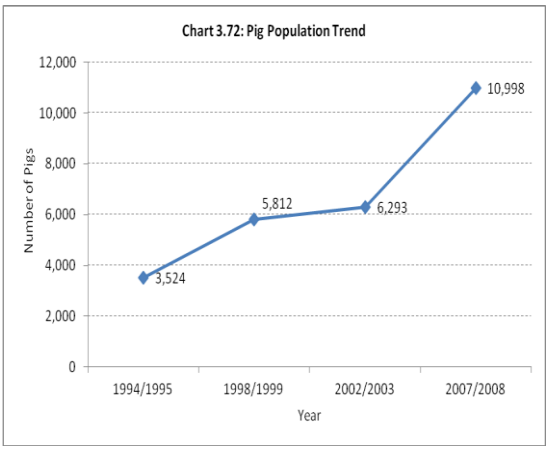
Piggery was the least important livestock keeping activity in the region after goats, sheep and cattle. The region ranked at 19 out of 21 Mainland regions and had 0.7 percent of the Mainland total pigs. The number of pig-rearing agricultural households in Mtwara region was 4,062 (2% of the total agricultural households in the region) rearing 10,998 pigs. This gives an average of 3 pigs per pig-rearing household.

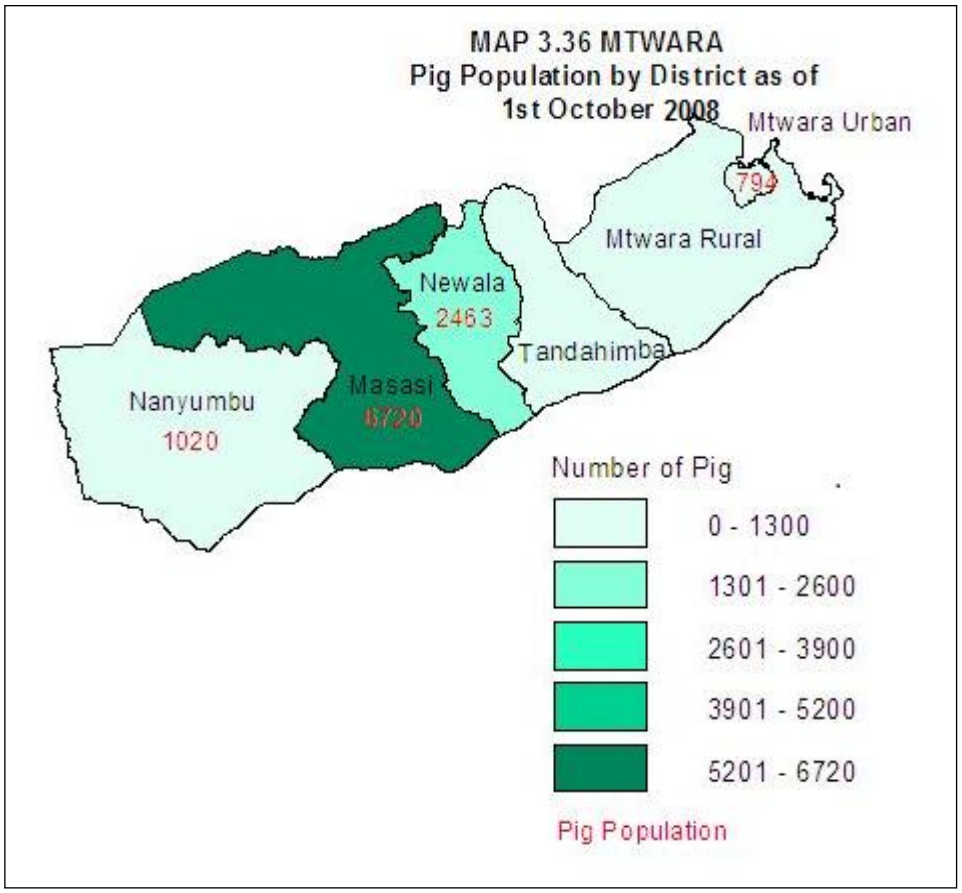


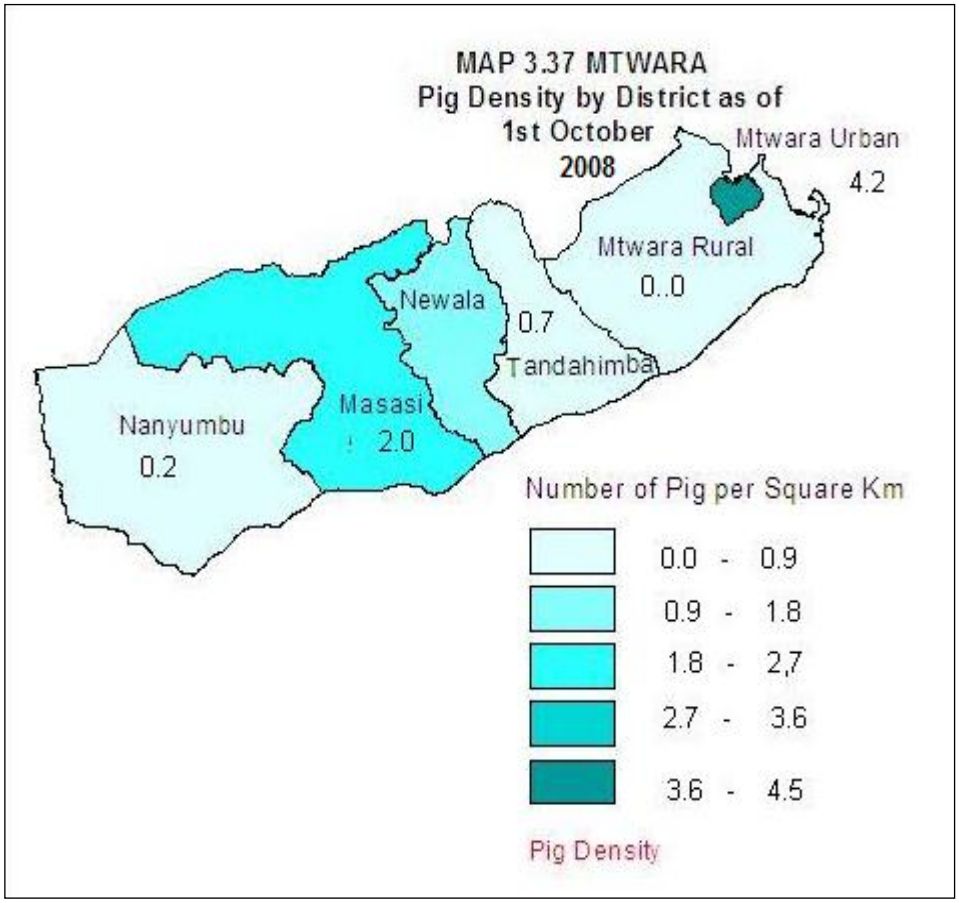
The district with the largest number of pigs was Masasi with 6,720 pigs (61% of the total pig population in the region) followed by Newala (2,463 pigs, 22%), Nanyumbu (1,020 pigs, 9%) and Mtwara urban (794 pigs, 7%), (Chart 3.71; Map 3.36 & Map 3.37). No household raising pigs were reported in Mtwara rural and Tandahimba.

3.10.4.1 Pig Population Trend

The overall average annual growth rate of the pig population over the thirteen-year period from 1995 to 2008 was 9.1 percent. During this period the population grew from 3,524 in 1995 to 10,998 in 2008. The pig population increased from 3,524 in 1995 to 5,812 in 1999 at a higher average annual growth rate of 13.3 percent. The growth rate dropped to 2.0 percent during the following four years from 1999 to 2003 in which pig population increased from 5,812 to 6,293. Between 2003 and 2008 the annual growth rate was 11.8 percent (Chart 3.72).




MAP 3.36 MTWARA
Pig Population by District as of
1st October 2008
Mtwara Urban
794
Mtwara Rural
Newala
2463
Tandahimba
Masasi
6720
Nanyumbu
1020
Number of Pig
0 - 1300
1301 - 2600
2601 - 3900
3901 - 5200
5201 - 6720
Pig Population

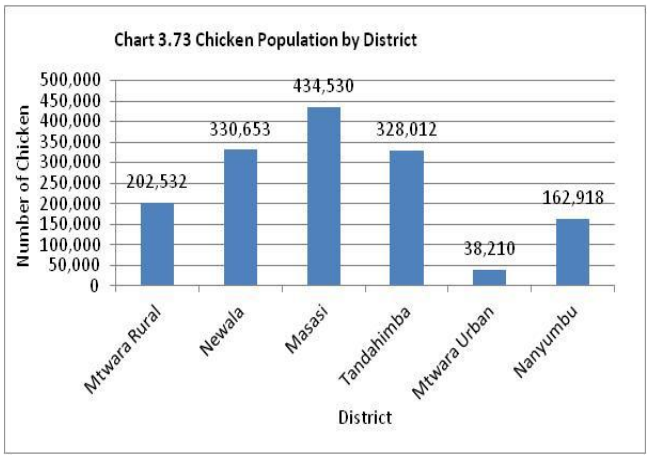

MAP 3.37 MTWARA
Pig Density by District as of
1st October
2008
Mtwara Urban
4.2
Mtwara Rural
0..0
Newala
0.7
Tandahimba
Masasi
2.0
Nanyumbu
0.2
Number of Pig per Square Km
0.0 - 0.9
0.9 - 1.8
1.8 - 2,7
2.7 - 3.6
3.6 - 4.5
Pig Density

3.10.5 Chicken Production

The poultry sector in Mtwara region was dominated by chicken production. The region contributed 2.1 percent to the total chicken population on Tanzania Mainland.

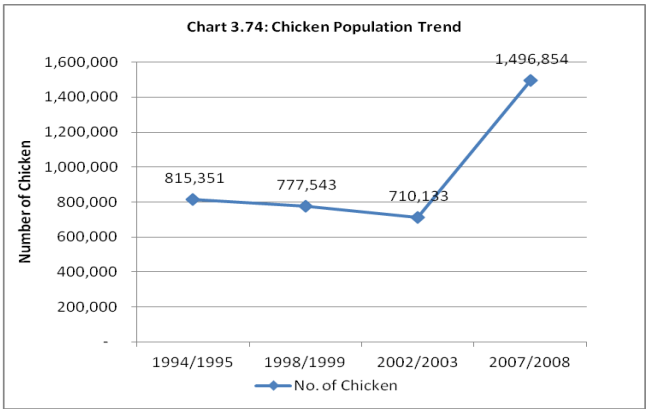
3.10.5.1 Chicken Population

The number of households keeping chicken was 138,147 raising about 1,496,854 chickens. This gives an average of 11 chickens per chicken-rearing household. In terms of total number of chickens in the country, Mtwara region was ranked sixteenth out of the 21 Mainland regions. There were 13,553 layers and 12,908 broilers constituting about one percent each to the entire chicken population in the region.



The District with largest number of chickens was Masasi (434,530 chickens, 29% of the total number of chickens in the region) followed by Newala (330,653 chickens, 22%), Tandahimba (328,012 chickens, 22%), Mtwara rural (202,532 chickens, 14%), Nanyumbu (162,918 chickens, 11%) and Mtwara urban (38,210 chickens, 3%) (Chart 3.73; Map 3.38) Newala had the highest chicken density (4014 heads/km), followed by Tandahimba (3,773 head/km) and Masasi (3,560 head/km) (Map 3.39).

3.10.5.2 Chicken Population Trend



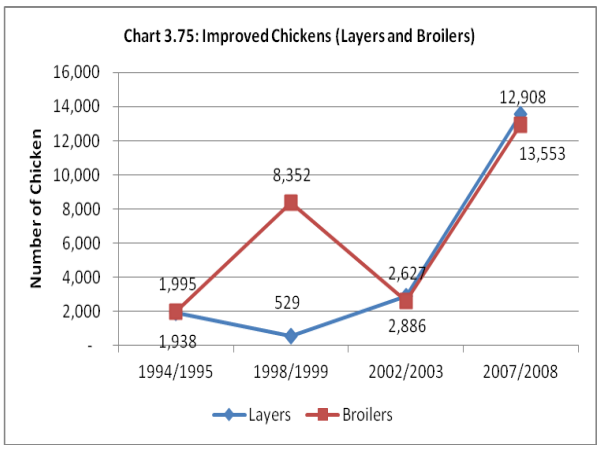
The overall average annual chicken population growth rate during the thirteen-year period from 1995 to 2008 was 4.8 percent. The population decreased at a rate of –ve 1.2 percent from 1995 to 1999 after which the rate decreased further to negative 2.2 percent over the four year period from 1999 to 2003. However, in the period between 2003 and 2008 there was a doubling of chicken number. The annual growth rate was positive and the population grew at 16 percent annually (Chart 3.74). Ninety nine percent of all chicken in Mtwara region were of

indigenous breed. The dominance of indigenous breed makes the population trend for the indigenous chicken more or less the same as that of the total chickens in the region.

3.10.5.3 Improved Chickens (layers and broilers)

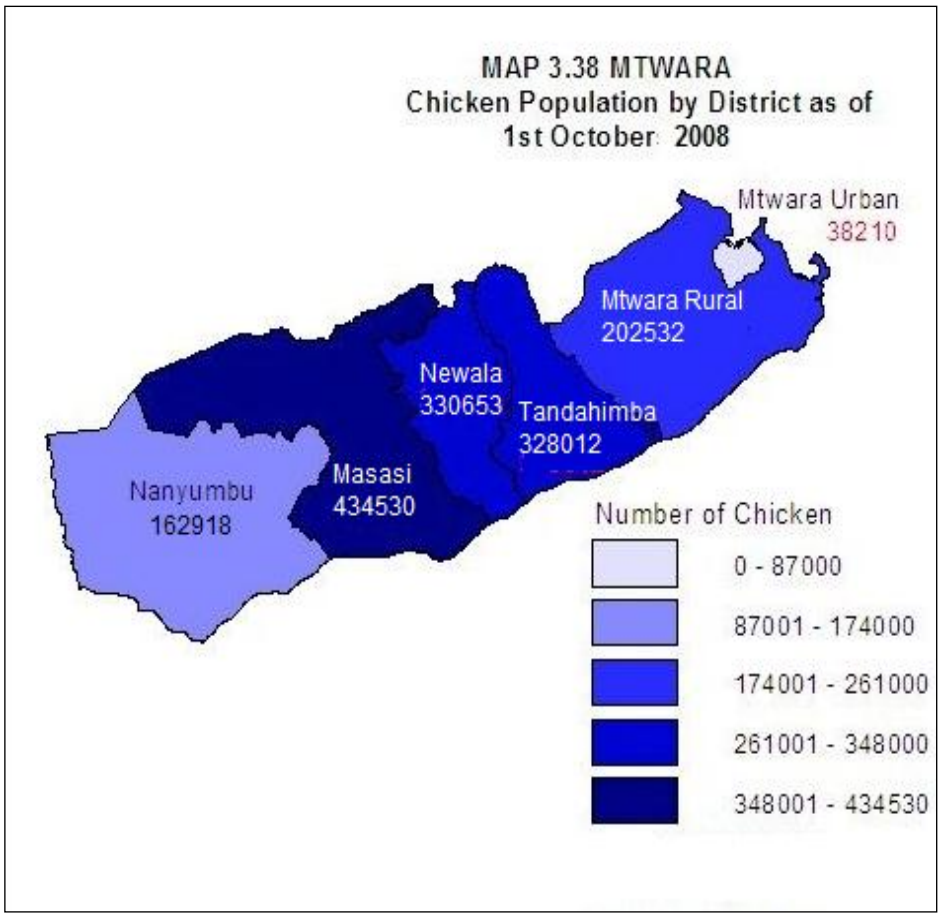
The overall average annual growth rate for layers during the thirteen-year period from 1995 to 2008 was 16.1 percent during which the population grew from 1,938 to 13,553. During four-year period from 1995 to 1999 layers chicken population decreased at an average annual rate of growth of –ve 27.7 percent from 1,938 layers in 1995 to 529 layers in 1999. The rate increased to 49.3 percent per annum over the following four years in which the number of layers increased from 529 in 1999 to 2,627 in 2003. This period was followed by a dramatic five fold increase from 2,889 chickens to 13,553 chicken in 2008, equivalent to an annual increase of 38.8%.

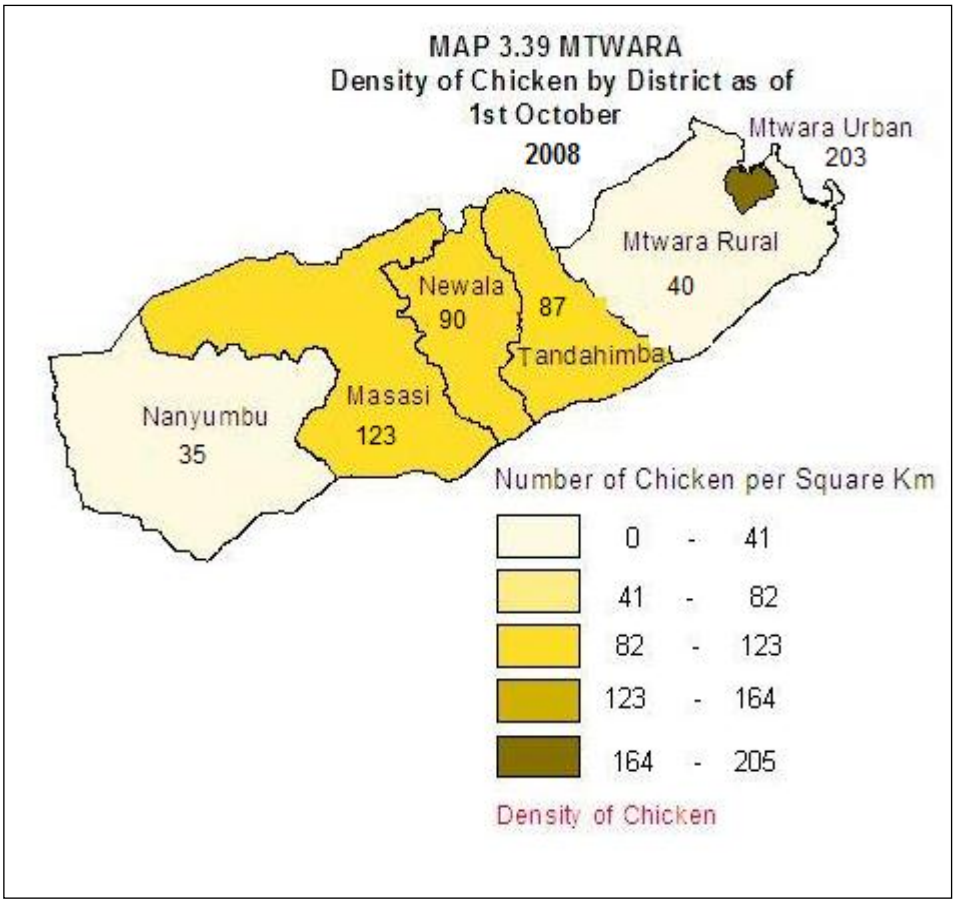
The number of broilers also followed the same trend between 2003 and 2008. The annual rate was 34.9 percent (Chart 3.75). Layers were mostly raised in Nanyumbu (57.2%), Mtwara urban (29.3%) and Masasi (13.5%). On the other hand only two districts namely Mtwara urban and Mtwara rural raised broilers. The corresponding percents were 61.5 and 38.5 respectively.



Other Livestock

Other livestock reared in the region include dogs, ducks and turkeys. There were 1,096 dogs in Mtwara region with Mtwara Rural and Masasi accounting for 45% and 42% respectively. A total of 12,845 ducks were raised in the region with 44 percent were kept in Nanyumbu, 34 percent in Newala and remaining portion distributed in the remaining districts. A total of 305 turkeys were raised in the region and all of them were found in Masasi district.

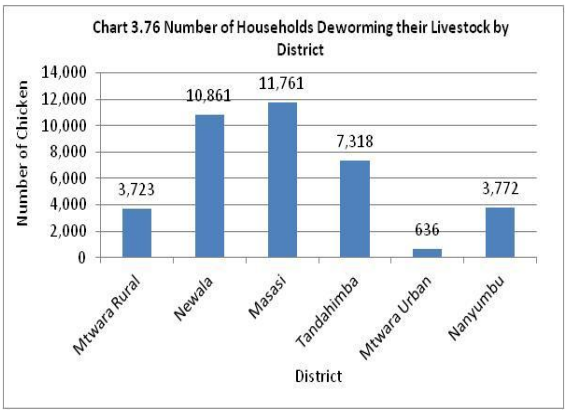

MAP 3.38 MTWARA
Chicken Population by District as of
1st October 2008
Mtwara Urban
38210
Mtwara Rural
202532
Newala
330653
Tandahimba
328012
Masasi
434530
Nanyumbu
162918
Number of Chicken
0 - 87000
87001 - 174000
174001 - 261000
261001 - 348000
348001 - 434530

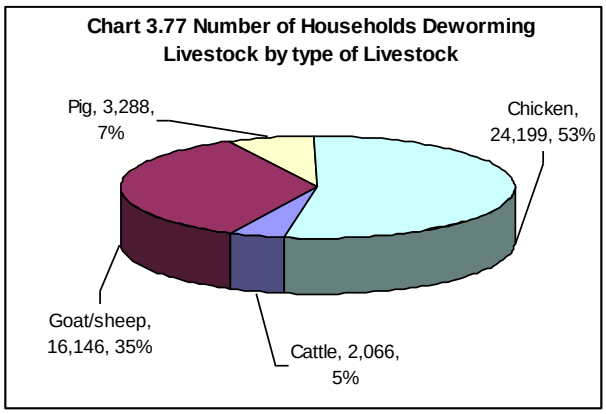

MAP 3.39 MTWARA
Density of Chicken by District as of
1st October
2008
Mtwara Urban
203
Mtwara Rural
40
Newala
90
87
Tandahimba
Masasi
123
Nanyumbu
35
Number of Chicken per Square Km
0 - 41
41 - 82
82 - 123
123 - 164
164 - 205
Density of Chicken

3.11 Pest and Parasite Incidence and Control

3.11.1 Deworming

A total of 38,070 out of 153,272 livestock rearing households dewormed their livestock. More household (11,761 household, 31% of all household dewormed their livestock were reported in Masasi, followed by Newala (10,861 household, 29%), Tandahimba (7,318 household, 19%), Mtwara rural (3,723 household, 10%) and Mtwara urban (3,772 households, 10%). Few household were reported in Mtwara urban (636, 2%), (Chart 3.76 and Chart 3.77).





3.11.2 Tick and Tsetse Problem

The results indicate that 15,387 household (10% of livestock rearing household) percent reported encountering tick problem and 4,587 household (3%) reported to have encountered tsetse fly problems.

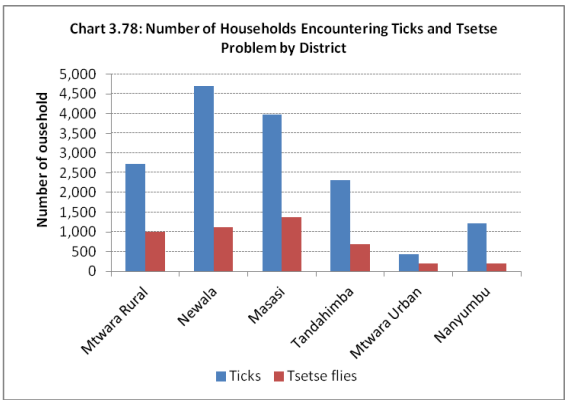
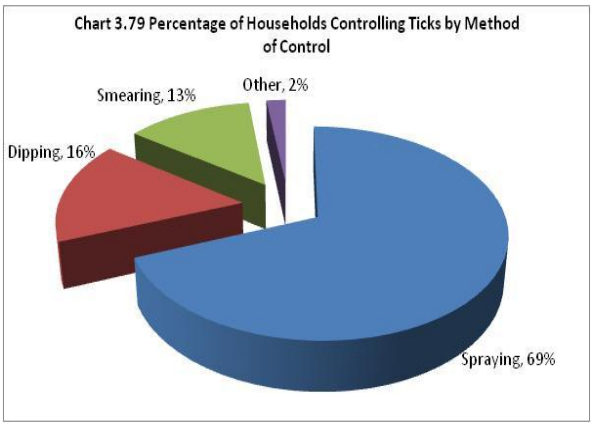
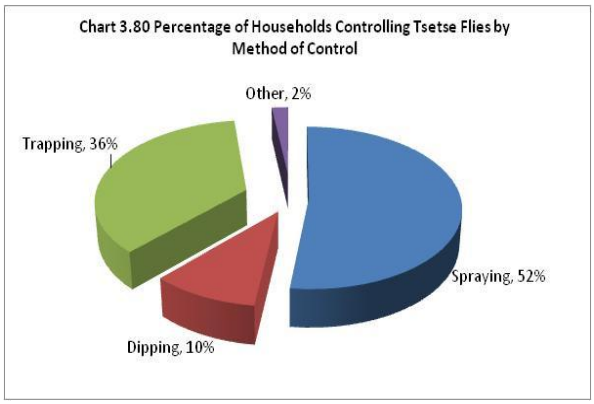


Chart 3.78 shows that tick borne diseases were prevalent over tsetse flies. Incidences of both problems were highest in Newala and Masasi districts followed by Mtwara Rural and Tandahimba with moderate incidences. Mtwara Urban and Nanyumbu had lowest incidence were reported (Map 3.40).

Most of the households (92%) reported no method of tick control while, only 8% reported controlling ticks using different methods. For livestock rearing households that reported controlling ticks, the most practiced method of tick control was spraying with 69 percent, followed by dipping (16%) and smearing (13%). Households using other methods like hand picking of tick control were 2 percent only (Chart 3.79).



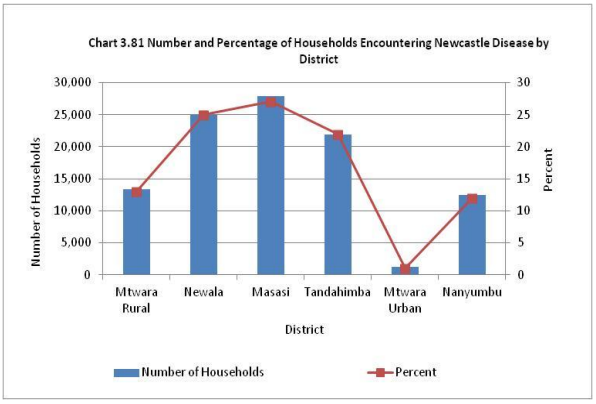
Most of the households (97%) reported no method of Tsetse flies control while only 3% reported controlling tsetse flies using different methods. For livestock rearing households that reported controlling Tsetse flies, the most common method used was spraying which was practiced by 52% percent, trapping 36% and 10% percent reported dipping. Households using other methods to control tsetse flies accounted for 2 percent.



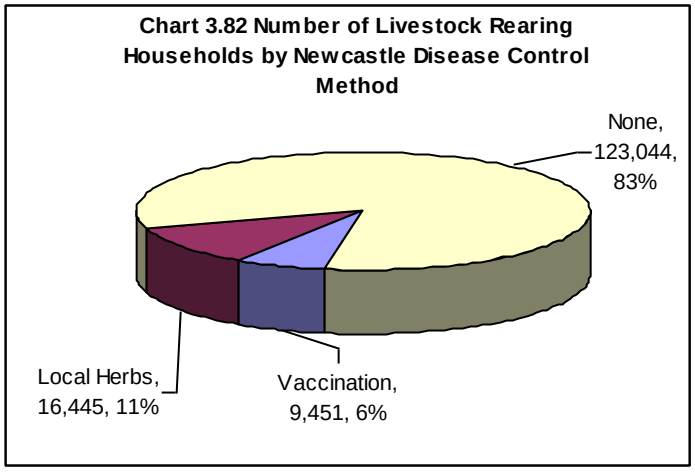
3.11.3 Newcastle disease

Newcastle Disease (ND) incidences were reported by 101,905 households equal to 66% of livestock rearing household**.**

Masasi district had the highest number of household reporting ND (27% of household reporting the disease in the district), followed by Newala (25%), Tandahimba (22%), Mtwara rural (13%), Nanyumbu (12%) and only 1 percent for Mtwara urban (Chart 3.81).

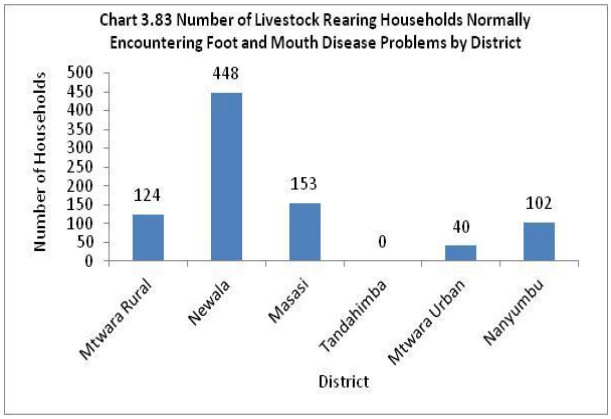


About 83% of livestock rearing households in the region reported not using any method to Newcastle Diseases while 6% vaccinated against the disease and 11% used local herbs. Newala had the highest percentage (38%) of households using vaccination, followed by Masasi (24%) and Tandahimba (22%). The remaining districts of Mtwara rural, Nanyumbu and Mtwara urban had low rates of vaccination against Newcastle Disease.



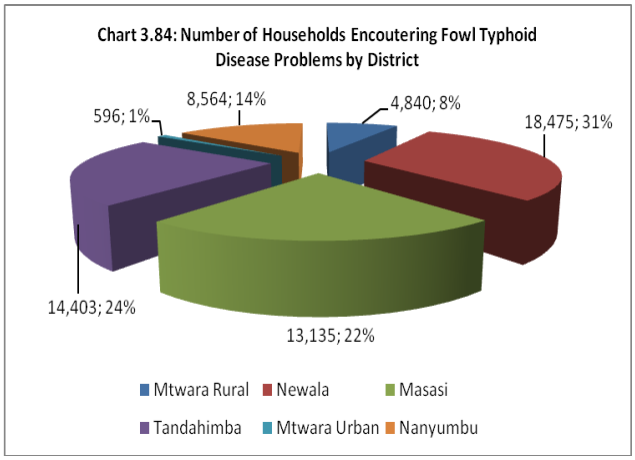
3.11.4 Foot and Mouth Disease

Foot and Mouth disease was uncommon and only 0.6% of the livestock rearing household reported to have encountered the disease while 4.6% did not encounter the disease. However, the disease incidence was not applicable for the majority (94.6%) of the households in the region. For households reported encountering Foot and Mouth Disease, Newala had the highest number (448), followed by Masasi (153), Mwara Rural (122), Nanyumbu (102) and Mtwara Urban (40). Tandahimba district reported no incidence on Foot and Mouth Disease, (Chart 3.83).



3.11.5 Fowl Typhoid Disease

Fowl Typhoid disease incidence was reported by 40.3% of the livestock rearing households in the region and 52% did not encounter the problem. However, the disease incidence was not applicable for the minority (7.4%) of the households in the region. For households reporting encountering the disease, Newala district had the highest percentage (31%), followed by Tandahimba (24%), Masasi (22%) and Nanyumbu (14%). Mtwara rural and Mtwara urban had the lowest percentage of 8% and 1% respectively (Chart 3.84). Vaccination and local herbs were the two commonly methods used to control Fowl Typhoid disease and were reported by 6% and 11% of the households respectively. About 83% reported not using any method to control the disease.

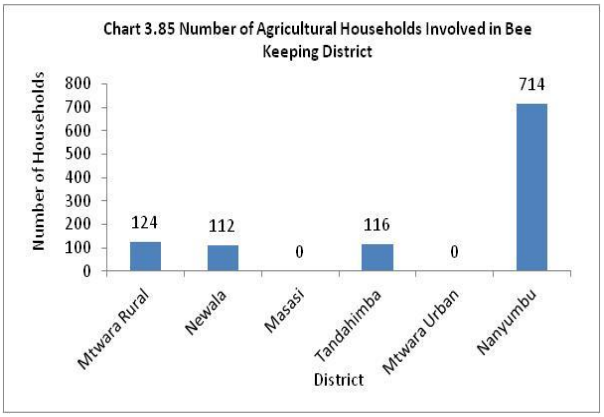


3.12 Bee keeping and Honey Production

3.12.1 Bee keeping

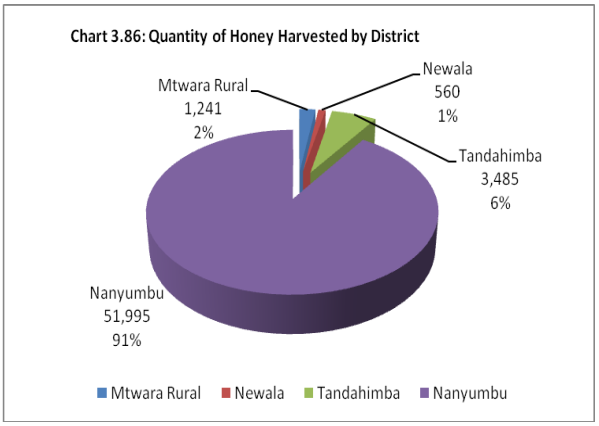
Bee keeping was practiced by only a few household in the region. A total of 1,066 households (0.4% of total agricultural household) practiced bee keeping.

Nanyumbu had the highest number of household practicing bee keeping (714, 1.7%), followed by Mtwara Rural (124 households, 0.25%), Tandahimba (116 households, 0.25%) and Newala (112 households, 0.25%). Masasi and Mtwara Urban did not practice bee keeping (Chart 3.85).



3.12.2 Honey Production

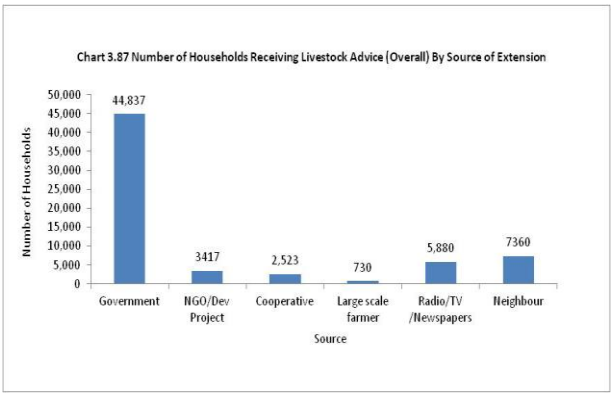
A total of 57,280 liters of honey were harvested in Mtwara region, of which 52,183 were from sting bees and 5,098 from stingless bees. The leading district in honey production includes Nanyumbu which produced 51,995 liters (91%), followed by Tandahimba which produced 3,485 (6%). The districts with least production were Mtwara Rural and Newala which produced 1,241 liters (2%) and 560 liters (1%) respectively (Chart 3.86).



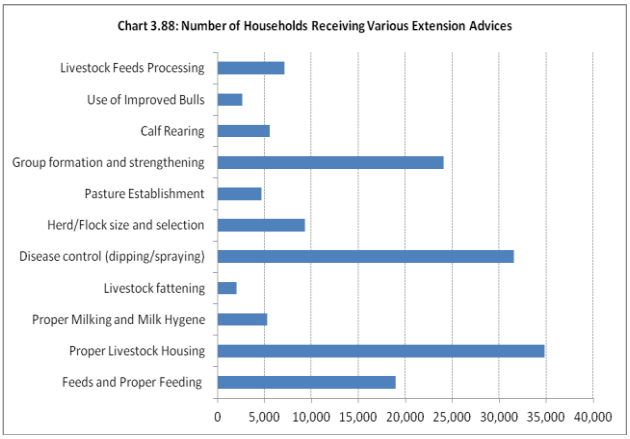
The result shows that a total of 56,468 liters of honey were sold locally in the region. The average price for stingless bees was Tanzanian Shilling 675 while that of sting bees was 2,142.

3.13 Access to Livestock Extension Services

The total number of households that received livestock advice was 50,867, representing 34.1 percent of the total livestock rearing households and 20 percent of the agricultural households in the region. The main livestock extension agent was the government which provided service to about 88 percent of all households receiving livestock extension services. It was followed by neighbours, Radio/TV/ Newspaper, NGOs/Projects, Cooperatives and large scale farms (Chart 3.87).

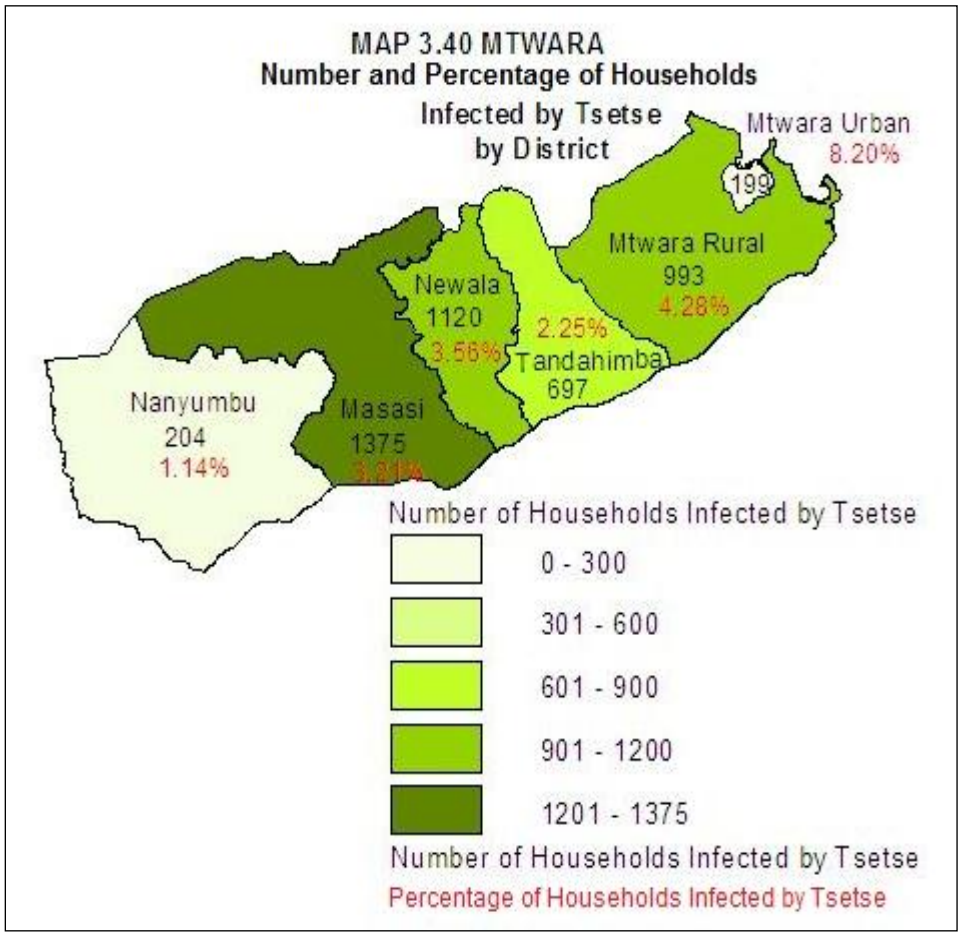


Households received different extension advices according to their needs as seen from (Chart 3.88). The most common advice was proper livestock housing followed by disease control through dipping/spraying while livestock fattening was least common advice received.



3.14 Fish Farming

The number of households involved in fish farming in Mtwara region was 153, representing 0.1 percent of the total agricultural households in the region and was only reported in Masasi district. The households reported raising fish in dug out ponds and the main fish species planted was Tilapia. The main source of fingerlings was from Government institutions. A total of 18,328 kg of fish were harvested and sold to neighbours in the region

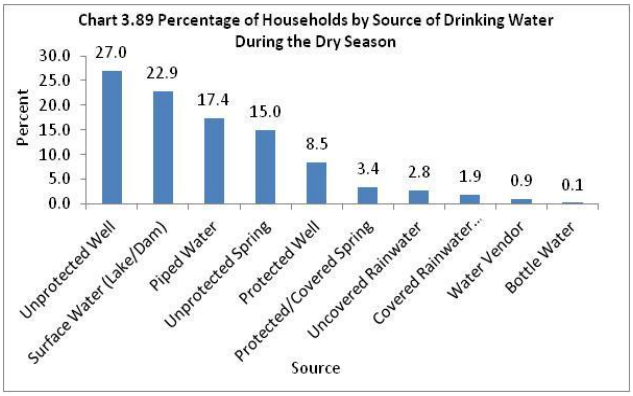

MAP 3.40 MTWARA
Number and Percentage of Households
Infected by Tsetse
by District
Mtwara Urban
8.20%
199
Mtwara Rural
993
4.28%
Newala
1120
3.56%
2.25%
Tandahimba
697
Nanyumbu
204
1.14%
Masasi
1375
Number of Households Infected by Tsetse
0 - 300
301 - 600
601 - 900
901 - 1200
1201 - 1375
Number of Households Infected by Tsetse
Percentage of Households Infected by Tsetse

3.15 POVERTY INDICATORS

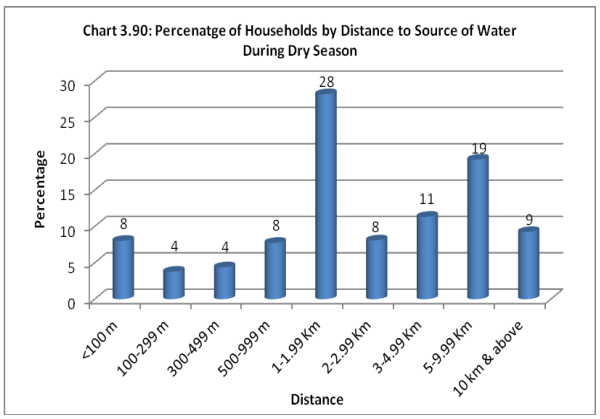
The sample census of agriculture collected some data on poverty for the purpose of providing a base for tracking progress in poverty reduction strategies undertaken by the government.

3.15.1 Access to Drinking Water

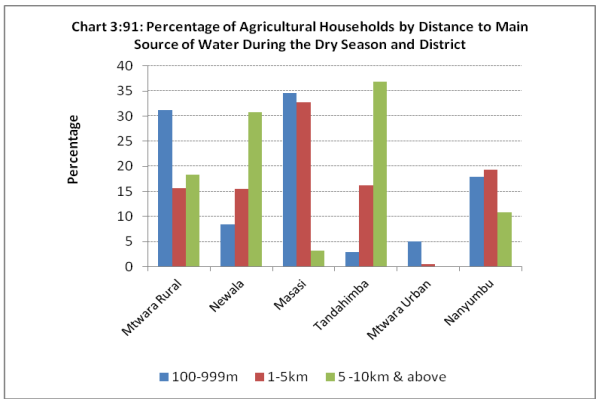
The main sources of drinking water during the dry season were unprotected wells (27%), followed by surface water (lakes/ponds) (22.9%), piped water (17.4%), unprotected spring (15%) and protected wells (8.5%). Other sources of drinking water least used were protected/covered springs (3.4%), uncovered/rain water (2.8%), covered/rainwater/catchment (1.9%), water vendors (0.9%) and bottled water (0.1%) (Chart 3.89).



In terms of water access during the dry season, there were significant variability where about 28 percent of the agricultural households accessed water in a distance between 1 to 2 kilometers, 19 percent of the agricultural households accessed water between 5 and 9 kilometers and 11 percent with distant between 3 and 5 kilometers. For the remaining households, there was variability where 24 percent accessed water within distances above 100 meters and less than 1 kilometer and 9 percent obtained water within the distance 10 kilometers and above (Chart 3.90).



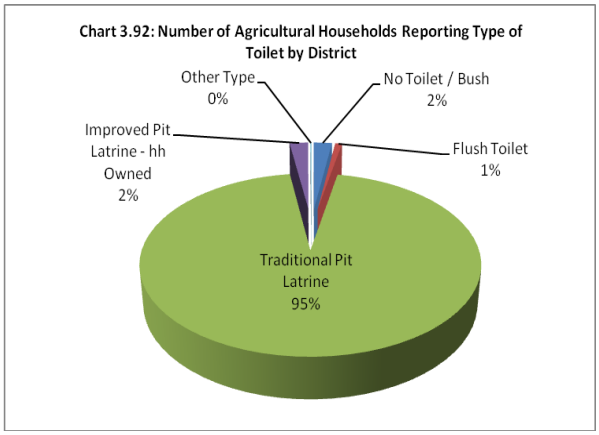
Distance to main sources of water during the dry season varied within district. For Masasi district, 35% of households sourced drnking water from a distance ranging between 100 meters and 999 meters. The district also reported 33 percent of



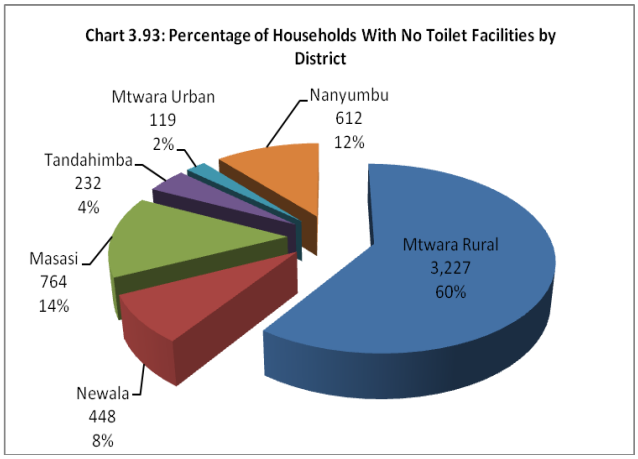
households accessing water between 1 and 5 kilometers. Mtwara rural had 31% of households sourcing water within 100 and 999 meters followed by Nanyumbu (18%). Tandahimba and Newala at 37% and 30% respectively of households sourcing water at a distance of 5-10 km and above had the longest distance compared to other districts (Chart 3.91).

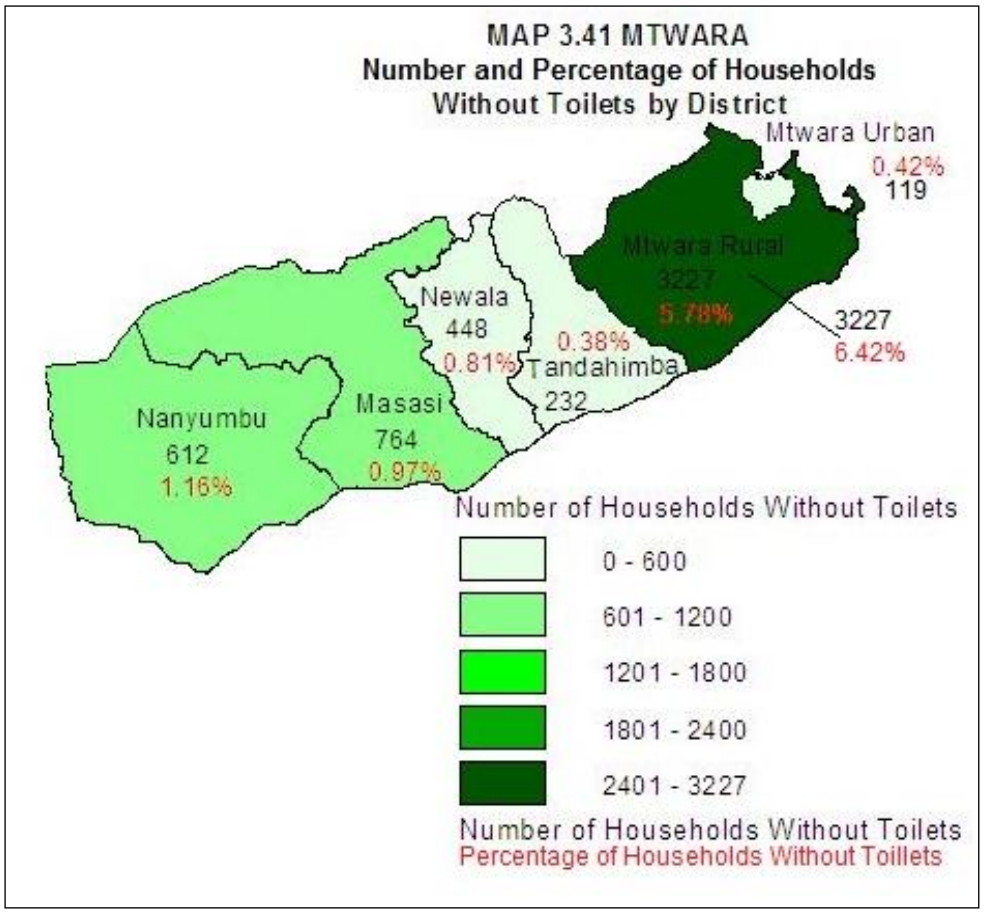
3.15.2 Type of Toilets

A large number of rural agricultural households use traditional pit latrines (236,301 households, 95% of all rural agricultural households), 2,022 households (1%) use flush toilets and 5,445 households (2%) use improved pit latrine. However, 5,501 household (2.0%) in the region had no toilet facilities (Chart 3.92). A small percentage (0.1%) used other types of toilets.



The distribution of the households without toilets within the region indicates that 60 percent of them were found in Mtwara rural district, 14 percent in Masasi, 12 percent in Nanyumbu, 8 percent in Newala, 4 percent in Tandahimba and 2 percent in Mtwara urban (Chart 3.93).

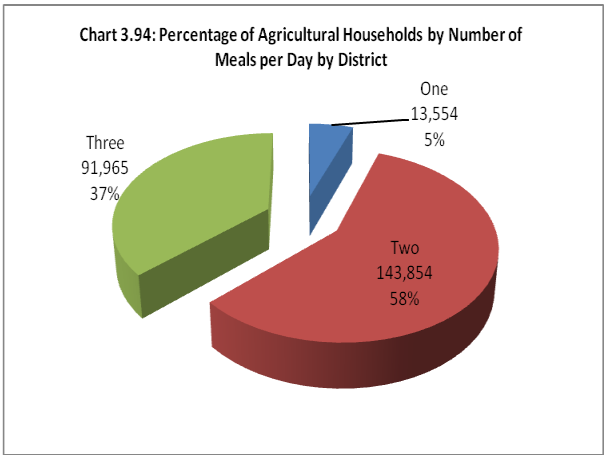



MAP 3.41 MTWARA
Number and Percentage of Households
Without Toilets by District
Mtwara Urban
0.42%
119
Mtwara Rural
3227
5.78%
3227
6.42%
Newala
448
0.81%
0.38%
Tandahimba
232
Masasi
764
0.97%
Nanyumbu
612
1.16%
Number of Households Without Toilets
0 - 600
601 - 1200
1201 - 1800
1801 - 2400
2401 - 3227
Number of Households Without Toilets
Percentage of Households Without Toillets

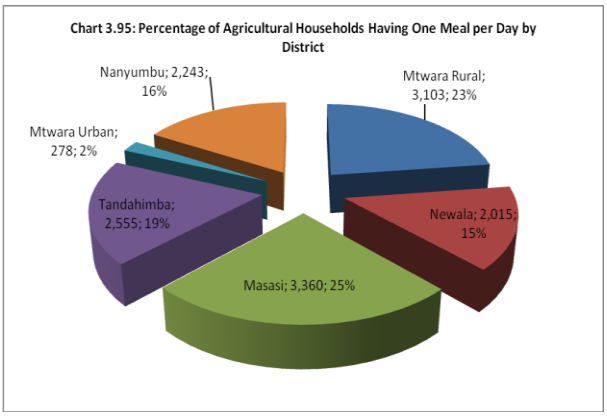
3.15.3 Food Consumption Pattern

Number of Meals per Day

The majority of households in Mtwara region normally had two meals per day (58%), followed by three meals per day (37%) and one meal per day (5%), (Chart 3.94).

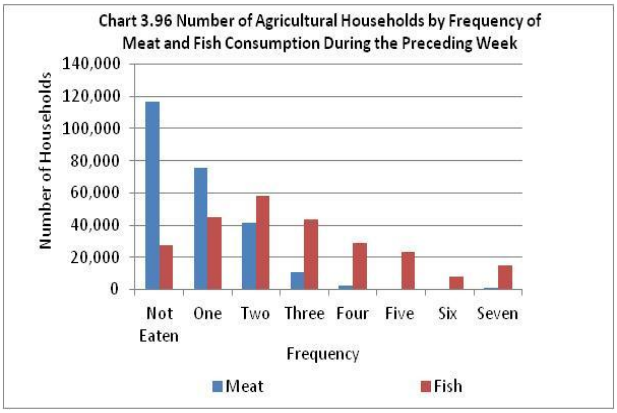


District-wise, Masasi and Mtwara rural districts had the largest percent of households eating one meal per day of 25% and 23% respectively, followed by Tandahimba (19%), Nanyumbu (16%) and Newala (15%). One the other end Mtwara urban had the least percentage of households (2%) having one meal per day (Chart 3.95 and Map 3.43).



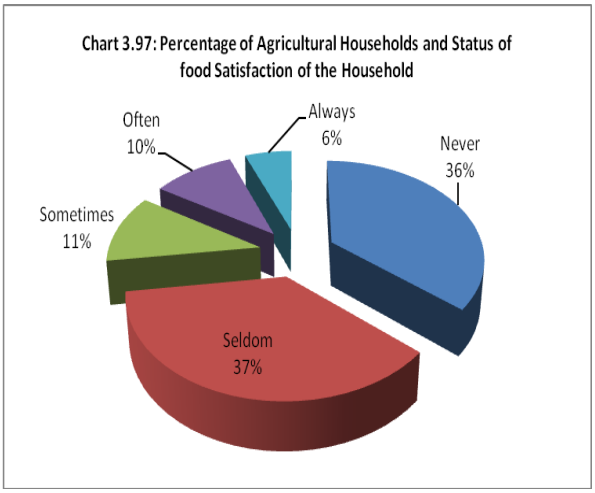
3.15.3.1 Meat Consumption Frequency

The number of agricultural households that consumed meat or fish during the week preceding the census was 132,626 (53%) and 221,870 (88.9% of the agricultural households in Mtwara region) respectively. Frequency of meat consumption where households had at least one meat dishes in the week preceding the census was much higher (56%) than that for fish (18%), whilst, more household consumed fish at least twice (26%). It is also apparent that fish consumption dominated over meat and there were few households that afforded fish up to seven times a week albeit the numbers of households were less as frequency increased. As for meat, the highest frequency was two times (Chart 3.96; Map 3.44 and Map 3.45).



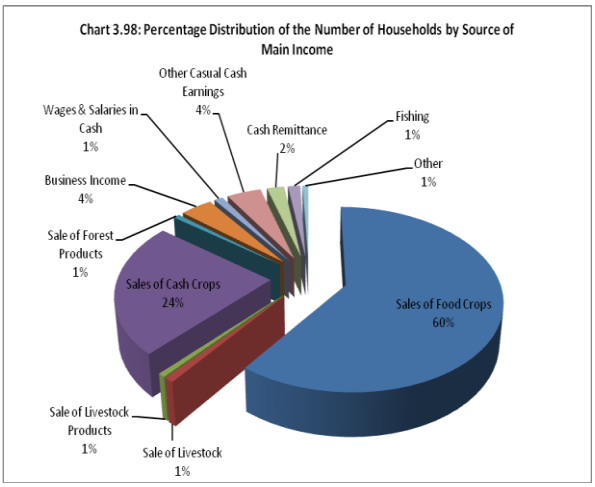
3.15.4 Food Security

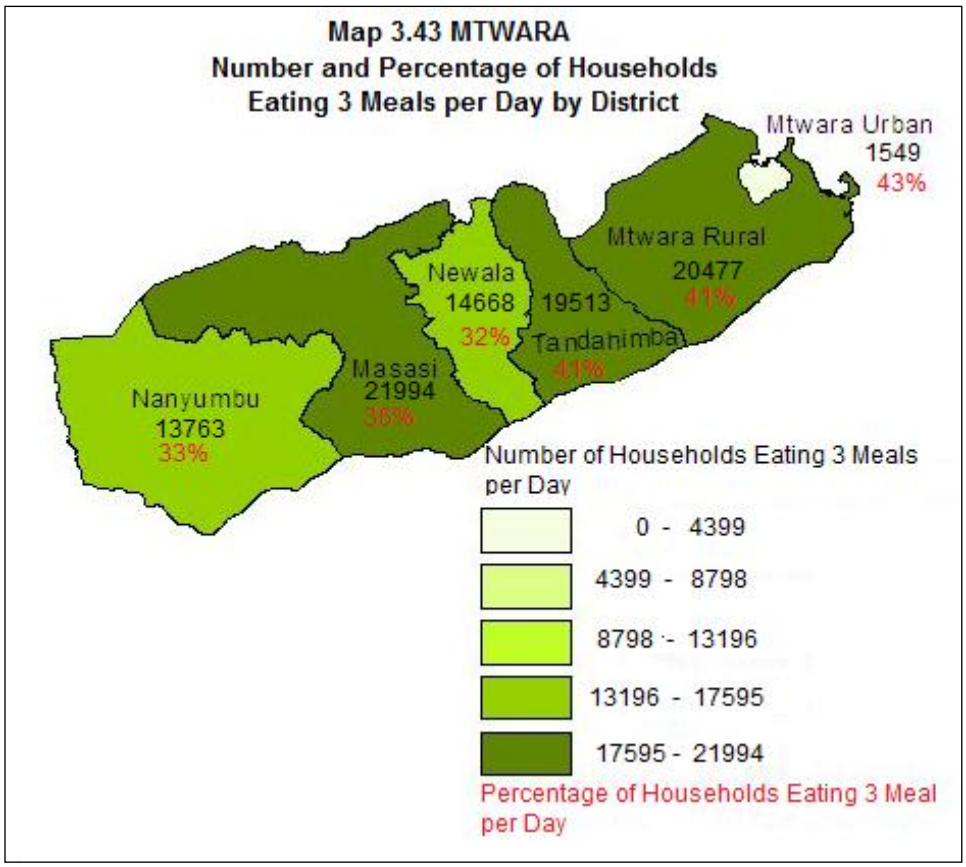
In Mtwara region about 91,200 households equivalent to 37% of the total agricultural households in the region reported that they rarely experience problems in satisfying the household food requirement. Other households reported experiencing food problems at different levels as depicted in Chart 3.97. Nevertheless, 90,319 households (36%) reported to have never experienced any food problems. District wise, Tandahimba had the highest percentage (30%) of the households who reported that they never experienced food problems while Masasi had the highest percentage (39%) of the households that reported to have always experienced food problems.

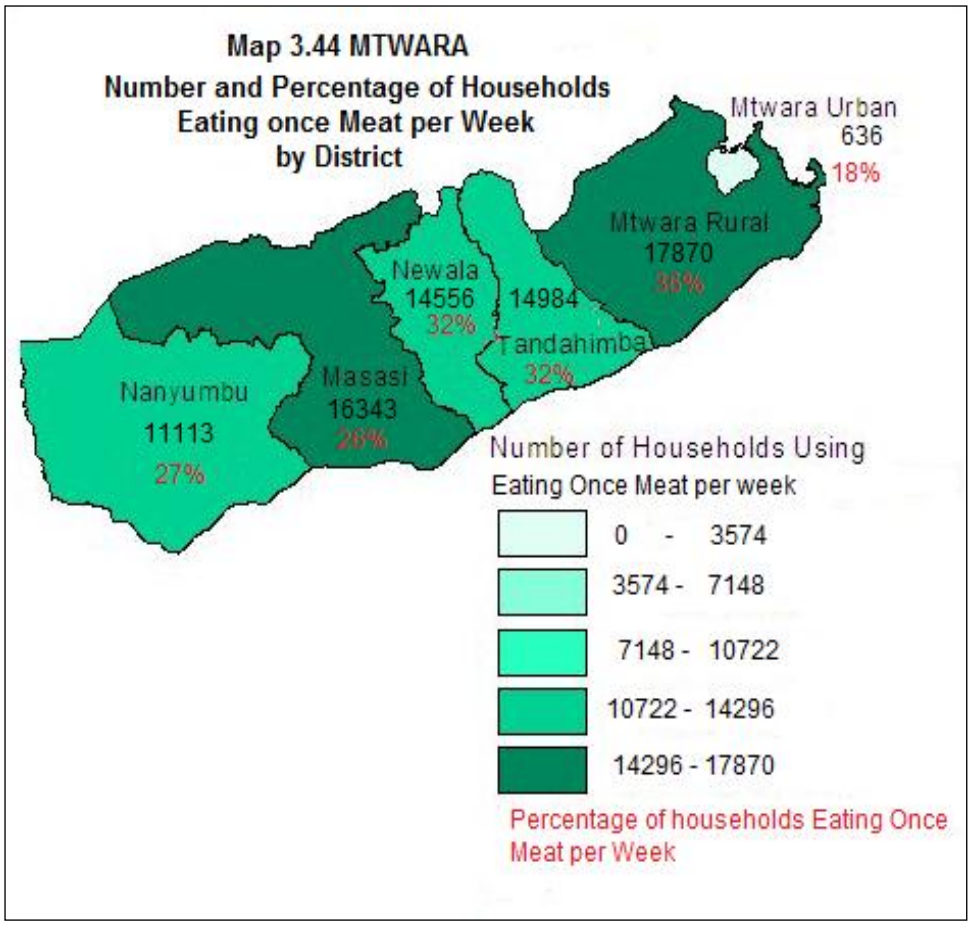


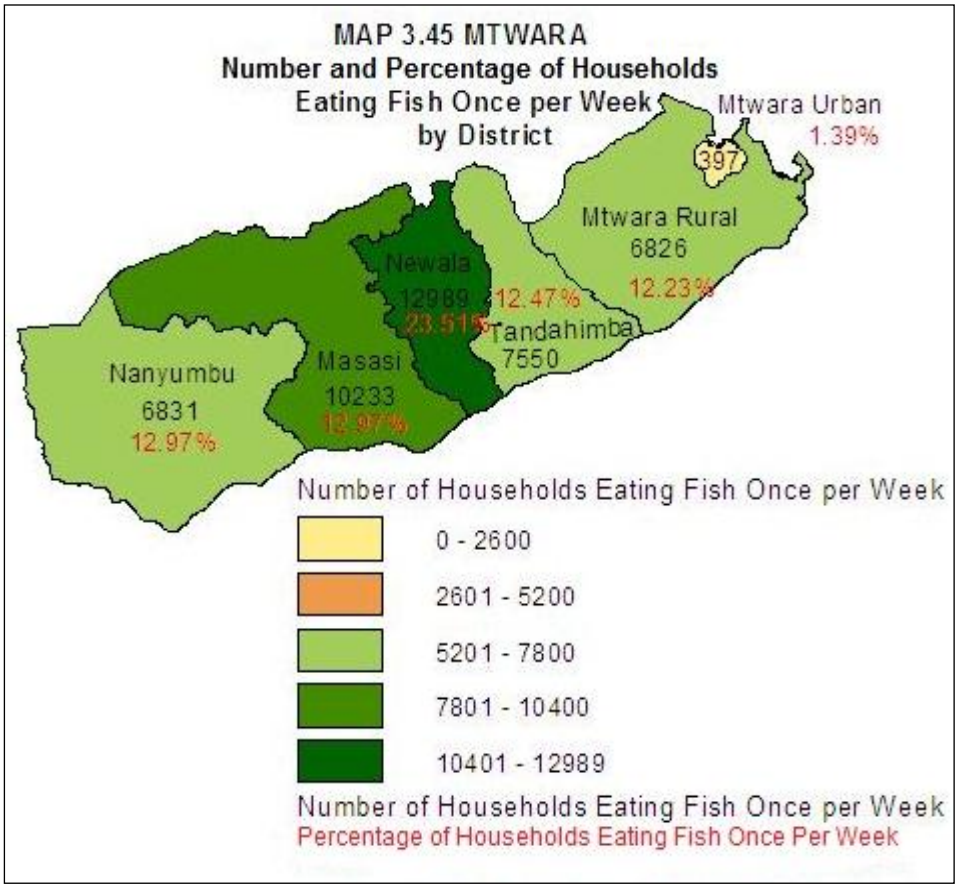
3.15.5 Main Sources of Cash Income.

The main source of cash income of the households in Mtwara region was from selling food crops (60% of the total agricultural households), followed by cash crops (24%), other casual cash earnings (4%), business income (4%) and 2 percent cash remittance. Other sources which contributed one percent include fishing, wages and salaries in cash, sales of livestock, livestock products and forest products.




Map 3.43 MTWARA
Number and Percentage of Households
Eating 3 Meals per Day by District
Mtwara Urban
1549
43%
Mtwara Rural
20477
41%
Newala
14668
32%
19513
Tandahimba
41%
Masasi
21994
36%
Nanyumbu
13763
33%
Number of Households Eating 3 Meals per Day
0 - 4399
4399 - 8798
8798 - 13196
13196 - 17595
17595 - 21994
Percentage of Households Eating 3 Meal per Day


Map 3.44 MTWARA
Number and Percentage of Households
Eating once Meat per Week
by District
Mtwara Urban
636
18%
Mtwara Rural
17870
36%
Newala
14556
32%
14984
Tandahimba
32%
Masasi
16343
26%
Nanyumbu
11113
27%
Number of Households Using
Eating Once Meat per week
0 - 3574
3574 - 7148
7148 - 10722
10722 - 14296
14296 - 17870
Percentage of households Eating Once Meat per Week


MAP 3.45 MTWARA
Number and Percentage of Households
Eating Fish Once per Week
by District
Mtwara Urban
1.39%
397
Mtwara Rural
6826
12.23%
Newala
12989
23.51%
12.47%
Tandahimba
7550
Masasi
10233
12.97%
Nanyumbu
6831
12.97%
Number of Households Eating Fish Once per Week
0 - 2600
2601 - 5200
5201 - 7800
7801 - 10400
10401 - 12989
Number of Households Eating Fish Once per Week
Percentage of Households Eating Fish Once Per Week

4 MTWARA PROFILES

This section presents the status of crops and livestock production, access to natural resources and services, demography and poverty for both the region as a whole and for each district.

4.1 Mtwara Region Profile

The region profile describes the status of the agriculture sector in the region and compares it with other regions in the country. Mtwara Region has about 494,343 hectares owned by 249,373 farming households and utilized by for smallholders' production with small average land per household (1.1 ha). This figure is also below the estimated national average of 2 ha. About 84.5% of the land is owned customary. Although small, it had a comparatively high percent of land under official certificate of ownership compared to most regions. The number of crop farming households is moderate compared to other regions, however, due to the small land area, the region has one of the largest number of crop growing households per square kilometer in the country and this is reflected in the high percent of available land that is utilized. The region is characterized by having the highest percent of its total planted area under permanent crops (212,336 ha; 43%), most of which are annual mix stands (104,451 ha). The available land was put into use for agricultural production and reported by (167,367 households (67%) and only 55% (147, 35% households) reported to have sufficient land. Compared to other regions, Mtwara has a high figure (38%) on women having customary right to land. The region receive long rains season only and it is the period where most of production is achieved.

The region has a moderate to low agriculture population in Tanzania, 957,659 persons, of which 439,740 (46%) were males and 517,919 (54%) females representing one of the highest gender imbalances in the country. The total number of heads of households involved in agriculture was 249,373. Both the figure of male and female headed households involved in agriculture were among the highest in the country of 179,942 (72%) for male heads and 69,431 (28%) for female heads. Crop production was the dominant agriculture activity with virtually few livestock farmers.

The region does not differ much from other regions where majority of household members (552,724; 65%) knows how to read Swahili while (261,705; 31%) don't know how to read and write. Compared to other regions, Mtwara is moderate national wide in terms of household members five years and above who are attending school (247,432 households; 3%), completed (275,874 household, 4%) and 2446,502 households (4%) who never attended school.

Cassava is one of the most important crops in the region though national wise it is moderate planted on 60,055 hectares by 115,374 households. The quantity harvested was 68,355 tons with a yield of 1.1 tons per hectare. In terms of planted area, the region is not important for cereal production and the yield for maize was one of the lowest in the country during the census year. Comparatively moderate quantities of sorghum and paddy were grown. Reasonable quantities of bambaranuts, groundnut, cowpeas and simsim are grown and relatively small amounts of beans. Vegetables were not important in the region and traditional annual cash crops were virtually absent. The main crop in Mtwara was cashewnuts for which the region accounted for more than 35 percent of the total planted area with cashewnuts in the country followed by Lindi and Pwani. Some mangoes and coconuts are also grown.

Irrigation use limited in long rain season and is about 1.5 percent of the national use. Soil preparation was mainly done by hand and had one of the lowest levels of pesticide application in the country. Organic fertilizer is not commonly used accounting to one percent of the national figure while inorganic fertilizer accounted for 3.2 percent. Most of the households in the region store their crops in locally made traditional structures like cribs for maize. Extension services were provided to a very small number of smallholder households in Mtwara and mostly by Government. Very few households used organic fertilizers and no draft animals were used for cultivation. Very little fish farming took place in this region.

The region had extremely low numbers of livestock compared to other regions kept by about 14 percent of the total agricultural households in the region. Cattle numbers were very small kept by only 0.1 percent of households rearing livestock. However, a good number of goats were kept. The region produced small amounts of milk and the farm gate price was much higher than in other regions indicating a high demand over supply. Sheep and pig production were extremely low but chicken production was more important.

Mtwara had a comparatively low literate agriculture population compared to most other regions (62%) and the difference between the literacy rate of males and females was also moderate with 9 percent more literate males than females. It had a moderate to high percent of the agriculture population that had completed school and a high percent of household heads with no education compared to other regions.

The most important livelihood activity was crop farming (60%) followed by livestock keeping. Off farm income is the least important livelihood activity. The percent of the rural agriculture population working full time in farming was the seventh highest in the country and the region had a moderate number of households using food crops as their main sources of cash income.

A very small amount of credit was accessed in the region, mostly from cooperatives and family friends and relatives. Only three percent of the households had no toilet facility. The main sources of drinking water in Mtwara region was from piped water and unprotected wells. It also had the highest percent of households obtaining water from protected springs and lakes, rivers and streams.

Most of the rural agriculture households in Mtwara region took two or three meals per day and though small, the region had the highest proportion of households taking one meal per day. More than 50 percent of the rural households in the region ate animal protein at least twice a week and it had a relatively low percent of households that did not eat animal protein in a week.

A low percent of households had the roof of the main dwelling made of modern material (mainly iron sheets), the rest were with grass/leaves/mud and only 95% of the households used traditional pit latrines. The main sources of drinking water in Mtwara region was from piped water and unprotected wells. It also had the highest percent of households obtaining water from protected springs and lakes, rivers and streams.

4.2 District Profile

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

4.2.1 Masasi

Masasi district had the largest number of agricultural households in the region involved in smallholder agriculture. Most smallholders were involved in crop farming only, followed by both crop and livestock farming. The most important livelihood activity for smallholder households in the district was annual crop farming and permanent crop farming. The district had the second highest percent after Nanyumbu of households involved full time on agricultural activities. At least one household member involved in off-farm activities and the highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Masasi

had a relatively low percent of female headed households (25%) only outsmarted by Mtwara Urban (20%). Compared with other district in the region, there were no significant difference between district mean age of male head of households (43 years) and females (51 years).

Masasi had a comparatively high literacy rate among smallholder household members and this was reflected in the associated relatively high numbers of members attending and who completed school. It had a good number of male head of households who can read and write than female heads.

Most of the land area in the district was leased or customary owned with majority of the heads of households indicating that all available land is use. This is an indication of insufficient land for households. The district is among three districts in the region with largest figure (87%) of utilized land area indicating a high level of land pressure. Moreover, Masasi was a district with lowest figure of female member of the household owning a land and with no customary rights. The large land area was used for permanent and annual crop mix crops.

The district was important for production of maize, rice, sorghum, cassava, cowpeas and groundnuts. Maize production was highest in the district with a planted area of 28,923 hectares and the planted area per household was the highest in the region. Sorghum production was moderately produced with a planted area of only 3,643 hectares and production of paddy was on 7,728 hectares. Masasi was the only district in the region that produced bulrush millet (46 tons). Oilseed crops were important in Masasi with groundnuts grown on 5,273 hectares. Cassava production was moderate accounting planted on 7,936 hectares producing 12,919 tons. The district was also good in production of beans where 524 tons were produced from 943 hectares. Cow peas were the highest with 2,440 tons harvested from 3,281 hectares.

Compared to other districts in the region, Masasi had a moderate planted area with permanent crops, which were dominated by cashewnuts and cowpeas. Other permanent crops were either not grown or were grown in very small quantities. As with other districts in the region, most land clearing and preparation were done by hand hoe, however very slightly more land preparation was done by tractor compared to most other districts.

The use of inputs in the district was very small, however district differences existed. Masasi had the largest area planted with improved seed in Mtwara region and this was due to the higher planted

area for vegetables. The district had the largest planted area applied with organic fertilizers (farm yard manure, compost). However, some inorganic fertilizers were used. Compared to other districts in the region, Masasi district had a highest level of insecticide use.

The use of fungicides, although small, was high compared to other districts. Virtually herbicides were used in small amounts. The area under irrigation was 1,430 hectares. The most common source of water for irrigation was the well. Bucket and watering can were the most common means of irrigation water application and no other method of field application was used.

Most common method of crop storage was in locally made traditional structures like cribs; however the proportion of households not storing crops in the district was lower than other districts in the region. The district had the largest number of households selling crops, however for those that did not sell; the main reason for not selling was probably prices being too low at open market and high transport cost.

Relatively larger number of households received extension services in Masasi and all of these were from the Government. The highest proportion of households with erosion control and water harvesting structures were found in Masasi district and these were mostly erosion control bunds; however it also had the highest number of water harvesting bunds.

The district had the largest number of cattle in the region and almost all were of indigenous type. Goat production was low though not least compared to other districts; however it had the third highest number of sheep in the region (i.e. 2,596 goats after Tandahimba 8,131 goats). It had the largest number of pigs as well as chickens in the region. The district had moderate number of layers, ducks and turkeys in the region.

Disease incidences were commonly reported in the district. Diseases which were prevalent and reported by many households were tick borne disease, Tsetse flies, Newcastle Disease, Fowl Typhoid and Lumpy Skin. The district it had the largest number of households de-worming livestock. It is the only district which practiced fish farming in the region and no beekeeping activities were carried.

Masasi district had the second largest percent of households with no toilet facilities. It had the highest percent of households owning mobile phone, motor cycles, TV/video and wheelbarrow.

The most common source of energy for lighting was the hurricane lamp, wick lamp, pressure lamp and practically all households used firewood for cooking.

The district had the largest percent of households roofed their houses using grass/leaves, iron sheets, asbestos and grass/mud. The most common source of drinking water is from unprotected wells. It had the highest percent of households having one, two or three meal per day compared to other districts. The district was among the districts with highest percent of households that did not eat meat and third highest percent of households without eating fish during the week prior to enumeration; however most households seldom had problems with food satisfaction.

4.2.2 Mtwara Rural

Mtwara Rural district had the second largest number of households in the region and it had a high percentage of households involved in smallholder agriculture. Most smallholders were involved in crop farming only, followed by both crop and livestock farming. Annual crop/sea weed and permanent crop farming were the most important livelihood activity for smallholder households in the district. Mtwara Rural had 68,261 hectares under mono and mixed cropping, of which 35,880 hectares under permanent mono crop and 32,380 hectares under permanent mixed crops.

The district had the third highest percent of households with no off-farm activities although it had the fourth highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Mtwara rural had a low percent of female headed households (20%) but it had one of the highest average age for the household heads in the region. Compared to other districts in the region, Masasi had a relatively low percent of female headed households (26%) outsmarted by Newala (35% and Tandahimba (35%). Compared with other district in the region, there were no significant difference between district mean age of male head of households (45 years) and females (47 years).

Mtwara Rural had a relatively good literacy rate among smallholder household members and this was reflected in the associated relatively moderate percentages of members attending and who completed school. It had a good number of male head of households who can read and write i.e. 71% than female heads (39%).

Most of the land area in the district was leased or customary owned with majority of the heads of households indicating that all available land is use. This is an indication of insufficient land for

households. The district had 77% of utilized land area indicating a moderate level of land pressure. Moreover, Mtwara rural was a district with moderate figure (41%) of female member of the household owning a land and with no customary rights. Most of the land area was used for permanent and annual crop mix crops.

The district was important for production permanent mono crop and temporary mono crops. Crops which performed well were cassava, paddy, maize, sorghum, tomatoes and groundnuts. Mtwara Rural recorded highest in terms of cassava production of 20,998 tonnes from 20,102 hectares of planted area. Paddy production was moderate in the district with a planted area of 5,906 hactares and the planted area per household was the highest in the region. Sorghum production was highest produced with a planted area of only 3,643 hectares and production of paddy was on 7,238 hectares. Mtwara Rural was amongst districts in the region that did not produce bulrush millet. Oilseed crops were moderately important in Mtwara Rural with groundnuts grown on 1,569 hectares. The district was also good in production of bambara nuts, pulses and simsim. Cowpeas production fairly produced on 1,371 hectares and harvested about 557 tons.

As with other districts in the region, most land clearing and preparation were done by hand hoe, however very slightly more land preparation was done by tractor compared to most other districts.

The use of inputs in the district was very much limited. Mtwara Rural had moderate area planted with improved seed mostly used for planting vegetables. The district had no pronounced use of organic and inorganic fertilizers (farm yard manure, compost and inorganic fertilizers. Mtwara Rural district had a fair level of insecticide use.

The use of fungicides and herbicides, although small, was high compared to other districts. Virtually herbicides were used in small amounts. The area under irrigation was very small and most common source of water for irrigation was the well. Bucket and watering can were the most common means of irrigation water application and no other method of field application was used.

On average, most households reported storing their crops (84%) though this figure common method of crop storage was in locally made traditional structures; however the proportion of household not storing crops in the district was second higher over other districts in the region. The district had the largest number of households selling crops, but for households that did not sell had the main reason for not selling being prices being too low at open market and high transport cost.

Relatively larger number of agricultural households received extension services in the district and mostly from Government. Majority of households reported to have no any erosion problem on their farming land and had erosion control and water harvesting facilities.

The district had the smallest number of households rearing cattle in the region. Goat production was in moderate numbers (233,965 goats) mostly of indigenous type kept by 5,833 households. However, it had the second highest number of sheep in the region. It had no pigs rearing reported as well as chickens in the region. The district ranked fourth in terms of number of indigenous chicken in the region.

Incidence of diseases was commonly reported in the district but at low rates. Diseases which were prevalent and reported by many households were tick borne disease, Tsetse flies, Newcastle Disease, Fowl Typhoid and Lumpy Skin. The district had the largest number of households de-worming pigs. Fish farming was not practiced in the district and few households were reported in beekeeping activities.

Mtwara Rural district had the largest percent of households with no toilet facilities (i.e. using bushes). It was third district in the use of traditional pit latrines as reported by 45,172 households. It ranked first in the region in owning radio and bicycles but second in owning mobile phone, wheel barrow and TV/video. It had the largest number of households used electricity in the region.

The district had the largest percent of households roofed their houses using iron sheets, and ranked second in the use of grass/leaves. The most common source of drinking water is from piped water followed by protected wells and unprotected spring and lastly unprotected wells. It had the second highest percent of households having one meal and third for households having three meal per day compared to other districts. The district was among the districts with highest percent of households that did not eat meat and third highest percent of households eating fish many times during the week prior to enumeration; however most households hardly ever had problems with food satisfaction.

4.2.3 Newala

Newala district had the fourth largest number of households in the region and it had a high percentage of households involved in smallholder agriculture. Most smallholders were involved in crop farming only and very few households involved in crop and livestock farming. Agricultural household involved in livestock only and pastoralists were not found in the district.

The most important livelihood activity for smallholder households in Newala district was annual crop farming. The district had the fourth highest percent of households with no off-farm activities and it had also the fourth highest percent of households with more than one member with off-farm income. Compared to other districts in the region, Newala had a highest percent of female headed households (35%) and it has one of the lowest mean ages of the household head in the region where males recorded 47 years and females 53 years.

Newala district ranked among lowest district with members of the households who can read and write while it was first for head of household who can read and write and by having the modest level of school attendance in the region.

It has a moderate utilized land area per household by 82 percent of the allocated area. The district has the fourth largest planted area in the region mostly under temporary mono crops, permanent mono crops and temporary mono crops.

The district is moderately important for maize production in the region with a planted area of over 17,234 ha and the planted area per household is 0.4 ha, same as region average. Paddy production is not important with a planted area of only 1,080 hectares; however it is the fourth lowest in the region. Sweet potatoes and Irish potatoes are produced in small quantities in the district. The district has the second production of cassava (14,756 tonnes) with third largest planted area of 12,224 hectares in the region. The production of beans in Newala is much lower in the district accounting for 272 ha. Oilseed crops are important in Newala with groundnuts grown on 4,189 hectares and bambaranuts on 4,018 hectares in the district. Vegetable production is not important and very small quantities of vegetables like eggplant were grown in the district.

The use of inputs in the region is very small, however district differences exist. Newala ranked third (1,842 ha; 5.6%) in the area planted with improved seed in Mtwara region and this is due to the dominance of permanent crops which do not need frequent planting. The district also has a

relatively small areas planted with fertilizers (organic and inorganic). Compared to other districts in the region, Newala district has the smallest area where insecticide, fungicide and herbicides were used. It has the second largest area with irrigation in the region with 950 ha of irrigated land.
The most common method of crop storage is in Newala is locally made traditional facilities, and the proportion of households storing crops in the district was moderately high in the region. The district has lowest percent of households selling crops and no household reported borrowing money for agriculture.

About 66 percent of the crop growing households received extension advices and almost all of this is from the Government. The quality of extension services was rated between good and very good by the majority of the households.

The district has a relatively small number of cattle in the region and they are almost all indigenous. Goat production is highest compared to other districts while the district was fourth in sheep production. It has the second largest number of pigs in the region as well as the second largest number of chickens, all of which are of indigenous type. Virtually no improved chicken are found in the district. The district has the largest number of ducks and no turkeys are found in the district.

A small number of households reported tsetse and tick problems in Newala district. A small amount of de-worming of livestock is practiced in the district. No draft animals are used and fish farming is not practiced by households in the district.

The percentage of households without toilet facility in Newala district is average for the region; however it is ranked fourth for households with no toilet facilities. It has the modest percent of households owning land line phones, but highest percent of households owning vehicles and TV/Video. It has the lowest number of households using mains electricity in the region and the most common source of energy for lighting is the wick lamp, pressure lamp and hurricane lamps and practically all households use firewood for cooking.

The district was ranked third in the region for using iron sheets and grass/leaves roofs. The most common source of drinking water is from piped water and uncovered rain water catchment. Majority of the households in the district reported having one and two meal per day. The district had a moderate percent of households (48%) that did not eat meat or fish during the week prior to enumeration and most households never had problems with food satisfaction.

4.2.4 Tandahimba

Tandahimba district has the third highest number of rural households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only (88%), followed by crop and livestock farming (12%). It had neither households involved in livestock only nor pastoralists.

The most important livelihood activity for smallholder households in Tandahimba district is annual crop farming followed by permanent crop farming. It has the second highest percent (77%) of households with one off-farm activities and low percent of households (19%) with two members with off-farm income. Compared to other districts in the region, Tandahimba district has a relatively high percent of female headed households (30%) and it has one of the highest mean age of the household head (i.e.48 years). Tandahimba district has a comparatively low literacy rate among smallholder households of 53 percent for males and 47 percent for females; however, 73 percent of the females were not able to read and write. The district has modest number of members of the households attending school and those who completed school but recorded highest for those who never attended school.

It has the second largest utilized land area after Nanyumbu with 91 percent of the allocated land area is utilized. The total planted area is the third in the region planted with permanent mono crop and permanent annual crop mix.

Tandahimba district is fourth important for maize production in the region with a planted area of 8,845 hecatres and the planted area per household is among the highest in the region. Paddy production is also important being third with a planted area of 4,914 hectares and the production of sorghum is ranked second with 4,196 hectares.

Tandahimba district was third highest in cassava production (14,363 tonnes) and third in terms of area planted (11,907 ha). Beans, Irish potatoes were grown in small quantities. Vegetables is important in the district compared to oilseed crops, whist the district has the second planted areas with tomatoes also it is the second in terms of tomato planted area per household. Cowpeas, Bambaranuts and Groundnuts are relatively grown in the reasonable amount in the district. Compared to other districts in the region, Tandahimba district has the moderate planted area with permanent mono crops and permanent annual crop mix.

The use of inputs in the region is very small, however district differences exist. Tandahimba district has small area planted area with improved seed (4.6% of the total planted area); however it has the highest planted area per household in the region. The district also has the highest percent of planted area with organic fertilizers and most of this is with farm yard manure. Compared to other districts in the region, Tandahimba district has the lowest area planted with insecticide but has the fourth highest percent of the total planted area in the region. The percent of planted area with fungicides is amongst the lowest in the region and no herbicides used. It has one of the smallest areas of irrigation 47 hectares.

The most common method of crop storage is in locally made traditional facilities; however the proportion of households storing crops in Tandahimba district is the highest in the region. The number of households selling crops in the district is among the highest in the region.

A very big number of households receive extension services in Tandahimba district and almost all of this is from the Government. The largest proportion of households in Tandahimba district doesn't use any of the erosion control method.

Tandahimba district has the third in number of cattle in the region and all of them are indigenous. It is second largest district in having large number of goats in the region; however the district has the highest density (87 head per km). Tandahimba is also one of the districts with the largest number of sheep, no pigs and third largest number of chicken. A largest number of households reported ticks and Tsetse Flies problems in the district and it had one of the largest numbers of households de-worming livestock. There are no household practicing fishing farming.

Tandahimba district has a small number of households with no toilet facilities and traditional pit latrines were mostly used. The district has the highest percent of households owning bicycles, radio, wheelbarrows and mobile phones but it has the third highest percent of households with television/video. It has no households using mains electricity in the region. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has the fifth largest percent of households with grass roots with only 15,913households having iron sheets. The most common source of drinking water is unprotected rainwater catchment and unprotected well. It has the fifth highest percent of households having two and fourth for households using one meal per day compared to other districts and the third highest percent with 3 meals per day. The district had moderate percent of households that did not eat meat

and fish during the week prior to enumeration. Most households never had problems with food satisfaction.

4.2.5 Mtwara Urban

Mtwara Urban district has the smallest number of households in the region and it has the last lowest percent of households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only, followed by crop and livestock farming. It has a very small number of livestock only households and no pastoralists were found in the district.

The most important livelihood activity for smallholder households in the district is annual crop farming, off-farm income and permanent crop farming. The district has the last lowest percent of households with no off-farm activities and the third largest percent of households with two members with off-farm income. Compared to other districts in the region, Mtwara Urban has a lowest percent of female headed households (20%) and it has one of the highest average ages of the household head. Mtwara Urban has the second lowest literacy rate among smallholder households in the region and this is reflected by the concomitant relatively high level of school attendance (35%) and completed (36%). The rate of never attended school is among the moderate in the region.

It has the moderate utilized land area with 81 percent of the allocated land area is utilized. The total planted area is the lowest in the region planted with permanent mono crop and permanent annual crop mix. Mtwara Urban district is the least important for almost all crops in the region due to its small sized planted area and the planted area per household is among the modest in the region.

The district is not important for maize production with a planted area of 451 ha, however the planted area per household is second smallest compared to other districts in the region. Paddy production is also not important with a planted area of only 89 hectares and the production of sorghum is very small (122 tons). Cassava was planted on 1,365 hectares and produced about 387 tonnes. Wheat and finger millet are not grown in the district. The district has among the lowest percent of cowpeas, bambaranuts and simsim planted area in the region and it has virtually no Irish or sweet potatoes.

There is no production of beans in Mtwara Urban district and oil crops are not important in the district. Vegetable is not grown at all in the district. Traditional cash crops (e.g. tobacco and cotton) are also not grown in the district.

Compared to other districts in the region, Mtwara Urban has a small planted area with permanent crops which is dominated by cashew nuts and coconuts. Other permanent crops are either not grown or are grown in very small quantities.

The use of inputs in the region was very small, however district differences exist. Mtwara Urban has one of the smallest planted areas with improved seed in Mtwara region, but raked highest for percent of planted area using improved seed. The district has the smallest planted area with organic fertilizers and most of this is with farm yard manure and compost with very small inorganic fertilizer. Compared to other districts in the region, Mtwara Urban district has the second highest percent of its planted area with insecticides in the region. The use of fungicides was the one of the lowest in the region and virtually no herbicide was used. Planted area with irrigation in Mtwara Urban district was also very limited. The most common method of crop storage is in locally made traditional facilities; however the proportion of households not storing crops in the district is the highest in the region. The district has the smallest number of households selling crops and the main reason for not selling is insufficient production. No sales were made to local markets/trade stores, secondary market, market cooperatives, and farmers associations, traders at farm or large scale farms. Access to credit is extremely small.

A comparatively small number of households receive extension services in Mtwara Urban district and the highest percentage of this is from the Government. The smallest number of erosion control and water harvesting structures is found in Mtwara Urban district.

The district has the smallest number of cattle in the region and they are mostly all indigenous and few diary. Goat and sheep production is smallest in the district and some pigs are found in the district. It has a comparatively smallest number of chickens including indigenous type, layers and broilers. Ducks are found in small number in the district.

A moderate number of households reported tick problems in Mtwara Urban district and has the smallest number of households de-worming livestock. Tsetse problem was also reported by few

households in the district. No lumpy skin incidences were reported in the district. No fish farming and bee keeping were practiced in the district.

Mtwara Urban district has a low percent of households with no toilet facilities and mostly traditional pit latrines were used. The district has the largest percent of households owning bicycles and radios and some ownership of mobile phones, vehicles and television/video were reported. Very small number of households reported ownership of iron, landline phones and wheel barrows,

The most common source of energy for lighting is the wick lamp; followed by main electricity and practically all households use firewood for cooking. The district has the largest percent of households with grass roofs and only few households having iron sheets. The most common source of drinking water is from piped water, protected wells and protected/covered spring. It has a moderate percent of households having two or one meal per day compared to other districts and is among the districts with a high percent of households with 3 meals per day. The district had the second highest percent of households that did not eat meat during the week prior to enumeration; however it is among the districts with low percent of households that did not eat fish during the week. Most households in the district rarely had problems with food satisfaction.

4.2.6 Nanyumbu

Nanyumbu district has the fourth highest number of rural households involved in smallholder agriculture in the region. Most smallholders are involved in crop farming only (94%), followed by crop and livestock farming (6%). It had neither households involved in livestock only nor pastoralists.

The most important livelihood activity for smallholder households in Nanyumbu district is annual crop farming followed by permanent crop farming. It has the highest percent (92%) of households with one off-farm activities and low percent of households (5%) with two members with off-farm income. Compared to other districts in the region, Nanyumbu district has a relatively low percent of female headed households (25%) and it has one of the lowest mean age of the household head (i.e. 43 years). Tandahimba district has a comparatively high literacy rate among smallholder households of 76 percent for males and 24 percent for females; however, 38 percent of the females were not able to read and write. The district has modest number of members of the households attending school and large for those who completed school but recorded lowest for those who never attended school.

It has the largest utilized land area after Nanyumbu with 95 percent of the allocated land area is utilized. The total planted area is the third in the region planted with permanent mono crop and permanent annual crop mix.

Nanyumbu district is second important for maize production in the region with a planted area of 17,587 hectares and the planted area per household is among the highest in the region. Paddy and sorghum are less important with a planted area of 1,703 and 346 hectares respectively.

Cassava in Nanyumbu district was reported to be planted on 6,521 hectares and produced 4,931 tonnes. Vegetables is less important in the district compared to green grams, cowpeas, beans, bambaranuts and simsim which were moderately produced. The district has the fourth planted areas with tomatoes also it is the moderate in terms of tomato planted area per household. Compared to other districts in the region, Nanyumbu district has the moderate planted area with permanent mono crops and permanent annual crop mix.

The use of inputs in the region is relatively high with district differences. Nanyumbu district has about 3,545 hectares planted area with improved seed with one of the highest planted area per household in the region. The district has the lowest percent of planted area with organic fertilizers and mostly farm yard manure. Compared to other districts in the region, Nanyumbu district has the lowest area planted with insecticide but has the fourth highest percent of the total planted area in the region. The percent of planted area with fungicides is the lowest in the region and no herbicides used. It has no planted areas using irrigation.

The most common method of crop storage is in locally made traditional facilities; however the proportion of households storing crops in Nanyumbu district is the second highest in the region. The number of households selling crops in the district is among the highest in the region. A very big number of households (79%) receive extension services in Nanyumbu district and almost all of this is from the Government.

Nanyumbu district is the second in number of cattle in the region and all of them are of indigenous type. It ranks fifth in the region in goats population, third in sheep population, third in pigs and modest in numbers of chicken mostly indigenous and few layers (7,748 chickens). A small number of households reported encountering ticks and Tsetse Flies problems in the district and it had

modest numbers of households de-worming livestock. There is no household use practicing fishing farming.

Nanyumbu district had a good number of households with no toilet facilities and traditional pit latrines were mostly used. The district has relatively good number of households owning bicycles, radio, wheelbarrows and mobile phones but it is one of the lowest percent of households with television/video. It has few households using mains electricity in the region. The most common source of energy for lighting is the wick lamp and practically all households use firewood for cooking. The district has the third largest percent of households with grass roots with only 4,636 households having iron sheets. The most common source of drinking water unprotected well and unprotected spring. It has the fourth highest percent of households having two and fourth for households using one meal per day compared to other districts and ranked fifth in percent with 3 meals per day. The district had moderate percent of households that did not eat meat and fish during the week prior to enumeration. Most households seldom had problems with food satisfaction.

APPENDICES

Appendix I: TABULATION LIST 101
Appendix II: TABLES 109
Appendix III: QUESTIONNAIRE 211

Appendix I: TABULATION LIST

2.1: Number of Households by type of Household and District during 2007/08 Agriculture Year. 109

2. 2: Number of Agriculture Households by Type of Holding by District during 2007/08 Agriculture Year 109

2.3: Number of Agriculture Households By Type and Size of Holding, 2007/08 Agricultural Year 110

2.4: Number of Agriculture Households By Type and Size of Holding and District, 2007/08 Agricultural Year 110

HOUSEHOLD DEMOGRAPHICS 111

3.1 Number of Heads of Agricultural Households by sex of head and District, 2007/08 Agricultural Year 112

3 .2: Number of Household Members classified by District and Sex, 2007/0 Agricultural Year 112

3.3 Number of Agricultural Household Members by Sex and Age Group, 2007/08 Agricultural Year 112

3.4 Number of Heads of Agricultural Households by Marital Status, Sex of Head and District, 2007/08 Agricultural Year 112

3.5 Number of Heads of Agricultural Households by Survival of Female Parent, Sex of Head and District, 2007/08 Agricultural Year 113

3.6 Number of Heads of Agricultural Households by Survival of Male Parent, Sex of Head and District, 2007/08 Agricultural Year 114

3 .7 Number of Household Members Who Can Read and Write Languages by Type of Language and District 114

3.8 Number of Heads of Agricultural Households By Status of Writing and Reading Languages, Sex of Head and District, 2007/08 Agricultural Year 114

3.9: Number of Agricultural Household Members Reporting Literacy Levels by Sex of Member and District, 2007/08 Agricultural Year 116

3.10: Number of Heads of Agricultural Households Reporting Literacy Levels by Sex of Member and District, 2007/08 Agricultural Year 116

3.11: Number of Heads of Agricultural Households By Level of Formal Education Completion and District, 2007/08 Agricultural Year 117

3 .12: Number of Household Members Five Years and Above by Education Status and District .. 117

3.13: Number of Heads of Agricultural Households by Education Status, Sex of Head and District, 2007/08 Agricultural Year 117

3.14: Number of Agricultural Household Members by Level of Formal Education Completion and District, 2007/08 Agricultural Year 118

3.15: Number of Agricultural Household Members By Level of involvement in Farming Activity and District, 2007/08 Agricultural Year 119

LAND ACCESS/OWNERSHIP 120

4.1: Number of Farming Households by Type of Land Ownership/Tenure and District for the 2007/08 Agriculture Year 121

4.2: Area of land (ha) by Ownership/Tenure and District for the 2007/08 agriculture year 122

4.3: Number of Agriculture Households by Whether All Land Available to the Household Was Used during 2007/08 agriculture year and District 122

4.4: Number of Agriculture Households by whether they Consider Having Sufficient Land for the Household and District during 2007/08 agriculture year 122

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 122

LAND USE 123

4.6: Number of Agriculture Households by Type of Land Use and District for the 2007/08 agriculture year 124

4.7: Area of Land (ha) by Land Use and District for the 2007/08 Agriculture Year 124

CROP OWNERSHIP 125

5.1 Number of Household members owning most of the crop by Sex of the Main Owner, Season and District for the Agriculture Year 2007/08 126

5.2 Planted Area by District, season and Sex of Household members owning most of the crop for the Agriculture Year 2007/08 126

ANNUAL CROP AND VEGETABLE PRODUCTION 127

5.3: Number of Crop Growing Households Planting Crops by Season 128

5.4: Number of Crop Growing Households and Area Planted (ha) by Season 128

5.4: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short & Long Rainy SEASON Agricultural Year 2007/08 129

5.5: Number of Agriculture Households by Area Planted (ha) and crop for the agriculture year 2007/08 Short and Long Season 134

5.6: Area planted (ha) and Quantity Harvested by Season and Crop for the 2007/08 Agriculture Year 135

CROP STORAGE AND MARKETING 137

5.7: Number of households Storing Crops by Season and District 138

5.8 MARKETING: Number of Crop Producing households reporting Selling agricultural produce during 2007/08 by District and Season 138

INPUT USE - SHORT AND LONG RAIN SEASON 139

5.9: Number of Households and Planted Area by Organic Fertilizers Use and District - SHORT AND LONG RAINY SEASONS 140

5.10: Number of Households and Planted Area by Inorganic Fertilizers Use and District - SHORT AND LONG RAINY SEASONS 140

5.11: Number of Households and Planted Area by Fungicide Use and District - Short and Long Rainy Seasons 140

5.12: Number of Households and Planted Area by Herbicide Use and District - Short & Long Rainy Season 141

5.13: Number of Households and Planted Area by Improved Seed Use and District - Short & Long Rainy Seasons 141

5.14: Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - Short & Long Rainy Seasons 141

5.15: Number of Households and Planted Area by Insecticides Use and District - Short & Long Rainy Seasons 142

5.16: Planted Area & Number of Households by Local seed Use by Crop during 2007/08 Agriculture Year - SHORT RAINY SEASON 143

5.17: Planted Area & Number of Households by Improved Seed Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON 144

5.18: Planted Area & Number of Households by Organic Fertilizer Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON 145

5.20: Planted Area & Number of Households by Organic Fertilizer Use by Crop during 2007/08 Agriculture Year - SHORT RAINY SEASON 146

5.21: Planted Area & Number of Households by Herbicide Use by Crop during 2007/08 Agriculture Year - SHORT RAINY SEASON 147

5.22: Planted Area & Number of Households by Fungicide Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON 148

5.23: Planted Area & Number of Households by Fungicide Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON - MTWARA REGION 149

5.24: Planted Area & Number of Households by Irrigation Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON 150

5.25: Planted Area & Number of Households by Local seed Use by Crop during 2007/08Agriculture Year - LONG RAINY SEASON 151

5.26: Planted Area & Number of Households by Improved seed Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON 152

5.27: Planted Area & Number of Households by Organic Fertilizer Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON 153

5.28: Planted Area & Number of Households by Inorganic Fertilizer Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON 154

5.29: Planted Area & Number of Households by Herbicides Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON 155

5.30: Planted Area & Number of Households by Fungicides Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON 156

5.31: Planted Area & Number of Households by Insecticides Use by Crop during 2007/08 Agriculture Year -LONG RAINY SEASON 157

5.32: Number of Households and Planted Area by Irrigation Use and District -LONG RAINY SEASON 158

5.33: Planted Area & Number of HouseholdsPractising Irrigation by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON 159

ACCESS TO AGRICULTURAL EQUIPMENT 160

6.1: Number of Agriculture Households that used Agricultural Equipment/Asset by Type and District for 2007/08 Agriculture Year 161

6.2: Number of Agricultural Equipment/Asset Owned by Type and District for 2007/08 Agriculture Year 162

6.3: Number of Agricultural Equipment/Asset Owned by Type and District for 2007/08 Agriculture Year 162

IRRIGATION, SOIL EROSION PROBLEM AND CONTROL 164

6.4: Number of Households with Soil Erosion Problem on their Land By District 165

6.5: Number of Households with Erosion Control/Water Harvesting Facilities on their Land By District 165

6.6: Number of Erosion Control/Water Harvesting Structures by Type and District as of 2007/08 Agriculture Year 166

6.7: Number of Agriculture Households reporting use of Irrigation during 2007/08 agricultural Year by District 167

6.8: Number of Agriculture Households using irrigation by Source of Irrigation Water by District during the 2007/08 agricultural Year 167

6.9 : Number of Agriculture Households by method of used to obtain water and District during 2007/08 Agriculture Year 167

AGRICULTURAL CREDIT 168

7.1: Number of Agriculture Households receiving Credit by District During the 2007/08 Agriculture Year 169

7.2: Number of Credits by sex of the household Member receiving credit from source B and District During the 2007/08 Agriculture Year 169

7.3: Number of Households receiving Credits by Main Source of credit and District During the 2007/08 Agriculture Year 169

7.4: Number of Households receiving Credits by Main Source of credit B and District during the 2007/08 Agriculture Year 170

7.5: Number of Households receiving Credits by Main Source of credit C and District during the 2007/08 Agriculture Year 170

7.6: Provision of credit A by sex and District during the 2007/08 Agriculture Year 170

7.7 : Provision of Credit B by sex and District During the 2007/08 Agriculture Year 170

7.8 : Provision of credit C by sex and District During the 2007/08 Agriculture Year 171

7.9 AGRICULTURE CREDIT: Number of Households Reporting the Main reasons for Not Using Credit by District during the 2007/08 Agriculture Year 171

CROP EXTENSION SERVICES 172

8.1 : Number of Agriculture Households that received Crop Advice During the 2007/08 Agriculture Year 173

8.2 : Number of Agriculture Households Participated in Out Grower Agreement During the 2007/08 Agriculture Year 173

8.3: Number of Agriculture Households Participated in Contract Production Agreement During the 2007/08 Agriculture Year 173

8.4 : EXTENSION MESSAGES: Number of Agriculture Households By Source of Extension Messages By District During the 2007/08 Agriculture Year 174

8.5: Number of households receiving extension advice on Spacing by District during the 2007/08 agriculture year 174

8.6: Number of households receiving extension advice on Use of Agrochemicals by District during the 2007/08 agriculture year 175

8.7: Number of households receiving extension advice on Erosion Control by District during the 2007/08 agriculture year 175

8.8: Number of households receiving extension advice on Organic Fertlizer use by District during the 2007/08 agriculture year 176

8.9: Number of households receiving extension advice on use of Inorganic Fertilizer by District during the 2007/08 agriculture year 176

8.10: Number of households receiving extension advice on Use of Improved Seeds by District during the 2007/08 agriculture year 177

8.11: Number of households receiving extension advice on Mechanization and Labor Saving Technologies by District during the 2007/08 agriculture year 177

8.12: Number of households receiving extension advice on Irrigation Technologies by District during the 2007/08 agriculture year 178

8.13 CROP EXTENSION: Number of households receiving extension advice on Crop Storage by District during the 2007/08 agriculture year 178

8.14 CROP EXTENSION: Number of households receiving extension advice on Vermin Control by District during the 2007/08 agriculture year 179

CATTLE PRODUCTION 180

9.1: Number of Cattle by Type and District as of 1st October 2008 181

9.2: Number of Households rearing cattle, Head of Cattle and Average Head per Household by Herd size During the 2007/08 Agricultural Year 181

9.3: Total Number of Cattle by Cattle Types and Category, 2007/08 Agricultural Year 181

9.4: Number of Milked Cows by Category of Cattle, Season and District, During the 2007/08 Agricultural Year 181

9.5: Average milk production per cow per day, by Category of Cow, Season and District, During the 2007/08 Agricultural Year 182

9.6: Average number of days for cows on milked, by category of Cattle, Season and District, During the 2007/08 Agricultural Year 182

9.7: Average Cattle Milk price (Tshs/litre) per Season by category of Cow and District, During the 2007/08 Agricultural Year 182

9.8: Average Cattle Milk price (Tshs/litre) per Season by category of cow and District, During the 2007/08 Agricultural Year 183

9.9: Average Cattle Milk price (Tshs/litre) per Season by category of cow and District, During the 2007/08 Agricultural Year 183

GOAT PRODUCTION 184

9.10: Number of Agriculture Households Rearing Goats by District during the 2007/08 Agricultural Year 185

9.11: Number of Goats by Type and District as of 1st October 2008 185

9.12: Number of Households Rearing Goats, Herd of Goats and Average Herd per Household by Herd Size as of 1st October 2008 185

9.13: Total Number of Goats by Category and Type of Goat as of 1st October 2008 185

9.14: Total Number of Indigenous Goat by Category and District as of 1st October 2008 186

9.14: Number of Milked Goat by Category of Goat, Season type and District, During the 2007/08 Agricultural Year 186

SHEEP PRODUCTION 187

9.15: Number of Households Rearing Sheep by District During the 2007/08 Agriculture Year 188

9.16: Number of Households Rearing and Number of Sheep by District as of 1st October 2008 .. 188

5.17: Total Number of Indigenous Sheep by Category of Sheep and District as of 1st October 2007/08 Agriculture year 188

9.18: Number of Households rearing Sheep, Head of Sheep and Average Head per Household by Herd size During the 2007/08 Agricultural Year, Mtwara Region 188

PIG PRODUCTION 189

9.19: Number of Households Raising Pigs by District During 2007/08 Agriculture Year 190

9.20: Number of Households Rearing Pigs, Head of Pigs and Average Head per Household by Herd Size as of 1st October 2008 190

9.21: Total Number of Pigs by Type of Pigs and District as of 1st October 2008 190

9.22: Number of Pigs per Household by District as of 1st October 2008 190

CHICKEN AND OTHER LIVESTOCK PRODUCTION 191

9.23: Number of Households and CHICKEN by Type and District as of 1st October 2008 192

9.24: Number of Households Keeping Chickens and Average Number of Chickens per Household by Flock Size as of 1st October 2008 - MTWARA 192

9.25: Number of Other Livestock by Type of Livestock and District as of 1st October 2008 193

9.26 : Total Number of Other Livestock by Type as of 1st October 2008 193

PEST AND PARASITES 194

9.27: Number of Livestock Rearing households Deworming Livestock by District during 2007/08 Agriculture Year 195

9.28: Number of Livestock Rearing households that dewormed Livestock by Type of Livestock and District, 2007/08 Agricultural Year 195

9.29: Number of Livestock Rearing Households Normally Encountering Tick Problems by District during 2007/08 Agriculture Year 196

9.30: Number of Livestock Rearing Households by Method of Tick Control and District during 2007/08 Agriculture Year 196

9.31: Number of Livestock Rearing Households Normally Encountering Tsetse Flies Problems by District during 2007/08 Agriculture Year 196

9.32: Number of Livestock Rearing Households by Method of Tsetse Flies Control and District during 2007/08 Agriculture Year 197

9.33: Number of Livestock Rearing Households Normally Encountering Foot and Mouth Disease Problems by District During 2007/08 Agriculture Year 197

9.34: Number of Livestock Rearing Households normally Encountering Newcastle Disease Problems by District During 2007/08 Agriculture Year 197

9.35: Number of Livestock Rearing Households by Method of Newcastle Disease Control and District During 2007/08 Agriculture Year 198

9.36: Number of Livestock Rearing Households Normally Encountering Fowl Typhoid Disease Problems by District During 2007/08 Agriculture Year 198

9.37: Number of Livestock Rearing Households by Method of Typhoid Disease Control and Region During 2007/08 Agriculture Year 198

9.38: Number of Livestock Rearing Households Normally Encountering Lympyskin Disease Problems by Region During 2007/08 Agriculture Year 199

9.39: Number of Households receiving Livestock Advice (Overall) By Source of Extension and District During the 2007/08 Agriculture Year 199

FISH FARMING 200

9.40: Number of Agriculture Households Practising Fish Farming by District During the 2007/08 Agriculture Year 201

9.41: Number of Agriculture Households by System of Fish Farming and District During the 2007/08 Agriculture Year 201

9.42: Number of Agriculture Households by Source of Fingerling and District During the 2007/08 Agriculture Year 201

9.43: Number of Fish Harvested, their weight and Quantity Sold by District During 2007/08 Agriculture Year 201

BEE KEEPING 202

9.44: Number of Agricultural Households Involved in Honey Production/Collection and District, 2007/08 Agricultural Year 203

9.45: Number of Agriculture Households Harvesting Honey by Type of Bee and District During the 2007/08 Agriculture Year 203

9.46: Number of Bee Hives by Type, Size of Bees and District During the 2007/08 Agriculture Year 203

9.47: Quantity of Honey Harvested and Sold by Size of Bees and District During the 2007/08 Agriculture Year 204

9.48: Average price of Honey (Tshs/litre) by Size of Bees and District During the 2007/08 Agriculture Year 204

9.49: Number of Agriculture Households by Location of Selling Honey and District During the 2007/08 Agriculture Year 204

POVERTY MODULE 205

10.1: Number of Households Reporting Average Number of Rooms and Type of Building Materials by District, 2007/08 Agricultural Year 206

10.2 : Number of Households Reporting Average Number of Rooms and Type of Floor Materials by District, 2007/08 Agricultural Year 206

10.3: Number of Households by Type of Wall Materials and District, 2007/08 Agricultural Year 206

10.4: Number of Agricultural Households Reporting Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year 207

10.5: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year 207

10.6: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year 207

10.7: Number of Agricultural Households Reporting Main Source of Drinking Water during Dry Season by District, 2007/08 Agricultural Year 208

10.8: Number of Agricultural Households Reporting type of TOILET the household normally use 208

10.9: Number of Agricultural Households Reporting Number of Meals the Household Normally Has per Day by District, 2007/08 Agricultural Year 208

10.10: Number of Agricultural Households Reporting Number of Days the Household Consumed Meat During the Preceeding Week by District, 2007/08 Agricultural Year 209

10.11: Number of Agricultural Households Reporting Number of Days the Household Consumed Fish during the Preceeding Week by District, 2007/08 Agricultural Year 209

10.12: Number of Agricultural Households Reporting the Status of Food Satisfaction of the Household During the Preceeding Year by District, 2007/08 Agricultural Year 209

10.13: Number of Agricultural Households Reporting Main Source of Income by District, 2007/08 Agricultural Year 210

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 Rural Households	Number of Urban Households	% of Total Urban Households	Total Number of Households
Mtwara Rural	50,261	98	1,017	2	51,278	92	4,550	8	55,828
Newala	45,349	99	477	1	45,826	83	9,422	17	55,248
Masasi	61,858	99	605	1	62,463	79	16,442	21	78,905
Tandahimba	47,041	98	760	2	47,801	79	12,757	21	60,558
Mtwara Urban	3,575	95	204	5	3,779	13	24,743	87	28,521
Nanyumbu	41,290	100	181	0	41,471	79	11,198	21	52,669
Total	**249,373**	**99**	**3,244**	**1.3**	**252,617**	**76.2**	**79,112**	**24**	**331,729**

2. 2: Number of Agriculture Households by Type of Holding by District during 2007/08 Agriculture Year

District	Crops Only		Livestock Only		Pastoralists		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	%			
Mtwara Rural	44,428	88	124	0	0	0	5,709	11	50,261	50,136	5,833
Newala	36,727	81	0	0	0	0	8,622	19	45,349	45,349	8,622
Masasi	49,791	80	153	0	0	0	11,913	19	61,858	61,705	12,066
Tandahimba	41,466	88	0	0	0	0	5,575	12	47,041	47,041	5,575
Mtwara Urban	2,979	83	40	1	0	0	556	16	3,575	3,535	596
Nanyumbu	38,843	94	0	0	0	0	2,447	6	41,290	41,290	2,447
Total	**214,234**	**85.9**	**317**	**0.1**	**0**	**0**	**34,822**	**14**	**249,373**	**249,056**	**35,138**

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

Size of holding (ha)	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	26,740	89	40	0	0	0	3,359	11	30,139	100
0.51 - 1.00	47,078	90	0	0	0	0	5,329	10	52,407	100
1.01 - 1.50	46,579	88	153	0	0	0	6,500	12	53,231	100
1.51 - 2.00	26,186	87	124	0	0	0	3,797	13	30,107	100
2.01 - 2.50	26,155	85	0	0	0	0	4,585	15	30,740	100
2.51 - 3.00	8,552	80	0	0	0	0	2,073	20	10,625	100
3.01 - 3.50	7,458	79	0	0	0	0	1,971	21	9,429	100
3.51 - 4.00	5,016	87	0	0	0	0	746	13	5,763	100
4.01 -4.50	7,008	72	0	0	0	0	2,769	28	9,777	100
4.51 -5.00	2,209	69	0	0	0	0	990	31	3,198	100
Above 5	11,254	81	0	0	0	0	2,702	19	13,956	100
Total	**214,234**	**86**	**317**	**0**	**0**	**0**	**34,822**	**14**	**249,373**	**100**

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

Size of holding (ha)	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	26,740	12	40	13	0	0	3,359	10	30,139	12
0.51 - 1.00	47,078	22	0	0	0	0	5,329	15	52,407	21
1.01 - 1.50	46,579	22	153	48	0	0	6,500	19	53,231	21
1.51 - 2.00	26,186	12	124	39	0	0	3,797	11	30,107	12
2.01 - 2.50	26,155	12	0	0	0	0	4,585	13	30,740	12
2.51 - 3.00	8,552	4	0	0	0	0	2,073	6	10,625	4
3.01 - 3.50	7,458	3	0	0	0	0	1,971	6	9,429	4
3.51 - 4.00	5,016	2	0	0	0	0	746	2	5,763	2
4.01 -4.50	7,008	3	0	0	0	0	2,769	8	9,777	4
4.51 -5.00	2,209	1	0	0	0	0	990	3	3,198	1
Above 5	11,254	5	0	0	0	0	2,702	8	13,956	6
Total	**214,234**	**100**	**317**	**100**	**0**	**0**	**34,822**	**100**	**249,373**	**100**

HOUSEHOLD DEMOGRAPHICS

3.1 Number of Heads of Agricultural Households by sex of head and District, 2007/08 Agricultural Year

District	Male		Female		Total
	Number	Percent	Number	Percent	
Mtwara Rural	37,106	74	13,155	26	50,261
Newala	29,449	65	15,900	35	45,349
Masasi	46,431	75	15,426	25	61,858
Tandahimba	33,103	70	13,938	30	47,041
Mtwara Urban	2,860	80	715	20	3,575
Nanyumbu	30,993	75	10,297	25	41,290
Total	**179,942**	**72**	**69,431**	**28**	**249,373**

3 .2: Number of Household Members classified by District and Sex, 2007/0 Agricultural Year

District	Male		Female		Total
	Number	Percent	Number	Percent	
Mtwara Rural	100,521	48	109,953	52	210,474
Newala	71,214	44	89,242	56	160,456
Masasi	107,678	45	129,214	55	236,891
Tandahimba	80,144	44	100,703	56	180,848
Mtwara Urban	8,103	50	8,063	50	16,166
Nanyumbu	72,079	47	80,745	53	152,825
Total	**439,740**	**46**	**517,919**	**54**	**957,659**

3.3 Number of Agricultural Household Members by Sex and Age Group, 2007/08 Agricultural Year

	Sex					
	Male		Female		Total	
Age Group	Number	%	Number	%	Number	%
Less than 4	51,136	47	56,716	53	107,852	100
5 - 9	65,605	51	63,260	49	128,865	100
10- 14	59,883	49	62,642	51	122,525	100
15- 19	41,264	46	47,694	54	88,958	100
20- 24	25,358	37	44,112	63	69,470	100
25- 29	27,767	40	41,092	60	68,858	100
30- 34	27,942	41	40,640	59	68,583	100
35- 39	27,234	43	35,464	57	62,698	100
40- 44	21,844	46	25,891	54	47,735	100
45- 49	22,063	46	26,295	54	48,358	100
50- 54	17,737	52	16,653	48	34,390	100
55- 59	13,370	48	14,235	52	27,605	100
60- 64	13,383	50	13,252	50	26,635	100
65- 69	9,639	49	9,945	51	19,584	100
70- 74	6,739	45	8,296	55	15,034	100
75- 79	3,830	42	5,278	58	9,108	100
80- 84	1,467	40	2,208	60	3,675	100
Above 85	3,480	45	4,248	55	7,727	100
Total	**439,740**	**46**	**517,919**	**54**	**957,659**	**100**

3.4 Number of Heads of Agricultural Households by Marital Status, Sex of Head and District, 2007/08 Agricultural Year

	Married						Not Married					
District	Male		Female		Total		Male		Female		Total	
Mtwara Rural	32,638	89	4,219	11	36,858	100	1,117	47	1,241	53	2,358	100
Newala	25,977	88	3,695	12	29,673	100	1,456	38	2,351	62	3,807	100
Masasi	36,504	94	2,291	6	38,795	100	5,804	49	5,957	51	11,761	100
Tandahimba	30,316	87	4,414	13	34,729	100	1,162	53	1,045	47	2,207	100
Mtwara Urban	2,502	89	318	11	2,820	100	79	100	0	0	79	100
Nanyumbu	22,735	90	2,651	10	25,386	100	3,059	52	2,855	48	5,913	100
Total	**150,672**	**90**	**17,588**	**10**	**168,260**	**100**	**12,676**	**49**	**13,449**	**51**	**26,125**	**100**

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

District	Living together						Separated					
	Male		Female		Total		Male		Female		Total	
Mtwara Rural	1,613	87	248	13	1,862	100	1,241	22	4,468	78	5,709	100
Newala	672	46	784	54	1,456	100	1,120	20	4,591	80	5,711	100
Masasi	2,291	83	458	17	2,749	100	1,680	31	3,818	69	5,498	100
Tandahimba	813	88	116	13	929	100	116	2	5,459	98	5,575	100
Mtwara Urban	0	0	79	100	79	100	278	70	119	30	397	100
Nanyumbu	3,976	93	306	7	4,282	100	816	21	3,160	79	3,976	100
Total	**9,365**	**82**	**1,992**	**18**	**11,357**	**100**	**5,251**	**20**	**21,616**	**80**	**26,866**	**100**

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

District	Widowed						Total					
	Male		Female		Total		Male		Female		Total	
Mtwara Rural	496	14	2,978	86	3,475	100	37,106	74	13,155	26	50,261	100
Newala	224	5	4,479	95	4,703	100	29,449	65	15,900	35	45,349	100
Masasi	153	5	2,902	95	3,055	100	46,431	75	15,426	25	61,858	100
Tandahimba	697	19	2,904	81	3,601	100	33,103	70	13,938	30	47,041	100
Mtwara Urban	0	0	199	100	199	100	2,860	80	715	20	3,575	100
Nanyumbu	408	24	1,325	76	1,733	100	30,993	75	10,297	25	41,290	100
Total	**1,978**	**12**	**14,787**	**88**	**16,765**	**100**	**179,942**	**72**	**69,431**	**28**	**249,373**	**100**

3.5 Number of Heads of Agricultural Households by Survival of Female Parent, Sex of Head and District, 2007/08 Agricultural Year

District	Yes						No					
	Male		Female		Total		Male		Female		Total	
Mtwara Rural	15,761	77	4,716	23	20,477	100	21,345	72	8,439	28	29,784	100
Newala	12,205	80	3,135	20	15,340	100	17,244	57	12,765	43	30,008	100
Masasi	23,979	82	5,193	18	29,172	100	22,452	69	10,233	31	32,685	100
Tandahimba	12,544	81	3,020	19	15,564	100	20,443	65	10,802	35	31,245	100
Mtwara Urban	794	77	238	23	1,033	100	2,065	81	477	19	2,542	100
Nanyumbu	14,885	78	4,282	22	19,167	100	16,108	73	6,015	27	22,123	100
Total	**80,169**	**80**	**20,584**	**20**	**100,753**	**100**	**99,657**	**67**	**48,731**	**33**	**148,388**	**100**

Cont. 3.5 Number of Heads of Agricultural Households by Survival of Female Parent, Sex of Head and District, 2007/08 Agricultural Year

District	Don't know						Total					
	Male		Female		Total		Male		Female		Total	
Mtwara Rural	0	0	0	0	0	0	37,106	74	13,155	26	50,261	100
Newala	0	0	0	0	0	0	29,449	65	15,900	35	45,349	100
Masasi	0	0	0	0	0	0	46,431	75	15,426	25	61,858	100
Tandahimba	116	50	116	50	232	100	33,103	70	13,938	30	47,041	100
Mtwara Urban	0	0	0	0	0	0	2,860	80	715	20	3,575	100
Nanyumbu	0	0	0	0	0	0	30,993	75	10,297	25	41,290	100
Total	**116**	**50**	**116**	**50**	**232**	**100**	**179,942**	**72**	**69,431**	**28**	**249,373**	**100**

3.6 Number of Heads of Agricultural Households by Survival of Male Parent, Sex of Head and District, 2007/08 Agricultural Year

District	Yes						No					
	Male		Female		Total		Male		Female		Total	
Mtwara Rural	21,718	78	6,081	22	27,798	100	15,388	69	7,074	31	22,462	100
Newala	15,228	71	6,270	29	21,499	100	14,220	60	9,630	40	23,850	100
Masasi	29,783	81	6,873	19	36,656	100	16,648	66	8,553	34	25,201	100
Tandahimba	17,887	75	5,924	25	23,811	100	15,216	65	8,014	35	23,230	100
Mtwara Urban	1,628	84	318	16	1,946	100	1,231	76	397	24	1,628	100
Nanyumbu	20,594	79	5,607	21	26,201	100	10,399	69	4,690	31	15,089	100
Total	**106,839**	**77**	**31,073**	**23**	**137,912**	**100**	**73,103**	**66**	**38,358**	**34**	**111,461**	**100**

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

District	Don't know						Total					
	Male	%	Female	%	Total	%	Male		Female		Total	
Mtwara Rural	-	-	-	-	-	-	37,106	74	13,155	26	50,261	100
Newala	-	-	-	-	-	-	29,449	65	15,900	35	45,349	100
Masasi	-	-	-	-	-	-	46,431	75	15,426	25	61,858	100
Tandahimba	-	-	-	-	-	-	33,103	70	13,938	30	47,041	100
Mtwara Urban	-	-	-	-	-	-	2,860	80	715	20	3,575	100
Nanyumbu	-	-	-	-	-	-	30,993	75	10,297	25	41,290	100
Total	**-**	**-**	**-**	**-**	**-**	**-**	**179,942**	**72**	**69,431**	**28**	**249,373**	**100**

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	%	
Mtwara Rural	113,304	60	7,570	4	124	0	66,766	36	187,764
Newala	88,346	62	6,046	4	0	0	48,708	34	143,100
Masasi	157,469	74	11,455	5	0	0	43,224	20	212,148
Tandahimba	90,598	57	5,808	4	232	0	62,489	39	159,127
Mtwara Urban	7,785	54	1,390	10	0	0	5,243	36	14,418
Nanyumbu	95,222	71	2,753	2	0	0	35,275	26	133,250
Total	**552,724**	**65**	**35,022**	**4.1**	**356**	**0**	**261,705**	**31**	**849,808**

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	
Mtwara Rural	24,572	84	4,840	16	29,412	100	1,613	87	248	13	1,862	100
Newala	19,259	76	5,935	24	25,194	100	1,008	75	336	25	1,344	100
Masasi	35,434	78	9,775	22	45,209	100	3,513	85	611	15	4,124	100
Tandahimba	19,746	85	3,368	15	23,114	100	1,510	81	348	19	1,858	100
Mtwara Urban	1,509	79	397	21	1,907	100	516	100	0	0	516	100
Nanyumbu	23,958	79	6,423	21	30,381	100	918	100	0	0	918	100
Total	**124,479**	**80**	**30,738**	**20**	**155,217**	**100**	**9,078**	**85**	**1,544**	**15**	**10,621**	**100**

Cont. 3.8 Number of Heads of Agricultural Households By Status of Writing and Reading Languages, Sex of Head and District, 2007/08 Agricultural Year

District	Any Other Language						Don't Read / Write					
	Male	%	Female	%	Total	%	Male		Female		Total	
Mtwara Rural	0	0	0	0	0	100	10,921	58	8,067	42	18,987	100
Newala	0	0	0	0	0	100	9,182	49	9,630	51	18,811	100
Masasi	0	0	0	0	0	0	7,484	60	5,040	40	12,524	100
Tandahimba	116	100	116	100	232	100	11,731	53	10,221	47	21,953	100
Mtwara	0	0	0	0	0	100	834	72	318	28	1,152	100
Urban												
Nanyumbu	0	0	0	0	0	100	6,117	61	3,874	39	9,991	100
Total	**116**	**100**	**116**	**100**	**232**	**100**	**46,269**	**55**	**37,150**	**45**	**83,419**	**100**

Cont. 3.8 Number of Heads of Agricultural Households By Status of Writing and Reading Languages, Sex of Head and District, 2007/08 Agricultural Year

District	Total					
	Male		Female		Total	
Mtwara Rural	37,106	74	13,155	26	50,261	100
Newala	29,449	65	15,900	35	45,349	100
Masasi	46,431	75	15,426	25	61,858	100
Tandahimba	33,103	70	13,938	30	47,041	100
Mtwara Urban	2,860	80	715	20	3,575	100
Nanyumbu	30,993	75	10,297	25	41,290	100
Total	**179,942**	**72**	**69,431**	**28**	**249,373**	**100**

3.9: Number of Agricultural Household Members Reporting Literacy Levels by Sex of Member and District, 2007/08 Agricultural Year

	Male						Female						Total					
	Can Read and Write		Cannot Read and Write		Total		Can Read and Write		Cannot Read and Write		Total		Can Read and Write		Cannot Read and Write		Total	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	63,788	71	25,937	29	89,724	100	57,210	58	40,829	42	98,039	100	120,998	64	66,766	36	187,764	100
Newala	44,565	71	17,804	29	62,368	100	49,827	62	30,904	38	80,732	100	94,392	66	48,708	34	143,100	100
Masasi	77,589	81	18,328	19	95,917	100	91,335	79	24,896	21	116,231	100	168,925	80	43,224	20	212,148	100
Tandahimba	45,880	65	24,276	35	70,155	100	50,758	57	38,214	43	88,972	100	96,638	61	62,489	39	159,127	100
Mtwara Urban	4,965	69	2,264	31	7,229	100	4,210	59	2,979	41	7,189	100	9,175	64	5,243	36	14,418	100
Nanyumbu	48,733	77	14,477	23	63,210	100	49,242	70	20,798	30	70,040	100	97,975	74	35,275	26	133,250	100
Total	**285,519**	**73**	**103,085**	**27**	**388,604**	**100**	**302,584**	**66**	**158,620**	**34**	**461,203**	**100**	**588,103**	**69**	**261,705**	**31**	**849,808**	**100**

3.10: Number of Heads of Agricultural Households Reporting Literacy Levels by Sex of Member and District, 2007/08 Agricultural Year

	Male						Female						Total					
	Can Read and Write		Cannot Read and Write		Total		Can Read and Write		Cannot Read and Write		Total		Can Read and Write		Cannot Read and Write		Total	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	26,185	71	10,921	29	37,106	100	5,088	39	8,067	61	13,155	100	31,273	62	18,987	38	50,261	100
Newala	20,267	69	9,182	31	29,449	100	6,270	39	9,630	61	15,900	100	26,537	59	18,811	41	45,349	100
Masasi	38,947	84	7,484	16	46,431	100	10,386	67	5,040	33	15,426	100	49,333	80	12,524	20	61,858	100
Tandahimba	21,372	65	11,731	35	33,103	100	3,717	27	10,221	73	13,938	100	25,089	53	21,953	47	47,041	100
Mtwara Urban	2,026	71	834	29	2,860	100	397	56	318	44	715	100	2,423	68	1,152	32	3,575	100
Nanyumbu	24,876	80	6,117	20	30,993	100	6,423	62	3,874	38	10,297	100	31,299	76	9,991	24	41,290	100
Total	**133,673**	**74**	**46,269**	**26**	**179,942**	**100**	**32,281**	**46**	**37,150**	**54**	**69,431**	**100**	**165,954**	**67**	**83,419**	**33**	**249,373**	**100**

3.11: Number of Heads of Agricultural Households By Level of Formal Education Completion and District, 2007/08 Agricultural Year

	Primary Education		Post Primary Education		Adult Education		No Education		Total	
District	Count	%	Count	%	Count	%	Count	%	Count	%
Mtwara Rural	29,164	58	1,241	2	745	1	19,111	38	50,261	100
Newala	25,866	57	1,008	2	448	1	18,027	40	45,349	100
Masasi	47,195	76	1,986	3	458	1	12,219	20	61,858	100
Tandahimba	23,463	50	813	2	813	2	21,953	47	47,041	100
Mtwara Urban	1,946	54	477	13	0	0	1,152	32	3,575	100
Nanyumbu	30,279	73	1,223	3	0	0	9,787	24	41,290	100
Total	157,912	63	6,747	3	2,464	1	82,249	33	249,373	100

3 .12: Number of Household Members Five Years and Above by Education Status and District

	School Attendance							
	Attending School		Completed		Never Attended to School		Total	
District	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	54,604	22	71,109	19	62,050	27	187,764	22
Newala	42,773	17	58,897	16	41,430	18	143,100	17
Masasi	61,247	25	117,147	31	33,754	15	212,148	25
Tandahimba	46,693	19	57,147	15	55,288	24	159,127	19
Mtwara Urban	5,005	2	5,203	1	4,210	2	14,418	2
Nanyumbu	37,110	15	66,370	18	29,770	13	133,250	16
Total	**247,432**	**100**	**375,874**	**100**	**226,502**	**100**	**849,808**	**100**

3.13: Number of Heads of Agricultural Households by Education Status, Sex of Head and District, 2007/08 Agricultural Year

	Attending School						Completed					
District	Male		Female		Total		Male		Female		Total	
Mtwara Rural	248	33	496	67	745	100	25,813	85	4,468	15	30,280	100
Newala	336	100	0	0	336	100	20,043	76	6,382	24	26,425	100
Masasi	916	86	153	14	1,069	100	38,336	79	10,386	21	48,722	100
Tandahimba	465	80	116	20	581	100	20,791	85	3,717	15	24,508	100
Mtwara Urban	0	0	0	0	0	0	2,026	84	397	16	2,423	100
Nanyumbu	408	80	102	20	510	100	24,672	80	6,321	20	30,993	100
Total	**2,373**	**73**	**867**	**27**	**3,240**	**100**	**131,681**	**81**	**31,671**	**19**	**163,352**	**100**

Cont.. 3.13: Number of Heads of Agricultural Households by Education Status, Sex of Head and District, 2007/08 Agricultural Year

	Never Attended to School						Total					
District	Male		Female		Total		Male		Female		Total	
Mtwara Rural	11,045	57	8,191	43	19,236	100	37,106	74	13,155	26	50,261	100
Newala	9,070	49	9,518	51	18,587	100	29,449	65	15,900	35	45,349	100
Masasi	7,179	59	4,888	41	12,066	100	46,431	75	15,426	25	61,858	100
Tandahimba	11,847	54	10,105	46	21,953	100	33,103	70	13,938	30	47,041	100
Mtwara Urban	834	72	318	28	1,152	100	2,860	80	715	20	3,575	100
Nanyumbu	5,913	60	3,874	40	9,787	100	30,993	75	10,297	25	41,290	100
Total	**45,888**	**55**	**36,893**	**45**	**82,781**	**100**	**179,942**	**72**	**69,431**	**28**	**249,373**	**100**

3.14: Number of Agricultural Household Members by Level of Formal Education Completion and District, 2007/08 Agricultural Year

	Education Level											
	Under Standard One		Standard One		Standard Two		Standard Three		Standard Four		Standard Five	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	0	0	496	1	1,241	2	1,365	2	6,453	9	1,241	2
Newala	0	0	0	0	112	0	784	1	7,054	12	784	1
Masasi	0	0	1,680	1	1,375	1	2,138	2	10,080	9	1,986	2
Tandahimba	0	0	0	0	581	1	1,162	2	4,065	7	1,858	3
Mtwara Urban	79	2	79	2	119	2	238	5	715	14	238	5
Nanyumbu	0	0	918	1	1,223	2	612	1	6,423	10	1,223	2
Total	**79**	**0**	**3,173**	**1**	**4,651**	**1**	**6,299**	**2**	**34,791**	**9**	**7,331**	**2**

cont 3.14: Number of Agricultural Household Members by Level of Formal Education Completion and District, 2007/08 Agricultural Year

	Education Level											
	Standard Six		Standard Seven		Standard Eight		Training After Primary Education		Pre Form One		Form One	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	1,862	3	54,976	77	124	0.2	248	0.3	124	0.2	0	0.0
Newala	224	0.4	46,244	79	672	1	0	0.0	112	0.2	112	0.2
Masasi	1,069	1	91,641	78	2,291	2	0	0.0	458	0.4	305	0.3
Tandahimba	1,278	2	44,834	78	232	0.4	232	0.4	116	0.2	116	0.2
Mtwara Urban	79	2	2,780	53	40	1	40	0.8	0	0.0	0	0.0
Nanyumbu	1,325	2	51,587	78	510	1	408	0.6	0	0.0	204	0.3
Total	**5,837**	**1.6**	**292,064**	**78**	**3,869**	**1**	**928**	**0.2**	**810**	**0.2**	**737**	**0.2**

cont 3.14: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year

	Education Level											
	Form Two		Form Three		Form Four		Form Five		Form Six		Training After Secondary Education	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	496	1	124	0	869	1	0	0	0	0	124	0
Newala	896	2	336	1	1,008	2	0	0	0	0	0	0
Masasi	1,222	1	305	0	1,680	1	0	0	0	0	153	0
Tandahimba	465	1	232	0	813	1	0	0	0	0	0	0
Mtwara Urban	40	1	40	1	397	8	40	1	79	2	79	2
Nanyumbu	510	1	102	0	918	1	0	0	0	0	204	0
Total	**3,628**	**1**	**1,139**	**0**	**5,684**	**2**	**40**	**0**	**79**	**0**	**560**	**0**

cont 3.14: Number of Agricultural Household Members By Level of Formal Education Completion and District, 2007/08 Agricultural Year

	Education Level							
	University & Other Tertiary Education		Adult Education		Not applicable		Total	
District	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	0	0	1,241	2	124	0	71,109	100
Newala	0	0	448	1	112	0	58,897	100
Masasi	0	0	611	1	153	0	117,147	100
Tandahimba	0	0	1,162	2	0	0	57,147	100
Mtwara Urban	119	2	0	0	0	0	5,203	100
Nanyumbu	0	0	0	0	204	0	66,370	100
Total	**119**	**0**	**3,461**	**1**	**593**	**0**	**375,874**	**100**

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

	Involvement in Farming									
	Works Full-time on Farm		Works Part-time on Farm		Rarely Works on Farm		Never Works on Farm		Total	
District	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	98,039	52	2,358	1	17,250	9	70,117	37	187,764	100
Newala	84,427	59	6,158	4	20,603	14	31,912	22	143,100	100
Masasi	127,228	60	4,582	2	22,757	11	57,581	27	212,148	100
Tandahimba	91,179	57	2,671	2	16,494	10	48,784	31	159,127	100
Mtwara Urban	4,528	31	516	4	4,091	28	5,283	37	14,418	100
Nanyumbu	81,255	61	1,121	1	12,948	10	37,926	28	133,250	100
Total	**486,656**	**57**	**17,408**	**2**	**94,143**	**11**	**251,602**	**30**	**849,808**	**100**

LAND ACCESS/OWNERSHIP

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	%	
Mtwara Rural	869	1	43,807	69	9,928	16	496	1	2,358	4	372	1	5,585	9	63,415
Newala	672	1	41,318	80	5,039	10	784	2	3,359	6	448	1	112	0	51,731
Masasi	9,011	12	44,599	60	14,815	20	1,222	2	3,207	4	305	0	1,222	2	74,382
Tandahimba	1,510	3	42,279	73	9,757	17	697	1	2,904	5	465	1	116	0	57,727
Mtwara Urban	357	9	1,192	29	1,390	33	199	5	794	19	0	0	238	6	4,170
Nanyumbu	612	1	37,416	79	5,607	12	510	1	1,733	4	510	1	1,121	2	47,509
Total	**13,031**	**4**	**210,610**	**70**	**46,536**	**16**	**3,907**	**1**	**14,356**	**5**	**2,100**	**1**	**8,394**	**3**	**298,935**

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

District	Land Access/ Ownership (Hectare)							
	Area Leased/ Certificate of Ownership	Area Owned Under Customary Law	Area Bought From Others	Area Rented From Others	Area Borrowed From Others	Area Shared Croped From Others	Area under Other Forms of Tenure	Total
Mtwara Rural	2,276	83,366	19,205	578	1,495	201	7,838	114,959
Newala	714	70,220	7,580	657	2,323	306	567	82,367
Masasi	8,379	80,473	28,615	742	2,102	247	1,484	122,042
Tandahimba	4,291	66,004	13,085	1,046	1,352	917	235	86,930
Mtwara Urban	1,154	1,889	2,428	153	422	.	346	6,392
Nanyumbu	1,568	69,271	8,750	310	1,011	392	949	82,252
Total	**18,382**	**371,224**	**79,663**	**3,486**	**8,706**	**2,063**	**11,419**	**494,943**

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
Mtwara Rural	29,660	59	20,601	41	50,261
Newala	33,816	75	11,533	25	45,349
Masasi	40,169	65	21,688	35	61,858
Tandahimba	36,355	77	10,686	23	47,041
Mtwara Urban	2,185	61	1,390	39	3,575
Nanyumbu	25,182	61	16,108	39	41,290
Total	167,367	67	82,006	33	249,373

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
Mtwara Rural	30,405	60	19,856	40	50,261
Newala	30,008	66	15,340	34	45,349
Masasi	35,740	58	26,118	42	61,858
Tandahimba	23,346	50	23,695	50	47,041
Mtwara Urban	1,946	54	1,628	46	3,575
Nanyumbu	25,590	62	15,700	38	41,290
Total	147,035	59	102,338	41	249,373

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	%	Total
Mtwara Rural	20,725	41	29,536	59	50,261
Newala	15,564	34	29,785	66	45,349
Masasi	26,423	43	35,434	57	61,858
Tandahimba	18,120	39	28,922	61	47,041
Mtwara Urban	596	17	2,979	83	3,575
Nanyumbu	12,642	31	28,648	69	41,290
Total	94,069	38	155,304	62	249,373

LAND USE

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	Households under Planted Trees	Households Rented to Others	Households Unusable	Households of Uncultivated Usable Land	Total number of households
Mtwara Rural	26,557	15,140	20,973	3,847	10,673	124	11,790	2,854	0	248	248	5,460	97,915
Newala	14,444	21,163	14,892	2,015	16,684	0	6,830	336	0	560	0	2,351	79,276
Masasi	29,936	25,812	14,968	1,986	18,175	0	9,470	458	153	611	0	8,095	109,663
Tandahimba	21,953	13,706	18,817	4,065	16,610	0	5,924	581	0	348	0	2,671	84,674
Mtwara Urban	1,033	1,112	636	675	1,430	79	675	159	0	40	199	437	6,474
Nanyumbu	26,201	19,065	15,089	714	3,364	0	3,160	0	0	204	408	10,195	78,400
Total	**120,125**	**95,998**	**85,374**	**13,302**	**66,936**	**204**	**37,849**	**4,388**	**153**	**2,011**	**855**	**29,210**	**456,404**

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)
Mtwara Rural	18,826	12,074	25,423	4,632	19,618	63	22,735	4,032	.	151	283	7,122	114,959
Newala	10,908	18,566	14,059	2,287	19,806	.	13,777	646	.	521	.	1,798	82,367
Masasi	21,673	25,576	15,657	1,619	31,335	.	14,217	804	618	804	.	9,739	122,042
Tandahimba	15,605	8,159	21,914	3,880	26,075	.	7,266	494	.	353	.	3,186	86,930
Mtwara Urban	407	1,035	583	609	1,725	44	559	748	.	8	149	527	6,392
Nanyumbu	24,807	18,873	16,438	784	5,892	.	3,911	.	.	124	165	11,258	82,252
Total	**92,225**	**84,282**	**94,074**	**13,811**	**104,451**	**107**	**62,464**	**6,723**	**618**	**1,960**	**597**	**33,630**	**494,943**

CROP OWNERSHIP

5.1 Number of Household members owning most of the crop by Sex of the Main Owner, Season and District for the Agriculture Year 2007/08

	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	124	100	0	.0	124	100	23,207	69	10,549	31	33,755	100
Newala	0	.0	0	.0	0	.0	27,993	63	16,572	37	44,565	100
Masasi	458	75	153	25	611	100	43,529	72	16,801	28	60,330	100
Tandahimba	0	.0	0	.0	0	.0	23,695	57	18,236	43	41,931	100
Mtwara Urban	0	.0	0	.0	0	.0	1,867	75	636	25	2,502	100
Nanyumbu	0	.0	0	.0	0	.0	29,770	73	10,909	27	40,678	100
Total	**582**	**79**	**153**	**21**	**735**	**100**	**150,060**	**67**	**73,701**	**33**	**223,762**	**100**

5.2 Planted Area by District, season and Sex of Household members owning most of the crop for the Agriculture Year 2007/08

	SHORT RAINY SEASON						LONG RAINY SEASON					
	Male		Female		Total		Male		Female		Total	
District	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%	Area (ha)	%
Mtwara Rural	50	100	.	.0	50	100	17,041	69	7,366	31	24,407	100
Newala	.	.0	.	.0	.	.0	23,478	63	9,678	37	33,156	100
Masasi	554	75	62	25	616	100	45,722	72	12,344	28	58,066	100
Tandahimba	.	.0	.	.0	.	.0	16,039	57	11,090	43	27,129	100
Mtwara Urban	.	.0	.	.0	.	.0	1,028	75	303	25	1,331	100
Nanyumbu	.	.0	.	.0	.	.0	32,285	73	8,428	27	40,712	100
Total	604	79	62	21	666	100	135,593	67	49,207	33	184,800	100

ANNUAL CROP AND VEGETABLE PRODUCTION

5.3: Number of Crop Growing Households Planting Crops by Season

District	SHORT RAINY SEASON			LONG RAINY SEASON		
	Number of households Growing Crops	Number of households NOT Growing Crops	Total Number of Crop Growing households	Number of households Growing Crops	Number of households NOT Growing Crops	Total Number of Crop Growing households
Mtwara Rural	124	50,136	50,261	33,135	17,126	50,261
Newala	0	45,349	45,349	43,445	1,904	45,349
Masasi	611	61,247	61,858	59,261	2,596	61,858
Tandahimba	0	47,041	47,041	37,517	9,524	47,041
Mtwara Urban	0	3,575	3,575	2,502	1,072	3,575
Nanyumbu	0	41,290	41,290	40,271	1,020	41,290
Total	**735**	**248,638**	**249,373**	**216,131**	**33,242**	**249,373**

5.4: Number of Crop Growing Households and Area Planted (ha) by Season

District	SHORT RAINY SEASON		LONG RAINY SEASON		SHORT & LONG SEASON	
	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)
Mtwara Rural	124	50	33,135	24,407	33,259	24,457
Newala	0	.	43,445	33,156	43,445	33,156
Masasi	611	616	59,261	58,066	59,872	58,682
Tandahimba	0	.	37,517	27,129	37,517	27,129
Mtwara Urban	0	.	2,502	1,331	2,502	1,331
Nanyumbu	0	.	40,271	40,712	40,271	40,712
Total	**735**	**666**	**216,131**	**184,800**	**216,866**	**185,467**

5.4: Number of Agricultural Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short & Long Rainy SEASON Agricultural Year 2007/08

	Maize				Paddy				Sorghum			
District	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)
Mtwara Rural	15,885	4,929	3,152.39	0.64	13,899	5,906	7,238.02	1.23	16,381	7,375	3,749.32	0.51
Newala	39,974	17,234	12,697.28	0.74	3,919	1,080	784.03	0.73	15,564	3,612	1,752.81	0.49
Masasi	53,152	28,923	30,347.61	1.05	13,746	7,728	8,347.41	1.08	11,913	3,643	1,739.50	0.48
Tandahimba	21,023	8,845	5,196.27	0.59	7,666	4,914	4,214.21	0.86	13,938	4,196	1,462.11	0.35
Mtwara Urban	1,549	451	189.30	0.42	397	89	25.82	0.29	1,509	443	122.49	0.28
Nanyumbu	33,134	17,587	11,887.08	0.68	3,262	1,703	1,810.96	1.06	1,121	346	208.59	0.60
Total	**164,717**	**77,970**	**63,469.93**	**0.81**	**42,890**	**21,419**	**22,420.44**	**1.05**	**60,428**	**19,616**	**9,034.82**	**0.46**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

	Bulrush Millet				Finger Millet				Cereals			
District	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)
Mtwara Rural	0	.	.	.	248	56	37.85	0.67	46,413	18,266	14,177.58	0.78
Newala	0	.	.	.	448	102	17.36	0.17	59,905	22,027	15,251.47	0.69
Masasi	153	6	.46	0.07	153	31	15.27	0.49	79,117	40,331	40,450.25	1.00
Tandahimba	0	.	.	.	232	47	29.85	0.63	42,860	18,003	10,902.44	0.61
Mtwara Urban	0	.	.	.	0	.	.	.	3,456	983	337.61	0.34
Nanyumbu	102	21	8.16	0.40	204	52	19.37	0.38	37,824	19,708	13,934.15	0.71
Total	**255**	**27**	**8.61**	**0.32**	**1,285**	**288**	**119.70**	**0.42**	**269,574**	**119,319**	**95,053.50**	**0.80**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

	Okra				Fruits & Vegetables				Cassava			
District	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)
Mtwara Rural	372	28	12.41	0.45	372	28	12.41	0.45	0	.	.	.
Newala	0	.	.	.	0	.	.	.	224	127	44.79	0.35
Masasi	305	186	134.41	0.72	305	186	134.41	0.72	305	46	91.64	1.98
Tandahimba	232	53	33.68	0.63	232	53	33.68	0.63	0	.	.	.
Mtwara Urban	0	.	.	.	0	.	.	.	0	.	.	.
Nanyumbu	204	62	42.82	0.69	204	62	42.82	0.69	0	.	.	.
Total	**1,114**	**328**	**223.32**	**0.68**	**1,114**	**328**	**223.32**	**0.68**	**529**	**173**	**136.43**	**0.79**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

	Sweet Potatoes				Irish Potatoes				Yams			
District	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)
Mtwara Rural	496	45	96.80	2.16	0	.	.	.	124	25	22.34	0.89
Newala	560	181	797.02	4.40	0	.	.	.	0	.	.	.
Masasi	0	.	.	.	0	.	.	.	0	.	.	.
Tandahimba	348	82	170.74	2.07	0	.	.	.	348	59	75.50	1.28
Mtwara Urban	0	.	.	.	0	.	.	.	119	17	14.30	0.84
Nanyumbu	0	.	.	.	102	83	61.17	0.74	0	.	.	.
Total	**1,405**	**308**	**1,064.56**	**3.45**	**102**	**83**	**61.17**	**0.74**	**592**	**101**	**112.14**	**1.11**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

	Roots & Tubers				Beans				Cowpeas			
District	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)
Mtwara Rural	621	70	119.14	1.71	0	.	.	.	5,585	1,371	557.33	0.41
Newala	784	308	841.80	2.73	784	272	127.31	0.47	8,622	1,821	538.14	0.30
Masasi	305	46	91.64	1.98	2,749	943	523.88	0.56	12,830	3,281	2,440.09	0.74
Tandahimba	697	141	246.24	1.75	0	.	.	.	7,782	1,787	502.01	0.28
Mtwara Urban	119	17	14.30	0.84	0	.	.	.	1,033	139	41.11	0.30
Nanyumbu	102	83	61.17	0.74	714	114	30.18	0.27	6,321	1,547	691.74	0.45
Total	**2,628**	**665**	**1,374.29**	**2.07**	**4,247**	**1,329**	**681.37**	**0.51**	**42,172**	**9,946**	**4,770.41**	**0.48**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

	Green gram				Chick peas				Bambaranuts			
District	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)
Mtwara Rural	0	.	.	.	0	.	.	.	7,198	2,470	994.17	0.40
Newala	0	.	.	.	0	.	.	.	16,460	4,018	2,927.39	0.73
Masasi	6,568	1,477	1,557.44	1.05	458	93	42.77	0.46	4,124	977	516.24	0.53
Tandahimba	0	.	.	.	116	12	6.50	0.55	14,751	3,367	1,428.43	0.42
Mtwara Urban	0	.	.	.	0	.	.	.	318	42	5.36	0.13
Nanyumbu	5,709	1,516	614.05	0.40	0	.	.	.	2,141	568	285.26	0.50
Total	**12,277**	**2,993**	**2,171.49**	**0.73**	**574**	**105**	**49.27**	**0.47**	**44,991**	**11,441**	**6,156.85**	**0.54**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

	Pulses				Simsim				Groundnut			
District	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)
Mtwara Rural	12,782	3,842	1,551.50	0.40	1,117	369	86.99	0.24	4,592	1,569	657.48	0.42
Newala	25,866	6,112	3,592.84	0.59	1,120	440	99.32	0.23	15,676	4,189	2,437.07	0.58
Masasi	26,729	6,770	5,080.41	0.75	12,372	5,448	2,674.99	0.49	14,357	5,273	4,742.11	0.90
Tandahimba	22,650	5,165	1,936.94	0.37	1,162	371	176.09	0.47	13,357	3,153	1,732.75	0.55
Mtwara Urban	1,350	180	46.47	0.26	119	60	10.21	0.17	477	65	20.85	0.32
Nanyumbu	14,885	3,745	1,621.22	0.43	7,850	2,933	1,306.40	0.45	26,813	14,038	8,718.85	0.62
Total	**104,261**	**25,814**	**13,829.39**	**0.54**	**23,739**	**9,621**	**4,354.00**	**0.45**	**75,272**	**28,287**	**18,309.11**	**0.65**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

	OIL SEEDS & OIL NUTS				Tomatoes				Spinach			
District	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)
Mtwara Rural	5,709	1,938	744.48	0.38	1,241	289	574.58	1.99	0	.	.	.
Newala	16,796	4,629	2,536.39	0.55	224	68	137.73	2.03	0	.	.	.
Masasi	26,729	10,721	7,417.10	0.69	1,375	426	5,032.61	11.81	0	.	.	.
Tandahimba	14,519	3,524	1,908.83	0.54	581	89	542.43	6.07	0	.	.	.
Mtwara Urban	596	125	31.06	0.25	119	7	16.28	2.41	79	4	4.37	1.01
Nanyumbu	34,663	16,971	10,025.25	0.59	306	83	74.42	0.90	102	21	1.02	0.05
Total	**99,011**	**37,908**	**22,663.11**	**0.60**	**3,845**	**962**	**6,378.05**	**6.63**	**181**	**25**	**5.39**	**0.22**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

District	Amaranths				Pumpkins				Egg Plant			
	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)
Mtwara Rural	0	.	.	.	248	25	45.92	1.83	0	.	.	.
Newala	0	.	.	.	0	.	.	.	112	11	167.96	14.82
Masasi	0	.	.	.	153	15	9.16	0.59	0	.	.	.
Tandahimba	0	.	.	.	0	.	.	.	232	35	238.11	6.75
Mtwara Urban	79	4	2.38	0.55	79	10	20.26	2.03	0	.	.	.
Nanyumbu	102	41	4.08	0.10	0	.	.	.	0	.	.	.
Total	**181**	**46**	**6.46**	**0.14**	**480**	**51**	**75.34**	**1.49**	**344**	**47**	**406.07**	**8.71**

Cont. 5.4: Number of Agriculture Households, Area Planted (ha) and Quantity Harvested (tonnes) During Short and Long Rainy SEASON Agricultural Year 2007/08

District	Water Mellon				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)
Mtwara Rural	0	.	.	.	0	.	.	.
Newala	0	.	.	.	0	.	.	.
Masasi	153	15	36.66	2.37	611	170	65.37	0.38
Tandahimba	0	.	.	.	0	.	.	.
Mtwara Urban	0	.	.	.	0	.	.	.
Nanyumbu	0	.	.	.	0	.	.	.
Total	**153**	**15**	**36.66**	**2.37**	**611**	**170**	**65.37**	**0.38**

5.5: Number of Agriculture Households by Area Planted (ha) and crop for the agriculture year 2007/08 Short and Long Season

	SHORT RAINY SEASON		LONG RAINY SEASON		SHORT & LONG SEASON	
Crop	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)	Number of Household	Planted Area (hectare)
Maize	458	314	164,259	77,656	164,717	77,970
Paddy	124	50	42,766	21,369	42,890	21,419
Sorghum	0	0	60,428	19,616	60,428	19,616
Bulrush Millet	0	0	255	27	255	27
Finger Millet	0	0	1,285	288	1,285	288
CEREALS	**582**	**364**	**268,992**	**118,955**	**269,574**	**119,319**
Cassava	0	0	529	173	529	173
Sweet Potato	0	0	1,405	308	1,405	308
Irish potatoes	0	0	102	83	102	83
Yams	0	0	592	101	592	101
ROOTS & TUBERS	**0**	**0**	**2,628**	**665**	**2,628**	**665**
Beans	0	0	4,247	1,329	4,247	1,329
Cowpeas	153	31	42,019	9,915	42,172	9,946
Green gram	153	55	12,124	2,938	12,277	2,993
Chick peas	0	0	574	105	574	105
Bambaranuts	0	0	44,991	11,441	44,991	11,441
PULSES	**305**	**86**	**103,956**	**25,728**	**104,261**	**25,814**
Simsim	153	93	23,586	9,528	23,739	9,621
Groundnut	153	62	75,119	28,225	75,272	28,287
OIL SEEDS & OIL NUTS	**305**	**155**	**98,706**	**37,753**	**99,011**	**37,908**
Okra	153	62	961	266	1,114	328
Tomatoes	0	0	3,845	962	3,845	962
Spinach	0	0	181	25	181	25
Amaranths	0	0	181	46	181	46
Pumpkins	0	0	480	51	480	51
Cucumber	0	0	611	170	611	170
Egg Plant	0	0	344	47	344	47
Water Mellon	0	0	153	15	153	15
FRUITS & VEGETABLES	**153**	**62**	**6,758**	**1,581**	**6,910**	**1,643**
Tobacco	0	0	232	118	232	118
CASH CROPS	**0**	**0**	**232**	**118**	**232**	**118**
Total	**1,346**	**666**	**481,271**	**184,800**	**482,617**	**185,467**

5.6: Area planted (ha) and Quantity Harvested by Season and Crop for the 2007/08 Agriculture Year

Crop	SHORT RAINY SEASON			LONG RAINY SEASON			SHORT & LONG RAINY SEASON		
	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Maize	314	458	1.46	77,656	63,012	0.81	77,970	63,470	0.81
Paddy	50	43	0.86	21,369	22,377	1.05	21,419	22,420	1.05
Sorghum	0	0	-	19,616	9,035	0.46	19,616	9,035	0.46
Bulrush Millet	0	0	-	27	9	0.32	27	9	0.32
Finger Millet	0	0	-	288	120	0.42	288	120	0.42
CEREALS	**364**	**502**	**1.38**	**118,955**	**94,552**	**0.79**	**119,319**	**95,053**	**0.80**
Cassava	0	0	-	173	136	0.79	173	136	0.79
Sweet Potato	0	0	-	308	1,065	3.45	308	1,065	3.45
Irish potatoes	0	0	-	83	61	0.74	83	61	0.74
Yams	0	0	-	101	112	1.11	101	112	1.11
ROOTS & TUBER	**0**	**0**	**-**	**665**	**1,374**	**2.07**	**665**	**1,374**	**2.07**
Beans	0	0	-	1,329	681	0.51	1,329	681	0.51
Cowpeas	31	12	0.40	9,915	4,758	0.48	9,946	4,770	0.48
Green gram	55	122	2.22	2,938	2,049	0.70	2,993	2,171	0.73
Chick peas	0	0	-	105	49	0.47	105	49	0.47
Bambaranuts	0	0	-	11,441	6,157	0.54	11,441	6,157	0.54
PULSES	**86**	**134**	**1.56**	**25,728**	**13,695**	**0.53**	**25,814**	**13,829**	**0.54**
Simsim	93	61	0.66	9,528	4,293	0.45	9,621	4,354	0.45
Groundnut	62	31	0.49	28,225	18,279	0.65	28,287	18,309	0.65
OIL SEEDS & OIL NUTS	**155**	**92**	**0.59**	**37,753**	**22,571**	**0.60**	**37,908**	**22,663**	**0.60**

Cont. 5.6: Area planted (ha) and Quantity Harvested by Season and Crop for the 2007/08 Agriculture Year

Crop	SHORT RAINY SEASON			LONG RAINY SEASON			SHORT & LONG RAINY SEASON		
	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)	Actual Planted Area (ha)	Quantity Harvested (tons)	Yield (tons/ha)
Tomatoes	0	0	-	962	6,378	6.63	962	6,378	6.63
Spinach	0	0	-	25	5	0.22	25	5	0.22
Amaranths	0	0	-	46	6	0.14	46	6	0.14
Pumpkins	0	0	-	51	75	1.49	51	75	1.49
Cucumber	0	0	-	170	65	0.38	170	65	0.38
Egg Plant	0	0	-	47	406	8.71	47	406	8.71
Water Mellon	0	0	-	15	37	2.37	15	37	2.37
FRUITS & VEGETABLES	**62**	**12**	**0.20**	**1,581**	**7,184**	**4.54**	**1,643**	**7,197**	**4.38**
Tobacco	0	0	-	118	35	0.30	118	35	0.30
CASH CROPS	**0**	**0**	**-**	**118**	**35**	**0.30**	**118**	**35**	**0.30**
Total	**666**	**740**	**1.11**	**184,800**	**139,412**	**0.75**	**185,467**	**140,152**	**0.76**

CROP STORAGE AND MARKETING

5.7: Number of households Storing Crops by Season and District

	SHORT RAINY SEASON					LONG RAINY SEASON					SHORT & LONG RAINY SEASON				
District	Number of households storing crops	%	Number of households not storing crops	%	Total	Number of households storing crops	%	Number of households not storing crops	%	Total	Number of households storing crops	%	Number of households not storing crops	%	Total
Mtwara Rural	124	100	0	0	124	27,923	84	5,212	16	33,135	28,047	84	5,212	16	33,259
Newala	0	0	0	0	0	39,750	91	3,695	9	43,445	39,750	91	3,695	9	43,445
Masasi	458	75	153	25	611	58,192	98	1,069	2	59,261	58,650	98	1,222	2	59,872
Tandahimba	0	0	0	0	0	36,704	98	813	2	37,517	36,704	98	813	2	37,517
Mtwara Urban	0	0	0	0	0	2,026	81	477	19	2,502	2,026	81	477	19	2,502
Nanyumbu	0	0	0	0	0	37,926	94	2,345	6	40,271	37,926	94	2,345	6	40,271
Total	**582**	**79**	**153**	**21**	**735**	**202,520**	**94**	**13,611**	**6**	**216,131**	**203,102**	**94**	**13,764**	**6**	**216,866**

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

SHORT RAINY SEASON							**LONG RAINY SEASON**				
District	Number of households that sold	%	Number of households that did not sold	%	Total number of households		Number of households that sold	%	Number of households that did not sold	%	Total number of households
Mtwara Rural	124	100	0	0	124		24,075	73	9,059	27	33,135
Newala	0	-	0	-	0		27,993	64	15,452	36	43,445
Masasi	458	75	153	25	611		44,293	74	14,968	25	59,872
Tandahimba	0	-	0	-	0		21,953	59	15,564	41	37,517
Mtwara Urban	0	-	0	-	0		636	25	1,867	75	2,502
Nanyumbu	0	-	0	-	0		35,683	89	4,588	11	40,271
Total	**582**	**79**	**153**	**21**	**735**		**154,632**	**71**	**61,498**	**28**	**216,866**

INPUT USE - SHORT AND LONG RAIN SEASON

5.9: Number of Households and Planted Area by Organic Fertilizers Use and District - SHORT AND LONG RAINY SEASONS

Districts	Organic Fertilizers Use						% of Planted area using Organic Fertilizers
	Number of Households using Organic Fertilizers	Planted Area Applied with Organic Fertilizers	Number of Households NOT using Organic Fertilizers	Planted Area NOT Applied with Organic Fertilizers	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Mtwara Rural	0	0	33,259	24,457	33,259	24,457	0.0
Newala	560	362	42,885	32,794	43,445	33,156	1.1
Masasi	1,069	380	58,803	58,301	59,872	58,682	0.6
Tandahimba	1,045	980	36,472	26,149	37,517	27,129	3.6
Mtwara Urban	79	75	2,423	1,256	2,502	1,331	5.7
Nanyumbu	102	21	40,169	40,692	40,271	40,712	0.1
Total	**2,856**	**1,818**	**214,010**	**183,649**	**216,866**	**185,467**	**1.0**

5.10: Number of Households and Planted Area by Inorganic Fertilizers Use and District - SHORT AND LONG RAINY SEASONS

Districts	Inorganic Fertilizers Use						% of Planted area using Inorganic Fertilizers
	Number of Households using Inorganic Fertilizers	Planted Area Applied with Inorganic Fertilizers	Number of Households NOT using Inorganic Fertilizers	Planted Area NOT Applied with Inorganic Fertilizers	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Mtwara Rural	33,259	237	0	24,220	33,259	24,457	1.0
Newala	43,445	833	0	32,323	43,445	33,156	2.5
Masasi	59,872	4,683	0	53,998	59,872	58,682	8.0
Tandahimba	37,517	24	0	27,105	37,517	27,129	0.1
Mtwara Urban	2,502	30	0	1,301	2,502	1,331	2.2
Nanyumbu	40,271	103	0	40,609	40,271	40,712	0.3
Total	**216,866**	**5,910**	**0**	**179,556**	**216,866**	**185,467**	**3.2**

5.11: Number of Households and Planted Area by Fungicide Use and District - Short and Long Rainy Seasons

District	Fungicide Use						% of Planted area using Fungicide
	Number of Households using Fungicide	Planted Area Applied with Fungicide	Number of Households NOT using Fungicide	Planted Area NOT Applied with Fungicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Mtwara Rural	248	126	33,011	24,332	33,259	24,457	0.5
Newala	336	102	43,109	33,054	43,445	33,156	0.3
Masasi	1,527	1,073	58,345	57,608	59,872	58,682	1.8
Tandahimba	116	24	37,401	27,105	37,517	27,129	0.1
Mtwara Urban	0	.	2,502	1,331	2,502	1,331	-
Nanyumbu	102	21	40,169	40,692	40,271	40,712	0.1
Total	**2,330**	**1,345**	**214,536**	**184,121**	**216,866**	**185,467**	**0.7**

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

District	Herbicide Use						% of Planted area using Herbicide
	Number of Households using Herbicide	Planted Area Applied with Herbicide	Number of Households NOT using Herbicides	Planted Area NOT Applied with Herbicide	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Mtwara Rural	124	100	33,135	24,357	33,259	24,457	0.4
Newala	112	14	43,333	33,142	43,445	33,156	0
Masasi	305	77	59,567	58,604	59,872	58,682	0.1
Tandahimba	0	.	37,517	27,129	37,517	27,129	-
Mtwara Urban	0	.	2,502	1,331	2,502	1,331	-
Nanyumbu	0	.	40,271	40,712	40,271	40,712	-
Total	**542**	**191**	**216,324**	**185,275**	**216,866**	**185,467**	**0.1**

5.13: Number of Households and Planted Area by Improved Seed Use and District - Short & Long Rainy Seasons

District	Improved Seed						% of area planted using improved seed
	Number of Households using Improved Seed	Planted Area Improved Seed Used	Number of Households NOT using Improved Seeds	Planted Area Improved Seed not Used	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Mtwara Rural	3,227	1,280	30,032	23,177	33,259	24,457	5.2
Newala	4,255	1,842	39,190	31,314	43,445	33,156	5.6
Masasi	10,386	4,183	49,486	54,499	59,872	58,682	7.1
Tandahimba	2,671	1,247	34,845	25,882	37,517	27,129	4.6
Mtwara Urban	477	150	2,026	1,180	2,502	1,331	11.3
Nanyumbu	4,588	3,545	35,683	37,167	40,271	40,712	8.7
Total	**25,603**	**12,247**	**191,262**	**173,220**	**216,866**	**185,467**	**6.6**

5.14: Number of crop Growing Households and Planted Area (hectare) by Local Seed Use and District; 2007/08 Agriculture Year - Short & Long Rainy Seasons

District	Using Local seed		Not using Local seed		TOTAL		% of Planted Area Using Local seeds
	Number of Households	Planted Area (ha)	Number of Households	Planted Area (ha)	Number of Households	Planted Area (ha)	
Mtwara Rural	32,514	22,983	745	1,475	33,259	24,457	94
Newala	43,109	30,224	336	2,932	43,445	33,156	91
Masasi	58,192	48,488	1,680	10,194	59,872	58,682	83
Tandahimba	36,936	24,113	581	3,016	37,517	27,129	89
Mtwara Urban	2,264	1,130	238	201	2,502	1,331	85
Nanyumbu	38,232	36,392	2,039	4,320	40,271	40,712	89
Total	**211,247**	**163,329**	**5,619**	**22,137**	**216,866**	**185,467**	**88**

5.15: Number of Households and Planted Area by Insecticides Use and District - Short & Long Rainy Seasons

District	Insecticide Use						% of Planted area using Insecticides
	Number of Households using Insecticides	Planted Area Applied with Insecticides	Number of Households NOT using Insecticides	Planted Area Without Insecticides	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Mtwara Rural	372	161	32,887	24,297	33,259	24,457	0.7
Newala	784	950	42,661	32,206	43,445	33,156	2.9
Masasi	2,291	1,430	57,581	57,251	59,872	58,682	2.4
Tandahimba	116	47	37,401	27,082	37,517	27,129	0.2
Mtwara Urban	119	36	2,383	1,295	2,502	1,331	2.7
Nanyumbu	306	93	39,965	40,619	40,271	40,712	0.2
Total	**3,988**	**2,717**	**212,878**	**182,750**	**216,866**	**185,467**	**1.5**

5.16: Planted Area & Number of Households by Local seed Use by Crop during 2007/08 Agriculture Year - SHORT RAINY SEASON

Crop	Local Seeds							% 0f Planted area using Local Seed
	Number of Households using Local seed	Planted Area with Local seed	Cost of Local seed	Number of Households not using Local seed	Planted Area with no Local seed	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	458	314	1,909,183	0	0	458	314	100
Paddy	124	50	620,501	0	0	124	50	100
Sorghum	0	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0	0
CEREALS	**582**	**364**	**2,529,684**	**0**	**0**	**582**	**364**	100
Cassava	0	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0	0
ROOTS & TUBERS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Beans	0	0	0	0	0	0	0	0
Cowpeas	153	31	610,939	0	0	153	31	100
Green gram	153	55	305,469	0	0	153	55	100
Chick peas	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0
PULSES	305	86	916,408	0	0	305	86	100
Simsim	153	93	610,939	0	0	153	93	100
Groundnut	153	62	2,291	0	0	153	62	100
OIL SEEDS & OIL NUTS	**305**	**155**	**613,230**	**0**	**0**	**305**	**155**	100
Okra	153	62	549,845	0	0	153	62	100
Tomatoes	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	0
Cucumber	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**153**	**62**	**549,845**	**0**	**0**	**153**	**62**	100
Tobacco	0	0	0	0	0	0	0	0
CASH CROPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Total	1,346	666	4,609,167	0	0	1,346	666	100

5.17: Planted Area & Number of Households by Improved Seed Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON

Crop	Improved Seeds							% 0f Planted area using Improved Seed
	Number of Households using Improved seed	Planted Area with Improved seed	Cost of Improved seed	Number of Households not using Improved seed	Planted Area with no Improved seed	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	0	0	0	458	314	458	314	0
Paddy	0	0	0	124	50	124	50	0
Sorghum	0	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0	0
CEREALS	**0**	**0**	**0**	**582**	**364**	**582**	**364**	0
Cassava	0	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0	0
ROOTS & TUBERS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Beans	0	0	0	0	0	0	0	0
Cowpeas	0	0	0	153	31	153	31	0
Green gram	0	0	0	153	55	153	55	0
Chick peas	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0
PULSES	0	0	0	305	86	305	86	0
Simsim	0	0	0	153	93	153	93	0
Groundnut	0	0	0	153	62	153	62	0
OIL SEEDS & OIL NUTS	**0**	**0**	**0**	**305**	**155**	**305**	**155**	0
Okra	0	0	0	153	62	153	62	..
Tomatoes	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	..
Cucumber	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**0**	**0**	**0**	**153**	**62**	**153**	**62**	0
Tobacco	0	0	0	0	0	0	0	0
CASH CROPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Total	0	0	0	1,346	666	1,346	666	0

5.18: Planted Area & Number of Households by Organic Fertilizer Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON

Crop	Organic Fertlizer							% of Planted Area using Organic Fertilizer
	Number of Households Organic Fertilizer	Planted Area with Organic Fertilizer	Cost of Organic Fertilizer	Number of Households not using Organic Fertilizer	Planted Area with no Organic Fertilizer	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	0	0	0	458	314	458	314	0
Paddy	0	0	0	124	50	0	50	0
Sorghum	0	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0	0
CEREALS	**0**	**0**	**0**	**582**	**364**	**0**	**364**	0
Cassava	0	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0	0
ROOTS & TUBERS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Beans	0	0	0	0	0	0	0	0
Cowpeas	0	0	0	153	31	153	31	0
Green gram	0	0	0	153	55	153	55	0
Chick peas	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0
PULSES	0	0	0	305	86	305	86	0
Simsim	0	0	0	153	93	153	93	0
Groundnut	0	0	0	153	62	153	62	0
OIL SEEDS & OIL NUTS	**0**	**0**	**0**	**305**	**155**	**0**	**155**	0
Okra	0	0	0	153	62	153	62	0
Tomatoes	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	..
Cucumber	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**0**	**0**	**0**	**153**	**62**	**0**	**62**	0
Tobacco	0	0	0	0	0	0	0	0
CASH CROPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Total	0	0	0	1,346	666	0	666	0

5.20: Planted Area & Number of Households by Organic Fertilizer Use by Crop during 2007/08 Agriculture Year - SHORT RAINY SEASON

Crop	Inorganic Fertilizer							Percent 0f Planted Area using Inorganic Fertilizer
	Number of Households Inorganic Fertilizer	Planted Area with Inorganic Fertilizer	Cost of Inorganic Fertilizer	Number of Households not using Inorganic Fertilizer	Planted Area with no Inorganic Fertilizer	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	0	0	0	0	0	0	0	0
Paddy	0	0	0	124	50	124	50	0
Sorghum	0	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0	0
CEREALS	**0**	**0**	**0**	**124**	**50**	**124**	**50**	0
Cassava	0	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0	0
ROOTS & TUBERS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Beans	0	0	0	0	0	0	0	0
Cowpeas	0	0	0	0	0	0	0	0
Green gram	0	0	0	0	0	0	0	0
Chick peas	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0
PULSES	0	0	0	0	0	0	0	0
Simsim	0	0	0	0	0	0	0	0
Groundnut	0	0	0	0	0	0	0	0
OIL SEEDS & OIL NUTS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Okra	0	0	0	0	0	0	0	0
Tomatoes	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	0
Cucumber	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Tobacco	0	0	0	0	0	0	0	0
CASH CROPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Total	0	0	0	124	50	124	50	0

5.21: Planted Area & Number of Households by Herbicide Use by Crop during 2007/08 Agriculture Year - SHORT RAINY SEASON

Crop	Herbicide							% of Planted Area using Herbicide
	Number of Households Herbicide	Planted Area with Herbicide	Cost of Herbicide	Number of Households not using Herbicide	Planted Area with no Herbicide	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	0	0	0	0	0	0	0	0
Paddy	0	0	0	0	0	0	0	0
Sorghum	0	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0	0
CEREALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Cassava	0	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0	0
ROOTS & TUBERS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Beans	0	0	0	0	0	0	0	0
Cowpeas	0	0	0	0	0	0	0	0
Green gram	0	0	0	0	0	0	0	0
Chick peas	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0
PULSES	0	0	0	0	0	0	0	0
Simsim	0	0	0	0	0	0	0	0
Groundnut	0	0	0	0	0	0	0	0
OIL SEEDS & OIL NUTS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Okra	0	0	0	0	0	0	0	..
Tomatoes	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	..
Cucumber	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Tobacco	0	0	0	0	0	0	0	0
CASH CROPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Total	0	0	0	0	0	0	0	0

5.22: Planted Area & Number of Households by Fungicide Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON

Crop	Fungicide							% 0f Planted area using Fungicide
	Number of Households Fungicide	Planted Area with Fungicide	Cost of I Fungicide	Number of Households not using Fungicide	Planted Area with no Fungicide	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	0	0	0	458	314	458	314	0
Paddy	0	0	0	124	50	124	50	0
Sorghum	0	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0	0
CEREALS	0	0	0	582	364	582	364	0
Cassava	0	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0	0
ROOTS & TUBERS	0	0	0	0	0	0	0	0
Beans	0	0	0	0	0	0	0	0
Cowpeas	0	0	0	153	31	153	31	0
Green gram	0	0	0	153	55	153	55	0
Chick peas	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0
PULSES	0	0	0	305	86	305	86	0
Simsim	0	0	0	153	93	153	93	0
Groundnut	0	0	0	153	62	153	62	0
OIL SEEDS & OIL NUTS	0	0	0	305	155	305	155	0
Okra	0	0	0	153	62	153	62	0
Tomatoes	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	0
Cucumber	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	0	0	0	153	62	153	62	0
Tobacco	0	0	0	0	0	0	0	0
CASH CROPS	0	0	0	0	0	0	0	0
Total	0	0	0	1,346	666	1,346	666	0

5.23: Planted Area & Number of Households by Fungicide Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON - MTWARA REGION

Crop	Insecticide							% 0f Planted area using Insecticide
	Number of Households Insecticide	Planted Area with Insecticide	Cost of Insecticide	Number of Households not using Insecticide	Planted Area with no Insecticide	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	0	0	0	458	314	458	314	0
Paddy	0	0	0	124	50	124	50	0
Sorghum	0	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0	0
CEREALS	**0**	**0**	**0**	**582**	**364**	**582**	**364**	0
Cassava	0	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0	0
ROOTS & TUBERS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Beans	0	0	0	0	0	0	0	0
Cowpeas	0	0	0	153	31	153	31	0
Green gram	0	0	0	153	55	153	55	0
Chick peas	0	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0	0
PULSES	0	0	0	305	86	305	86	0
Simsim	0	0	0	153	93	153	93	0
Groundnut	0	0	0	153	62	153	62	0
OIL SEEDS & OIL NUTS	**0**	**0**	**0**	**305**	**155**	**305**	**155**	0
Okra	0	0	0	153	62	153	62	0
Tomatoes	0	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0	0
Cucumber	0	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**0**	**0**	**0**	**153**	**62**	**153**	**62**	0
Tobacco	0	0	0	0	0	0	0	0
CASH CROPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0
Total	0	0	0	1,346	666	1,346	666	0

5.24: Planted Area & Number of Households by Irrigation Use by Crop during 2007/08 agriculture year - SHORT RAINY SEASON

Crop	Irrigation						% 0f Planted area using Irrigation
	Number of Households using Irrigation	Planted Area Applied with Irrigation	Number of Households NOT using Irrigation	Planted Area Without Irrigation	Total Number of Households Planting in Vuli	Total Planted Area in Vuli	
Maize	0	0	458	314	458	314	0
Paddy	0	0	372	151	372	151	0
Sorghum	0	0	0	0	0	0	0
Bulrush Millet	0	0	0	0	0	0	0
Finger Millet	0	0	0	0	0	0	0
CEREALS	**0**	**0**	**955**	**464**	**955**	**464**	**0**
Cassava	0	0	0	0	0	0	0
Sweet Potato	0	0	0	0	0	0	0
Irish potatoes	0	0	0	0	0	0	0
Yams	0	0	0	0	0	0	0
ROOTS & TUBERS	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Beans	0	0	0	0	0	0	0
Cowpeas	0	0	153	31	153	31	0
Green gram	0	0	153	55	153	55	0
Chick peas	0	0	0	0	0	0	0
Bambaranuts	0	0	0	0	0	0	0
PULSES	**0**	**0**	**305**	**86**	**305**	**86**	**0**
Simsim	0	0	153	93	153	93	0
Groundnut	0	0	153	62	153	62	0
OIL SEEDS & OIL NUTS	**0**	**0**	**305**	**155**	**305**	**155**	**0**
Okra	0	0	153	62	153	62	0
Tomatoes	0	0	0	0	0	0	0
Spinach	0	0	0	0	0	0	0
Amaranths	0	0	0	0	0	0	0
Pumpkins	0	0	0	0	0	0	0
Cucumber	0	0	0	0	0	0	0
Egg Plant	0	0	0	0	0	0	0
Water Mellon	0	0	0	0	0	0	0
FRUITS & VEGETABLES	**0**	**0**	**153**	**62**	**153**	**62**	**0**
Tobacco	0	0	0	0	0	0	0
CASH CROPS	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total	**0**	**0**	**1718**	**767**	**1718**	**767**	**0**

5.25: Planted Area & Number of Households by Local seed Use by Crop during 2007/08Agriculture Year - LONG RAINY SEASON

Crop	Number of Households using Local seed	Planted Area Applied with Local seed	Number of Households not using Local seed	Planted Area Applied with no Local seed	Quantity (Kgs) of Local seed	Cost of Local seed	Total Number of Households	Total Planted Area	Percent of Planted Area Using Local Seeds
Maize	155,566	69,965	8,693	7,692	2,275,816	733,470,970	164,259	77,656	90
Paddy	42,061	18,496	704	2,873	7,955,565	526,008,946	42,766	21,369	87
Sorghum	59,741	18,629	686	986	1,990,533	95,358,614	60,428	19,616	95
Bulrush Millet	255	24	0	3	382,346	357,361	255	27	88
Finger Millet	1,285	234	0	54	66,662	2,085,527	1,285	288	81
CEREALS		**107,348**		**11,608**	**12,670,923**	**1,357,281,418**		**118,955**	**90**
Cassava	529	166	0	8	338,429	7,586,570	529	173	96
Sweet Potato	1,405	282	0	26	5,620,850	14,321,587	1,405	308	91
Irish potatoes	102	83	0	0	1,325	1,325,363	102	83	100
Yams	592	89	0	12	753,462	2,164,399	592	101	88
ROOTS & TUBERS		**619**		**46**	**6,714,067**	**25,397,919**		**665**	**93**
Beans	4,247	1,270	0	59	20,063	16,212,871	4,247	1,329	96
Cowpeas	41,054	9,464	965	451	797,685	102,683,302	42,019	9,915	95
Green gram	12,022	2,777	102	161	503,601	28,555,635	12,124	2,938	95
Chick peas	574	93	0	12	2,982	1,560,454	574	105	89
Bambaranuts	44,582	11,039	410	403	776,247	291,876,693	44,991	11,441	96
PULSES		**24,642**		**1,085**	**2,100,578**	**440,888,955**		**25,728**	**96**
Simsim	21,102	7,807	2,484	1,721	264,536	51,798,478	23,586	9,528	82
Groundnut	59,998	21,279	15,121	6,946	1,999,194	904,538,871	75,119	28,225	75
OIL SEEDS & OIL NUTS		**29,087**		**8,666**	**2,263,731**	**956,337,350**		**37,753**	**77**
Okra	859	215	102	52	8,176	3,066,565	961	266	81
Tomatoes	1,979	289	1,866	672	168,781	8,098,588	3,845	962	30
Spinach	142	23	40	2	708	211,846	181	25	92
Amaranths	102	41	79	4	50,976	101,951	181	46	90
Pumpkins	441	49	40	2	58,415	317,239	480	51	96
Cucumber	611	170	0	0	40,475	1,336,428	611	170	100
Egg Plant	344	47	0	0	4,604	402,350	344	47	100
Water Mellon	153	15	0	0	38,184	15,273	153	15	100
FRUITS & VEGETABLES		**849**		**732**	**370,319**	**13,550,241**		**1,581**	**54**
Tobacco	232	118	0	0	1,742,852	6,388,329	232	118	100
CASH CROPS	**232**	**118**	**0**	**0**	**1,742,852**	**6,388,329**	**232**	**118**	**100**
Total		162,663		22,137	25,862,469	2,799,844,212		184,800	88

5.26: Planted Area & Number of Households by Improved seed Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON

Crop	Number of Households using Improved seed	Planted Area Applied with Improved seed	Number of Households not using Improved seed	Planted Area Applied with no Improved seed	Quantity (Kgs) of Improved seed	Cost (Tshs) of Improved seed	Total Number of Households	Total Planted Area	Percent of Planted Area Improved Seeds
Maize	8,693	3,700	155,566	73,956	237,709	76,947,480	164,259	77,656	5
Paddy	704	392	42,061	20,977	13,791	2,747,829	42,766	21,369	2
Sorghum	686	80	59,741	19,536	10,775	2,607,684	60,428	19,616	0
Bulrush Millet	0	0	255	27	0	0	255	27	0
Finger Millet	0	0	1,285	288	0	0	1,285	288	0
CEREALS		**4,173**		**114,783**	**262,276**	**82,302,993**		**118,955**	**4**
Cassava	0	0	529	173	0	0	529	173	0
Sweet Potato	0	0	1,405	308	0	0	1,405	308	0
Irish potatoes	0	0	102	83	0	0	102	83	0
Yams	0	0	592	101	0	0	592	101	0
ROOTS & TUBERS		**0**		**665**	**0**	**0**		**665**	**0**
Beans	0	0	4,247	1,329	0	0	4,247	1,329	0
Cowpeas	965	170	41,054	9,745	22,929	2,592,649	42,019	9,915	2
Green gram	102	6	12,022	2,932	204	203,902	12,124	2,938	0
Chick peas	0	0	574	105	0	0	574	105	0
Bambaranuts	410	83	44,582	11,359	1,407	1,428,335	44,991	11,441	1
PULSES		**259**		**25,469**	**24,540**	**4,224,886**		**25,728**	**1**
Simsim	2,484	1,198	21,102	8,330	142,309	16,581,754	23,586	9,528	13
Groundnut	15,121	6,134	59,998	22,092	263,809	300,347,723	75,119	28,225	22
OIL SEEDS & OIL NUTS		**7,331**		**30,422**	**406,118**	**316,929,477**		**37,753**	**19**
Okra	102	52	859	215	4,078	203,902	961	266	19
Tomatoes	1,866	429	1,979	533	1,250,562	23,459,145	3,845	962	45
Spinach	40	0	142	24	199	7,944	181	25	2
Amaranths	79	2	102	43	397	15,888	181	46	5
Pumpkins	40	0	441	50	199	7,944	480	51	1
Cucumber	0	0	611	170	0	0	611	170	0
Egg Plant	0	0	344	47	0	0	344	47	0
Water Mellon	0	0	153	15	0	0	153	15	0
FRUITS & VEGETABLES		**484**		**1,097**	**1,255,435**	**23,694,822**		**1,581**	**31**
Tobacco	0	0	232	118	0	0	232	118	0
CASH CROPS	**0**	**0**	**232**	**118**	**0**	**0**	**232**	**118**	**0**
Total		12,247		172,554	1,948,369	427,152,178		184,800	7

5.27: Planted Area & Number of Households by Organic Fertilizer Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON

Crop	Number of Households using Organic Fertilizer	Planted Area Applied with Organic Fertilizer	Quantity (Kgs) of Organic Fertilizer	Cost (Tshs) of Organic Fertilizer	Number of Households NOT using Organic Fertilizer	Planted Area Without Organic Fertilizer	Total Number of Households	Total Planted Area	Percent of Planted Area Using Organic Fertilizer
Maize	1,759	1,269	162,500	26,168,309	162,769	76,388	164,528	77,656	2
Paddy	153	62	42,613	152,735	42,613	21,307	42,766	21,369	0
Sorghum	269	18	60,159	6,539,236	60,159	19,598	60,428	19,616	0
Bulrush Millet	0	0	255	0	255	27	255	27	0
Finger Millet	0	0	1,285	0	1,285	288	1,285	288	0
CEREALS		**1,348**		**32,860,280**	**267,080**	**117,607**		**118,955**	**1**
Cassava	0	0	529	0	529	173	529	173	0
Sweet Potato	0	0	1,405	0	1,405	308	1,405	308	0
Irish potatoes	0	0	102	0	102	83	102	83	0
Yams	0	0	592	0	592	101	592	101	0
ROOTS & TUBERS		**0**		**0**	**2,628**	**665**		**665**	**0**
Beans	0	0	4,247	0	4,247	1,329	4,247	1,329	0
Cowpeas	312	155	41,707	21,398,964	41,707	9,761	42,019	9,915	2
Green gram	0	0	12,124	0	12,124	2,938	12,124	2,938	0
Chick peas	0	0	574	0	574	105	574	105	0
Bambaranuts	0	0	44,991	0	44,991	11,441	44,991	11,441	0
PULSES		**155**		**21,398,964**	**103,644**	**25,573**		**25,728**	**1**
Simsim	40	48	23,547	1,322,639	23,547	9,480	23,586	9,528	1
Groundnut	40	8	75,080	1,322,639	75,080	28,217	75,119	28,225	0
OIL SEEDS & OIL NUTS		**56**		**2,645,279**	**98,626**	**37,697**		**37,753**	**0**
Okra	116	47	845	580,757	845	219	961	266	18
Tomatoes	672	211	3,173	26,939,453	3,326	750	3,998	962	22
Spinach	0	0	181	0	181	25	181	25	0
Amaranths	0	0	181	0	181	46	181	46	0
Pumpkins	0	0	480	0	480	51	480	51	0
Cucumber	0	0	611	0	611	170	611	170	0
Egg Plant	0	0	344	0	344	47	344	47	0
Water Mellon	0	0	153	0	153	15	153	15	0
FRUITS & VEGETABLES		**258**		**27,520,210**	**6,122**	**1,323**		**1,581**	**16**
Tobacco	0	0	232	0	232	118	232	118	0
CASH CROPS	**0**	**0**	**232**	**0**	**232**	**118**	**232**	**118**	**0**
Total		1,818		84,424,734	478,333	182,983		184,800	1

5.28: Planted Area & Number of Households by Inorganic Fertilizer Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON

Crop	Number of Households using Inorganic Fertilizer	Planted Area Applied with Inorganic Fertilizer	Quantity (Kgs) of Inorganic Fertilizer	Cost (Tshs) of Inorganic Fertilizer	Number of Households NOT using Inorganic Fertilizer	Planted Area Without Inorganic Fertilizer	Total Number of Households	Total Planted Area	Percent of Planted Area Using Inorganic Fertilizer
Maize	4,091	3,177	160,168	182,444,790	160,656	74,479	164,746	77,656	4
Paddy	1,696	2,312	41,070	92,198,567	41,194	19,057	42,890	21,369	11
Sorghum	305	130	60,122	9,927,753	60,275	19,486	60,580	19,616	1
Bulrush Millet	0	0	255	0	255	27	255	27	0
Finger Millet	0	0	1,285	0	1,285	288	1,285	288	0
CEREALS		**5,620**		**284,571,111**	**263,664**	**113,336**		**118,955**	**5**
Cassava	0	0	529	0	529	173	529	173	0
Sweet Potato	0	0	1,405	0	1,405	308	1,405	308	0
Irish potatoes	0	0	102	0	102	83	102	83	0
Yams	0	0	592	0	592	101	592	101	0
ROOTS & TUBERS		**0**		**0**	**2,628**	**665**		**665**	**0**
Beans	0	0	4,247	0	4,247	1,329	4,247	1,329	0
Cowpeas	40	12	41,979	59,578	41,979	9,903	42,019	9,915	0
Green gram	0	0	12,124	0	12,124	2,938	12,124	2,938	0
Chick peas	0	0	574	0	574	105	574	105	0
Bambaranuts	0	0	44,991	0	44,991	11,441	44,991	11,441	0
PULSES		**12**		**59,578**	**103,916**	**25,716**		**25,728**	**0**
Simsim	0	0	23,586	0	23,586	9,528	23,586	9,528	0
Groundnut	0	0	75,119	0	75,119	28,225	75,119	28,225	0
OIL SEEDS & OIL NUTS		**0**		**0**	**98,706**	**37,753**		**37,753**	**0**
Okra	102	10	859	611,706	859	256	961	266	4
Tomatoes	1,017	251	2,828	36,373,740	2,828	710	3,845	962	26
Spinach	40	2	142	47,663	142	23	181	25	8
Amaranths	40	2	142	47,663	142	44	181	46	4
Pumpkins	40	2	441	47,663	441	49	480	51	4
Cucumber	0	0	611	0	611	170	611	170	0
Egg Plant	112	11	232	279,930	232	35	344	47	24
Water Mellon	0	0	153	0	153	15	153	15	0
FRUITS & VEGETABLES		**279**		**37,408,364**	**5,407**	**1,302**		**1,581**	**18**
Tobacco	0	0	232	0	232	118	232	118	0
CASH CROPS	**0**	**0**	**232**	**0**	**232**	**118**	**232**	**118**	**0**
Total		5,910		322,039,053	474,553	178,890		184,800	3

5.29: Planted Area & Number of Households by Herbicides Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON

Crop	Number of Households using Herbicide	Planted Area (ha) Applied with Herbicide	Quantity (Kgs) of Herbicide	Cost of Herbicide(Tshs)	Number of Households NOT using Herbicide	Planted Area Without Herbicide	Total Number of Households	Total Planted Area	Percent of Planted Area Using Herbicides
Maize	124	100	164,135	14,892,026	164,135	77,556	164,259	77,656	0
Paddy	0	0	42,766	0	42,766	21,369	42,766	21,369	0
Sorghum	0	0	60,428	0	60,428	19,616	60,428	19,616	0
Bulrush Millet	0	0	255	0	255	27	255	27	0
Finger Millet	0	0	1,285	0	1,285	288	1,285	288	0
CEREALS		**100**		**14,892,026**	**268,868**	**118,855**		**118,955**	**0**
Cassava	0	0	529	0	529	173	529	173	0
Sweet Potato	0	0	1,405	0	1,405	308	1,405	308	0
Irish potatoes	0	0	102	0	102	83	102	83	0
Yams	0	0	592	0	592	101	592	101	0
ROOTS & TUBERS		**0**		**0**	**2,628**	**665**		**665**	**0**
Beans	0	0	4,247	0	4,247	1,329	4,247	1,329	0
Cowpeas	0	0	42,019	0	42,019	9,915	42,019	9,915	0
Green gram	0	0	12,124	0	12,124	2,938	12,124	2,938	0
Chick peas	0	0	574	0	574	105	574	105	0
Bambaranuts	0	0	44,991	0	44,991	11,441	44,991	11,441	0
PULSES		**0**		**0**	**103,956**	**25,728**		**25,728**	**0**
Simsim	112	14	23,474	0	23,474	9,514	23,586	9,528	0
Groundnut	0	0	75,119	0	75,119	28,225	75,119	28,225	0
OIL SEEDS & OIL NUTS		**14**		**0**	**98,594**	**37,740**		**37,753**	**0**
Okra	0	0	961	0	961	266	961	266	0
Tomatoes	305	77	3,540	15,273,466	3,540	884	3,845	962	8
Spinach	0	0	181	0	181	25	181	25	0
Amaranths	0	0	181	0	181	46	181	46	0
Pumpkins	0	0	480	0	480	51	480	51	0
Cucumber	0	0	611	0	611	170	611	170	0
Egg Plant	0	0	344	0	344	47	344	47	0
Water Mellon	0	0	153	0	153	15	153	15	0
FRUITS & VEGETABLES		**77**		**15,273,466**	**6,452**	**1,504**		**1,581**	**5**
Tobacco	0	0	232	0	232	118	232	118	0
CASH CROPS	**0**	**0**	**232**	**0**	**232**	**118**	**232**	**118**	**0**
Total		191		30,165,493	480,729	184,609		184,800	0

5.30: Planted Area & Number of Households by Fungicides Use by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON

Crop	Number of Households using Fungicide	Planted Area Applied with Fungicide	Quantity (Kgs) of Fungicide	Cost of Fungicide	Number of Households NOT using Fungicide	Planted Area Without Fungicide	Total Number of Households	Total Planted Area	Percent of Planted Area Using Fungicides
Maize	1,000	446	163,259	30,396,765	163,412	77,210	164,412	77,656	1
Paddy	248	50	42,518	744,601	42,518	21,319	42,766	21,369	0
Sorghum	277	74	60,151	1,011,874	60,151	19,542	60,428	19,616	0
Bulrush Millet	0	0	255	0	255	27	255	27	0
Finger Millet	0	0	1,285	0	1,285	288	1,285	288	0
CEREALS		**570**		**32,153,240**	**267,620**	**118,385**		**118,955**	**0**
Cassava	0	0	529	0	529	173	529	173	0
Sweet Potato	0	0	1,405	0	1,405	308	1,405	308	0
Irish potatoes	0	0	102	0	102	83	102	83	0
Yams	0	0	592	0	592	101	592	101	0
ROOTS & TUBERS		**0**		**0**	**2,628**	**665**		**665**	**0**
Beans	0	0	4,247	0	4,247	1,329	4,247	1,329	0
Cowpeas	0	0	42,019	0	42,019	9,915	42,019	9,915	0
Green gram	153	62	11,971	916,408	11,971	2,876	12,124	2,938	2
Chick peas	0	0	574	0	574	105	574	105	0
Bambaranuts	112	11	44,879	201,549	44,879	11,430	44,991	11,441	0
PULSES		**73**		**1,117,957**	**103,691**	**25,655**		**25,728**	**0**
Simsim	153	464	23,434	0	23,586	9,064	23,739	9,528	5
Groundnut	116	24	75,003	348,454	75,003	28,202	75,119	28,225	0
OIL SEEDS & OIL NUTS		**487**		**348,454**	**98,589**	**37,266**		**37,753**	**1**
Okra	0	0	961	0	961	266	961	266	0
Tomatoes	784	203	3,061	33,302,594	3,061	759	3,845	962	21
Spinach	0	0	181	0	181	25	181	25	0
Amaranths	0	0	181	0	181	46	181	46	0
Pumpkins	0	0	480	0	480	51	480	51	0
Cucumber	0	0	611	0	611	170	611	170	0
Egg Plant	112	11	232	671,831	232	35	344	47	24
Water Mellon	0	0	153	0	153	15	153	15	0
FRUITS & VEGETABLES		**214**		**33,974,425**	**5,862**	**1,367**		**1,581**	**14**
Tobacco	0	0	232	0	232	118	232	118	0
CASH CROPS	**0**	**0**	**232**	**0**	**232**	**118**	**232**	**118**	**0**
Total		1,345		67,594,077	478,622	183,455		184,800	1

5.31: Planted Area & Number of Households by Insecticides Use by Crop during 2007/08 Agriculture Year -LONG RAINY SEASON

Crop	Number of Households using Insecticide	Planted Area Applied with Insecticide	Quantity (Kgs) of Insecticide	Cost of Insecticide	Number of Households NOT using Insecticide	Planted Area Without Insecticide	Total Number of Households	Total Planted Area	Percent of Planted Area Using Insecticides
Maize	2,004	1,075	162,255	24,906,195	162,519	76,581	164,523	77,656	1
Paddy	277	50	42,489	0	42,766	21,319	43,043	21,369	0
Sorghum	153	49	60,275	763,673	60,275	19,567	60,428	19,616	0
Bulrush Millet	0	0	255	0	255	27	255	27	0
Finger Millet	0	0	1,285	0	1,285	288	1,285	288	0
CEREALS		**1,174**		**25,669,868**	**267,100**	**117,782**		**118,955**	**1**
Cassava	0	0	529	0	529	173	529	173	0
Sweet Potato	0	0	1,405	0	1,405	308	1,405	308	0
Irish potatoes	0	0	102	0	102	83	102	83	0
Yams	0	0	592	0	592	101	592	101	0
ROOTS & TUBERS		**0**		**0**	**2,628**	**665**		**665**	**0**
Beans	0	0	4,247	0	4,247	1,329	4,247	1,329	0
Cowpeas	3,436	1,296	38,583	42,248,654	38,801	8,619	42,237	9,915	13
Green gram	102	6	12,022	3,058,530	12,124	2,932	12,226	2,938	0
Chick peas	0	0	574	0	574	105	574	105	0
Bambaranuts	124	53	44,867	1,241,002	44,867	11,389	44,991	11,441	0
PULSES		**1,355**		**46,548,187**	**100,614**	**24,373**		**25,728**	**5**
Simsim	614	621	22,972	2,946,872	23,125	8,907	23,739	9,528	7
Groundnut	0	0	75,119	0	75,119	28,225	75,119	28,225	0
OIL SEEDS & OIL NUTS		**621**		**2,946,872**	**98,244**	**37,132**		**37,753**	**2**
Okra	116	6	845	58,076	845	260	961	266	2
Tomatoes	1,118	256	2,727	28,670,415	2,727	706	3,845	962	27
Spinach	0	0	181	0	181	25	181	25	0
Amaranths	0	0	181	0	181	46	181	46	0
Pumpkins	0	0	480	0	480	51	480	51	0
Cucumber	0	0	611	0	611	170	611	170	0
Egg Plant	228	23	116	1,266,536	116	24	344	47	50
Water Mellon	0	0	153	0	153	15	153	15	0
FRUITS & VEGETABLES		**285**		**29,995,026**	**5,295**	**1,296**		**1,581**	**18**
Tobacco	0	0	232	0	232	118	232	118	0
CASH CROPS	**0**	**0**	**232**	**0**	**232**	**118**	**232**	**118**	**0**
Total		3,434		105,159,954	474,113	181,366		184,800	2

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

District	Irrigation use						% of area planted under irrigation in long rainy season
	Number of Households using Irrigation	Planted Area with Irrigation	Number of Households NOT using Irrigation	Planted Area with no Irrigation	Total Number of Households Planting in MASIKA	Total Planted Area in MASIKA	
Mtwara Rural	372	161	32,762	24,246	33,135	24,407	0.7
Newala	784	950	42,661	32,206	43,445	33,156	2.9
Masasi	2,291	1,430	56,970	56,635	59,261	58,066	2.5
Tandahimba	116	47	37,401	27,082	37,517	27,129	0.2
Mtwara Urban	119	36	2,383	1,295	2,502	1,331	2.7
Nanyumbu	306	93	39,965	40,619	40,271	40,712	0.2
Total	**3,988**	**2,717**	**212,142**	**182,084**	**216,131**	**184,800**	**1.5**

5.33: Planted Area & Number of HouseholdsPractising Irrigation by Crop during 2007/08 Agriculture Year - LONG RAINY SEASON

	Number of Households using Irrigation	Planted Area Applied with Irrigation	Number of Households NOT using Irrigation	Planted Area Without Irrigation	Total Number of Households	Total Planted Area	Percent of Planted Area Irrigated
Maize	1,712	1,006	162,546	76,651	164,259	77,656	1
Paddy	554	224	42,212	21,145	42,766	21,369	1
Sorghum	489	271	59,939	19,345	60,428	19,616	1
Bulrush Millet	0	0	255	27	255	27	0
Finger Millet	0	0	1,285	288	1,285	288	0
CEREALS		**1,501**		**117,455**	**268,992**	**118,955**	
Cassava	0	0	529	173	529	173	0
Sweet Potato	0	0	1,405	308	1,405	308	0
Irish potatoes	0	0	102	83	102	83	0
Yams	0	0	592	101	592	101	0
ROOTS & TUBERS		**0**		**665**	**2,628**	**665**	
Beans	0	0	4,247	1,329	4,247	1,329	0
Cowpeas	343	109	41,676	9,806	42,019	9,915	1
Green gram	153	19	11,971	2,920	12,124	2,938	1
Chick peas	0	0	574	105	574	105	0
Bambaranuts	460	140	44,531	11,302	44,991	11,441	1
PULSES		**267**		**25,460**	**103,956**	**25,728**	
Simsim	153	74	23,434	9,454	23,586	9,528	1
Groundnut	755	324	74,364	27,902	75,119	28,225	1
OIL SEEDS & OIL NUTS		**398**		**37,355**	**98,706**	**37,753**	
Okra	320	83	641	183	961	266	31
Tomatoes	1,504	446	2,341	515	3,845	962	46
Spinach	181	15	0	10	181	25	59
Amaranths	79	4	102	41	181	46	10
Pumpkins	40	2	441	49	480	51	4
Cucumber	0	0	611	170	611	170	0
Egg Plant	0	0	344	47	344	47	0
Water Mellon	0	0	153	15	153	15	0
FRUITS & VEGETABLES		**550**		**1,031**	**6,758**	**1,581**	
Tobacco	0	0	232	118	232	118	0
CASH CROPS	**0**	**0**	**232**	**118**	**232**	**118**	**0**
Total		2,717		182,084	481,271	184,800	

ACCESS TO AGRICULTURAL EQUIPMENT

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

District	Equipment/Asset Name												Total number of Agricultural Households
	Sword		Hand Hoe		Hand Sprayer		Grater, Chiper, Oil Press na Oil Mill		Oxplough		Oxplanter		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Mtwara Rural	48,027	47.5	49,764	49.3	2,606	2.6	0	.0	0	.0	124	.1	50,136
Newala	42,885	47.8	44,229	49.3	1,120	1.2	336	.4	336	.4	0	.0	45,349
Masasi	57,886	46.2	61,094	48.7	1,986	1.6	153	.1	305	.2	0	.0	61,705
Tandahimba	45,880	47.8	46,112	48.1	2,323	2.4	116	.1	116	.1	116	.1	47,041
Mtwara Urban	3,376	48.0	3,456	49.2	119	1.7	40	.6	0	.0	40	.6	3,535
Nanyumbu	38,334	47.6	40,984	50.9	0	.0	0	.0	102	.1	0	.0	41,290
Total	236,388	47.3	245,639	49.2	8,154	1.6	645	.1	859	.2	280	.1	249,056

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

District	Equipment/Asset Name												Total number of Agricultural Households
	Ox cart		Trekta		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls		
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Mtwara Rural	0	.0	0	.0	0	.0	248	.2	124	.1	0	.0	50,136
Newala	0	.0	112	.1	112	.1	112	.1	112	.1	224	.2	45,349
Masasi	305	.2	153	.1	305	.2	0	.0	305	.2	1,222	1.0	61,705
Tandahimba	232	.2	0	.0	0	.0	0	.0	232	.2	0	.0	47,041
Mtwara Urban	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	3,535
Nanyumbu	0	.0	0	.0	0	.0	102	.1	204	.3	306	.4	41,290
Total	538	.1	265	.1	417	.1	462	.1	978	.2	1,752	.4	249,056

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

District	Equipment/Asset Name										Total number of Agricultural Households
	Cow		Donkey		Thrasher		Power tiller		Rigder		
	Number	%	Number	%	Number	%	Number	%	Number	%	
Mtwara Rural	0	.0	0	.0	0	.0	0	.0	124	.1	50,136
Newala	112	.1	0	.0	0	.0	112	.1	0	.0	45,349
Masasi	916	.7	305	.2	153	.1	305	.2	0	.0	61,705
Tandahimba	232	.2	232	.2	116	.1	232	.2	0	.0	47,041
Mtwara Urban	0	.0	0	.0	0	.0	0	.0	0	.0	3,535
Nanyumbu	102	.1	102	.1	102	.1	204	.3	0	.0	41,290
Total	1,363	.3	640	.1	371	.1	854	.2	124	.0	249,056

6.2: Number of Agricultural Equipment/Asset Owned by Type and District for 2007/08 Agriculture Year

District	Equipment/Asset Name											
	Sword		Hand Hoe		Hand Sprayer		Grater, Chipper, Oil Press and Oil Mill		Ox plough		Ox planter	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	93,447	34.2	161,578	59.1	5,212	1.9	.	.	.	.	2,730	1.0
Newala	76,701	32.9	125,297	53.8	1,680	.7	5,151	2.2	9,406	4.0	.	.
Masasi	85,531	29.0	180,838	61.3	5,346	1.8	3,360	1.1	458	.2	.	.
Tandahimba	74,569	30.3	145,073	59.0	6,272	2.5	116	.0	2,323	.9	2,555	1.0
Mtwara Urban	5,163	32.7	8,460	53.5	119	.8	1,192	7.5	.	.	874	5.5
Nanyumbu	54,238	28.9	118,671	63.3	.	.	.	.	306	.2	.	.
Total	389,650	31.2	739,917	59.2	18,629	1.5	9,819	.8	12,493	1.0	6,159	.5

6.3: Number of Agricultural Equipment/Asset Owned by Type and District for 2007/08 Agriculture Year

District	Equipment/Asset Name											
	Ox cart		Tractor		Tractor plough		Tractor Harrow		Castrated bulls		Uncastrated bulls	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	.	.	.	.	.	.	3,971	1.5	2,730	1.0	.	.
Newala	.	.	2,463	1.1	2,463	1.1	224	.1	2,463	1.1	3,471	1.5
Masasi	305	.1	153	.1	3,666	1.2	.	.	611	.2	5,957	2.0
Tandahimba	2,788	1.1	.	.	.	.	.	.	465	.2	.	.
Mtwara Urban	.	.	.	.	.	.	.	.	.	.	.	.
Nanyumbu	.	.	.	.	.	.	612	.3	3,976	2.1	2,549	1.4
Total	3,093	.2	2,616	.2	6,129	.5	4,807	.4	10,245	.8	11,977	1.0

Cont. 6.3: Number of Agricultural Equipment/Asset Owned by Type and District for 2007/08 Agriculture Year

	Equipment/Asset Name									
	Cow		Donkey		Thrasher		Power tiller		Ridger	
District	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	.	.	.	.	.	.	.	.	3,723	1.4
Newala	112	.0	.	.	.	.	3,359	1.4	.	.
Masasi	4,429	1.5	3,666	1.2	305	.1	611	.2	.	.
Tandahimba	6,040	2.5	2,788	1.1	232	.1	2,788	1.1	.	.
Mtwara	.	.	.	.	.	.	.	.	.	.
Urban										
Nanyumbu	204	.1	612	.3	204	.1	6,117	3.3	.	.
Total	10,785	.9	7,065	.6	742	.1	12,875	1.0	3,723	.3

IRRIGATION, SOIL EROSION PROBLEM AND 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	%
Mtwara Rural	372	.7	49,888	99.3	50,261	100
Newala	224	.5	45,125	99.5	45,349	100
Masasi	1,069	1.7	60,788	98.3	61,858	100
Tandahimba	465	1.0	46,577	99.0	47,041	100
Mtwara Urban	79	2.2	3,495	97.8	3,575	100
Nanyumbu	918	2.2	40,373	97.8	41,290	100
Total	3,127	1.3	246,246	98.7	249,373	100

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

	Presence of Erosion Control/Water Harvesting Facilities					
District	Household with Facilities		Household without Facilities		Total	
Mtwara Rural	124	.2	50,136	99.8	50,261	100
Newala	224	.5	45,125	99.5	45,349	100
Masasi	764	1.2	61,094	98.8	61,858	100
Tandahimba	116	.2	46,925	99.8	47,041	100
Mtwara Urban	0	.0	3,575	100.0	3,575	100
Nanyumbu	714	1.7	40,576	98.3	41,290	100
Total	1,942	.8	247,431	99.2	249,373	100

6.6: Number of Erosion Control/Water Harvesting Structures by Type and District as of 2007/08 Agriculture Year

District	Terraces	Erosion Control Bunds	Gabions / Sandbag	Vetiver Grass	Tree Belts	Water Harvesting Bunds	Drainage Ditches
Mtwara Rural	0	0	0	0	0	0	0
Newala	0	0	0	0	0	1,120	0
Masasi	12,219	0	0	0	30,547	0	0
Tandahimba	232	0	0	465	0	0	0
Mtwara Urban	0	0	0	0	0	0	0
Nanyumbu	204	5,607	0	0	0	0	204
Total	12,655	5,607	0	465	30,547	1,120	204

6.7: 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	%
Mtwara Rural	124	.2	50,136	99.8	50,261	100
Newala	112	.2	45,237	99.8	45,349	100
Masasi	2,596	4.2	59,261	95.8	61,858	100
Tandahimba	0	.0	47,041	100.0	47,041	100
Mtwara Urban	79	2.2	3,495	97.8	3,575	100
Nanyumbu	204	.5	41,086	99.5	41,290	100
Total	3,116	1.2	246,257	98.8	249,373	100

6.8: Number of Agriculture Households using irrigation by Source of Irrigation Water by District during the 2007/08 agricultural Year

District	Main Source of Irrigation Water					
	River	Lake	Canal	Tap Water	Well	Total
Mtwara Rural	0	0	0	124	0	124
Newala	112	0	0	0	0	112
Masasi	1,069	153	1,222	153	0	2,596
Mtwara Urban	0	0	0	0	40	40
Nanyumbu	204	0	0	0	0	204
Total	1,385	153	1,222	277	40	3,076

6.9 : Number of Agriculture Households by method of used to obtain water and District during 2007/08 Agriculture Year

District	Main method of Obtaining Water				
	Gravity	Hand Bucket	Hand Pump	Motor Pump	Total
Mtwara Rural	124	0	0	0	124
Newala	0	0	112	0	112
Masasi	153	2,138	153	153	2,596
Mtwara Urban	40	0	0	0	40
Nanyumbu	0	204	0	0	204
Total	317	2,342	265	153	3,076

AGRICULTURAL 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	%
Mtwara Rural	496	1.0	49,764	99.0	50,261	100
Newala	0	.0	45,349	100.0	45,349	100
Masasi	611	1.0	61,247	99.0	61,858	100
Tandahimba	697	1.5	46,344	98.5	47,041	100
Mtwara Urban	40	1.1	3,535	98.9	3,575	100
Nanyumbu	204	.5	41,086	99.5	41,290	100
Total	2,048	.8	247,325	99.2	249,373	100

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

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Mtwara Rural	496	100.0	0	.0	496	100
Masasi	458	75.0	153	25.0	611	100
Tandahimba	581	83.3	116	16.7	697	100
Mtwara Urban	0	.0	40	100.0	40	100
Nanyumbu	204	100.0	0	.0	204	100
Total	1,739	84.9	309	15.1	2,048	100

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

District	Family, friend or relative		Bank		Cooperative		Savings & credit Soc		NGO/PROJECT		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	0	0	0	0	0	0	496	100	0	0	496	100
Masasi	153	25	0	0	153	25	0	0	305	50	611	100
Tandahimba	0	0	465	67	0	0	232	33	0	0	697	100
Mtwara Urban	0	0	40	100	0	0	0	0	0	0	40	100
Nanyumbu	0	0	0	0	0	0	102	50	102	50	204	100
Total	153	7.5	504	24.6	153	7.5	831	40.6	407	19.9	2,048	100

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

District	Savings & credit Soc		Savings & credit Soc		Private individual		Total	
	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	0	0.0	0	0.0	124	100.0	124	100
Tandahimba	0	0.0	0	0.0	116	100.0	116	100
Mtwara Urban	40	100.0	0	0.0	0	0.0	40	100
Nanyumbu	0	0.0	102	100.0	0	0.0	102	100
Total	40	10.4	102	26.7	240	62.9	382	100

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

District	Bank		Savings & credit Soc		Cooperative		Savings & credit Soc		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	0	0.0	124	100.0	0	0.0	0	0.0	124	100
Newala	112	100.0	0	0.0	0	0.0	0	0.0	112	100
Tandahimba	0	0.0	0	0.0	116	100.0	0	0.0	116	100
Mtwara Urban	0	0.0	0	0.0	0	0.0	40	100.0	40	100
Nanyumbu	102	100.0	0	0.0	0	0.0	0	0.0	102	100
Total	214	43.3	124	25.1	116	23.5	40	8.0	494	100

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

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Mtwara Rural	496	100	0		496	100
Masasi	458	75	153	25	611	100
Tandahimba	581	83	116	17	697	100
Mtwara Urban	0		40	100	40	100
Nanyumbu	204	100	0		204	100
Total	1,739	85	309	15	2,048	100

7.7 : Provision of Credit B by sex and District During the 2007/08 Agriculture Year

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Mtwara Rural	124	100	0		124	100
Tandahimba	116	100	0		116	100
Mtwara Urban	0		40	100	40	100
Nanyumbu	102	100	0		102	100
Total	342	90	40	10	382	100

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

District	Male		Female		Total	
	Number	%	Number	%	Number	%
Mtwara Rural	124	100	0		124	100
Masasi	0		305	100	305	100
Tandahimba	116	100	0		116	100
Mtwara Urban	0		40	100	40	100
Nanyumbu	102	50	102	50	204	100
Total	342	43	447	57	789	100

7.9 AGRICULTURE CREDIT: 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	%
Mtwara Rural	2,854	5.7	11,790	23.7	7,942	16.0	2,110	4.2	15,264	30.7	4,840	9.7	248	0.5	0.0	0.0	4,716	9.5	49,764	100
Newala	2,799	6.2	5,375	12.0	7,502	16.7	3,695	8.2	12,653	28.2	4,143	9.2	448	1.0	447.9	5.4	8,286	18.5	44,901	100
Masasi	3,666	6.0	9,928	16.3	7,942	13.0	6,873	11.3	16,801	27.5	8,400	13.8	764	1.3	152.7	2.3	6,720	11.0	61,094	100
Tandahimba	1,045	2.3	4,065	8.9	13,822	30.1	4,065	8.9	14,170	30.9	1,858	4.1	1,278	2.8	464.6	8.3	5,575	12.2	45,880	100
Mtwara Urban	318	9.2	119	3.4	834	24.1	159	4.6	874	25.3	477	13.8	40	1.1	79.4	12.5	636	18.4	3,456	100
Nanyumbu	1,121	2.7	9,991	24.3	2,651	6.5	1,121	2.7	16,312	39.7	3,874	9.4	408	1.0	0.0	0.0	5,607	13.6	41,086	100
Total	11,804	4.8	41,268	16.8	40,694	16.5	18,023	7.3	76,074	30.9	23,592	9.6	3,185	1.3	1144.7	3.6	31,540	12.8	246,180	100

CROP EXTENSION SERVICES

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	%	
Mtwara Rural	30,901	61.6	19,236	38.4	50,136
Newala	29,785	65.7	15,564	34.3	45,349
Masasi	23,827	38.6	37,878	61.4	61,705
Tandahimba	29,619	63.0	17,423	37.0	47,041
Mtwara Urban	1,986	56.2	1,549	43.8	3,535
Nanyumbu	19,677	47.7	21,614	52.3	41,290
Total	135,793	54.5	113,263	45.5	249,056

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

District	Number of Households Participated in Out Grower Agreement		Number of Households NOT Participated in Out GrowerAgreement		Total Number of Households	
	Number	%	Number	%	Number	%
Mtwara Rural	248	.5	50,012	99.5	50,261	100
Newala	112	.2	45,237	99.8	45,349	100
Masasi	305	.5	61,552	99.5	61,858	100
Tandahimba	348	.7	46,693	99.3	47,041	100
Mtwara Urban	40	1.1	3,535	98.9	3,575	100
Nanyumbu	306	.7	40,984	99.3	41,290	100
Total	1,360	.5	248,013	99.5	249,373	100

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

District	Number of Hholds Participated in Production Agreement		Number of Hholds NOT Participated in Production Agreement		Total Number of Households	
	Number	%	Number	%	Number	%
Mtwara Rural	0	.0	50,261	100.0	50,261	100
Newala	0	.0	45,349	100.0	45,349	100
Masasi	153	.2	61,705	99.8	61,858	100
Tandahimba	0	.0	47,041	100.0	47,041	100
Mtwara Urban	0	.0	3,575	100.0	3,575	100
Nanyumbu	0	.0	41,290	100.0	41,290	100
Total	153	.1	249,220	99.9	249,373	100

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

District	Government		NGO/Dev project		Cooperative		Large scale farmer		Radio/Television/News Paper		Neighbour		Other (Specify)		Total Households that received advices
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%	
Mtwara Rural	27,550	60.8	3,599	7.9	2,978	6.6	1,986	4.4	4,095	9.0	4,840	10.7	248	.5	45,297
Newala	23,290	50.9	1,232	2.7	784	1.7	1,008	2.2	7,390	16.1	11,869	25.9	224	.5	45,797
Masasi	19,397	59.6	3,207	9.9	305	.9	611	1.9	2,444	7.5	6,415	19.7	153	.5	32,532
Tandahimba	22,069	58.1	1,162	3.1	1,278	3.4	1,162	3.1	2,555	6.7	9,524	25.1	232	.6	37,982
Mtwara Urban	1,628	68.3	238	10.0	0	.0	40	1.7	238	10.0	238	10.0	0	.0	2,383
Nanyumbu	18,453	82.3	1,631	7.3	306	1.4	204	.9	510	2.3	1,325	5.9	0	.0	22,429
Total	**112,388**	**60.3**	**11,069**	**5.9**	**5,651**	**3.0**	**5,009**	**2.7**	**17,233**	**9.2**	**34,212**	**18.4**	**857**	**.5**	**186,419**

8.5: Number of households receiving extension advice on 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	%	
Mtwara Rural	21,221	92.4	372	1.6	124	.5	0	.0	621	2.7	621	2.7	0	.0	22,959
Newala	18,251	67.4	336	1.2	112	.4	336	1.2	2,687	9.9	5,375	19.8	0	.0	27,097
Masasi	16,648	82.0	305	1.5	0	.0	153	.8	764	3.8	2,444	12.0	0	.0	20,314
Tandahimba	19,397	77.0	116	.5	0	.0	465	1.8	1,045	4.1	4,181	16.6	0	.0	25,205
Mtwara Urban	1,390	81.4	119	7.0	0	.0	0	.0	40	2.3	159	9.3	0	.0	1,708
Nanyumbu	17,026	93.8	102	.6	102	.6	102	.6	204	1.1	612	3.4	0	.0	18,147
Total	**93,934**	**81.4**	**1,351**	**1.2**	**338**	**.3**	**1,055**	**.9**	**5,360**	**4.6**	**13,391**	**11.6**	**0**	**.0**	**115,430**

8.6: Number of households receiving extension advice on Use of Agrochemicals 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	%	
Mtwara Rural	19,484	81.3	745	3.1	869	3.6	372	1.6	745	3.1	1,737	7.3	0	.0	23,951
Newala	11,197	59.9	224	1.2	224	1.2	448	2.4	2,015	10.8	4,479	24.0	112	.6	18,699
Masasi	12,830	78.5	305	1.9	0	.0	458	2.8	458	2.8	2,291	14.0	0	.0	16,343
Tandahimba	18,120	77.6	348	1.5	465	2.0	348	1.5	929	4.0	3,136	13.4	0	.0	23,346
Mtwara Urban	556	73.7	40	5.3	0	.0	0	.0	79	10.5	79	10.5	0	.0	755
Nanyumbu	8,870	92.6	204	2.1	0	.0	0	.0	204	2.1	306	3.2	0	.0	9,583
Total	**71,056**	**76.7**	**1,866**	**2.0**	**1,557**	**1.7**	**1,627**	**1.8**	**4,431**	**4.8**	**12,029**	**13.0**	**112**	**.1**	**92,678**

8.7: 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	%	
Mtwara Rural	7,694	87.3	496	5.6	248	2.8	248	2.8	124	1.4	0	.0	0	.0	8,811
Newala	6,606	62.1	0	.0	112	1.1	336	3.2	1,792	16.8	1,792	16.8	0	.0	10,637
Masasi	10,233	83.7	1,527	12.5	0	.0	0	.0	153	1.3	305	2.5	0	.0	12,219
Tandahimba	4,878	76.4	348	5.5	116	1.8	116	1.8	348	5.5	465	7.3	116	1.8	6,388
Mtwara Urban	159	100.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	159
Nanyumbu	1,223	80.0	306	20.0	0	.0	0	.0	0	.0	0	.0	0	.0	1,529
Total	**30,794**	**77.5**	**2,678**	**6.7**	**476**	**1.2**	**700**	**1.8**	**2,417**	**6.1**	**2,562**	**6.4**	**116**	**.3**	**39,744**

8.8: Number of households receiving extension advice on Organic Fertlizer 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	%	
Mtwara Rural	11,045	84.0	621	4.7	248	1.9	248	1.9	248	1.9	745	5.7	0	.0	13,155
Newala	11,197	60.6	336	1.8	112	.6	448	2.4	2,127	11.5	4,255	23.0	0	.0	18,475
Masasi	10,080	70.2	1,527	10.6	153	1.1	153	1.1	305	2.1	2,138	14.9	0	.0	14,357
Tandahimba	11,383	82.4	0	.0	0	.0	0	.0	697	5.0	1,742	12.6	0	.0	13,822
Mtwara Urban	278	100.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	278
Nanyumbu	1,937	82.6	306	13.0	0	.0	0	.0	102	4.3	0	.0	0	.0	2,345
Total	**45,921**	**73.6**	**2,790**	**4.5**	**513**	**.8**	**849**	**1.4**	**3,480**	**5.6**	**8,880**	**14.2**	**0**	**.0**	**62,432**

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

Region	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	%	
Mtwara Rural	10,300	82.2	124	1.0	372	3.0	248	2.0	1,117	8.9	372	3.0	0	.0	12,534
Newala	10,301	58.6	448	2.5	560	3.2	336	1.9	3,023	17.2	2,911	16.6	0	.0	17,580
Masasi	10,539	69.0	764	5.0	0	.0	153	1.0	611	4.0	3,207	21.0	0	.0	15,273
Tandahimba	11,034	84.8	116	.9	232	1.8	0	.0	697	5.4	929	7.1	0	.0	13,009
Mtwara Urban	278	100.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	278
Nanyumbu	2,039	80.0	306	12.0	0	.0	0	.0	102	4.0	102	4.0	0	.0	2,549
Total	**44,492**	**72.7**	**1,758**	**2.9**	**1,164**	**1.9**	**737**	**1.2**	**5,550**	**9.1**	**7,522**	**12.3**	**0**	**.0**	**61,223**

8.10: Number of households receiving extension advice on Use of Improved Seeds by District during the 2007/08 agriculture year

Region	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	%	
Mtwara Rural	17,002	82.5	621	3.0	621	3.0	372	1.8	621	3.0	1,365	6.6	0	.0	20,601
Newala	12,765	61.6	560	2.7	448	2.2	560	2.7	2,575	12.4	3,807	18.4	0	.0	20,715
Masasi	13,288	76.3	611	3.5	0	.0	153	.9	764	4.4	2,596	14.9	0	.0	17,412
Tandahimba	12,893	85.4	116	.8	116	.8	348	2.3	581	3.8	1,045	6.9	0	.0	15,100
Mtwara Urban	556	77.8	0	.0	0	.0	0	.0	119	16.7	40	5.6	0	.0	715
Nanyumbu	4,690	90.2	102	2.0	0	.0	0	.0	204	3.9	204	3.9	0	.0	5,200
Total	**61,193**	**76.7**	**2,009**	**2.5**	**1,185**	**1.5**	**1,433**	**1.8**	**4,863**	**6.1**	**9,058**	**11.4**	**0**	**.0**	**79,741**

8.11: Number of households receiving extension advice on Mechanization and Labor Saving Technologies by District during the 2007/08 agriculture year

Region	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	%	
Mtwara Rural	9,308	82.4	372	3.3	372	3.3	124	1.1	1,117	9.9	0	.0	0	.0	11,293
Newala	7,054	47.0	448	3.0	448	3.0	560	3.7	3,471	23.1	3,023	20.1	0	.0	15,004
Masasi	11,150	76.0	916	6.2	153	1.0	153	1.0	458	3.1	1,833	12.5	0	.0	14,663
Tandahimba	8,479	89.0	348	3.7	0	.0	0	.0	348	3.7	348	3.7	0	.0	9,524
Mtwara Urban	199	83.3	0	.0	0	.0	0	.0	40	16.7	0	.0	0	.0	238
Nanyumbu	4,690	86.8	510	9.4	204	3.8	0	.0	0	.0	0	.0	0	.0	5,403
Total	**40,879**	**72.8**	**2,595**	**4.6**	**1,177**	**2.1**	**837**	**1.5**	**5,434**	**9.7**	**5,205**	**9.3**	**0**	**.0**	**56,126**

8.12: Number of households receiving extension advice on Irrigation Technologies by District during the 2007/08 agriculture year

Region	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	%	
Mtwara Rural	3,351	81.8	0	.0	372	9.1	124	3.0	124	3.0	124	3.0	0	.0	4,095
Newala	3,023	45.8	224	3.4	0	.0	672	10.2	2,015	30.5	672	10.2	0	.0	6,606
Masasi	4,429	58.0	611	8.0	0	.0	153	2.0	458	6.0	1,833	24.0	153	2.0	7,637
Tandahimba	6,272	88.5	348	4.9	0	.0	0	.0	348	4.9	116	1.6	0	.0	7,085
Mtwara Urban	159	100.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	159
Nanyumbu	1,835	72.0	714	28.0	0	.0	0	.0	0	.0	0	.0	0	.0	2,549
Total	19,069	67.8	1,897	6.7	372	1.3	949	3.4	2,946	10.5	2,745	9.8	153	.5	28,131

8.13 CROP EXTENSION: Number of households receiving extension advice on Crop Storage by District during the 2007/08 agriculture year

Region	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	%	
Mtwara Rural	11,169	81.1	745	5.4	621	4.5	124	.9	496	3.6	621	4.5	0	.0	13,775
Newala	5,375	41.7	560	4.3	0	.0	672	5.2	1,904	14.8	4,367	33.9	0	.0	12,877
Masasi	9,317	72.6	1,375	10.7	0	.0	0	.0	458	3.6	1,680	13.1	0	.0	12,830
Tandahimba	6,156	69.7	232	2.6	232	2.6	0	.0	697	7.9	1,510	17.1	0	.0	8,828
Mtwara Urban	357	100.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	357
Nanyumbu	2,141	65.6	714	21.9	0	.0	102	3.1	0	.0	306	9.4	0	.0	3,262
Total	34,515	66.5	3,625	7.0	853	1.6	898	1.7	3,555	6.8	8,483	16.3	0	.0	51,929

8.14 CROP EXTENSION: 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)		
Mtwara Rural	9,680	72.2	1,241	9.3	745	5.6	124	.9	496	3.7	993	7.4	124	.9	13,403
Newala	6,270	38.1	560	3.4	0	.0	448	2.7	2,127	12.9	7,054	42.9	0	.0	16,460
Masasi	4,124	77.1	305	5.7	0	.0	0	.0	153	2.9	764	14.3	0	.0	5,346
Tandahimba	8,479	70.2	0	.0	0	.0	0	.0	581	4.8	2,904	24.0	116	1.0	12,080
Mtwara Urban	556	82.4	119	17.6	0	.0	0	.0	0	.0	0	.0	0	.0	675
Nanyumbu	4,180	78.8	816	15.4	0	.0	0	.0	102	1.9	204	3.8	0	.0	5,301
Total	33,289	62.5	3,041	5.7	745	1.4	572	1.1	3,459	6.5	11,918	22.4	240	.5	53,265

CATTLE PRODUCTION

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

Districts	Indigenous			Improved Beef			Improved Dairy			Total		
	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%	Number of households	Number of Cattle	%
Mtwara Rural	0	0	0.0	0	0	0	0	0	0.0	0	0	100
Newala	224	448	100.0	0	0	0	0	0	0.0	224	448	100
Masasi	2,291	8,706	96.6	153	305	3	0	0	0.0	2444	9,011	100
Tandahimba	232	581	83.3	0	0	0	116	116	16.7	348	697	100
Mtwara Urban	119	238	46.2	0	0	0	159	278	53.8	278	516	100
Nanyumbu	306	7,442	100.0	0	0	0.0	0	0	0.0	306	7,442	100
Total	**3,172**	**17,415**	**96.1**	**153**	**305**	**1.7**	**275**	**394**	**2.2**	**3600**	**18,115**	**100**

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

Herd size	Cattle Rearing Households	%	Herd of Cattle	Average Per Houseold
1 - 5	2,629	80	6,803	3
6 - 10	560	17	4,991	9
61 -100	102	3	6,321	62
Total	**3,291**	**100**	**18,115**	**6**

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

Cattle Types	Indigeneous	Improved Beef	Improved Diary	Total Cattle	%
Castrated Bulls (Oxen)	1,019	0	0	1,019	6
Uncastrated Bulls	2,702	0	0	2,702	15
Cows	8,983	153	159	9,295	51
Steers	458	153	0	611	3
Heifers	1,505	0	116	1,621	9
Male Calves	305	0	40	345	2
Female Calves	2,442	0	79	2,521	14
Total	**17,415**	**305**	**394**	**18,115**	100

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

District	**Wet Season**			**Dry Season**		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
Mtwara Rural	.	.	.	.	.	.
Newala	.	.	.	.	.	.
Masasi	.	1,069	1,069	.	611	611
Tandahimba	.	232	232	.	232	232
Mtwara Urban	119	40	159	477	40	516
Nanyumbu	.	25,488	25,488	.	6,117	6,117
Total	**119**	**26,829**	**26,948**	**477**	**7,000**	**7,477**

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

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
	Mean (ltr)	Mean (lts)	Mean (lts)	Mean (lts)	Mean (lts)	Mean (lts)
Mtwara Rural	.	.	.	.	.	.
Newala	.	.	.	.	.	.
Masasi	.	2	2	.	1	1
Tandahimba	.	3	3	.	1	1
Mtwara Urban	9	1	7	6	1	5
Nanyumbu	.	3	3	.	1	1
Total	9	2	3	6	1	2

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

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
	Mean	Mean	Mean	Mean	Mean	Mean
Mtwara Rural	.	300	300	.	.	.
Newala	.	.	.	.	.	.
Masasi	.	70	70	.	118	118
Tandahimba	.	180	180	.	160	160
Mtwara Urban	81	240	121	143	190	151
Nanyumbu	.	70	70	.	60	60
Total	**81**	**104**	**103**	**143**	**126**	**129**

9.7: Average Cattle Milk price (Tshs/litre) per Season by category of Cow and District, During the 2007/08 Agricultural Year

District	Wet Season			Dry Season		
	Improved Breed	Indigenous	Total	Improved Breed	Indigenous	Total
	Mean	Mean	Mean	Mean	Mean	Mean
Mtwara Rural	.	.	.	.	.	.
Newala	.	.	.	.	.	.
Masasi	.	417	417	.	450	450
Tandahimba	.	500	500	.	500	500
Mtwara Urban	800	800	800	800	800	800
Nanyumbu	.	650	650	.	1,000	1,000
Total	**800**	**473**	**501**	**800**	**585**	**622**

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

District	Number of milked cows		Average milk production per cow per day		Average number of days for cows on milked		Average price per litre per season	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
Mtwara Rural	.	.	.	.	300	.	.	.
Newala	.	.	.	.	.	.	.	.
Masasi	1,069	611	2.0	1.3	70	118	417	450
Tandahimba	232	232	3.0	1.0	180	160	500	500
Mtwara Urban	159	516	6.8	4.9	121	151	800	800
Nanyumbu	25,488	6,117	2.5	1.0	70	60	650	1000
Total	**26,948**	**7,477**	**2.7**	**1.9**	**103**	**129**	**501**	**622**

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

District	Number of milked cows		Average milk production per cow per day (lts)		Average number of days cows milked		Average price per litre per season (Tshs)	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
Mtwara Rural	0	0	0	0	300	0	0	0
Newala	0	0	0	0	0	0	0	0
Masasi	1,069	611	2	1	70	118	417	450
Tandahimba	232	232	3	1	180	160	500	1,500
Mtwara Urban	159	516	7	5	121	151	800	800
Nanyumbu	25,488	6,117	3	1	113	60	650	1,667
Total	**26,948**	**7,477**	**3**	**2**	**109**	**129**	**501**	**1,159**

GOAT PRODUCTION

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

District	Raising goats		Not raising goats		Total	Total livestock keeping households
	No of households	%	No of households	%		
Mtwara Rural	5,833	12	44,428	88	50,261	5,833
Newala	13,213	29	32,136	71	45,349	8,622
Masasi	4,888	8	56,970	92	61,858	12,066
Tandahimba	7,318	16	39,724	84	47,041	5,575
Mtwara Urban	437	12	3,138	88	3,575	596
Nanyumbu	3,364	8	37,926	92	41,290	2,447
Total	**35,052**	**14**	**214,321**	**86**	**249,373**	**35,138**

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

District	Indigenous			Improved for Meat			Improved Dairy			Total	
	Number of households	Number of Goats	%	Number of households	Number of Goats	%	Number of households	Number of Goats	%	Number of households	Number of Goats
Mtwara Rural	5,833	41,822	100	0	0	0	0	0	0	5,833	41,822
Newala	13,213	95,288	99	112	560	1	0	0	0	13,325	95,848
Masasi	4,888	25,507	100	0	0	0	0	0	0	4,888	25,507
Tandahimba	7,318	52,036	100	0	0	0	0	0	0	7,318	52,036
Mtwara Urban	437	2,185	98	0	0	0	40	40	2	477	2,224
Nanyumbu	3,364	17,128	100	0	0	0	0	0	0	3,364	17,128
Total	**35,052**	**233,965**	**99.7**	**112**	**560**	**0.2**	**40**	**40**	**0**	**35,203**	**234,564**

9.12: Number of Households Rearing Goats, Herd of Goats and Average Herd per Household by Herd Size as of 1st October 2008

Herd Size	Goat rearing households		Herd of Goats		Average Goats per household
	Number	%	Number	%	
1 - 4	15,907	45.38	42,837	59.0	3
5 - 9	10,976	31.31	72,657	31.0	7
10 - 14	4,942	14.10	59,205	25.2	12
15 - 19	2,260	6.45	37,270	15.9	16
20 - 24	621	1.77	12,952	5.5	21
25 - 29	228	.65	5,927	2.5	26
30 - 34	116	.33	3,717	1.6	32
Total	**35,052**	**100.00**	**234,564**	**100.0**	**7**

9.13: Total Number of Goats by Category and Type of Goat as of 1st October 2008

Category	Indigenous		Improved Meat		Improved Dairy		Total	
	Number	%	Number	%	Number	%	Number	%
Billy Goat	36,663	16	.	0	.	0	36,663	16
Castrated Goat	3,338	1	.	0	.	0	3,338	1
She Goat	123,245	53	.	0	40	100	123,285	53
Male Kid	31,028	13	560	100	.	0	31,588	13
She Kid	39,690	17	.	0	.	0	39,690	17
Total	**233,965**	**100**	**560**	**100**	**40**	**100**	**234,564**	**100**

9.14: 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	%
Mtwara Rural	6,577	16	1,117	3	22,710	54	5,088	12	6,329	15	41,822	100
Newala	13,885	15	1,568	2	50,947	53	11,645	12	17,244	18	95,288	100
Masasi	4,735	19	458	2	13,441	53	3,360	13	3,513	14	25,507	100
Tandahimba	7,434	14	116	0	23,927	46	9,757	19	10,802	21	52,036	100
Mtwara Urban	159	7	79	4	1,311	60	159	7	477	22	2,185	100
Nanyumbu	3,874	23	0	0	10,909	64	1,020	6	1,325	8	17,128	100
Total	**36,663**	**16**	**3,338**	**1**	**123,245**	**53**	**31,028**	**13**	**39,690**	**17**	**233,965**	**100**

9.14: Number of Milked Goat by Category of Goat, Season type and District, During the 2007/08 Agricultural Year

District	Number of Milked goat		Average milk production per goat per day		Average number of days goats are milked		Average price per litre per season	
	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season	Wet Season	Dry Season
Mtwara Rural	248	124	.5	.5	90	90	300	300
Newala	112	.	.	.	.	.	.	.
Masasi	764	764	5.0	4.0	35	58	400	800
Tandahimba	.	.	.	.	.	.	.	.
Mtwara Urban	40	40	1.0	.5	60	60	.	1000
Nanyumbu	.	.	.	.	.	.	.	.
Total	**1,164**	**927**	**3**	**2**	**60**	**66**	**355**	**713**

SHEEP PRODUCTION

9.15: Number of Households Rearing Sheep by District During the 2007/08 Agriculture Year

Districts	Number of households raising or managing sheep	%	Number of households NOT raising or managing sheep	%	Number of agriculture households	Total livestock keeping households
Mtwara Rural	496	1	49,764	99	50,261	5,833
Newala	448	1	44,901	99	45,349	8,622
Masasi	458	1	61,399	99	61,858	12,066
Tandahimba	929	2	46,112	98	47,041	5,575
Mtwara Urban	0	0	3,575	100	3,575	596
Nanyumbu	204	0	41,086	100	41,290	2,447
Total	**2,536**	**1**	**246,837**	**99**	**249,373**	**35,138**

9.16: Number of Households Rearing and Number of Sheep by District as of 1st October 2008

Districts	Number of households	%	Total Sheep	%
Mtwara Rural	496	20	2,482	15
Newala	448	18	2,463	15
Masasi	458	18	2,596	15
Tandahimba	929	37	8,131	48
Mtwara Urban	0	0	0	0
Nanyumbu	204	8	1,121	7
Total	**2,536**	**100**	**16,794**	**100**

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

District	Number of Indigenous					Total
	Ram	Castrated Sheep	She Sheep	Male Lamb	Female Lamb	
Mtwara Rural	124	0	1,862	248	248	2,482
Newala	448	112	1,120	336	448	2,463
Masasi	458	0	1,527	305	305	2,596
Tandahimba	1,975	0	4,065	813	1,278	8,131
Mtwara Urban	0	0	0	0	0	0
Nanyumbu	204	0	714	0	204	1,121
Total	**3,209**	**112**	**9,288**	**1,703**	**2,483**	**16,794**

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

Herd size	Sheep Rearing Households	%	Herd of sheep	Average Per Houseold
1 - 4	845	33.33	2,555	3.02
5 - 9	1,230	48.51	7,548	6.14
10 - 14	344	13.58	3,903	11.34
20 - 24	116	4.58	2,788	24.00
Total	**2,536**	**100.00**	**16,794**	**6.62**

PIG PRODUCTION

9.19: 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	%
Mtwara Rural	0	0	50,261	100	50,261	100
Newala	1,120	2	44,229	98	45,349	100
Masasi	2,596	4	59,261	96	61,858	100
Tandahimba	0	0	47,041	100	47,041	100
Mtwara Urban	40	1	3,535	99	3,575	100
Nanyumbu	306	1	40,984	99	41,290	100
Total	**4,062**	**2**	**245,311**	**98**	**249,373**	**100**

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

Herd Size	Pig rearing households		Herd of pigs		Average per household
	Number	%	Number	%	
1 - 4	3,615	89	7,402	67.3	2.05
5 - 9	407	10	2,801	25.5	6.88
20 - 24	40	1	794	7.2	20.00
Total	**4,062**	**100**	**10,998**	**100.0**	**2.71**

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

District	Pig Type					Total
	Boar	Castrated Male	Sow / Gilt	Male Piglet	She Piglet	
Mtwara Rural	.	.	.	.	.	.
Newala	448	112	1,120	672	112	2,463
Masasi	1,222	153	3,360	764	1,222	6,720
Tandahimba	.	.	.	.	.	.
Mtwara Urban	238	.	119	.	437	794
Nanyumbu	102	.	408	510	.	1,020
Total	**2,010**	**265**	**5,007**	**1,945**	**1,771**	**10,998**

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

District	Number of households	Number of pigs	Average per household
Mtwara Rural	0	0	0
Newala	1,120	2,463	2
Masasi	2,596	6,720	3
Tandahimba	0	0	0
Mtwara Urban	40	794	20
Nanyumbu	306	1,020	3
Total	**4,062**	**10,998**	**3**

CHICKEN AND OTHER LIVESTOCK PRODUCTION

9.23: Number of Households and CHICKEN by Type and District as of 1st October 2008

Region	Indigenous chicken			Layers			Broilers			Total	
	Number of Households	Number of Indigenous Chicken	%	Number of Households	Number of Layers	%	Number of Households	Number of Broilers	%	Households rearing chicken	Number of Chicken
Mtwara Rural	21,221	197,568	98	0	0	0	124	4,964	2	21,221	202,532
Newala	28,665	330,653	100	0	0	0	0	0	0	28,665	330,653
Masasi	40,627	432,697	100	305	1,833	0	0	0	0	40,780	434,530
Tandahimba	28,457	328,012	100	0	0	0	0	0	0	28,457	328,012
Mtwara Urban	2,264	26,294	69	40	3,972	10	40	7,944	21	2,304	38,210
Nanyumbu	16,312	155,169	95	408	7,748	5	0	0	0	16,720	162,918
Total	**137,547**	**1,470,393**	**98**	**753**	**13,553**	**1**	**164**	**12,908**	**1**	**138,147**	**1,496,854**

9.24: Number of Households Keeping Chickens and Average Number of Chickens per Household by Flock Size as of 1st October 2008 - MTWARA

Heard Size	Indigenous chicken				Layers				Broilers				Total Number of Chicken
	Number of Households	Number of Indigenous Chicken	%	Number of Chicken per Household	Number of Households	Number of Layers	%	Number of Chicken per Household	Number of Households	Number of Broilers	%	Number of Chicken per Household	
1-49	136,469	1,406,309	99	10	713	9,581	1	13	124	4,964	0	40	1,420,854
50-99	961	52,469	100	55	0	0	0	0	0	0	0	0	52,469
100-299	116	11,615	49	100	40	3,972	17	100	40	7,944	34	200	23,531
Total	**137,547**	**1,470,393**	**98**	**11**	**753**	**13,553**	**1**	**18**	**164**	**12,908**	**1**	**79**	**1,496,854**

9.25: Number of Other Livestock by Type of Livestock and District as of 1st October 2008

District	Ducks	Guinea pigs	Turkeys	Rabbits	Donkeys	Horses	Dogs
Mtwara Rural	745	0	0	0	0	0	496
Newala	4,367	0	0	0	0	0	0
Masasi	458	0	305	0	0	0	458
Tandahimba	0	0	0	0	0	0	0
Mtwara Urban	1,668	0	0	0	0	0	40
Nanyumbu	5,607	0	0	0	0	0	102
Total	**12,845**	**0**	**305**	**0**	**0**	**0**	**1,096**

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

Type	Chicken		Others	
	Number	%	Type	Number
Indigenous Chiken	1,470,393	98.2	Ducks	12,845
Layer	13,553	0.9	Guine Pigs	0
Broiller	12,908	0.9	Turkeys	305
			Rabbits	0
			Donkey	0
			Horses	0
			Dogs	1,096
TOTAL	**1,496,854**	100		**13,151**

PEST AND PARASITES

9.27: Number of Livestock Rearing households Deworming Livestock by District during 2007/08 Agriculture Year

District	Deworming Livestock		Not Deworming Livestock		Total	
	Number	%	Number	%	Number of Livestock Rearing households	%
Mtwara Rural	3,723	15	21,345	85	25,068	100
Newala	10,861	33	22,170	67	33,032	100
Masasi	11,761	28	31,005	73	42,766	100
Tandahimba	7,318	24	23,579	76	30,896	100
Mtwara Urban	636	27	1,708	73	2,343	100
Nanyumbu	3,772	20	15,395	80	19,167	100
Total	**38,070**	**25**	**115,202**	**75**	**153,272**	**100**

9.28: 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
Mtwara Rural	0	248	3,971	4,219	2,482	496	1,241	4,219
Newala	224	224	10,525	10,973	5,151	1,456	5,039	11,645
Masasi	1,222	764	9,622	11,608	3,360	611	7,789	11,761
Tandahimba	116	116	7,201	7,434	3,833	232	3,485	7,550
Mtwara Urban	199	0	516	715	199	40	516	755
Nanyumbu	306	204	3,466	3,976	1,121	714	2,651	4,486
Total	**2,066**	**1,556**	**35,303**	**38,925**	**16,146**	**3,549**	**20,721**	**40,415**

Cont..9.28: Number of Livestock Rearing Households that Dewormed Livestock by Type of Livestock and District, 2007/08 Agricultural Year

District	Pigs				Chicken			
	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total	Households that dewormed	Households that DID NOT deworm	Not Applicable	Total
Mtwara Rural	0	0	3,847	3,847	1,737	2,110	1,241	5,088
Newala	1,008	336	9,518	10,861	8,062	4,031	1,232	13,325
Masasi	2,138	611	9,317	12,066	7,331	4,582	1,222	13,135
Tandahimba	0	0	7,318	7,318	4,530	3,717	1,394	9,641
Mtwara Urban	40	0	675	715	397	477	119	993
Nanyumbu	102	102	3,670	3,874	2,141	3,262	204	5,607
Total	**3,288**	**1,049**	**34,345**	**38,681**	**24,199**	**18,179**	**5,411**	**47,789**

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

	Tick Problem		No Tick Problem		Not Applicable		Total	
District	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	2,730	12	2,234	10	18,243	79	23,207	100
Newala	4,703	15	8,398	27	18,363	58	31,464	100
Masasi	3,971	9	4,582	11	34,213	80	42,766	100
Tandahimba	2,323	7	4,878	16	23,811	77	31,012	100
Mtwara Urban	437	18	159	7	1,827	75	2,423	100
Nanyumbu	1,223	7	1,427	8	15,293	85	17,943	100
Total	15,387	10	21,678	15	111,749	75	148,815	100

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

	Dipping		Spraying		Smearing		None		Other		Total	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	124	1	869	4	248	1	21,718	94	248	1	23,207	100
Newala	672	2	2,575	8	336	1	27,881	89	0	0	31,464	100
Masasi	764	2	2,444	6	611	1	38,947	91	0	0	42,766	100
Tandahimba	116	0	1,162	4	232	1	29,502	95	0	0	31,012	100
Mtwara Urban	40	2	278	11	40	2	2,026	84	40	2	2,423	100
Nanyumbu	102	1	510	3	0	0	17,332	97	0	0	17,943	100
Total	1,817	1	7,837	5	1,467	1	137,406	92	288	0	148,815	100

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

District	Households Encountering Tsetse problems		Households Without Tsetse Problems		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	993	4	4,219	18	17,995	78	23,207	100
Newala	1,120	4	10,973	35	19,371	62	31,464	100
Masasi	1,375	3	7,331	17	34,060	80	42,766	100
Tandahimba	697	2	6,621	21	23,695	76	31,012	100
Mtwara Urban	199	8	397	16	1,827	75	2,423	100
Nanyumbu	204	1	2,447	14	15,293	85	17,943	100
Total	**4,587**	**3**	**31,989**	**21**	**112,240**	**75**	**148,815**	**100**

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

	Dipping		Spraying		Trappig		None		Other		Total	
District	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	124	1	248	1	496	2	22,338	96	0	0	23,207	100
Newala	0	0	560	2	672	2	30,120	96	112	0	31,464	100
Masasi	305	1	1,222	3	611	1	40,627	95	0	0	42,766	100
Tandahimba	0	0	348	1	0	0	30,664	99	0	0	31,012	100
Mtwara Urban	40	2	40	2	40	2	2,304	95	0	0	2,423	100
Nanyumbu	0	0	204	1	0	0	17,739	99	0	0	17,943	100
Total	469	0	2,622	2	1,819	1	143,793	97	112	0	148,815	100

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

District	Households Encoutering Foot and Mouth Disease		Households NOT Encoutering Foot and Mouth Disease		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	124	1	869	4	21,221	96	22,214	100
Newala	448	2	784	3	27,769	96	29,001	100
Masasi	153	0	3,666	9	37,115	91	40,933	100
Tandahimba	0	0	348	1	27,528	99	27,876	100
Mtwara Urban	40	2	199	9	1,907	89	2,145	100
Nanyumbu	102	1	510	3	15,191	96	15,802	100
Total	866	1	6,375	5	130,730	95	137,971	100

9.34: Number of Livestock Rearing Households normally Encountering Newcastle Disease Problems by District During 2007/08 Agriculture Year

District	Households Encountering Newcastle Disease problems		Households NOT Encountering Newcastle Disease problems		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	13,403	58	7,570	33	2,234	10	23,207	100
Newala	24,970	79	4,591	15	1,904	6	31,464	100
Masasi	27,950	65	13,135	31	1,680	4	42,766	100
Tandahimba	21,953	71	6,853	22	2,207	7	31,012	100
Mtwara Urban	1,192	49	1,112	46	119	5	2,423	100
Nanyumbu	12,438	69	4,384	24	1,121	6	17,943	100
Total	101,905	68	37,645	25	9,265	6	148,815	100

9.35: 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	%
Mtwara Rural	4,344	19	1,862	8	17,002	73	23,207	100
Newala	16,124	51	896	3	14,444	46	31,464	100
Masasi	10,080	24	7,942	19	24,743	58	42,766	100
Tandahimba	9,292	30	5,575	18	16,145	52	31,012	100
Mtwara Urban	357	15	159	7	1,907	79	2,423	100
Nanyumbu	2,447	14	2,957	16	12,540	70	17,943	100
Total	42,644	29	19,390	13	86,781	58	148,815	100

9.36: Number of Livestock Rearing Households Normally Encountering Fowl Typhoid Disease Problems by District During 2007/08 Agriculture Year

District	Households Encoutering Fowl Typhoid Disease problems		Households NOT Encoutering Fowl Typhoid Disease problems		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	4,840	21	15,388	66	2,978	13	23,207	100
Newala	18,475	59	11,085	35	1,904	6	31,464	100
Masasi	13,135	31	27,187	64	2,444	6	42,766	100
Tandahimba	14,403	46	14,170	46	2,439	8	31,012	100
Mtwara Urban	596	25	1,708	70	119	5	2,423	100
Nanyumbu	8,564	48	8,258	46	1,121	6	17,943	100
Total	60,013	40	77,797	52	11,005	7	148,815	100

9.37: Number of Livestock Rearing Households by Method of Typhoid Disease Control and Region During 2007/08 Agriculture Year

Region	Vaccination		Local Herbs		None		Total	
	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	621	3	1,613	7	21,097	90	23,331	100
Newala	4,031	13	1,680	5	25,754	82	31,464	100
Masasi	1,833	4	5,957	14	34,976	82	42,766	100
Tandahimba	1,975	6	5,343	17	23,695	76	31,012	100
Mtwara Urban	278	11	119	5	2,026	84	2,423	100
Nanyumbu	714	4	1,733	10	15,497	86	17,943	100
Total	9,451	6	16,445	11	123,044	83	148,939	100

9.38: Number of Livestock Rearing Households Normally Encountering Lympyskin Disease Problems by Region During 2007/08 Agriculture Year

Region	Households Encoutering Lympyskin Disease		Households NOT Encoutering Lympyskin Disease		Not Applicable		Total	
	Number	%	Number	%	Number	%	Number	%
Mtwara Rural	0	0	993	4	21,221	96	22,214	100
Newala	112	0	784	3	28,217	97	29,113	100
Masasi	611	1	3,666	9	36,656	90	40,933	100
Tandahimba	0	0	465	2	27,412	98	27,876	100
Mtwara Urban	0	0	238	11	1,907	89	2,145	100
Nanyumbu	0	0	510	3	15,089	97	15,599	100
Total	723	1	6,655	5	130,501	95	137,879	100

9.39: 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	%	
Mtwara Rural	8,315	76.1	124	1.1	1,489	13.6	0	0.0	621	5.7	372	3.4	10,921
Newala	11,645	56.8	1,456	7.1	224	1.1	112	0.5	3,583	17.5	3,471	16.9	20,491
Masasi	10,844	68.3	1,222	7.7	305	1.9	153	1.0	1,069	6.7	2,291	14.4	15,884
Tandahimba	7,201	73.8	116	1.2	465	4.8	465	4.8	465	4.8	1,045	10.7	9,757
Mtwara Urban	715	56.3	397	31.3	40	3.1	0	0.0	40	3.1	79	6.3	1,271
Nanyumbu	6,117	95.2	102	1.6	0	0.0	0	0.0	102	1.6	102	1.6	6,423
Total	44,837	69.3	3,417	5.3	2,523	3.9	729	1.1	5,879	9.1	7,361	11.4	64,747

FISH FARMING

9.40: Number of Agriculture Households Practising Fish Farming by District During the 2007/08 Agriculture Year

District	Was Fish farming carried out by this household during 2007/08				
	Yes	%	No	%	Total
Mtwara Rural	0	.0	50,261	100.0	50,261
Newala	0	.0	45,349	100.0	45,349
Masasi	153	.2	61,705	99.8	61,858
Tandahimba	0	.0	47,041	100.0	47,041
Mtwara Urban	0	.0	3,575	100.0	3,575
Nanyumbu	0	.0	41,290	100.0	41,290
Total	153	.1	249,220	99.9	249,373

9.41: 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 Resevoir	Other
Masasi	0	458	0	0
Total	0	**458**	0	0

9.42: Number of Agriculture Households by Source of Fingerling and District During the 2007/08 Agriculture Year

District	Source of fingerlings							
	Own Pond	Government Institution	NGOs / Project	Neighbour	Private Trader	Natural pond	Other	Total
Masasi	0	458	0	0	0	0	0	458
Total	0	0	0	0	0	0	0	0

9.43: Number of Fish Harvested, their weight and Quantity Sold by District During 2007/08 Agriculture Year

District	Fish Harvested				Fish Sold	
	Number of Fish	%	Quantity(Kg)	%	Quantity (Kg)	%
Masasi	109,969	100	18,328	100	18,328	100
Total	**109,969**	100	**18,328**	100	**18,328**	100

BEE KEEPING

9.44: 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	%
Mtwara Rural	124	.25	50,136	99.8	50,261	100.0
Newala	112	.25	45,237	99.8	45,349	100.0
Masasi	0	.00	61,858	100.0	61,858	100.0
Tandahimba	116	.25	46,925	99.8	47,041	100.0
Mtwara Urban	0	.00	3,575	100.0	3,575	100.0
Nanyumbu	714	1.73	40,576	98.3	41,290	100.0
Total	1,066	.43	248,307	99.6	249,373	100.0

9.45: Number of Agriculture Households Harvesting Honey by Type of Bee and District During the 2007/08 Agriculture Year

District	Stingless Bee					Stingbee				
	Yes	%	No	%	Total	Yes	%	No	%	Total
Mtwara Rural	16,221	94.8	888	5.2	17,110	4,768	88.3	629	11.7	5,398
Newala	6,125	96.4	231	3.6	6,356	1,525	71.0	624	29.0	2,149
Tandahimba	5,181	98.4	87	1.6	5,268	3,679	93.6	250	6.4	3,929
Nanyumbu	4,500	99.0	45	1.0	4,546	875	100.0	0	0.0	875
Total	2,391	100.0	0	0.0	2,391	458	100.0	0	0.0	458

9.46: Number of Bee Hives by Type, Size of Bees and District During the 2007/08 Agriculture Year

District	Sting Bee				Stingbee				Total
	Improved Bee hive		Local Bee hive		Improved Bee hive		Local Bee hive		
	Number	%	Number	%	Number	%	Number	%	
Mtwara Rural	1,708	2	8,457	12	1,708	2	57,902	83	69,776
Newala	73,311	19	10,853	3	73,311	19	226,903	59	384,379
Tandahimba	22,762	11	1,712	1	22,762	11	160,518	77	207,755
Nanyumbu	995	1	91,463	90	995	1	7,992	8	101,444
Total	177	6	299	10	177	6	2,285	78	2,938

9.47: Quantity of Honey Harvested and Sold by Size of Bees and District During the 2007/08 Agriculture Year

District	Stingless Bee				Bee				Total	
	Honey Harvested		Honey Sold		Honey Harvested		Honey Sold		Honey Sold	Honey Harvested
	Quantity (lts)	%	Quantity (lts)	%	Quantity (lts)	%	Quantity (lts)	%		
Mtwara Rural	0	0	0	0	1,241	100	1,241	100	1,241	1,241
Newala	0	0	0	0	560	100	5,599	100	5,599	560
Tandahimba	0	0	0	0	3,485	100	2,323	100	2,323	3,485
Nanyumbu	5,098	10	6,729	14	46,897	90	40,576	86	47,305	51,995
Total	5,098	9	6,729	12	52,183	91	49,739	88	56,468	57,280

9.48: 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
Mtwara Rural	.	3,000	3,000
Newala	.	4,000	4,000
Tandahimba	.	2,000	2,000
Nanyumbu	675	1,167	886
Total	675	2,142	1,580

9.49: Number of Agriculture Households by Location of Selling Honey and District During the 2007/08 Agriculture Year

District	Neighbour		Total	
	Stingless Bee	Sting Bee	Stingless Bee	Sting Bee
Mtwara Rural	0	124	0	124
Newala	0	112	0	112
Tandahimba	0	116	0	116
Nanyumbu	408	306	408	306
Total	408	658	408	658

POVERTY MODULE

10.1: Number of Households Reporting Average Number of Rooms and Type of Building Materials by District, 2007/08 Agricultural Year

District	Roofing Materials							
	Mean number of rooms	Iron Sheets	Tiles	Concrete	Asbestos	Grass/Leaves	Grass & Mud	Total Number of Agricultural Households
Mtwara Rural	3	11,790	372	124	248	36,858	869	50,261
Newala	3	11,869	448	112	560	30,120	2,239	45,349
Masasi	3	16,037	764	0	1,069	39,253	4,735	61,858
Tandahimba	3	15,913	232	232	0	29,851	813	47,041
Mtwara Urban	3	1,072	0	40	0	2,463	0	3,575
Nanyumbu	2	7,646	0	102	408	31,503	1,631	41,290
Total	**3**	**64,327**	**1,816**	**610**	**2,285**	**170,047**	**10,287**	**249,373**
Percentage		26	1	0	1	68	4	100

10.2 : Number of Households Reporting Average Number of Rooms and Type of Floor Materials by District, 2007/08 Agricultural Year

District	Mean number of rooms	Floor Materials					
		Earth,Sand, Dung	Wood Planks, Bamboo, Palm	Parquet Or Polished Wood	Cement	Other	Total Number of Agricultural Households
Mtwara Rural	3	45,297	993	124	3,847	0	50,261
Newala	3	41,877	560	112	2,799	0	45,349
Masasi	3	55,290	1,222	305	5,040	0	61,858
Tandahimba	3	41,001	581	0	3,601	1,858	47,041
Mtwara Urban	3	3,019	0	0	556	0	3,575
Nanyumbu	2	39,149	306	102	1,733	0	41,290
Total	3	225,633	3,661	643	17,577	1,858	249,373
Percentage		90.5	1.5	0.3	7.0	0.7	100.0

10.3: Number of Households by Type of Wall Materials and District, 2007/08 Agricultural Year

District	Wall Materials								
	Grass	Poles and Mud	Sun-Dried Bricks	Baked Bricks	Wood, Timber	Cement Blocks	Stones	Other	Total Number of Agricultural Households
Mtwara Rural	7,570	37,602	1,737	248	124	372	2,110	496	50,261
Newala	6,046	24,186	13,996	560	0	448	0	112	45,349
Masasi	3,513	15,273	28,103	14,510	305	153	0	0	61,858
Tandahimba	7,666	14,867	21,720	1,626	581	465	0	116	47,041
Mtwara Urban	119	2,820	79	397	0	79	40	40	3,575
Nanyumbu	3,874	7,239	23,245	6,627	204	102	0	0	41,290
Total	28,789	101,988	88,882	23,968	1,214	1,619	2,149	764	249,373
Percentage	12	41	36	10	0	1	1	0	100

10.4: Number of Agricultural Households Reporting Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year

District	Piped Water	Protected Well	Protected / Covered Spring	Uprotected Well	Unprotected Spring	Surface Water (Lake / Dam / River / Stream)	Covered Rainwater Catchment	Uncovered Rainwater Catchment	Water Vendor	Other	Total
Mtwara Rural	17,002	3,103	124	11,169	2,606	6,329	621	8,935	372	0	50,261
Newala	6,606	2,687	1,344	6,718	1,232	112	2,799	19,371	448	4,031	45,349
Masasi	6,109	7,637	916	34,671	7,942	458	764	3,207	153	0	61,858
Tandahimba	348	9,292	1,742	10,221	232	6,040	4,530	11,151	116	3,368	47,041
Mtwara Urban	1,152	1,152	238	278	79	40	79	437	0	119	3,575
Nanyumbu	510	2,141	816	21,104	5,913	5,301	0	5,505	0	0	41,290
Total	31,728	26,011	5,180	84,161	18,005	18,280	8,793	48,607	1,089	7,519	249,373
Percentage	12.7	10.4	2.1	33.7	7.2	7.3	3.5	19.5	0.4	3.0	100

10.5: Number of Agricultural Households Reporting Distance to Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year

District	Less than 100m	100-299 m	300-499 m	500-999 m	1-1.99 Km	2-2.99 Km	3-4.99 Km	5-9.99 Km	10Km and above	Total
Mtwara Rural	13,031	3,723	5,585	3,723	14,892	1,862	3,723	3,723	0	50,261
Newala	33,592	3,359	0	3,359	3,359	0	0	0	1,680	45,349
Masasi	6,873	6,873	2,291	20,619	25,201	0	0	0	0	61,858
Tandahimba	22,650	3,485	0	8,711	12,196	0	0	0	0	47,041
Mtwara Urban	0	1,787	0	1,192	596	0	0	0	0	3,575
Nanyumbu	6,117	1,529	0	12,234	16,822	3,059	1,529	0	0	41,290
Total	82,262	20,756	7,876	49,838	73,066	4,920	5,252	3,723	1,680	249,373
Percentage	33	8	3	20	29	2	2	1	1	100

10.6: Number of Agricultural Households Reporting Time Spent to and from Main Source of Drinking Water during Wet Season by District, 2007/08 Agricultural Year

District	Less than 10	10-19 Minutes	20-29 Minutes	30-39 Minutes	40-49 Minutes	50-59 Minutes	One Hour and above	Total
Mtwara Rural	9,308	1,862	3,723	18,615	1,862	0	14,892	50,261
Newala	31,912	0	5,039	1,680	0	3,359	3,359	45,349
Masasi	11,455	4,582	6,873	20,619	0	4,582	13,746	61,858
Tandahimba	26,134	5,227	0	5,227	1,742	0	8,711	47,041
Mtwara Urban	0	596	0	2,979	0	0	0	3,575
Nanyumbu	3,059	0	0	21,410	1,529	0	15,293	41,290
Total	81,867	12,266	15,635	70,529	5,133	7,941	56,001	249,373
Percentage	33	5	6	28	2	3	22	100

10.7: Number of Agricultural Households Reporting Main Source of Drinking Water during Dry Season by District, 2007/08 Agricultural Year

District	Piped Water	Protected Well	Protected / Covered Spring	Unprotected Well	Unprotected Spring	Surface Water	Covered Rainwater Catchment	Uncovered Rainwater Catchment	Water Vendor	Bottled water	Total HH
Mtwara Rural	18,739	5,585	621	7,818	4,344	12,286	124	496	124	124	50,261
Newala	11,981	2,015	3,695	224	10,749	10,861	2,351	1,680	1,792	0	45,349
Masasi	5,804	7,789	916	33,602	7,942	3,055	0	2,749	0	0	61,858
Tandahimba	3,485	1,510	1,975	5,691	10,570	20,559	1,975	1,045	232	0	47,041
Mtwara Urban	1,668	1,231	278	119	79	40	40	79	0	40	3,575
Nanyumbu	1,835	3,160	918	19,880	3,772	10,399	306	1,020	0	0	41,290
Total	43,512	21,291	8,402	67,335	37,456	57,199	4,796	7,070	2,148	164	249,373
Percentage	17.4	8.5	3.4	27.0	15.0	22.9	1.9	2.8	0.9	0.1	100

10.8: Number of Agricultural Households Reporting type of TOILET the household normally use by District, 2007/08 Agricultural Year

District	No Toilet / Bush	Flush Toilet	Traditional Pit Latrine	Improved Pit Latrine - hh Owned	Other Type	Total
Mtwara Rural	3,227	621	45,172	1,241	0	50,261
Newala	448	224	43,669	1,008	0	45,349
Masasi	764	916	58,956	1,222	0	61,858
Tandahimba	232	0	45,996	813	0	47,041
Mtwara Urban	119	159	3,257	40	0	3,575
Nanyumbu	612	102	39,251	1,121	204	41,290
Total	5,401	2,022	236,301	5,445	204	249,373
Percentage	2.2	0.8	94.8	2.2	0.1	100.0

10.9: Number of Agricultural Households Reporting Number of Meals the Household Normally Has per Day by District, 2007/08 Agricultural Year

District	One	Two	Three	Total
Mtwara Rural	3,103	26,682	20,477	50,261
Newala	2,015	28,665	14,668	45,349
Masasi	3,360	36,504	21,994	61,858
Tandahimba	2,555	24,973	19,513	47,041
Mtwara Urban	278	1,748	1,549	3,575
Nanyumbu	2,243	25,284	13,763	41,290
Total	13,554	143,854	91,965	249,373
Percentage	5	58	37	100

10.10: Number of Agricultural Households Reporting Number of Days the Household Consumed Meat During the Preceeding Week by District, 2007/08 Agricultural Year

District	Not Eaten	One	Two	Three	Four	Five	Six	Seven	Total
Mtwara Rural	20,973	17,870	8,811	1,737	248	124	124	372	50,261
Newala	22,058	14,556	5,151	2,463	336	336	0	448	45,349
Masasi	30,852	16,343	11,761	1,680	764	153	153	153	61,858
Tandahimba	22,417	14,984	6,969	2,207	465	0	0	0	47,041
Mtwara Urban	2,502	636	199	79	119	0	40	0	3,575
Nanyumbu	17,943	11,113	8,462	2,957	408	102	0	306	41,290
Total	116,747	75,501	41,352	11,124	2,339	715	317	1,279	249,373
Percentage	46.8	30.3	16.6	4.5	0.9	0.3	0.1	0.5	100

10.11: Number of Agricultural Households Reporting Number of Days the Household Consumed Fish during the Preceeding Week by District, 2007/08 Agricultural Year

District	Not Eaten	One	Two	Three	Four	Five	Six	Seven	Total
Mtwara Rural	1,737	6,826	8,191	6,453	10,052	7,322	2,978	6,701	50,261
Newala	6,830	12,989	11,421	6,718	3,023	2,463	784	1,120	45,349
Masasi	6,568	10,233	17,564	12,219	6,873	4,277	1,833	2,291	61,858
Tandahimba	6,969	7,550	10,802	8,828	4,646	4,065	1,394	2,788	47,041
Mtwara Urban	199	397	556	675	874	516	79	278	3,575
Nanyumbu	5,200	6,831	9,787	8,666	3,262	4,690	714	2,141	41,290
Total	27,502	44,825	58,322	43,559	28,731	23,333	7,782	15,319	249,373
Percentage	11	18	23	17	12	9	3	6	100

10.12: 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
Mtwara Rural	15,761	17	21,469	24	5,957	21	4,219	17	2,854	20	50,340
Newala	21,499	24	16,012	18	5,151	18	1,904	8	784	5	45,416
Masasi	13,441	15	26,881	29	7,179	26	8,706	34	5,651	39	61,962
Tandahimba	26,947	30	13,938	15	3,020	11	2,091	8	1,045	7	47,106
Mtwara Urban	1,152	1	1,072	1	636	2	318	1	397	3	3,581
Nanyumbu	11,520	13	11,826	13	6,015	22	8,054	32	3,874	27	41,369
Total	90,319	100	91,200	100	27,957	100	25,291	100	14,606	100	249,773
Percentage	36		37		11		10		6		100

10.13: Number of Agricultural Households Reporting Main Source of Income by District, 2007/08 Agricultural Year

District	Sales of Food Crops	Sale of Livestock	Sale of Livestock Products	Sales of Cash Crops	Sale of Forest Products	Business Income	Wages & Salaries in Cash
Mtwara Rural	32,887	124	0	6,826	993	1,986	372
Newala	29,785	560	1,232	6,718	112	1,008	224
Masasi	49,028	764	153	7,026	611	1,069	458
Tandahimba	15,332	581	232	19,397	116	3,485	697
Mtwara Urban	1,867	40	0	119	0	596	357
Nanyumbu	19,473	102	0	18,249	102	1,631	612
Total	148,370	2,170	1,617	58,335	1,934	9,774	2,721
Percentage	66	1	1	26	1	4	1

Cont..10 13: Number of Agricultural Households Reporting Main Source of Income by District, 2007/08 Agricultural Year

District	Other Casual Cash Earnings	Cash Remittance	Fishing	Other	Not applicable	Total
Mtwara Rural	1,862	1,117	3,599	372	124	43,187
Newala	2,687	1,232	0	224	1,568	39,638
Masasi	1,680	458	0	458	153	59,108
Tandahimba	3,136	2,207	116	581	1,162	39,840
Mtwara Urban	477	40	79	0	0	2,979
Nanyumbu	714	306	0	102	0	40,169
Total	10,555	5,359	3,794	1,737	3,006	224,921
Percentage	5	2	2	1	1	100

Appendix III: QUESTIONNAIRE

United Republic of Tanzania

ACQ1 *CONFIDENTIAL*

Small holder/Small Scale Farmer questionnaire

Identification

Agricultural Sample Census
2007/2008

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

Date of Enumeration

d d / m m / y y y y

Start Time

End Time

Hour	Minutes

Field level checking by:

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

Distric checking in Office

District Supervisor	Name	Signature	Date	/ /	*All questionnaires must be checked at the district office.*

For Use at Regional Level Only

Data entered by:	Name	Signature	Date	/ /	*See the back page for details of queries*
Queried	Name	Signature	Date	/ /	

Ministry of Agriculture and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Administration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Governemnet of Zanzibar

Definition and working page for page 1

General Definitions

Who is a Smallholder /Small Scale farmer?
Should have one or more of the following: in the 2007/08 farming season had one or more cultivated and planted farms. The farm land may either be owned, rented, borrowed. The farmer may also be raising 1 and 50 head of cattle, and/or between 5 and 100 head of sheep/Goats/Pigs, and/or between 50 and 1000

Household: A group of people who occupy the whole of part one or more housing units and makes joint provision for food and/or other household items. Usually such a group comprises a husband, wife, and their children. Other relatives may be members of the household if they happen to live and get food provisions from the same household. People who live together and eat from the same pot may be considered as member s of the same household even if they stay in separate dwellings. An individual who lives and east alone is considered as an independent household.

Household Head: A person who is acknowledged by all other members of the household either by virtue of his age or standing in the household as the head. He/she should be a permanent resident of the house and he/she is the main person responsible for decision making regarding use of household resources..

Agricultural Holding: This is an economic unit of agricultural production under single management. This unit may have been grown various crops. For the purpose of the survey, the agricultural holdings are restricted to those which meet one of the following conditions:
- Having or operated at least 25 sq meter of arable land
- Own or keep at least one head of cattle or five goats/sheep/five pigs or fifty chicken/ducks/turkeys during the agricultural year 2007/08 (from October 2007 to September 2008).

Question Specific Definitions:

Type of Agriculture holding Codes (Q2.1):
Crops only: A holding is referred to be a crop only holding if it has cultivated at least one piece of land. This also applies to all households owning or have kept livestock whose number does not qualify such households to be an agricultural holding (No cattle, less than 5 goats/sheep/pigs, less than 50 chickens/turkeys/rabbits).

Livestock only: A holding is referred to be a livestock only holding if it has exercised livestock husbandry only during the 2007/08 agricultural year.

NOTE
For agricultural holding only and pastoralist holding only; the number of livestock should be at least one head of cattle, not less than five goats/sheep/pigs, not less than 50 chickens /turkeys /rabbits. This also applies to households having or operated less than 25 sq meter of cultivated land (which does not qualify the household to be considered as agricultural holding) but has the number of livestock that makes the holding qualifies to be considered as livestock holding.

Pastoralist holding: This refers to a household which practices livestock production as its major income generating activity and a means of subsistence, but moves from one place to another searching for water and pasture for the livestock. This movement usually involves long distances and in many cases the whole household unit moves with the livestock and they have no permanent place of residence.

Both crops and livestock: A holding is referred to be a both crops and livestock if it has cultivated a piece of land equal or exceeding 25 sq meter and if such households have own or kept livestock whose number qualify such household be considered as an agricultural holding.

Procedures for questions:

Q 2.1 Type of agriculture household/holding

Using the options under the question classify the type of agriculture household/holding

Note: If the household had an acre of crops and raised 40 chickens during 2007/08, it is classified as 'Crops only' as the number of chickens does not qualify the household as a livestock holding.

1.0 IDENTIFICATION DETAILS

Identification

1.1 **Location**

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

1.2 Deatails of the respondent or household head

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

Relationship to household head codes (Q 1.2.5)

Head of Household *……..1 Son /Daughter…….3 Grandson/Granddaughter…….5 No relationship……7*

Spouse……..2 Father/Mother……..4 Other relatives…..6

2.0 ACTIVITIES OF THE HOUSEHOLD

2.1 Typeof Agriculture Household

Household agricultural activities codes(Q 2.1)

Crops only……..1 Livestock only ……..2 Pastoralist……3 Crops and Livestock ……..4

Definition and working page for page 2

Question Specific Definitions:

Relation to head (Col 2):
Household Head: A person who is acknowledged by all other members of the household either by virtue of their age or standing as the household head.

Read and Write (Col 8)
Any other language: Must be a written language.
For someone who can read and write in Kiswahili and any other language apart from English, the correct code is 1. For one who can read and write in English and any other language apart from Kiswahili the the correct code is 2. Code 4 should only be used for any other language which is not English or Kiswahili.

Education Level Reached (Col 10):
Ask the respondent the highest educational level reached. This aims at establishing whether at the time of enumeration the member of the household is studying has completed or has never studied. Make further enquiry for the level of education reached for those who have completed studies. Establish if the member had attained any training after graduation for the purposes for completing column number 9. For those who still continue attending studies during the period of this survey, establish their learning stage. For instance for a household member who studied up to Standard Three but did complete his/her education at this level, then his/her highest education level reached is Standard Two. For those indicated under code 3 (not studied) in column 8 should be marked code 99 (Not applicable) in column 9.

Section 3.0 Note

Make sure that you define the hh proper to ensure that all the members of the hh are included. Ensure that you stress that the hh is not just the hh heads direct family and that it includes other people living and eating together with the family.

If you notice that the hh is large or you see many people around the hh and you have been given a smaller number of the hh members, make further enquiries until you are sure that you have captured all the hh members.

Section 3.0 Household information.

ii) For each household member complete columns 1,2,3 and 3
After completing columns 1, 2, 3 and 3 for each household member, go back to the first household member and complete the remaining columns for that member.
iii) Repeat step 2 for the rest of the household members.

3.0 HOUSEHOLD INFORMATION Identification

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

Na.	Names of hh members (Start with hh Head)	Ex Start with hh Head	Sex M = 1 F = 2	Age (98 years or more enter 97, under one year old write 00)	Marital Status	Parental Survival		Not applicable for children under 5 years					
						Mother	Father	Reard and Write	Education status	Levek of education attained	On farm engagements	Main activity	Off farm income yes=1 no=2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
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Relationship to household head (Col 2)

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

Marrital Status(Col 4)

Married.....…….…1
Single.....…….…2
Co-habiting 3
Divorced
Separated..... ……..…...4
Widow/widower...……..5

Survival of Parents(Col 6 & 7)

Yes.....…1 No ….....2
Dont't know ...……..3

Ed.ucation Level(Col 9)

Studying ……..1
Has completed……...2
Never been to school ..…3

Reading and writing (Col 8)

Kiswahili…….....……..1
English …….....……2
Kiswahili and English….....3
Lugha nyingine…….....…...4
Canno tread or write.....….5

Education Level (Col 10)

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

Involvement in farming activitie (Col 11)

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

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

Crop farming: ……..01.
Livestock farming/herding: ….02.
Pastoralist ……03
Fishing ……..04
Fish farming …….……05
Paid employment / Government/parastal……06
Private/NGOs ……07
Self employee (Off- farm cativities)
- With employees ……..08
- Without employees ……..09
Non paid household member (off – farm activities) ……10.
Unemployed but available for work ….11
Unemployed but unavailable for work..12
House mother ……13
Student ……..…14
Unable to work too old, too young, retired, disabled,child 15
Others (specify) …….....98

Off-farm Income (Col 13)

These are income made from activities NOT on the HH's farming activites. This can be from formal employmenbt (e.g. in gpvrenment etc.), temporary jobs, casual labourers and income generation activity and includes working for cash on other people's farms.
Indicate whether each member was involved in an off farm income generating activity during 2007/08

Definitions and working page for page 3

Definitions for Key Specific Questions
Section 4.1 – Land Access/Ownership
These are areas that were used by the households for the 2007/08 farming season

Lease/Certificate of Ownership: Area under lease/certificate of ownership refers to the areas which were issued by the government. The household possesses government issued leasehold little or certificate of ownership. The land will normally be officially surveyed and boundaries marked. This includes leased land bought from others where the lease/certificate of ownership has been transferred.

Customary Law: This refers to the land which the household does not have an official government but its right of use is granted by the traditional leaders.
Bought: This refers to the areas of customary land that has been bought from others. This land does not have an official title and therefore is not leasehold.
Rented from others: Land rented from others for cash or for a fixed amount in crop produce (e.g. fixed number of bags at harvest).

Borrowed: use granted by land owner free of charge. Land owner can either be a lease holder or has right of access through customary law.
Share cropping: where the household is permitted to use land which is then paid for from a percentage of the harvested crop

Section 4.2 Land Use
Temporary crops: are sown and harvested during the same agricultural year
Permanent crops: are crops once sown or planted last for some years and need not to be replanted after each annual harvest.
Permanent crops /mixed crops: This is a mixture of permanent and seasonal crops. The two crops can either be randomly planted together or in a particular pattern e; for example intercropping (1 row of maize and 1 row of beans). A field that has been divided into plots for different crops is not mixed).
This is further subdivided into:
Mixture of Permanent crops – two or more permanent crops grown tougher
Mixture of Permanent and Temporary crops – permanent crop and annual crop together
Mixture of Temporary crops– two or more temporary, annual crops grown together
Pasture land: this is an area of owned/allocated land which is set aside for livestock grazing. It can be improved pasture where the farmer has planted grass, applied fertilized or where other means have been applied to improve the pasture. Or it can be natural pasture.
Natural Bush: Land which has naturally grown shrubs and trees and is considered productive but is not utilized for farming or livestock production.

Overview to section 4

Overview to section 4
Section 4.0: Preliminary note
Land Access/Ownership
Land access/ownership refers to the area utilized by the members of the household. This does not include communal land where the resources are shared between household members. It does not include official communal land that the household has sole access to for example a plot for crop farming in the communal area.

Procedures for questions

Section 4.0 – Land Ownership
1. Ask the respondent if he knows the total areas of land the household has sole access to. If he knows make a note in the calculation space
2 Ask the respondent the area of the different land ownership categories the household has sole access to (Q4.1, 1 to 4.1.7) and record in the appropriate spaces.
3. Add up the area of the different categories of land and compare it with the total area obtained in step 1 (if the respondent provided the information)
4. If the total area is different find out which one is correct and make

Section 4.2: Land Use
1. Ask the respondent the area of the different land use categories the household has sole access to (Q4.2.1 to 4.2.12) and record in the appropriate spaces.

2. Add up the area of the different categories of land and compare it with the total area obtained in section 4.0. The total area should be the same.

3. If the total area is different find out which one is correct and make amendments where appropriate.

4.0 **LAND ACCESS/OWNERSHIP/TENURE** Identification

4.1 **LAND ACCESS/OWNERSHIP/TENURE**

Give details on Area owned by the household during 2007/08 agricultural season.

	Give area as reported by the respondent in acres	**Area in Acre**		
			4.1.8	Was the whole household area used during the 2007/08 agricultural season? (Yes=1, No=2)
4.1.1	Area under certificate of ownership			
4.1.2	Area owned under customary law			
4.1.3	Area bought		4.1.9	Do you consider to have enough land for your household? (Yes=1, No=2)
4.1.4	Area rented from others			
4.1.5	Area borrowed from others			
4.1.6	Area share cropped from others		4.1.10	Is there any female who owns land or has customary rights to land ownership in this household? (Yes=1, No=2)
4.1.7	Area under other forms of tenure			
	Total area			

4.2 **LAND USE**

Area used by the household for various agricultural activities during 2007/08 agricultural season

	Enter area as reported by the respondent in acres	**Area in acre**	Working space for calculations
4.2.1	Area planted temporary monocrops		
4.2.2	Area planted temporary mixed crops (e.g. maize and beans)		
4.2.3	Area planted permanent moncrops		
4.2.4	Area planted permanent mixed crops (e.g. banana, coffee, trees)		
4.2.5	Area planted permanent and temporary mixed crops (e.g. maize and banana)		
4.2.6	Area under pasture		
4.2.7	Area under fallow		
4.2.8	Area under natural forest		
4.2.9	Area planted trees		
4.2.10	Area rented to others		
4.2.11	Area unsuitable for agricultrure		
4.2.12	Uncultivated arable land (minus area under fallow)		
	Total area		

Definitions and working page for page 4

Working table for the calculation area for annual mixed crops

Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)=(d)*(e)*
Permanent crop 1			0.000		0.000
Permanent crop 2			0.000		0.000
Permanent crop 3			0.000		0.000
Permanent crop 4			0.000		0.000
			Total area for permanent crops		0.000
Total Area for mixed crops			**The remaining area for temp crops**		

	% of temporary	Area for permanent crop
Name of the crop temp/permanent 1		
Name of the crop temp/permanent 2		
Name of the crop temp/permanent 3		
Check total area	Check total area for temporary crops	

Mixed crops	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)=(d)*(e)*
Permanent crop 1			0.000		0.000
Permanent crop 2			0.000		0.000
Permanent crop 3			0.000		0.000
Permanent crop 4			0.000		0.000
			Total area for permanent crops		0.000
Total area for mixed crops			**The remaining area for temp crops**		

	% of temporary	Area for temporary crop
Name of the crop temp/permanent 1		
Name of the crop temp/permanent 2		
Name of the crop temp/permanent 3		
Check total area	Check total area for temporary crops	

Planted Area: Area in acre the household was able to plant

Harvested Area: Area in acre the household was able to harvest a large portion of harvests. this is the same as the area planted minus the area that was destroyed by floods/ pets /

Temporary/Annual Crops
Crops planted and harvested within 12 months after which time the plants die . Most annual crops are planted and harvested on a seasonal base.

Cash crop codes:

Code	Crop
50	Cotton
51	Tobacco
53	Payrethrum
62	Jute
19	Seaweed

Crop Codes(Creal / Tubers/ Roots:

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

Vegetable Codes:

Code	Crop
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranths
92	Pumpkin
93	Cucumber
94	Egg plant
95	Water mellon
96	Cauliflower
06	Melllon
05	nyanyachungu
02	Ocra
03	Radish
01	Green Beans
04	Bizari

Crop Codes Legumes and Oil

Code	Crop
31	Beans
32	Cowpeas
33	Green Gram
34	Chick Peas
35	Dengu
36	Bambara nuts
37	Njegere
41	Sun flower
42	Simsim
43	Ground uts
47	Soya beans
48	Caster Seed

Instructions for calculating the area of mixed crops in a mixture

A. If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions.

B. If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calculate the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.

C: Number of trees method to calculate annual crop areas in a permanent-annual crop mix.:

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

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

(iii) Calculate the area occpied by each crop by multiplying collumn d and collumn e and sum up these to obatin the total area of permanent crops in the mix.

iv) To obatin the area for tempofrary crops , substract **(-)** the area fro permanent crops from thne total area of crop mix and enter the resulst in in the total area under temporary crops.

(v) Proceed to step 1 to calculate the area under each temporary crop.

1. Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop**.**

2. Using the percentage for each crop, calculate the are for each crop from the remaining area under tenmporary crop.

3. After completing the exrcise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1 Collumn 3.

4. Once the quantity harvested is obtained , caklculate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly differentce, check the area and the amouint harvested..

5.0 PERMANENT AND TEMPORARY CROP PRODUCTION — Identificatoion

5.1 ANNUAL CROPS AND VEGATBLE PRODUCTION-SHORT RAINY SEASON

Did your household palnted any crop duding short rainy season for 2007/08 agricultural year? Yes = 1, No = 2,(If the answer is yes proceed to Section 5.3)

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

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

Type of seeds planted (Col 5)
Local seeds …1
Improved seeds……..2

Use of agricultural seeds (Col 6,)
For the whole crop……..1
3/4 of the whole crop……2
1/2 of tyhe whole crop……3
1/4 ofd the whole crop……4
Under 1/4 of the whole crop…5

Qunatity (Col 7)
Kg ……1
Seedlings….2
Gram…..3

Use of farm inputs (SCol10,11 & 16)
For the whole crop……1
3/4 of the wholrecrop……2
1/2 of tyhe whole crop……3
1/4 ofd the whole crop……4
Under 1/4 of the whole crop…5
Not used ……6

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

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

Kipimo (S/wima 13)
Kilo ……1
Lita……2
Milli-lita..3

Main crop owner: (Col 4)
Enter number of hh member from page 2 on details on hh members in Q. 3

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

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

Identification

Name of crop	Crop code	Use of fungicides (If 6 is the answer in col 20 proceed to col 24)				Use of pesticides (If 6 is the answer in col 24 proceed to col 28)				Harvesting and Storage			Marketing		
		Area used	Size		Cost	Area used	Size		Cost	Quantity harvested (kg)	Quantity stored (kg)	Main storage methods	Quantity sold (kg)	Where was the crop mostly sold?	Main problems in crop marketing
			Quantity	Used			Quantity	Used							
(1)	(2)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
…….															
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…….															
…….															
…….															
…….															
…….															
…….															
…….															

Use of farm inputs (Col 20&24)

For the whole crop.....1
3/4 of the wholrecrop.....2
1/2 of tyhe whole crop.....3
1/4 ofd the whole crop.....4
Under 1/4 of the whole crop...5
Not used 6

Quantity (Col 21&25)

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

Main Storage mechanisms (Col 30)

Locall storage facilities.....1
Improved Local storage facilitiies 2
Modern store.....3
Open drums/sacks.. 4
Cealed drums.....5
In heaps.....O.....6
not Stored.....7
Other means ()Specify.....8

Where the crop was sold(Col 32)

Neighbours.....01 Private Businessman.....08
Open markets. .....02 Contract farming.....09
Auctions.....03 Not sold.....10
Main Market.....04 Others 98
Cooperative Union….05
Farmers Association..06
Large Scale farm.....07

Marketing problems (Col 33)

Very low prices.....01 No problem 11
No transport.....02 Others (Specify 98
High transport costs.....03 Not applicable 99
Lack of crop buyers 04
Markets located far away ..05
Problems with farmers Associations 06
Probloems with cooperative Unions 7
Problems with Businessmen Association ...8
Strigent Government Conditions ...9

Definitions and working page for page 5

Storage (Col. 30, Q 5.1.1):
- **Traditionally Made strcutures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of tradional storagesrutures improved through modern technology.

Marketing Challenges Q 5.1.1 Col. 33:

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulating transportation and selling of crops.

Inputs (Q 5.1.1)

Farm Yard Manure: An organics fertliser made on farm from animal dung. .
Compost: An organic fertiliser made on farm from decomposed plant materials.
Insectcides: This is the chemical usde in protecting plants or killing pests.
Fungicides: Protects plants from fungi attack.
Herbicide: Chemicals used to control or kills weeds.
Improved seeds: Scientifically attested to be suitable for agricultural use.

Working area/calculation space

Questions specific definitions

Q 5.1.1. Instructions on crops storage:
1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.

2. For the listed crops give explanations on storage.

Crops storage is keeping/reserving crops in a container or a special place for future use.

Q 5.1.1 Col 31
1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

Definitions and working page for page 6

Working table for the calculation area for annual mixed crops

Mixed crops 1	Crop Name	Total area of mixed (acre)	Area for plants (acre)	Total number of plants	Total area of plants (acre)
(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)=(d)*(e)*
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
			Total area for permanent crops		
Total Area for mixed crops					
The remaining area for temp crops					

	% of temporary	Area for permanent crop
Name of the crop temp/permanent 1		
Name of the crop temp/permanent 2		
Name of the crop temp/permanent 3		
Check total area	Check total area for temporary crops	

Mazao mchanganyiko 2	Name of plant	Total area mix (acre)	Area for the plant (acre)	Total of plants	Total area for plants (acre)
(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)=(d)*(e)*
Permanent crop 1			0.000		
Permanent crop 2			0.000		
Permanent crop 3			0.000		
Permanent crop 4			0.000		
			Total area for permanent crops		
Total area for mixed crops					
The remaining area for temp crops					

	% of temporary	Area for temporary crop
Name of the crop temp/permanent 1		
Name of the crop temp/permanent 2		
Name of the crop temp/permanent 3		
Check total area	Check total area for temporary crops	

Planted Area: Area in acre the household was able to plant
Harvested Area: Area in acre the household was able to harvest a large portion of harvests. this is the same as the area planted minus the area that was destroyed by floods/ pets /

Temporary/Annual Crops
Crops planted and harvested within 12 months after which time the plants die . Most annual crops are planted and harvested on a seasonal base.

Cash crop codes:

Code	Crop
50	Cotton
51	Tobacco
53	Payrethrum
62	Jute
19	Seaweed

Crop Codes(Creal / Tubers/ Roots:

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

Vegetable Codes:

Code	Crop
86	Cabbage
87	Tomatoes
88	Spinach
89	Carrot
90	Chillies
91	Amaranths
92	Pumpkin
93	Cucumber
94	Egg plant
95	Water mellon
96	Cauliflower
06	Melllon
05	nyanyachungu
02	Ocra
03	Radish
01	Green Beans
04	Bizari

Crop Codes Legumes and Oil

Code	Crop
31	Beans
32	Cowpeas
33	Green Gram
34	Chick Peas
35	Dengu
36	Bambara nuts
37	Njegere
41	Sun flower
42	Simsim
43	Ground uts
47	Soya beans
48	Caster Seed

Instructions for calculating the area of mixed crops in a mixture

A. If the mixed crop is mixed annual ly only enter the total area of the field in the remaining area under temporary Crop and go to step one of these instructions

B. If the mixed crop is mixed permanent and annual try to work tyhe percent age taken by the different crops and calcualet the area of annual crops outlined in step 1. Otherwise use the number of trees method to calculate the area of annula crops in the mix.

C: Number of trees method to calculate annual crop areas in a permanent-annual crop mix.:

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

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

(iii) Calculate the area occpied by each crop by multiplying collumn d and collumn e and sum up these to obatin the total area of permanent crops in the mix.

iv) To obatin the area for tempofrary crops , substract **(-)** the area fro permanent crops from thne total area of crop mix and enter the resulst in in the total area under temporary crops.

(v) Proceed to step 1 to calculate the area under each temporary crop.

1. Enter the name of each temporary crop in tyhe crop mix and estimate percentages of each crop.

2. Using the percentage for each crop, calculate the are for each crop from the remaining area under tenmporary crop.

3. After completing the exrcise for all the fields, sum the area of each crop in tyhe mix plus any monocrops and uenter the totals in section 5.1.1 Collumn 3.

4. Once the quantity harvested is obtained , caklculate the yields (metric tonnes/acre) and compare the figures with the norms given in the crops code box. If there is significantly differentce, check the area and the amouint harvested..

5.3 PERMANENT/PERENNIAL CROPS AND FRUIT TREE PRODUCTION

Identification

Does your household have any permanent/perennial crops or fruit trees Yes =1, No = 2, (If answer is NO proceed to Section 6.0)

5.3.1 Give details on permanent/perennial crops or fruit trees

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

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

Main crop owner (Col 6):
nter the number of the hh member from page 2 on information for hh members in Q 3

Area culltivated (col. 8)
For the whole crop.....1
3/4 of the whole crop.....2
1/2 of tyhe whole crop.....3
1/4 ofd the whole crop.....4
Under 1/4 of the whole crop...

Qunatity (Col 9)
Kg 1
Seedlings....2
Gram.....3

Use of farm inputs (Col 12 & 13)
For the whole crop.....1
3/4 of the wholrecrop.....2
1/2 of tyhe whole crop.....3
1/4 ofd the whole crop.....4
Under 1/4 of the whole crop...5
Not used 6

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

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

Identification

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

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

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

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

Marketing problems (Col 35)
Very low prices.....01 No problem 11
No transport.....02 Others (Specify 98
High transport costs.....03 Not applicable 99
Lack of crop buyers 04
Markets located far away ..05
Problems with farmers Associations 06
Probloems with cooperative Unions 7
Problems with Businessmen Association ...8
Strigent Government Conditions ...9

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

Definitions and working page for page 7

Storage (Col. 30, Q 5.2.1):
- **Traditionally Made strcutures:** The design of storage structures villagers have inherited from forefathers .
- **Improved Traditionally made structures:** The design of tradional storagesrutures improved through modern technology.

Marketing Challenges Q 5.2.1 Col. 33:

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiiming at fetching better prices.
- **Cooperative Union:** A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- **Government Regulatory laws for crops marketing:** Government instituted laws for regulating transportation and selling of crops.

Inputs (Q 5.2.1)

Farm Yard Manure: An organics fertliser made on farm from animal dung. .
Compost: An organic fertiliser made on farm from decomposed plant materials.
Insectcides: This is the chemical usde in protecting plants or killing pests.
Fungicides: Protects plants from fungi attack.
Herbicide: Chemicals used to control or kills weeds.
Improved seeds: Scientifically attested to be suitable for agricultural use.

Working area/calculation space

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.

Definitions and working page for page 8

Permanent Crops:
These are crops once planted last longer in the farm and need not be replanted after each annual harvest. Most of the permanent plants include tress such as coconut tress, apple trees, grape trees, banana trees, pineapple trees etc.

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

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

Instructions for permanent monocrops and crop mix:
A. For a field with permanent monocrop enter farm size in collumn. 3.
B. For a field with a permanent crop mix or a temporary crop mix, enter the number of trees only in collumn **4**.
C. For a field with a permanent crop mix /temporary annual crops , either:
-Enter the area in collumn 4, if the total arae for permanent crops was obatined through calcualtion of percentages of each crop
OR
Enter the number of tree in collumn 5, if the number of plants/ seedlings of permanent crops was excluded

21 Cassava: Cassava is a temporary crop, in order to simplify data collection on areas of production, data on cassava will be collected from areas under permanent crops.

Permanent crops:(crop oils)

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

Permanent crops (Cash crops)

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

Permanent crops:

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

Definitions and working page for page 9

Storage (Col. 33, Q 5.3.1):
- **Traditionally Made strcutures:** The design of storage structures villagers have inherited from forefathers .
- Improved Traditionally made structures: The design of tradional storagesrutures improved through modern technology.

Marketing Challenges Q 5.3.1 Col. 35:

- **Farmers' Association:** Village farmers who came together and started an association for the puporses of purchasing inputs/selling/storage of crops aiiming at fetching better prices.
- Cooperative Union: A large inter-village/community set up in the district/ region or at national level for providing inputs, markets and storage of farmers' crops.
- Government Regulatory laws for crops marketing: Government instituted laws for regulating transportation and selling of crops.

Inputs (Q 5.3.1)

Farm Yard Manure: An organics fertliser made on farm from animal dung. .
Compost: An organic fertiliser made on farm from decomposed plant materials.
Insectcides: This is the chemical usde in protecting plants or killing pests.
Fungicides: Protects plants from fungi attack.
Herbicide: Chemicals used to control or kills weeds.
Improved seeds: Scientifically attested to be suitable for agricultural use.

Questions specific definitions

Q 5.3.1. Instructions on crops storage:
1. For the listed crops establish whether or not the household stored crops for 2007/2008 agricultural season.

2. For the listed crops give explanations on storage.

Q 5.3.1 Col 35
1. For each of crops listed indicate major marketing problems for 2007/2008 agricultural season.

Working area/calculation space

Definitions and working page for page 10

Investment in agriculture
Investment activities:
Investment activities refer to medium to long term farm development structures and projects. This can be irrigation structures, erosion conrol and water harvesting structures or other permanent or semi-permanent investment made on the land that the household owns.

Irrigated farming: Section 6.5:
Source of irrigation water (Col 1): The main source of the water used for irrigation.
Method of obtaining water (Col 2): The mechanism by which the water is extracted from the source
Irrigatable area (Col 3): The area the irrigation system is designed to cover in acrage
Area of irrigated land during the 2007/08 (Col 5): Area of land under irrigation during the 2007/08 agricultural year. This is the actual area nd NOT the cumulative areas recultivated in 2 or more cropping seasons.

Farm Implements (Col. 1):

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

Sprimkler: The pump carrued on the back or a hand used water pump
Hand used small tractor: A small tractor used in cultivation while the user walks on foot (see photo).

Section 6.2 Use of draft animals
Animals used in agricultural activities by the household during 2007/08 agricultural season.

Castrated Bulls: Castrated oxen meant for use in agricultural production.
Uncastrated Bulls: mature bulls used for garicultrural activities but are not castrated.
Cow: Farmers also use mature female cattle in agricultural activities due to shortage of bulls
Donkey: Mature Male or female donekys are also used for agricultural production.

Q 6.5 Irrigation.
1. If a household uses irrigated farming give explanations aon source and method of obatining water. .
2. **See Col** 10, Q. 5.1.1 and 5.2.1 and **Col** 12, Q 5.3.1 to see if irrigation was applied to any crop.

Farm implements, Q 6.1:
1. Collumn **2** Indicate whether or not inputs were used
2. Complete collumn 3 by entering the number of inputs used.

Farm inputs: Sections 6.3 and 6.4

1. Collumn **2** Indicate whether or not inputs were used.
2. Compelte collumn 3 by indicating where the inouts were obatined and collumn 4 by indicating the distance from where the inputs were obatined

Compost: An organic fertiliser made on farm from decomposed plant materials.
Insectcides: This is the chemical usde in protecting plants or killing pests.
Fungicides: Protects plants from fungi attack.
Herbicide: Chemicals used to control or kills weeds.
Improved seeds: Scientifically attested to be suitable for agricultural use.

Tractor tiller	
Tractor hallow	
Castrated bulls	
Uncastrated bulls	
Cows	
Donkeys	
Shredding Machine	
Power Tiller	
Oxen pulled plough for making terraces	

6.2.6	Power Tiller	

6.3 USE OF ORGANIC FERTILISERS

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

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

KQuantity (Col 3)
Kg……1
Ton……2

ACCES TO INPUTS

Give details on inputs used during 2007/08 agricultural year

Source (Col.3)
Government……01
Cooperative Union…… …02
Farm inputs store/market……03
Auction……04
Development project…….…05
Corp buyers……06
Large Scake farms……07
Made by the household……08
Form neighbour……09
Cooperative Union……10
Others ……98
Not applicable……99

Name of inputs	Used (Yes=1, No=2)	Source	Distance
(1)	*(2)*	*(3)*	*(4)*
Inorganic fertilisers			
Farm yard manure			
Compost			
Insecticides/Fungicide			
Pest and weeds control chemicals			
Improved seeds			

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

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

IRRIGATED FARMING

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

If the answer is yes proceed to Section 6.6

Na.	Main source of water for irrigation	Main source of obtaining water	Area that can be irrigated (Acre)	Area irrigated during 2007/08 agriculture year (Acre)
	(1)	*(2)*	*(3)*	*(4)*
6.5.2				

Means of obtaining water(C0l2)
Flwoing. (gravity)……1
Using a bucket……2
Water pump (using hand or leg)……3
Electric /fuel driven pump/ mafuta……4
Other (Specify)……8

Definitions and working page for page 11

Q 6.6

The type of erosion contro/Water harvesting (Col 1)
Terraces: Structures constructed on mountain slopes to provide flat terrain for crop planting.

Erosion control bunds: these are bunks of earth/stones built perpendicular to the slope to slow dowm the speed of water and thus preventing soil erosion. Its differs from terraces in that the soils on these banks are not at ground level **.**

Gabions: A box like structure made of wire and filled with large stones to prevent gully errosion.

Sand bags: Are used in controlling and preventing gully errosion
Tree belt/wind breaks: Trees planted against the wind direction for breaking wind speed..

Section 7.0 Acces to credit for crop or livestock production
Credit refers to something provided in cash or in kind (such as farm inputs, machines, livestock and other things) for crop or livestock production. The value of the credit must be repaid back to the lender. An Interest may or may not be attached to the value of the credit
The credit may be repaid either in cash or through farm produce to be harvested **.**

In this question the enumerator is at liberty to inquire up to three sources of credit where the farmer accessed credit from more than one source.

Section 8.0 Agricultural Extension Services
Agricultural Extension Services: Refers to educational services provided to farmers by exetsion officers for the purposes of increasing crop and livestock production.

Share-cropping: Refers to farming where smallholder / Smallscale farmer enters into an agreement with large scale farmer where the former sells produce to the latter in exchange of provisions of farm inputs and the like. .

Contract farming Farming: Farming agreement entered between smallscale and large scale farmerswith regards to markets of farm produce and provision of farm inputs

Q 6.6 Number of water harvestin structures and year of construction

1. The number water haversting structures refers to the number of wokring / maintained structures and does not include derelict or iireparable structures.

2. Year of construction refers to the year in which the structures were built, and not the year the structures were last repaired.The year should be written in figures e.g. 1998, 2006.

Section 7.0 Source of agriculture credit
If tghe farmer obtained credit from more than one source the use the code from the list provided. Start with the main source of credit in Section **"7.1.1"**.**a**

Section 8.0 Agricultural extension services

1. Ask if the household did receive agricultural extension services during 2007/08 agricultural season from the respondents listed in collumn 1, then enter column 2.

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

6.6 SOIL EROSION Identification

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

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

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

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

7.0 ACCESS TO ON FARM CREDITS

7.1 Is there any household member who accessed on farm credit during 2007/08 agriculture year? Yes=1, No=2 (If answer is NO, Proceed to Section *7.2)*

SELECT UP TO THREE SOURCES AND PROCEED TO QUESTIONA 8.0

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

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

7.2 IF THE ANSWER TO QUESTION 7.1 IS NO

Give reasons for not accessing credit

Reasons for not accessing credit (Q 7.2)COL
Not required .....1 Did not to be indebted.....3 Did nott know how to access credit.....5 Credit delayed.....7 Did not credit existed.....9
Not available .....2 High interest rates.....4 Bureaucracy.....6 Other (Specify).....8

8.0 ADVISORY SERVICES IN AGRICULTURE

8.1 Did the household participate in outgrowers scheme during 2007/08 agriculture year? (Yes=1, No=2)

8.2 Did the household participate in the contract farming during 2007/08 agriculture year? (Yes=1, No=2)

8.3 Did your household receive agricultural advise on the following : *(IF THE ANSWER IS NO IN COL 2 PROCEED TO THE FOLLOWING QUESTION*

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

Source of agricultural advice (Cokl. 3)
Government.....1 NGO/Development project.....2 Cooperative....3 Large Scale farmer....4 Ratdio/Newspapers....5 Neighbour .....6 Other source.....8

Definitions and working page for page 12

Q 9.1 and 9.3 : What is required is to establish whether or not the household kept or raised the listed livetsock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

Keeping or raising livestock is to to keep livestock at home while providing the livestock with animal feeds and medication and other services. The livestock could be owned by the farmer or kept on behalf of relatives or neighbours .

Sections 9.1.1 to 9.1.7 Cattle

Note:
Q 9.1 is for the actual number of cattle owned or kept by the household (as of 1st October 2008). This number does not include herds of cattle kept on behalf by relatives or neighbours; that is, the cattle outside the residential area of the household under survey.
1. If the the household keep mature fecund female cattle, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

Type of cattle (sectioin 9.1.1 to 9.1.7)

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

Ox: Castrated made cattle used for farm work

Steer: Castrated made cattle used for meat

Heifer: Female cattle of 1 year up to the first calving

Section 9.3 Goat
Note:
Question 9.3 is for the actual number of owned or raised by the household (as of 1st October 2008) This number does not include goats kept on behalf by relatives or neighbours, that is the goat outside the residential area of the household under survey.

1. If the household has she goats, you would normally expect them to have kids

Type of Goat (Qs 9.3.1 to 9.3.5)

Billy Goat (he-goat): Mature Uncastrated male goat used for breeding
Castrated goat: Male goat that has been castrated
She Goat: Mature female goat over 9 months of age

9.0 LIVESTOCK (LIVESTOCK AND FISH) Identification

9.1 CATTLE

Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3)

Number of cattle as of 1.10.2008

No.	Type of cattle	Number of indigenous cattle	Number of improved cattle		Total
			for meat	Dairy	
		(2)	(3)	(4)	(5)
9.1.1	Castrated bulls				
9.1.2	uncastrated bulls				
9.1.3	Cows				
9.1.4	Steers				
9.1.5	Heifer				
9.1.6	Male calves				
9.1.7	Female calves				
				Grand total	

9.1.8 What main methods do you use to identify your cattle?

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

9.2 Milk production: CATTLE

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

9.3 GOAT

Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.3)

Number of goats as of 1.10.2008

Na.	Tyep of goat	Number of indigenous goat	Number of improved		Total
			for meat	Dairy	
	(1)	(2)	(3)	(4)	(5)
9.3.1	Male uncastrated goat				
9.3.2	Male castrated goat				
9.3.3	She goat				
9.3.4	Male kid				
9.3.5	She kid				
				Grand total	

Milk Production: GOAT

Na.	Season	Number of ilked goats	Average of milk per goat per day (litre)	Average number of days which your she goats were milked	Average price per litre per season
	(1)	(2)	(3)	(4)	(5)
9.3.6	Rainy				
9.3.7	Dry				

Definitions and working page for page 13

Q 9.1 and 9.3 : What is required is to establish whether or not the household kept or raised the listed livetsock during 2007/08 agricultural season (i.e. from October 2007 to September 2008). Also to establish the number of livestock as of 1st October 2008

Keeping or raising livestock is to to keep livestock at home while providing the livestock with animal feeds and medication and other services. The livestock could be owned by the farmer or kept on behalf of relatives or neighbours .

Sections 9.4 Sheep

Note:
Q 9.4 is for the actual number of sheep owned or kept by the household (as of 1st October 2008). This number does not include sheep kept on behalf by relatives or neighbours; that is, the sheep outside the residential area of the household under survey.

1. If the the household keep ewes, it is expected that such a household will have calves which will be entered in question 9.1.6 or 9.1.7

Type of Sheepe (Sectioin 9.4.1 to 9.4.5)

Ram: Mature Uncastrated male sheept used for breeding

Castrated sheep: Male sheep that has been castrated

Ewe: Mature female sheep over 9 months of age

Lamb: Young sheep under 9 months of age.

Section 9.5 Pigs
Note:
Question 9.3 is for the actual number of pigs owned or raised by the household (as of 1st October 2008). This number does not include pigs kept on behalf by relatives or neighbours, that is the cattle outside the residential area of the household under survey. .

1. If the household has she goats, you would normally expect them to have kids in column

Type of Pigs (Qs 9.5.1 to 9.5.5)

Boar: Mature Uncastrated male pig used for breeing
Sow: Mature female pig that has given birth to at least one ltter of pigs.
Gilt; Female pig of over 3 months up to the first farrowing
Piglet: Young pig less than 3 months of age

Identification

9.4 SHEEP

Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No 2 (If the answer is No proceed to Section 9.5)

Number of sheep as of 1.10.2008

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

9.5 PIGS

Did your household keep or raise cattle during 2007/08 agriculture year? Yes=1, No= 2 (If the answer is No proceed to Section 9.6)

Number of pigsp as of 1.10.2008

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

9.6 OTHER LIVESTOCK

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

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

Definitions and working page for page 14

Control of livestock dieases causing bugs

Livestock worm control medicine: Medicine used to kill or control livestock on livestock . It is often used for cattle, goats, sheep and pigs.

Tiick: Is a dangerous bug that sucks blood form livestock and transmits animals diseases from one to the other animal.

Tse tse fly: A fly like bug that sucks blood from livetsock and transmits diseases sleewping sickness from one to the other animal.

Livestock advice (Section 9.8)
IA service provided by extension officers to livestock keepers for increasing livestock production.

9.7 LIVESTOCK DISEASES AND PEST CONTROL

Identificatio

	Did you livestock during 2007/08 agriculture year? (Yes=1, No=2) (If the answer is No proceed to Section 9.7.5	
9.7.1	Which animals did your deworm? (Yes=1,No =2, Not applicable=3 in the relevant box) Cattle **9.7.2** Goat/Sheep **9.7.3** Pigs **9.7.4** Poutry	
9.7.5	Do you experience tick problem with your livestock? (Yes =1, No = 2, Not applicable 3)	
9.7.6	How did you control tick problem? *Control method (Q. 9.7.6): Dipping……1 Spaying……..2 Application of medicine on back bone……..3 None..4 ……. Other……8*	
9.7.7	Do you experience Tse tse problem with your livestock? (Yes =1, No = 2, Not applicable 3)	
9.7.8	How did you control Tse tse problem with your livestock? *Control method (Q. 9.7.8): Dipping……1 Spaying……..2 Traps……..3 None..4 ……. Other……8*	
9.7.9 9.7.7	Do you experience Newcastle disease problem with your poutry? (Yes =1, No = 2, Not applicable 3)	
9.7.10	How do you control Newcastle disease problem with your poutry? *Control/Curative methods (Q. 9.7.10) Vaccination..1 Herbs….2 None..3*	
9.7.11	Did you experience Fowl Typhoid with your poutry?Yes=1, No=2 , Not applicanblei=3	
9.7.12	How did you cotrol/ cure Fowl Typhoid with your poutry? *Contro/curative methods(Swali 9.7.12 Vaccination..1 Herbs….2 Noe.3*	
9.7.13	Were your cattle vaccinated agaionst the following diseases? (Yes = 1, No = 2, Not applicable=3). **9.7.13 A:** Foot and Mouth diseases **9.7.13B:** Skin disease	

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

9.8 Extenmsion services on livestock

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

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

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

Definitions and working page for page 15

General definitions

Fish farming: Refers to the rearing/production of fish. It is different from fishing in that in fish farming the fish have to be reared. While in fishing, fishing nets or traps are used to catch fish from rivers, lakes and the sea; thus fishing should not be included in this section

I

Question Specific Definitions (Q 9.9)

Production unit number (Col 1): A production unit is a pond river/lake which is treated as a separate entity for the production of fish eg it may be by virtue of manageable size, maturity of fish, tye of fish etc. eg. a farmer may have 3 fish ponds (each one is a separate production unit).

Frequency of stocking (Col . 5): What is the number of time the farmer puts new fingerlings into the pond each year.

Fingerlings: These are young immature fish used for stocking ponds.

Sols: (Col 10 & 11)

If no fish were sold enter "0" in column 10 and 11`

Fish sold (Col.12)

Kama hakuna samaki waliouzwa jaza "0" katika safuwima 12

Working space for page 15

9.9 FISH FARMING — Identification

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

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

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

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

Standard of servives to the pond (Col6)
High leve ……..1
Intermediate level……2
Low leve……..3
Don't know……..8

Source of fingerings(Col 4)
From the pond……1 Neighbour…….4
Government……..2 Business man…..5
NGO/Development Project…3 Natural Pond……..6
Other ……..8

mainly sold to? (Col 14)
Neighbour…1 Auction……...3 Large Scale farmers……..5
Open market….2 Fish processing industry..4 Private business people ….6
Did not sell……7 Other ……..8

9.10 HONEY PRODUCTION

Is there honey production/harvesting in your household? Yes=1, No=2 (If answer is no PROCEED to Section 9.11)

Give details on honery harvesting during 2007/08 agriculture year

Number	Type of honey	Harvesting done ? (Yes=1, No=2)	Number of improved bee hives	Number of local bee hives	Amount sold per year (Litre)	Amount of honey sold (litre)	Price per litre	Main market)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9.10.1	Small bees							
9.10.2	Large bees							

Honey outlet Co 8
Neighbour…1 Auction……...3
Large Scale farmers……..5
Open market….2 Fish processing industry..4
Private business people ….6
Did not sell……7

9.11 AGRICULURAL CHALLENGES

From the list of cahhalengs in farming on the right of the page, SELECT FIVE MAIN CHALLENGES WHICH constrain your development in agriculture

No	With first five priorities	Code
	(1)	(2)
9.11.1	Priority 1	
9.11.2	Priority 2	
9.11.3	Priority 3	

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

LIST OF CHALLENGES

01 Land availability
02 Land owenership
03 Poor farm implementso
04 Soil fertility
05 Availability of imrpoved seeds
06 Irrigation services
07 Availability of agrochemicals
08 Cists of farm inputs
09 Extension services
10 Availability of forest resources
11 Huntinf and collection problems
12 Water availability
13 Access to credits
14 Lack of off farm incomes
15 Harvesting problems
16 Kupukuchua
17 Crop stiorage
18 Crop processing
19 Market information
20 High transporation costs
21 Destructive animals
22 Crop thefty
23 Pests and diseases
24 Advice from Local government
25 Long dry spells
26 Conflicts between livetsock keepera and pastoralists

1.1.1

Definitions and working page for page 16

10.0 Household poverty indicators

Number of rooms used for sleeping in the household (Q 10.1.4)
Include sitting room, during room, kitchen, etc if used for sleeping.

It also includes rooms outside the main dwelling

A room is defined as a space which is separate from the rest of the building by a permanent wall or division. A building / house that is not divided into rooms is considered to have one room.

Household assets (Q 10.2):
There assets must be functionin. Do not include if broken.

Access to drinking water (Q 10.4):
If there is more than one source use the one, which the hh uses most frequently.

Main source of hh cash income:(Q 10.7:
Activity that provides the hh with the most can during 2007/08 agricultural season.

1.1.1

10.0 POVERTY INDICATORS

Idetification

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

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

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

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

Main materials
Grass and pieces of woods……..1 Mud……..2
Wet bricks……..3 Burnt bricks...4
Wood……..5 Block bricks……6
Stonese ……..7 Bricks /Mawe ya kichanga……..8

10.1.4 Number of bedrooms

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

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

10.3 Energy use and availability in the hsousehold

Main source of energy

10.3.1 Lightining 10.3.2 Cooking

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

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

10.4 Availability of drinking water

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

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

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

10.5 Toilet facilities

10.5.1 What type of toilet does your hosuehold use?

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

10.6 Eating patterns

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

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

10.7 Main source of household cash income?

10.7.1 What are the sources of household income?

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

TIME OF FINISHING THE INTERVIEW Hour Minutes

1.1.1

Average/maximum yields per area

Use this table to compare the yields calculated in Sections 5.1, 5.2 and 5.3.

These stats are strictly to be used used as a guide for the purpose of assisting to get the correct area and yields for each crop.

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

1.1.1

Community Level Questionnaire

United Republic of Tanzania

ACQ 3 **CONFIDENTIAL**

Village/Community Level Formats

Access to and Use of Community Resources

Farmg Gate Prices of commodoties produced by the village

Agricultural Sample Census 2007/2008

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

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

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

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

Date of Enumeration

d d / m m / y y y y

Start Time — Hour Minutes

End Time — Hour Minutes

Field level checking by:

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

I To be filled by the supervisor ONLY after Field/farm level checking of the enumeration process. This should be countersigned by the Supervisor in front of the enumerator

Distric checking in Office

District Supervisor	Name	Signature		Date / /	

All questionnaires must be checked at the district office.

For Use at Regional Level Only

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

See the back page for details of queries

Ministry of Agriculturte and Food Security, Ministry of Livestock and Fisheries Development, Ministry of Agriculture and Environment of Zanzibar, Ministry of Water and Irrigation, Prime Ministers' Office Regional Adminstration and Local Government, Ministry of Industry Trade and Marketing, National Bureau of Statistics, and the Office of the Government Statistician General of Revolution Governemnet of Zanzibar

1.1.1

Definitions and working page for page 3

Question Specific Definitions:

Obtain answers to the following questions from the meeting between the enumerator and influencial farmers in the village Infuencial people can be Village Chairman, Village Governement Executive Officer, Councillor, Ward Chairman, Extension Officer in the village or any other person in the village and who is well informed about village matters. It is important to not that these questions must be asked in groups (of more than one people) to obtain answers discussed and approved by many people.

Definitions of some specific terms

Access to community resources. Section 1.0
Community Resources: Resources in which the hh members have no individual claim to and which are shared together by all the village
Community Land: The area officiall demarcated by the village as shared/public land.
Squatting farmers Land: Communal land where individual hhs make sole claim to (for crop farming or fenced livestock) without official rights to ownership.
Available remaining Land: Official area of communal land minus areas of squatting farners.
Givernment Land Reserve: Area set aside by the government as national reserve

Community tree planting scheme(Section 14.3)

Community Forest: A forest planted on the communal land which is planted, replanted or spt planted by the members of the village.

Plant Planting: An area designated by the village for planting a block of trees.

Spot Planted: Replanting an area where selective logging has been carried out. A tree is planted to replace the one that has been cut.

Indigeous Trees: Trees that are native to Tanzania

Exotic Trees: Trees that are not native to Tanzania

Non Government Organisation: Is managed by people from outside the village and it normally covers more than one village/District/Region. Its function is to provide deveoopment assistance to the farmer and is free from direct government links.

Village level organization: is managed by members of the village. Its purpose is normally to access/provide development assistance to the village

1.1.1

ACCESS TO COMMUNAL RESOURCES

1 ACCESS TO COMMUNITY RESOURCES

1.1 Does the village set aside an area for communal resources e.g. forest, grazing, etc. (Yes =1 No =2) ☐

(If the answer is no proceed to 1.2)

	Are of Comminity, Village, Wrad resources	Area in acre	
1.1.1	**Total area of communal land**	☐☐☐☐☐	Official figures from the leader
1.1.2	**Area of squatting famers in communal land**	☐☐☐☐☐	Key informant (Leader/Extension officer etc.)
1.1.3	**Remaining available communal land**	☐☐☐☐☐	Key informant (Leader/Extension officer etc.)
1.1.4	**Government reserve land**	☐☐☐☐☐	Key informant (Leader/Extension officer etc.)

1.2 UPATIKANAJI NA MATUMIZI YA MALIASILI ZA JUMUIYA/KIJIJI/SHEHIA

	Community Resources	Distance from the resource in Km -season Dry	Rainy	Main Use
	(1)	(2)	(3)	(4)
1.2.1	Water for human consumption	☐☐☐	☐☐☐	☐
1.2.2	Wtar for livestock	☐☐☐	☐☐☐	☐
1.2.3	Communal grazing land	☐☐☐	☐☐☐	☐
1.2.4	**Communal firewood**	☐☐☐	☐☐☐	☐
1.2.5	Wood for chracoal burning	☐☐☐	☐☐☐	☐
1.2.6	**Wood for building poles**	☐☐☐	☐☐☐	☐
1.2.7	Forest for bee keeping (honey)	☐☐☐	☐☐☐	☐
1.2.8	**Hunting**	☐☐☐	☐☐☐	☐
1.2.9	**Fishing**	☐☐☐	☐☐☐	☐

Instructions on distance from the resource (Cols 2 and 3):
Distance is estimated from the centre of the village.

If under1 km 1, enter 0
If abover 1 km 1 enter whole number , eg. 1.5km= 2km, 1.25km= 1km

Msin uses (Col. 4)
Home or farm /livelsock consumption...1
Sold to traders in the village.....2
Sold to the village market.....3
Sold to local wholesalers.....4
Sold to Big wholewsalers 5
Not available.....6

2.0 COMMUNITY PLANTED TREES

2.1 Didi your village have community planted trees during 2007/08 agriculture year? (Yeso=1, No=2) ☐

If the answer is no proceed to Section 3.0

Details of the community tree planting scheme

No.	Distance from the community forest	Forest Area (acre)	Type of Pllanting	Type of Trees	Source of seeds/ Seedlings	Number of Years since the start of planting	Main uses 2007/08 agriculture year	Main uses of communal forest products
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2.2	☐☐.☐	☐☐	☐	☐	☐	☐	☐	☐

Type of planting col. 3)
POlantion planting.....1
Spot planting.... 2

Type of trees (Col. 4)
Indigenous tress.....1
Exotic tree 2
Both types.....3

Source of seedlings (Col. 5)
Seeds collection and planting.....1
Villlage Nursery.....2
Department of Forestry..... 3
Private Individuals.... 4

Main Uses (Col. 7)
Poles 1
Wood 2
Charcoal 3
Firewoodi 4
Other (Specify) 8

Main use of revenue (Col.8)
Village development fund.1
Household use.....2
Household ilcome.... 3

	3.0 Non governmental Organisation (NGOs) Contact					**4.0 Community Based Organisation**	
3.1	Did any NGO visit the village during 2007/08 agriculture year? (Yes=1,No=2) (If no provceed to Section 4)				☐	4.1 Didi the village have any CBO during the 2007/08 agricuylture year?(Yes=1, No=2)	☐
Na.	Type of NGO	Visited Y=1,N=2	Number of visits	Distance to the Office (km)		Na. Type of CBO Nd=1,Hap=2	
3.2	Extension/ Rsearch	☐	☐☐	☐☐☐		4.2 Extension/ Rsearch	☐
3.3	Service /Input provision	☐	☐☐	☐☐☐		4.3 Service /Input provision	☐
3.4	Community Development	☐	☐☐	☐☐☐		4.4 Community Development	☐
3.5	Other	☐	☐☐	☐☐☐		4.5 Other	☐
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	☐☐☐

1.1.1

Obtain answers to the following questions from the meeting of enumerator and key informants in the village.Key infomants can be a village chairman, Village Local Government Executive Officer, Councellor, Wrad Chairman, Village extsion officer, or any knowledgeble member in the community. Where possible ask these questions to a group inorder to reach a consensus . **The numebr should be below five people.**

Procedure: Administer this frpom after completing asll smallholder questionnaires for the village.
1. Copy the name of all crops from Sections 5.1, 5.2 and 5.3 grown in the village from smallholder questionnaires
   This should also include livetsock raised by the household from questions 9.1, 9.3, 9.4 and 9.5 and enter them in col na 1 of this form.
   Also see codes for livetsock below.
2. Enter price estimates per kg in col 5 and 6.

Name of crop/livestock	Code of crop/livestock	Name of main crop	Code of Main crop	Type of measure	Price of measure	
					Minimum Per year	Maximamun Per year
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*

Type of livestock(Col 2)
Cattle .....01 Ducks……...07
Goat.....02 Turkey…….08
Sheep.....03 Rabbit……09
Pigs.....04 Kanga……10
Poutry…….05 Simbilisi……..11
Donkeys……06

Main poroduct- CROPS (sCol.4)
Cereals……..01 Flowers eg. Pyrethrum.....07
Green maize…….02 Vegetables……,08
Green leaves and stem .....03 Fruit……09
Straw, dry stems etc..04 Other……10
Roots and tubers, etc.....05
Leaves (Tobacco etc)..... …..06

Main product- LIVESTOCK (Col. 4)
Live animals…..01
Meat 02
Milk.....03
Eggs.....04

Quantity (Col.5)

Kg…….1
Number.....2
Litre……..3
A portion/piece ↓.4

1.1.1

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)
☐☐☐		☐☐☐☐	☐☐☐☐	
☐☐☐		☐☐☐☐	☐☐☐☐	
☐☐☐		☐☐☐☐	☐☐☐☐	
☐☐☐		☐☐☐☐	☐☐☐☐	

UNITED REPUBLIC OF TANZANIA

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ACLF 2

Page Number…….. out of……

Agriculture Sample Census 2007/08

Household listing from-for listing hh heads and agriculture activities

Region _____ Code

District _____ Code ☐☐

Ward _____ Code

Village _____ Code ☐☐

Name of sub village leader

Name of sub village_____ ☐☐☐

Household number	Household head name	Number of										If the Respondent Qualifies X	Farmer Serial Number
		Fields a	Cattle				Goats	Sheep	Pigs	Kuku/Bata/	Rabbit		
			Total	Bulls	Cows	Calves							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
☐☐☐☐													
☐☐☐☐													
☐☐☐☐													
☐☐☐☐													

1.1.1

ACLF 3

UNITED REPUBLIC OF TANZANIA

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Household listing for 15 selected farmers

National Agriculture Sample Census 2007/08

Region _____ Code ☐☐ ward : _____ code ☐☐☐ ☐☐ Namba Sawia ☐☐☐

District _____ Code ☐☐ village _____ code ☐☐☐ ☐ Hatua ☐☐☐

S/N	Sub-village leader Number	Name of sub-village leader	Name of selected head of household	Name of Household Head	Number of					
					Field	Cattle	Goat	Sheep	Pigs	Poutry
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
☐☐	☐☐☐		☐☐☐							
☐☐	☐☐☐		☐☐☐							
☐☐	☐☐☐		☐☐☐							
☐☐	☐☐☐		☐☐☐							