



The United Republic of Tanzania

MAKETE DISTRICT COUNCIL SOCIO-ECONOMIC PROFILE, 2011



December, 2013



The United Republic of Tanzania

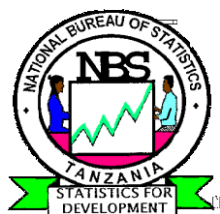
MAKETE DISTRICT COUNCIL SOCIO-ECONOMIC PROFILE, 2011

Jointly prepared by

Ministry of Finance,
National Bureau of Statistics

and

Makete District Council



**National Bureau of Statistics
Dar es Salaam**



**Makete District Council
Iringa Region**

December, 2013

Foreword

The goals of Tanzania's Development Vision 2025 are in line with United Nation's Millenium Development Goals (MDGs) and are pursued through the National Strategy for Growth and Reduction of Poverty (NSGRP) or MKUKUTA II. The major goals are to achieve a high-quality livelihood for the people, attain good governance through the rule of law and develop a strong and competitive economy. To monitor the progress in achieving these goals, there is need for timely and accurate data and information at all levels.

Problems especially in rural areas are many and demanding. Social and economic services require sustainable improvement. The high primary school enrolment rates recently attained have to be maintained and so is the policy of making sure that all pupils who pass standard seven examinations join Form One. The food situation is still precarious; infant and maternal mortality rates continue to be high and unemployment triggers mass migration of youths from rural areas to the already overcrowded urban centres.

Added to the above problems is the menace posed by HIV/AIDS, the prevalence of which hinders efforts to advance into the 21st century of science and technology. The pandemic has been quite severe among the economically active population leaving in its wake an increasing number of orphans, broken families and much suffering. AIDS together with environmental deterioration are the new developmental problems which can not be ignored.

Our efforts to meet both the new and old challenges are hampered by many factors including ill prepared rural development programmes followed by weak implementation, monitoring and supervision of these programmes. The shortcomings in policy formulation, project identification, design and implementation due to the lack of reliable and adequate data and information on the rural development process have to be addressed to. The availability of reliable, adequate and relevant qualitative and quantitative data and information at district level is a prerequisite for the success

of the formulating, planning, implementation, monitoring and evaluation of districts' development programmes.

The publication of the Makete District Social-Economic Profile series by the Ministry of Finance in collaboration with the National Bureau of Statistics and District Management Team should be viewed as a modest attempt towards finding solutions to the existing problem of data and information gap at district level.

The District Profile covers a wide range of statistics and information on geography, population, social-economic parameters, social services, economic infrastructure, productive sectors and crossing cutting issues. Such data have proved vital to many policy makers, planners, researchers, donors and functional managers.

This Makete District Socio Economic Profile has taken advantage of the experience gained in the production of the Regional and District Socio Economic Profiles covering the whole country. It provides valuable information to our clients. Constructive views and criticisms are invited from readers to enable a profile like this become a better tool in the implementation of the country's policies.

I would like to take this opportunity to acknowledge with thanks, the contribution made by the Makete District Council Director's Office, Bureau of Statistics and other staff of Makete District who devoted their time to ensure the successful completion of this assignment.


Idd Nganya
DISTRICT EXECUTIVE DIRECTOR
MAKETE

December, 2013

Table of Contents

Foreword	i
List of Tables	x
List of Figure	xx
List of Map	xxi
Acronyms	xxii
CHAPTER ONE	1
Land, Climate, Agro-Ecological Zones and People	1
1.0 An Overview	1
1.1 Geographical Location	1
1.2 Land Area, Land Use Pattern and Administrative Units	3
1.3 Climate, Soil and Topography	6
1.4 Drainage System	7
1.5 Agro – Ecological zones (AEZ)	8
1.5.1 High Lands Zone	8
1.5.2 Low Lands Zone	8
1.6 Population	9
1.6.1 Ethnic Groups	9
1.6.2 Population Size and Growth	9
1.6.3 Population Density	11
1.6.4 Population Trend	13
1.6.5 Dependency Ratio	13
1.6.6 Population Distribution and Sex Ratio	16
1.6.7 Households and Household Size	20
CHAPTER TWO	22
The District Economy	22
2.0 Introduction	22
2.1 GDP and Per capita GDP at Current Prices.	22
2.2 Poverty Indicators	24
2.2.1 Income Poverty Rate, Poverty Gap and Gini Coefficient	24

2.2.2	Main Source of Cash Income	25
2.2.3	Health Indicators	26
2.2.4	Literacy Rate and Level of Education.....	26
2.2.5	Food Consumption Patterns	27
2.2.5.1	Number of Meals per Day.....	27
2.2.5.2	Protein (Meat and Fish) Consumption Frequencies.....	28
2.2.6	Access to Drinking Clean Water.....	29
2.2.7	Types of Toilets	30
2.2.8	Roofing Materials	32
2. 2. 9	Source of Lighting Energy	33
2.2.10	Source of Energy for Cooking	34
2.2.11	Land Development	35
 CHAPTER THREE		38
Productive Sectors.....		38
3.0	Overview	38
3.1	Agriculture	38
3.1.1	Status of Agricultural Personnel	39
3.1.2	Contribution to Regional Agricultural Production.....	40
3.1.3	Agricultural Household and Involvement in Farming	41
3.1.4	Irrigation Prospects	42
3.1.5	Agricultural Inputs	42
3.1.5.1	Chemical Fertilizers	43
3.1.5.2	Fungicides	44
3.1.5.3	Insecticides.....	45
3.1.5.4	Improved Seeds.....	46
3.1.6	Farm implements.....	46
3.1.7	Land under Cultivation	47
3.1.7.1	Area under major food crops cultivation	47
3.1.7.2	Area under major cash crops cultivation.....	49
3.1.8	Crop Production	50
3.1.8.1	Food Crops.....	50

3.1.8.2	Cash Crops	52
3.1.8.3	Yield per Hectare of Major Food and Cash Crops.....	54
3.1.9	Crops Marketing	55
3.1.10	Investment Opportunities in Agriculture sector.....	55
3.2	Livestock sub-sector	56
3.2.1	Introduction	56
3.2.2	The Status of Livestock Personnel.....	56
3.2.3	Livestock Population.....	58
3.2.4	Grazing Land.....	63
3.2.5	Major Livestock Diseases	64
3.2.5.1	Cattle Diseases	64
3.2.5.2	Goat Diseases	65
3.2.5.3	Sheep Diseases	65
3.2.5.4	Poultry Diseases	66
3.2.6	Livestock Services	66
3.2.7	Marketing of Livestock and their Products.....	67
3.2.8	Hides and Skin Marketing.....	69
3.2.9	Milk Production	69
3.2.10	Investment Opportunities in Livestock sub-sector.....	70
3.3	Natural Resources	70
3.3.1	Introduction	70
3.3.2	Status of Natural Resources Personnel	71
3.3.3	Forestry	72
3.3.3.1	Forest Plantation	73
3.3.4	Natural Resources Products	75
3.3.4.1	Forest Products.....	75
3.3.4.2	Wildlife	76
3.3.4.3	Beekeeping.....	77
3.3.5	Investment Opportunities in Natural Resources	80
3.4	Manufacturing Sector.....	82
3.4.1	Investment Opportunities in manufacturing sector.....	83
3.5	Mining Sector.....	84

3.5.1	Investment Opportunities in Mining	84
 CHAPTER FOUR.....		85
Economic Infrastructure.....		85
4.0	Introduction	85
4.1	Road Network	86
4.1.1	Road Network Condition	87
4.1.2	Road Classification and Type of Road Surface	89
4.2	Railway Services.....	90
4.3	Telecommunication services.....	91
4.4	Energy Sector Development	92
4.4.1	Electricity	92
4.4.2	Fuel Wood.....	93
4.4.3	Fossil Fuels	93
4.4.4	Biogas and Solar Energy.....	94
4.4.5	Investment Opportunities.....	94
 CHAPTER FIVE.....		94
Social Services		95
5.0	Introduction	95
5.1	Health Sector.....	95
5.1.1	Health Facilities	95
5.1.1.1	Health Facility Ratios.....	100
5.1.1.3	Status of Health Personnel	106
5.1.2	Morbidity	108
5.1.3	Mortality.....	111
5.1.4	HIV/AIDS Infections	112
5.1.4.1	The Impact of HIV/AIDS	115
5.1.5	Reportable Communicable Diseases.....	117
5.1.6	Child Nutrition	118
5.1.6.1	Mother and Child Health Care	120
5.1.7	Investment Opportunities for Health Sub-Sector.....	126

5.2.0	An Overview	127
5.2.3	Primary Education.....	130
5.2.3.1	Coverage of Education System	132
5.2.3.2	Standard one enrolment	133
5.2.4	Completion Rate	136
5.2.5	Primary School Dropout rate	139
5.2.6	Pass Rate	140
5.2.7	Primary School Facilities	142
5.2.8	Secondary Education.....	151
5.2.8.1	Secondary School Enrolment.....	153
5.2.8.2	Pass Rates.....	156
5.2.8.3	Quantity and State of School Facilities.....	157
5.2.9	Colleges and Vocation Training Schools.....	168
5.2.10	Adult Education	169
5.2.11	Literacy Rate	171
5.2.12	Investment Opportunities in Education.....	173
5.3	Water Supply and Sanitation.....	174
5.3.3	Water Supply Personnel.....	182
5.3.4	Sanitation	183
5.3.5	Investment Opportunities in Water Supply.....	185
CHAPTER SIX		186
Other Development Issues.....		186
6.0	Introduction	186
6.1	Gender Empowerment	186
6.1.1	Day Care Centers	186
6.1.2	Women Economic Groups	188
6.2	Women's Participation in Policy and Decision-Making.....	189
6.3	Youth Economic Groups.....	190
6.4	Savings and Credit Cooperative Societies (SACCOS)	191
6.5	Savings and Credit Cooperative Groups (SACCOG)	193
6.6	Financial Institutions.....	194

List of Tables

Table 1. 1:	Land Area and Administrative Units by Division, Makete District, 2010	5
Table 1. 2 :	Ethnicity of Indigenous people by Wards, Makete District, 2010	9
Table 1. 3:	Population Size and Growth by District, Iringa Region, 1988 and 2002 Census.....	10
Table 1. 4:	Population Density by District, Iringa Region, 2002 and 2010 Projections	11
Table 1. 5:	Population Density by Division, Makete District, 1988, 2002 and 2010	12
Table 1. 6:	Population Trend by Division, Makete District, 1988 and 2002.....	13
Table 1. 7:	The Dependency Ratios by District, Iringa Region, 1988 and 2002	14
Table 1. 8:	The Dependency Ratios by Ward, Makete District, 2002.....	15
Table 1. 9 :	Population Distribution by Broad Age Group and by Sex, Makete District, 2002 and 2010 Projections.	17
Table 1.9 a:	The 2002 Population Distribution and 2010 Projected Population by Ward, Makete District.....	19
Table 1.10:	Distribution of Households and Average Households Size by District, Iringa Region, 1988 and 2002.	20
Table 1. 11:	Population, Households and Average Household Size by Ward, Makete District, 2002.	21
Table 2. 1:	Iringa GDP by District, 2006-2008	23
Table 2.1 a:	Iringa per Capita GDP by District.....	23
Table 2. 2:	Selected Poverty Indicators by District, Iringa Region, 2005	25

Table 2. 3:	Selected Health Indicators for Makete District - a Comparison, 2006.....	26
Table 2. 4:	The Demand and Supply of Building Plots in Urban Centres by Ward, Makete District, 2009 and 2010	36
Table 2. 5:	Village Land Planning in Rural Areas by Ward, Makete District, 2006	37
Table 3. 1:	Availability of Agriculture Personnel by Division, Makete District, 2010	40
Table 3. 2:	District's Share to the Regional Production of Selected Major Food and Cash Crop Production during 2003/04 and 2007/08 Agriculture Censuses.....	41
Table 3. 3:	The Number of Agricultural Household Members By Level of involvement in Farming Activivty, Iringa Region 2007/08 Agricultural Year.....	42
Table 3. 4:	Irrigation prospects by Ward, Makete District, 2003 and 2010	42
Table 3. 5:	Availability of Chemical Fertilisers (in Tones), Makete District, 2009/10 and 2010/11	44
Table 3.5 a:	Availability of Fungicides (in Tones), Makete District, 2009/10 and 2010/11	45
Table 3.5 b:	Availability of Insecticides (Ltrs, Tones), Makete District, 2009/10 and 2010/11	45
Table 3.5 c:	Availability of Improved Seeds (Tones), Makete District, 2009/10 and 2010/11	46
Table 3. 6:	Availability of Agriculture Implements in Makete District, 2007/08 and 2010/11	47
Table 3. 7:	Estimated Area (Ha) Planted with Major Food Crops, Makete District, 2007/08 to 2010/11.....	48

Table 3. 8:	Estimated Planted Areas (Ha) for Major Cash Crops, Makete District, 2007/08 to 2010/11.....	49
Table 3. 9:	Estimated Production (Tones) of Major Food Crops, Makete District, 2007/08 to 2010/11.....	51
Table 3.10:	Estimated Production in tonnes under Major Cash Crops, Makete District, 2007/08 to 2010/11.....	53
Table 3.11:	Production per Hectare of Major Food and Cash Crops, Makete District, 2007/08 – 2010/11.....	54
Table 3. 12:	Type and Total Number of Livestock Sub-sector Personnel by Ward, Makete district, January – December 2010	56
Table 3. 13:	Estimated Livestock Population by Ward, Makete District, 2010.....	59
Table 3.14:	Population Distribution of Cattle by Type and by District, Iringa Region, 2007/08 Agricultural Year	61
Table 3.15:	Population of Other Livestock by Type and District, Iringa Region, 2007/08	63
Table 3. 16:	Estimated Area under Grazing by Ward, Makete District, 2010	64
Table 3. 17:	Major Cattle Diseases Which Cause Morbidity and Mortality in Makete District in 2008, 2009 and 2010	65
Table 3.17a:	Major Goats Diseases which Caused Morbidity and Mortality in Makete District in 2008, 2009 and 2010	65
Table 3.17b:	Major Sheep Diseases which Caused Morbidity and Mortality in Makete District in 2008, 2009 and 2010	66
Table 3.17c:	Major Poultry Diseases that Caused Morbidity and Mortality in Makete District in 2008, 2009 and 2010	66
Table 3. 18:	Primary Livestock Facilities by Ward, Makete District, 2010.....	67

Table 3. 19:	Marketed Livestock by Type (Official Markets) and Revenue Earned, Makete District, 2010.....	68
Table 3. 20:	The Number of Livestock Hides and Skins Marketed by Type; Makete District, 2009 and 2010	69
Table 3. 21:	Number of Liters of Milk Marketed by Type; Makete District; 2008 and 2009	70
Table 3. 22:	Natural Resource Personnel by Ward, Makete District, Jan-Dec 2010	71
Table 3. 23:	Status of Forest Reserves, Makete District, 2007	73
Table 3.24:	Number of Tree Seedlings Raised by Ward, Makete District 2008/09 and 2009/10	75
Table 3. 25:	Number of Beehives by Type, Makete District, 2001 – 2005.....	77
Table 3. 26:	Number of Tradional and Modern Beehives by Ward, Makete District, 2005	78
Table 3. 27:	Number of Tradional and Modern Beehives by Ward, Makete District, 2008 - 2009.....	79
Table 3. 28:	Small Scale Industries in Makete District, 2010	83
Table 4. 1:	Length of Road Network by Ward and by Grade, Makete District, 2010	86
Table 4. 2:	Passability of the Road Network by Ward, Makete District, 2010	88
Table 4. 3:	Major Road Connections and Road Links, Makete District, 2010	89
Table 4. 4:	Length of Road Network by Type of Road Surface and By Ward, Makete District, 2010	90
Table 4. 5:	Telecommunications Services in Makete District, 2010.....	92

Table 5. 1:	Availability of Health Facilities by Ownership and by Ward, Makete District, 2010	98
Table 5. 2:	Growth Status and Distribution of Health Facilities by Ward, Makete District, 2008, 2009 and 2010	99
Table 5. 3:	The Number of Health Facilities ⁺ in Relationship to Land Area by Division, Makete District, 2009 and 2010	100
Table 5. 4:	Relating Health Facilities to the Population by Division, Makete District, 2009 and 2010	101
Table 5. 5:	Distribution of Doctors among Population by Division, Makete District, 2009 and 2010	103
Table 5. 6 :	Number of Hospital Beds by Division and Average Population per Bed, Makete District, 2009 and 2010.....	104
Table 5. 7:	Distribution of Complementary Rural Health Facilities by Ward, Makete District, 2010	105
Table 5. 8:	Availability of Health Personnel Makete District, 2010.	107
Table 5. 9:	List of the Ten Most Commonly Reported Causes of Morbidity (Out Patients Only), Makete District, 2009 and 2010.....	109
Table 5.9 a:	List of the Ten Most Commonly Reported Causes of Morbidity (In Patients Only), Makete District, 2009 and 2010	111
Table 5. 10:	List of the Ten Most Commonly Reported Causes of Mortality (In Patients Only), Makete District, 2010	112
Table 5. 11:	Expectant Mothers who participated in the PMCTC in Makete Major Hospitals, 2010	113
Table 5. 12:	Group of VCT Volunteers who were screened for HIV by Sex and by Division, Makete District, 2010	114
Table 5. 13:	Number of Most Vulnerable Children by Ward, Makete District, 2009	116

Table 5. 14:	Number of Reported Cases of Reportable Communicable Diseases in Makete District, 2008, 2009 and 2010	118
Table 5. 15:	Percentage of Severe Malnutrition for Children Under One Year by Ward, Makete District, 2008-2010	120
Table 5. 16:	Estimates of Mortality Indicators, Makete District, 2007 and 2010	121
Table 5. 17 :	Percentage of Expectant Mothers Vaccinated TT2 by Ward, Makete District, 2008-2010.....	122
Table 5. 18:	Percentage of Children Under One Year Vaccinated DPT3/HB3 by Ward, Makete District, 2008-2010	123
Table 5. 19:	Percentage of Children under One Year Vaccinated BCG by Ward, Makete District, 2008 -2010.....	124
Table 5. 20:	Percentage of Children Under One Year Vaccinated OPV3 by Ward, Makete District, 2008—2010	125
Table 5. 21:	Percentage of Children Under One Year Vaccinated Measles by Ward, Makete District, 2008 – 2010	126
Table 5. 22:	Number of Pre-Primary Schools by Ward, Makete District, 2008 – 2010	129
Table 5. 23:	Total Enrolment in Pre-Primary Schools by Ward, Makete District, 2008-2010.....	130
Table 5. 24:	Number of Primary Schools by Ownership and by Ward, Makete District, 2008- 2010.....	131
Table 5. 25:	Proportions of Schools by 100 Sq. kms. by Ward and Village, Makete District, 2010	133
Table 5. 26:	Standard I Enrolment by Ward, Makete District, 2008-2010	134
Table 5. 27:	Standard I Enrolment by Age Group in Makete District 2010	135

Table 5. 28: Total (Std I - VII) Enrolment by Sex and by Ward, Makete District 2008 and 2010	136
Table 5. 29: Number of Pupils Enrolled Std I in 2002 and Completed Std VII inn 2008 by Ward, Makete District	138
Table 5.29 a: Number of Pupils Enrolled Std I in 2004 and Completed Std VII in 2010 by Ward, Makete District	139
Table 5. 30: Drop Outs by Reasons, Makete District, 2008, 2009 and 2010	140
Table 5. 31: Number of Students Who Joined Form I in Public Secondary Schools, Makete District, 2010 and 2011	140
Table 5.31 a: Number of Students Who Joined Form I in Public Secondary Schools by Sex and by Ward, Makete District, 2010.....	141
Table 5.31 b: Number of Students Who Joined Form I in Public Secondary Schools by Sex and by Ward, Makete District, 2011.....	142
Table 5. 32: Availability of Classrooms in Primary Schools by Ward, Makete District, 2010.....	144
Table 5.32 a: Availability of Toilets in Primary Schools by Ward, Makete District, 2010.....	145
Table 5.32 b: Availability of Teachers' Houses by Ward, Makete District, 2010.....	147
Table 5.32 c: Availability of Desks in Primary Schools by Ward, Makete District, 2010.....	148
Table 5.32 d: Availability of Primary School's Teachers (Grade A and B) by Ward, Makete District, 2010	150
Table 5. 33: Number of Secondary Schools by Ownership and by Ward, Makete District 2007 2008, 2009 and 2010	153
Table 5. 34: Total (Form I – IV) Enrolment by Sex, Makete District 2008, 2009 and 2010	154

Table 5. 35:	Number of students completed Secondary School Education by Sex, Makete District 2008, 2009 and 2010	155
Table5. 36:	Total (Form V – VI) Enrolment “A” Level by Sex, Makete District, 2008, 2009 and 2010	155
Table 5. 37:	Number of students completed “A” Level Education by Sex, Makete District, 2008 to 2011	157
Table 5. 38:	Availability of Public Secondary School’s Teachers by Ward, Makete District, 2010	158
Table 5. 39:	Availability of Teachers' Houses in Public Secondary Schools by Ward, Makete District, 2010	159
Table 5. 40:	Availability of Classrooms in Public Secondary Schools by Ward, Makete District, 2010	160
Table 5. 41:	Availability of Students’ Toilets in Public Secondary Schools by Ward, Makete District, 2010	162
Table 5. 42:	Availability of Dormitories in Public Secondary Schools by Ward, Makete District, 2010	163
Table 5. 43:	Availability of Libraries in Public Secondary Schools by Ward, Makete District, 2010	164
Table 5. 44:	Availability of Desks in Public Secondary Schools by Ward, Makete District, 2010	165
Table 5. 45:	Availability of Laboratories in Public Secondary Schools by Ward, Makete District, 2010	167
Table 5. 46 :	List of Vocational Training Centres by Ward, Makete District, 2010	168
Table 5. 47:	Number of Adult Education Centres and Total Enrolments by Ward, Makete District, 2006, 2008, 2009 and 2010	170
Table 5. 48:	Distribution of Population by Age Groups, Literacy and Sex, Makete District, 2002	172

Table 5. 49: Number and Type of Rural Water Sources by Ward, Makete District, 2010	175
Table 5. 50: Number and Type of Technology Used in Rural Water Schemes by Ward, Makete District, (2010)	177
Table 5. 51 : Percentage of Rural Population Served with Clean Water by Ward, Makete District, 2010	178
Table 5. 52: Number of Rural Village Water Committees, Village Water Funds and Funds in the VWFs by Ward, Makete District, as at 31.12 2010	180
Table 5. 53: Number and Type of Urban Water Sources by Ward, Makete District, 2010	181
Table 5. 54: Number of Water Schemes by Type of Technology by Ward, Makete District, 2010	181
Table 5. 55: Percentage of Urban Population Served with Clean Water by Ward, Makete District, 2010	182
Table 5. 56: Attrition of Personnel in Water Supply by Ward, Makete District, 2010	183
Table 5. 57: Type and Number of Water Supply Personnel by Ward, Makete District, 2010	183
Table 5. 58: Availability of Rural Toilet Facilities by Ward, Makete District, 2010	184
Table 5.58 a: Availability of Urban Toilet Facilities by Ward, Makete District, 2010	185
Table 6. 1: Distribution of Day Care Centers by Ward, Makete District, 2009 and 2010	187
Table 6. 2: Number of Women Economic Groups by Ward, Makete District, 2010	189

Table 6. 3:	Participation in Managerial, Political, Professional and Technical Personnel by gender by Ward, Makete District, 2010.....	190
Table 6. 4:	Youth Economic Groups and Total Money Loaned by Ward, Makete District, 2010.....	191
Table 6. 5:	Active SACCOS by Ward, Makete District, 2010.....	192
Table 6. 6:	Service and Credit Cooperative Groups (SACCOG) by Ward, Makete District, 2010.....	193

List of Figure

Figure 1:	Land Use Pattern in Makete District	4
Figure 2:	Percentage Distribution of Land Area by Division, Makete District, 2010	6
Figure 3:	Population Pyramid for Makete District 2007	16
Figure 4:	Percentage Distribution of Heads of Households by Level of Education, Makete District, 2003.....	27
Figure 5:	Percentage Distribution of Rural Agricultural Households of Meals Taken per Day, Makete District, 2003	27
Figure 6:	Percentage of households by Type of Water Source during Wet and Dry Seasons, Makete District, 2003	30
Figure 7:	Percentage of Households by Type of Toilet Facility, Makete District, 2003	30
Figure 8:	Percentage of Households by Type of Roofing Material, Makete District, 2003	33
Figure 9:	Percentage of Households by Main Source of Energy for Lighting, Makete district, 2003	34
Figure 10:	Percentage of Households by Main Source of Energy for Cooking, Makete district, 2003	35
Figure 11:	Percentage of the Dstricts' Total Arable Land Planted with Major Food Crops,	49
Figure 12:	Percentage of the Dstricts' Total Arable Land Planted with Major Cash Crops, 2007/08-2010/11	50
Figure 13 :	Yield per hectare of Major Food and Cash crops, 2007/08-2010/11	55

List of Map

Map 1: Showing geographical location of Makete District; 2010	2
Map 2: Makete District Showing Ward Boundaries 2010	5
Map 3: of Makete District Showing Population Distribution by Ward, 2010	18

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
A.R.I.	Acute Respiratory Infections
BCG	Baccillus Calmet Guérin (TB Vaccine)
CBO	Community Based Organization
CPR	Classroom Pupil Ratio
DPR	Desk Pupil Ratio
DPT3/HB3	Diphtheria Pertussis Tetanus 3 rd dose/ Haemoglobin level
FBOs	Faith Based Organizations
Govt.	Government
Hfs	Health Facilities
HIV	Human Immune Virus
HHs	Households
IFAD	International Fund for Agriculture Development
IGAs	Income Generating Activities
IMR	Infant Mortality Rate
LSUs	Livestock Units
MMEM	Mpango wa Maendeleo ya Elimu ya Msingi
MEMKWA	Mpango wa Elimu Maalum kwa Watu wazima
MMR	Maternal Mortality Rate
NGO's	Non-Governmental Organizations
OPV3	Oral Polio Vaccine 3 rd Dose
PID	Pelvic Inflammatory Disease
PLHA	People Living with HIV/AIDS
PMTCT	Prevention Mother to Child Transmission
PR	Pass Rate
SACCOS	Savings and Credit Cooperative Societies
Sq. Km.	Square Kilometre
SPR	School Pupils Ratio
TB	Tuberculosis
TBAs	Traditional Birth Attendants
TPR	Toilet Pupil Ratio /Teacher Pupil Ratio

TRCC	Teachers Resources Centre Coordinator
TSD	Teachers Service Department
TT2	Tetanus Toxoid 2 nd Doze
UN	United Nations
UTI	Urinary Track Infection
U5MR	Under Five Mortality Rate
VCT	Voluntary Counselling and Testing
VHCs	Village Health Committees
VHWs	Village Health Workers
VWCs	Village Water Committees
VWFs	Village Water Funds
WUGs	Water User Groups

CHAPTER ONE

Land, Climate, Agro-Ecological Zones and People

1.0 An Overview

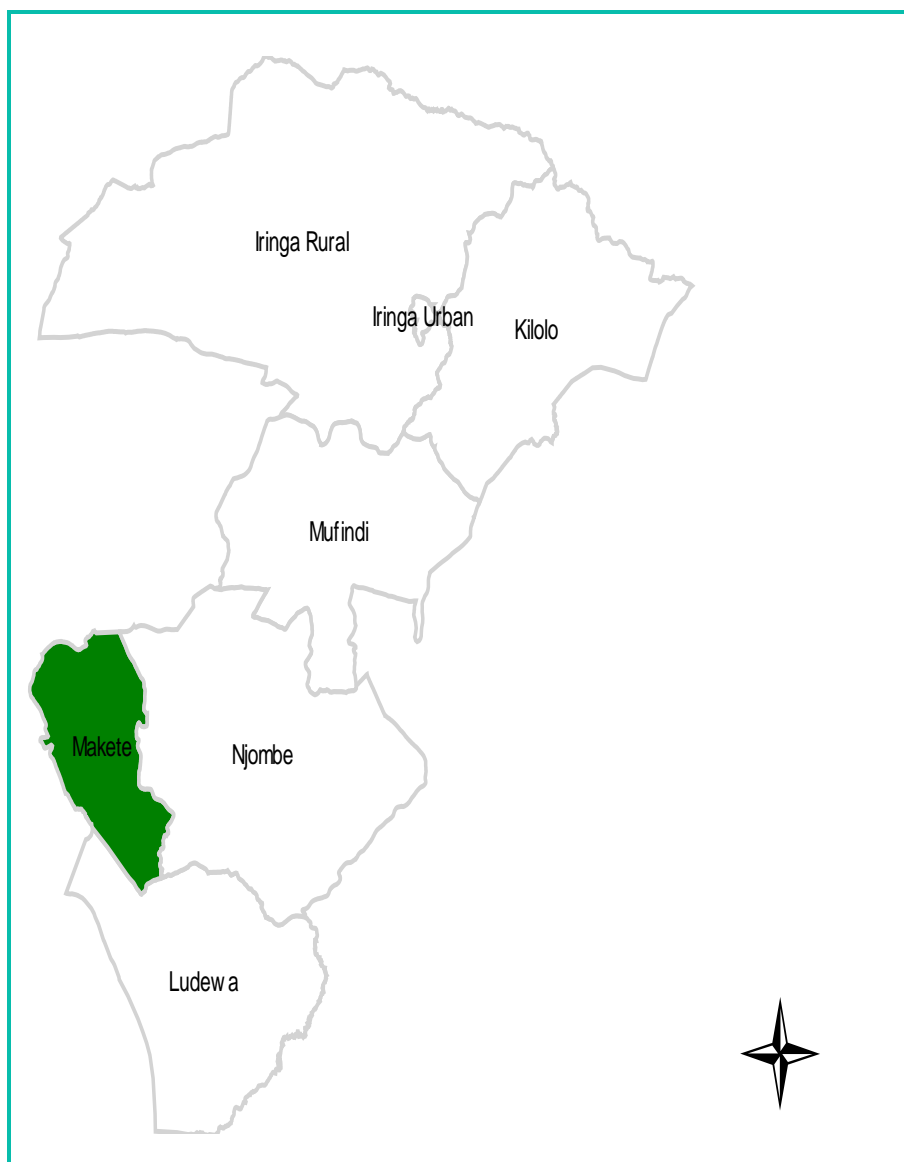
Chapter one gives informations about the geographical location, land area, administrative units, climate and agro-ecological zones of Makete district. Moreover, information about ethnic groups, population distribution, size and other demographic characteristics is also explained.

1.1 Geographical Location



Part of the town of Makete as seen from the headquarters of the District Council

Map 1: Showing geographical location of Makete District; 2010



Source: *Makete District Executive Director's Office –Land, Natural Resources and Environment Department, 2010*

Makete district is located at the western end of Iringa region, about 350 kms from the regional headquarters. It also lies adjacent to the northern shores of Lake Nyasa, from which it is separated by a steep escarpment and after which it stretches slowly into the lower and flatter lands of Njombe district on the eastern side.

The district, however shares borders with Njombe district in the East, Mbarali district on the North, Ludewa and Lake Nyasa on the South, while Rungwe district is located on the western side of the district. In terms of international identification, the district lies between 08⁰45' and 09⁰40' south of the Equator and between 33⁰85' and 34⁰30' east of Greenwich and a total surface area of 5,800 sq. kms.

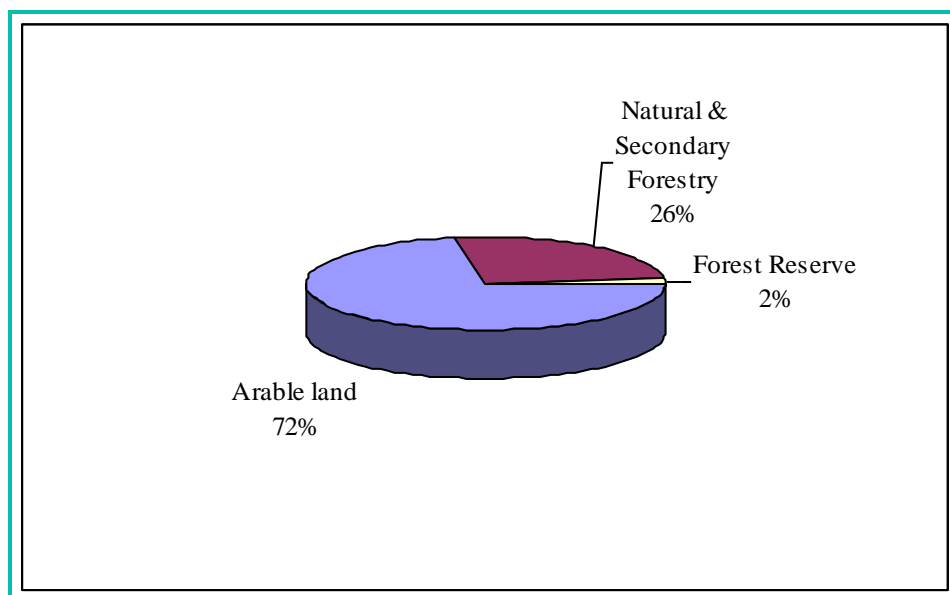
1.2 Land Area, Land Use Pattern and Administrative Units



Makete District is endowed with many rivers and springs

Makete district has a total land area of 5,800 sq. kms mostly of which is mountainous with steep hills, ridges, valleys and escarpments. The arable land available for agricultural production is 4,195 sq. kms. Out of the arable land in the district, only 371 sq. kms is actually cultivated annually, leaving the remaining 3,824 sq. kms either lying idle due to infertility, used for grazing or being edges and river beds or belonging to investors (e.g. Ibaga farm and Kitulo Game Reserve). Figure 1 shows land use pattern of the district.

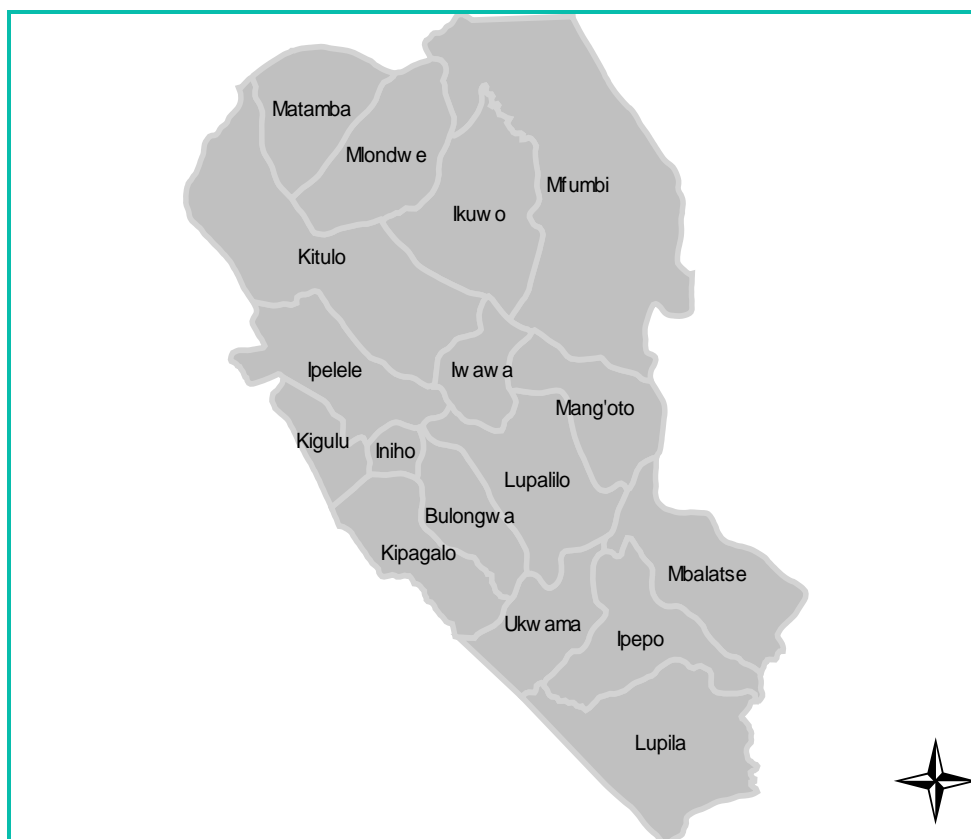
Figure 1: Land Use Pattern in Makete District; 2010



Source: Makete District Executive Director's Office –Land, Natural Resources and Environment Department, 2011

Administratively, Makete district is divided into 6 divisions and 17 wards with a total of 97 villages distributed unevenly as shown in Table 1.1 and Figure 2. Ikuwo division covers about 21 percent of total land area of the district followed by Ukwama and Lupalilo divisions each accounting for about 20 percent of the total land area. Bulongwa division has the smallest land area in the district constituting only 9 percent of the total land area followed by Magoma division (11 percent) and Matamba division (18 percent).

Map 2: Makete District Showing Ward Boundaries, 2010



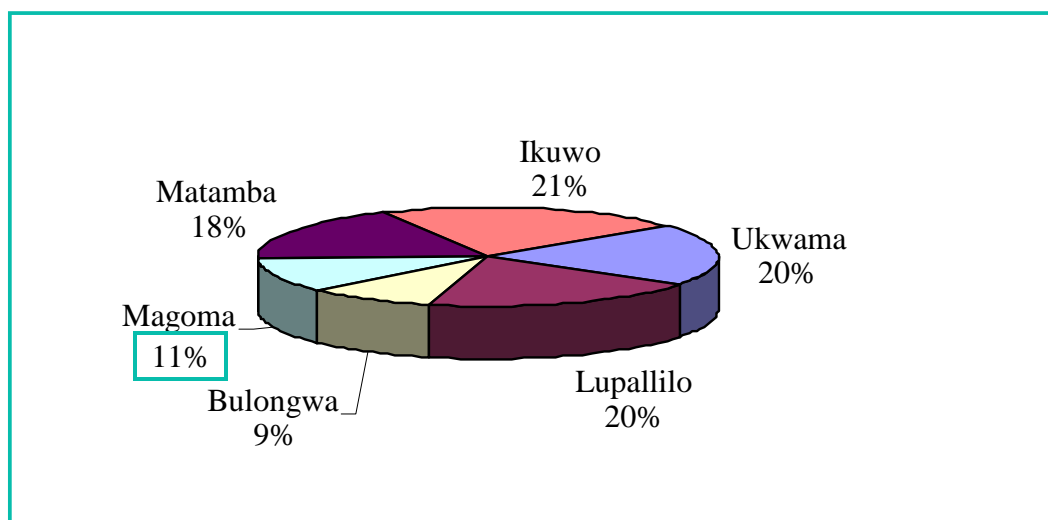
Source: Makete District Executive Director's Office –Land, Natural Resources and Environment Department, 2011

Table 1. 1: Land Area and Administrative Units by Division, Makete District, 2010

Division	Area Sq. Kms.	Wards	Villages	Hamlets
Ukwama	1,187.7	4	18	100
Lupallilo	1,154.3	3	23	108
Bulongwa	518.2	2	17	65
Magoma	664.3	3	13	53
Matamba	1,038.9	3	17	79
Ikuwo	1,236.6	2	9	32
Total	5,800.0	17	97	437

Source: Makete District Executive Director's Office –Land, Natural Resources and Environment Department, 2011

Figure 2: Percentage Distribution of Land Area by Division, Makete District, 2010



Source: Makete District Executive Director's Office -Land Natural Resources and Environment Department, 2011

1.3 Climate, Soil and Topography

With exception of Kitulo plateau, the district is mountainous with Numbi Mountains, and Kipengere ranges and several steep slopes and lies at an altitude of between 1,500 metres to 3,000 metres above sea level, covered by alluvial soil. Kipengere Mountains ranges and Numbi Mountains are the common features of Makete district and divide the district into North and South. The Livingstone Mountain range which is covered by Livingstone Mountain Forest Reserve forms the western and south western edges of the district. Because of the high altitude the district experiences temperate climate with low temperatures up to freezing point and long rainy seasons. However, temperatures and rainfall vary with the altitude. High altitudes between 1,500 – 3,000 metres above sea level fall under cold zones with temperatures ranging between 2⁰ – 20⁰ centigrade and rainfall vary from 1,500 – 2,800 mm. per annum. Areas of low altitude such as Usangu plains experience high temperatures of 20⁰ – 30⁰ centigrade with unreliable rainfall normally ranging between 300 – 800 mm. per annum.



Because of the high altitude, Makete District experiences temperate climate

1.4 Drainage System

The steep sides of Kipengere and Livingstone Mountain ranges together with Numbi Mountains are characterised by small numerous streams which join to form major rivers such as Numbi, Kimani, Luvanyila and Ijangala. These rivers are adjoined by other small streams which at the end all pour water into Lake Nyasa and Great Ruaha. Numbi river flows northwards through Mlondwe, Ikuwo and Mfumbi wards into the Usangu valleys. While Luvanyila River flows through Iwawa, Bulongwa and Kipagalo wards into Lake Nyasa, Ijangala River which pours its water into Lake Nyasa, flows via Mang'oto and Ukwama wards. Other small rivers pour their water to Lake Nyasa through Lupila, Ukwama, Bulongwa, Kipagalo, Iniho, Ipelele and Kigulu wards.



Kipengere Ranges as one of the steep sides are characterised by small numerous streams

1.5 Agro – Ecological zones (AEZ)

Basically the district has two distinctive agro-ecological zones, namely, high lands (Zone 3) and low lands (Zone 14).

1.5.1 High Lands Zone

These are a continuation of the Kipengere and Livingstone Mountain ranges as well as Numbi Mountains which as we mentioned earlier have high altitude ranging from 1,500 – 3,000 metres above sea level. The zone is characterised with temperate temperatures and heavy rainfall per annum and occupies the greatest part of the district, (14 wards).

The terrain of the zone is characterised by high hills, steep slopes and valleys covered with volcanic potash soil which is moderately suitable for agriculture. The main food crops grown in this zone are wheat, round potatoes, maize, peas, sorghum and beans. Pyrethrum, coffee and temperate fruits are also grown as cash crops.

1.5.2 Low Lands Zone

The low land zone lies on the rift valley of Usangu plains and portion of northern part of the district especially Mfumbi ward, covered with sand clay

soils. The zone has hot temperatures ranging between 20⁰– 30⁰ centigrade and characterised with unreliable rainfall.

Agriculture in this zone depends mainly on irrigation and involves the cultivation of paddy, maize, sorghum, groundnuts, beans and tropical fruits. However, due to its temperatures the greatest part of the area is used for grazing.

1.6 Population

1.6.1 Ethnic Groups

The District has two main ethnic groups namely: Wakinga and Wawanji, of which about 98 percent of district population are Christians. The Wawanji occupy the northern part of the district, while the Wakinga occupy most of the district. Moreover, within the Wakinga, there are sub-ethnic groups called Wamahanji and Wamagoma. In addition to that, the district is also occupied by small groups of Wanyakyusa and Wasangu in Mfumbi and Kigulu wards. Table 1.2 portrays ethnicity of indigenous people by wards in Makete district.

Table 1. 2 : Ethnicity of Indigenous people by Ward, Makete District, 2010

Group	Ward of Residence
Wakinga	Kitulo, Iwawa, Lupalilo, Ukwama, Mang'oto, Ipepo, Mbalatse and Lupila
Wamahanji	Kipagalo
Wamagoma	Iniho and Ipelele
Wawanji	Matamba, Mlondwe and Ikuwo
Wasangu and Wanyakyusa	Mfumbi and Kigulu

Source: Makete District Executive Director's Officer- District Planning Office, 2011

1.6.2 Population Size and Growth

Unlike other districts in Iringa region, the population of Makete district has experienced an insignificant growth. The district average rates of intercensal

population growth showed a drastic decrease from 1.2 percent in the 1978 – 1988 to 0.2 percent in 1988 – 2002 periods. According to the 2002 Population and Housing Census the district had 105,775 people compared to 102,312 inhabitants counted in 1988 Population Census resulting in a slight increase of 3,463 people only (3.4 percent) during intercensal period. However, the projections for 2010 put the district population at 119,455. Out of which, females are accounted for 53.5 percent. Table 1.3 shows population size and growth of Iringa region by district for the census years of 1988 and 2002.

Table 1. 3: Population Size and Growth by District, Iringa Region, 1988 and 2002 Census

District	Land Area (sq. kms.)	1988 Pop. Census		2002 Pop. Census		Growth Rate	
		Number	Percent	Number	Percent	1978 - 1988	1988 - 2002
Iringa	160.3	84,860	7.1	106,371	7.1	4.0	1.7
Urban							
Iringa	19,897.5	363,605	30.4	245,033	16.4	2.2	1.6
Rural							
Kilolo	6,804.0	*	*	204,372	13.7	*	*
Njombe	9,868.0	315,976	26.4	419,115	28.1	2.8	2.1
Makete	5,800.0	102,312	8.6	105,775	7.1	1.2	0.2
Mufindi	6,177.0	229,304	19.2	282,071	18.9	2.8	1.5
Ludewa	5,597.0	100,216	8.4	128,155	8.6	2.8	1.8
Total	51,681.8	1,196,273	100	1,490,892	100	2.6	1.6

* Included under Iringa Rural District

Source: National Bureau of Statistics, Computed Data from 1988 and 2002 Population Censuses Reports.

Compared to other districts of Iringa region, Makete district is the smallest rural district in terms of land area and was the second least populous rural district after Ludewa according to the 1988 census results. However, according to the 2002 Population and Housing Census, Makete district was the least populous in the region and contributed only 7.1 percent of the regional population. Between 1988 and 2002 the district had the lowest average annual growth rate of 0.2 percent compared to the regional growth rate of 1.6 percent and national average growth rate of 2.4 percent.

1.6.3 Population Density

Makete district, with an average population density of 33 persons per sq. kms is considered to be moderate densely populated district compared to other rural districts of Iringa region. The Population density of Makete district which was slightly above the regional average of 29 persons per sq. kms was the third largest among the rural districts in the region. Among other reasons, the relatively large population density of Makete district is caused by its relative small land area rather than the number of residents. Moreover, the decline of population growth has caused the population density of the district to remain almost the same as it was in 1988 (32 persons per sq. kms). When we look at the 2010 projected population densities for Iringa region, we can see that unlike the 2002 densities, Makete district at 21 people per square kilometre, is the second least densely populated district just next to Iringa Rural. Also unlike the 2002 population density, the Makete district density is far below the regional density (Table 1.4).

Table 1. 4: Population Density by District, Iringa Region, 2002 and 2010 Projections

District	Land Area	2002 Population	2010 Population projection	Population Density		
				1988	2002	2010
Iringa Urban	160.3	106,371	152,649	530	664	952
Iringa Rural	19,897.5	245,033	272,710	14	12	14
Kilolo	6,804.0	204,372	228,476	*	30	34
Njombe	9,868.0	419,115	493,149	32	42	50
Makete	5,800.0	105,775	119,455	32	33	21
Mufindi	6,177.0	282,071	322,321	37	46	52
Ludewa	5,597.0	128,155	148,622	18	23	27
Total Region	51,681.8	1,490,892	1,737,382	23	29	34

* Included under Iringa Rural District

Source: National Bureau of Statistics, Computed Data from 1988 and 2002 Population Censuses Reports.

Table 1.5 gives the population density at division level for the census years of 1988 and 2002 and projection for 2010. In 1988, Bulongwa with a population density of 30.1 persons per sq. kms was the most densely

populated division in the district, followed by Lupalilo accounting to 21.4 persons per sq. kms and Ukwama 17.3 persons per sq. kms. On the other hand, Matamba was the least densely populated division followed by Magoma division.

Table 1. 5: Population Density by Division, Makete District, 1988, 2002 and 2010

Division/ Ward	Land Area (Sq. Kms.)	2002 Population	2010 Population Projection	Persons/Kms ²		
				1988	2002	2010
Lupalilo	1,154.3	26,421	29,401	21.4	23	25
Ukwama	1,187.7	19,571	23,006	17.3	17	19
Bulongwa	518.2	12,542	12,965	30.1	24	25
Magoma	664.3	10,692	11,713	15.1	16	18
Matamba	1,038.9	25,448	29,338	13.8	25	28
Ikuwo	1236.6	11,101	13,033	-	9	11
Total District	5,800.0	105,775	119,456	32	18	21

Source: National Bureau of Statistics, Computed Data from 1988 and 2002 Population Censuses Reports.

In 2002, Matamba was the most densely populated division with 25 persons per sq.km while Ikuwo division was the least (9 persons per sq. km) densely populated division in the district followed by Magoma division with 16 persons per sq. km as Table 1.5 shows. People are much more concentrated in a few divisions due to various reasons including availability of arable land, economic infrastructure and social services.

When we look at the 2010 projected population density for Makete district, we can see that as it was for 2002, Matamba division was the most densely populated division with 28 persons per sq. km. Ikuwo division was again the least densely populated division with 11 persons per sq.km. Unlike in 2002 when the district's density fell from 32 in 1988 to 18, the population density for 2010 has risen to 21 persons per sq.km.

1.6.4 Population Trend

Table 1.6 shows that from 1988 to 2002 censuses the district population increased slightly by about 3,463 people from 102,312 in 1988 to 105,775 in 2002. However, at divisional level there were significant differences in the nature and level of population change with 3 divisions registering population increase while population declined in the remaining 2 divisions. In term of decline in population, the most affected division was Bulongwa where the population decreased by 19.3 percent followed by Ukwama with a population decrease of 4.9 percent.

Table 1. 6: Population Trend by Division, Makete District, 1988 and 2002 Censuses

Division	Land Area (Sq. kms.)	1988 Population	2002 Population	Population Increase: 1988 to 2002	
				Number	% Difference
Lupalilo	1,154.30	24,664	26,421	1,757	7.1
Ukwama	1,187.70	20,573	19,571	1,002	-4.9
Bulongwa	518.2	15,602	12,542	3,060	-19.3
Magoma	664.3	10,053	10,692	639	6.4
Matamba	1,038.90	31,420	25,448	5,129	16.3
Ikuwo	1,236.60	0	11,101	*	*
Total District	5,800.00	102,312	105,775	3,463	3.4

* Included in Matamba Division

Source: National Bureau of Statistics, Computed Data from 1988 and 2002 Population Censuses Reports.

1.6.5 Dependency Ratio

The Age Dependency Ratio, gives number of persons aged 0 – 14 years and those aged 65 years and above for every 100 persons aged 15 – 64 years. Table 1.7 shows that in Makete district the number of dependants for every 100 persons in the active group dropped from 107 in 1988 to 96 in 2002. Looking at the rural/urban differentials, dependency ratio in rural areas was higher, estimated at 97 persons compared to 80 people in urban areas. Nevertheless, the district had still a long way to go since its dependency ratio was above the regional average of 94 persons and national average at 50.5 persons.

Table1. 7: The Dependency Ratios by District, Iringa Region, 1988 and 2002 Censuses

District	1988 Population			2002 Population		
	Number of		Dependency Ratio	Number of		Dependency Ratio
	Dependants	Economical ly Active		Dependants	Economical ly Active	
Iringa Urban	40,410	44,101	92	42,710	63,661	67
	187,06					
Iringa Rural	3	174,852	107	121,48	123,544	98
Kilolo	*	*	*	102,321	102,051	100
Njombe	160,477	152,169	105	200,685	218,430	92
Makete	53,000	49,344	107	51,672	54,103	96
Mufindi	117,627	111,271	106	139,893	142,177	98
Ludewa	52,181	47,877	109	64,453	63,702	101
Total Region	610,758	579,614	105	723,203	767,669	94

* Included under Iringa Rural District

Source: National Bureau of Statistics, Computed Data from 1988 and 2002 Population Censuses Reports.

Table 1.8 indicates the magnitude of Dependence ratio by each ward in Makete district based on the 2002 population census results. Looking at Ward level, Mfumbi ward had the lowest Dependency Ratio at 79.3 persons, followed by Kitulo and Mlondwe at 81.5 and 85.5 persons, respectively. Table 1.8 also shows that most wards have less labour force to support the dependent group.

Table 1. 8: The Dependency Ratios by Ward, Makete District, 2002 Census

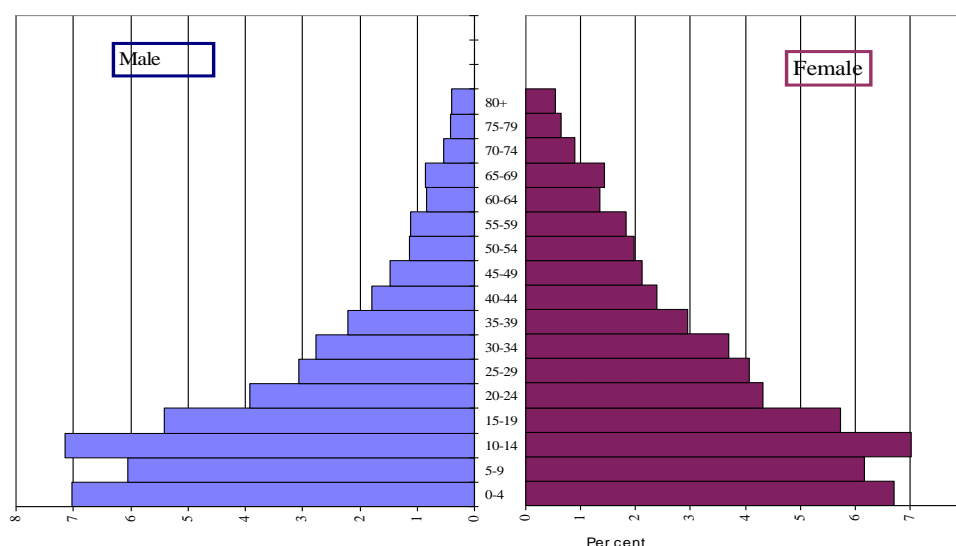
Ward	2002 Population		
	Number of		Dependency Ratio
	Dependants	Economically Active	
Lupalilo	4,991	5,280	94.5
Iwawa	5,840	6,234	93.7
Mang’oto	2,055	2,021	101.7
Lupalilo Division	12,886	13,535	95.2
Ukwama	2,319	2,077	111.7
Ipepo	3,001	2,793	107.4
Mbaltse	1,698	1,543	110.0
Lupila	3,148	2,992	105.2
Ukwama Division	10,166	9,405	108.1
Bulongwa	3,937	3,731	105.5
Kipagalo	2,553	2,321	110.0
Bulongwa Division	6,490	6,052	107.2
Iniho	2,083	2,282	91.3
Ipelele	2,626	2,710	96.9
Kigulu	516	475	108.6
Magoma Division	5,225	5,467	95.6
Matamba	5,616	5,593	100.4
Mlondwe	4,431	5,184	85.5
Kitulo	2,525	3,099	81.5
Matamba Division	11,572	13,876	83.4
Ikuwo	3,385	3,313	102.2
Mfumbi	1,948	2,455	79.3
Ikuwo Division	5,333	5,768	92.5
Total District	51,672	54,103	95.5

Source: National Bureau of Statistics, Computed Data from 2002 Population Censuses Report

1.6.6 Population Distribution and Sex Ratio

When the population of Makete district of 1988 and 2002 are distributed by age and sex, they show similar features. Figure 3 is the district 2002 Population Pyramid with a broad base indicating high fertility rates, mortality rates and youth aged structure of a district population. The 2002 Regional Profile of Iringa reveals that Makete has the smallest in the region Sex Ratio being 84 males for every 100 females. This is partly due to the fact that, traditionally, males in Makete district are much more mobile than females as documented in the history of Tanzania since colonial period. Most of Waking males were taken as “Manamba” to Kilombero Sugar Estate and other estates in Morogoro, Tanga and Kilimanjaro regions. Currently, most of the males are industrialists and businessman and have migrated outside Makete district.

Figure 3: Population Pyramid for Makete District 2007



Source: NBS, the 2002 Village/Street Statistics Report for Makete District, 2006

Furthermore, the 2002 population of Makete district as depicted by its pyramid above, is considered as young population, made up of children under 18 years who were 51,506 (25,748 males and 25,758 females) or 48.7 percent of the total population, followed by the young population aged

between 18 – 29 years estimated to be 18,977 persons (8,236 males and 10,741 females) or 17.9 percent of total population. Persons aged 61 years and above were for 9,119 (3,675 males and 5,444 females) or 8.6 percent of the total population. Table 1.9 shows the 2002 population of Makete district distributed by broad age groups and sex as well as the 2010 projections.

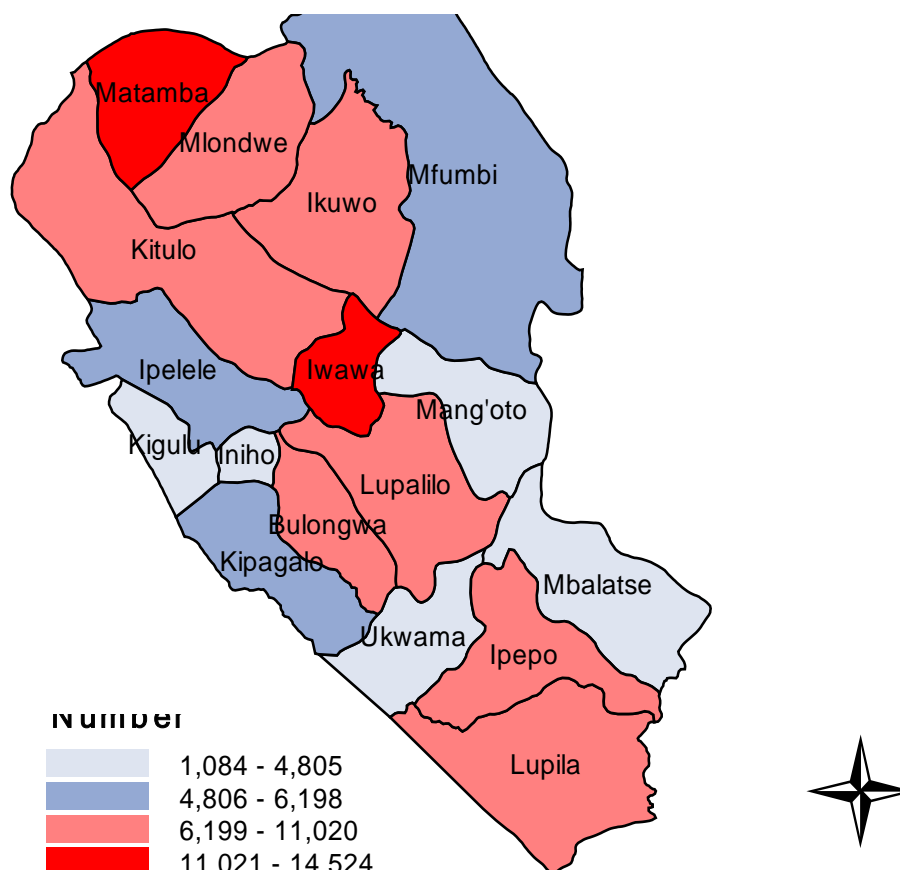
Table 1.9: Population Distribution by Broad Age Group and by Sex, Makete District, 2002 and 2010 Projections.

Age Group	2002			Percent of Total	2010			Percent of Total
	Male	Female	Total		Male	Female	Total	
0 – 17	25,748	25,758	51,506	48.7	27,254	26,806	54,060	45.3
18 – 29	8,236	10,741	18,977	17.9	11,738	12,978	24,716	20.7
30 – 44	6,480	8,494	14,974	14.2	8,334	11,233	19,567	16.4
45 – 60	4,238	6,961	11,199	10.6	4,905	7,631	12,536	10.5
61 +	3,675	5,444	9,119	8.6	3,270	5,303	8,573	7.2
Total Dist.	48,377	57,398	105,775	100	55,503	63,952	119,455	100.0

Source: NBS Computed data from the 2002 Population and Housing Census Report and Regional and District Projections Vol.XII December 2006.

At ward level, the 2002 Population Census indicated that Iwawa ward was the most populous ward in the district, by having 12,074 persons (11.9 percent) of the total district population followed by Lupalilo and Matamba wards with 10,271 and 10,209 persons, respectively and each accounting for 9.7 percent of total population. The least populous ward was Kigulu with a total number of 991 inhabitants. Uneven distribution of Makete residents is mostly influenced by the availability of natural resources including arable land that is suitable for cultivation and accessibility of infrastructure. Table 1.9a gives the population distribution by ward according to the 2002 Population Census and the 2010 projection.

Map 3: of Makete District Showing Population Distribution by Ward, 2010



Source: NBS, the 2002 Village/Street Statistics Report for Makete District, 2011.

Table 1.9 a: The 2002 Population Distribution and 2010 Projected Population by Ward, Makete District

Ward	2002 Population			Projected Population, 2010		
	Male	Female	Total	Male	Female	Total
Lupalilo	4,430	5,841	10,271	4,643	5,672	10,315
Iwawa	5,468	6,606	12,074	6,715	7,810	14,524
Mang'oto	1,835	2,241	4,076	2,076	2,488	4,562
Lupalilo Division	11,733	14,688	26,421	13,434	15,970	29,401
Ukwama	1,956	2,440	4,396	2,129	2,611	4,740
Ipepo	2,590	3,204	5,794	3,017	3,668	6,685
Mbaltse	1,419	1,822	3,241	1,746	2,141	3,887
Lupila	2,695	3,445	6,140	3,459	4,235	7,694
Ukwama Division	8,660	10,911	19,571	10,351	12,655	23,006
Bulongwa	3,364	4,304	7,668	3,471	4,263	7,735
Kipagalo	2,189	2,685	4,874	2,373	2,857	5,230
Bulongwa Division	5,553	6,989	12,542	5,844	7,120	12,965
Iniho	2,043	2,322	4,365	2,242	2,515	4,757
Ipelele	2,506	2,830	5,336	2,787	3,084	5,872
Kigulu	457	534	991	501	582	1,084
Magoma Division	5,006	5,686	10,692	5,530	6,181	11,713
Matamba	4,849	5,360	10,209	5,768	6,292	12,060
Mlondwe	4,525	5,090	9,615	5,018	5,604	10,622
Kitulo	2,771	2,853	5,624	3,310	3,346	6,656
Matamba Division	12,145	13,303	25,448	14,096	15,242	29,338
Ikuwo	3,141	3,557	6,698	3,595	3,968	7,562
Mfumbi	2,139	2,264	4,403	2,653	2,818	5,471
Ikuwo Division	5,280	5,821	11,101	6,248	6,786	13,033
Total District	48,377	57,498	105,775	55,503	63,952	119,455

Source: NBS, the 2002 Village/Street Statistics Report for Makete District, 2011.

1.6.7 Households and Household Size

Makete district had the third smallest number of households perhaps due to its relative small geographical area and population size, with a population of 105,775 given by the 2002 census, there were 27,762 private households, equivalent to 8 percent of the total 346,815 private households of the region.

Also Makete district had the smallest average household size of 3.7 in the region. As Table 1.10 shows, during the intercensal period, there was a general decline in the district average household size. In 1988 Makete and Iringa Urban districts had the smallest household average size at 4.6 persons per household.

Table 1.10: Distribution of Households and Average Households Size by District, Iringa Region, 1988 and 2002 Census

District	1988 Census		2002 Census		
	Number of Households	Average Household size	Total Population	Number of Households	Average Household size
Iringa Urban	18,283	4.6	106,371	24,512	4.3
Iringa Rural	72,665	5.0	245,033	56,682	4.3
Kilolo	*	*	204,372	45,337	4.5
Njombe	65,075	4.9	419,115	98,825	4.2
Makete	25,148	4.6	105,775	27,762	3.8
Mufindi	47,327	4.8	282,071	66,058	4.3
Ludewa	19,981	5.0	128,155	27,729	4.6
Total Region	248,479	4.9	1,490,892	348,787	4.3

* Included under Iringa Rural District

Source: National Bureau of Statistics, Computed Data from 1988 and 2002 Population Censuses Reports.

Table 1.11 indicates the distribution of households and average household size by ward, Makete district based on 2002 census data. At division level, Lupalilo with 6763 households followed by Matamba (6,704) and Ukwama (4,968). Their average household sizes, all above the district average, were Lupalilo and Ukwama (3.9) and Matamba (3.8).

Despite Kigulu ward in Magoma division having the smallest number of households, it had among the largest average household sizes being 4.5 which was also above the district average of 3.7 persons per household.

Table 1.11: Population, Households and Average Household Size by Ward, Makete District, 2002 Census

Ward	Total Population	Total Households	Average Household Size
Lupalilo	10,271	2,448	4.2
Iwawa	12,074	3,279	3.7
Mang'oto	4,076	1,036	3.9
Lupalilo Division	26,421	6,763	3.9
Ukwama	4,396	1,123	3.9
Ipepo	5,794	1,449	4.0
Mbalatse	3,241	838	3.9
Lupila	6,140	1,558	3.9
Ukwama Division	19,571	4,968	3.9
Bulongwa	7,668	2,181	3.5
Kipagalo	4,874	1,340	3.6
Bulongwa Division	12,542	3,521	3.6
Iniho	4,365	1,133	3.9
Ipelele	5,336	1,486	3.6
Kigulu	991	239	4.1
Magoma Division	10,692	2,858	3.7
Matamba	10,209	2,809	3.6
Mlondwe	9,615	2,433	4.0
Kitulo	5,624	1,462	3.8
Matamba Division	25,448	6,704	3.8
Ikuwo	6,698	1,610	4.2
Mfumbi	4,403	1,248	3.5
Ikuwo Division	11,101	2,858	3.9
Total District	105,775	27,672	3.8

Source: National Bureau of Statistics, Computed Data from 1988 and 2002 Population Censuses Reports.

CHAPTER TWO

The District Economy

2.0 Introduction

This chapter explain the economy of Makete District. The economic indicators used include Gross Domestic Product (GDP), Per Capita Gross Domestic Product and main source of income for the residents of Makete district. The non income poverty indicators cover demographic characteristics, health, and education status, access to drinking water and housing conditions.

2.1 GDP and Per capita GDP at Current Prices.

Makete district, like other districts of Iringa region computed its GDP and Per capita GDP early 2011. It is evidenced that Makete district makes significant contribution to the Regional GDP and per capita GDP (9.2 and 133.1 percent respectively). The Iringa Region GDP Report of 2008 shows that Iringa region's share to the national GDP for 2008 was 5.84 percent equivalent to Tshs. 1,447,270 million while Per capita income of regional residents was estimated at Tshs. 861,564, (equivalent to US \$ 637) which was greater by 37 percent, than that of the Tanzania Mainland. Similar situations were observed in year 2006 and 2007 were the Regional GDPs were accounted for Tshs. 1,047,787 million and 1,224,417 million respectively (Tables 2.1 and 2.1a below).

Table 2. 1: Iringa GDP by District, 2006-2008

District	Million Tshs.		
	2006	2007	2008
Iringa MC	43,884	51,166	60,479
Iringa DC	201,288	235,057	274,839
Njombe	262,036	303,338	358,547
Ludewa	113,526	135,774	161,486
Makete	96,301	112,575	133,565
Mufindi	279,897	327,081	377,612
Kilolo	50,854	59,427	80,743
Total	1,047,787	1,224,417	1,447,270

Source: NBS, Iringa Region GDP Report 2008

Table 2.1 a: Iringa per Capita GDP by District

District	Tshs.		
	2006	2007	2008
Iringa MC	340,346	379,485	429,440
Iringa DC	776,361	893,960	1,031,508
Njombe	572,139	649,396	753,102
Ludewa	810,896	953,408	1,116,837
Makete	851,967	980,791	1,146,931
Mufindi	924,953	1,062,436	1,206,917
Kilolo	235,583	271,014	362,841
Regional GDP Per Capita	647,697	742,431	861,564
National GDP Per Capita	478,100	547,081	627,787

Source: NBS, Iringa Region GDP Report 2008

The Iringa region GDP report of 2008 which came out in May 2011 puts Makete district at number 5 above Kilolo and Iringa urban districts in contributing to the regional GDP in the agricultural sector. For the Industrial sector, Makete district stands at number six just above bottom placed Kilolo district.

2.2 Poverty Indicators

As stated earlier, beside GDP and per capita GDP, there are a number of indicators that portray poverty level in the district. These indicators include Gini Coefficient, Poverty Gap, percent of households below basic needs Poverty Line, main source of Cash Income, food consumption patterns, net enrolment, adult literacy rate, health indicators, access to drinking safe water. They also include housing conditions in terms of type of toilets, roofing materials, household's assets, and source of lighting energy as well as source of cooking energy.

2.2.1 Income Poverty Rate, Poverty Gap and Gini Coefficient

Makete was not among the best 20 districts on the Mainland with least people living below the Poverty Line, but at regional level, it is considered to be the third best district according to the 2005 Poverty and Human Development Report. The Report indicates that only 24.2 percent of Makete people were living below the Poverty Line. The best district is Iringa urban where only 18.2 percent of its people lived below the Poverty Line followed by Ludewa (24.1 percent). The district with highest percentage of people living below Poverty Line in Iringa region is Mufindi at 32.3 percent (Table 2.1).

With respect to rate of Poverty Gap, Makete and Kilolo are the third best districts by having only 7 percent each after Iringa urban (5 percent) then Ludewa and Njombe with 6 percent each. Table 2.2 also shows that Mufindi with 9 percent was the worst district followed by Iringa rural (8 percent).

The situation is different in regard to the Gini Coefficient Rate. At 43 percent, Makete had the worst uneven distribution of wealth in Iringa region. It was followed by Ludewa (36 percent) then Iringa urban and Mufindi districts (35 percent each). The best district in terms of the distribution of income among people was Kilolo whose rate was 31 percent as indicated in Table 2.2.

Table 2. 2: Selected Poverty Indicators by District, Iringa Region, 2005

District	Percent of People living below the Poverty Line	Poverty Gap	Gini Coefficient Rate	Number of Poor Per Sq. Kms.
Iringa (U)	18.2	5	35	132
Mufindi	32.3	9	35	11
Makete	24.2	7	43	6
Njombe	25.0	6	32	9
Ludewa	24.1	6	36	6
Kilolo	29.0	7	31	7
Iringa (R)	31.0	8	32	4
Total	31.0			

Source: Poverty and Human Development Report, 2005

2.2.2 Main Source of Cash Income

The 2002/03 National Sample Census of Agriculture Report shows that Makete as a rural district has vast economic opportunities. Agricultural sector ranked first with the selling of both annual and permanent crops being reported by 90.5 percent of the rural agricultural households in the district as the source of cash income followed by salaries and wages (4.5 percent), casual labour (2.5 percent), business operations (2.4 percent) and the other sources (0.1 percent).



Wood products has become a third economic activity in Makete District

2.2.3 Health Indicators

Though the residents of Makete district are said to have relatively good accessibility to social services like health, education and water; the HIV/AIDS pandemic among the diseases have a negative impact to morbidity and mortality such that the orphaned and widowed rates recorded in the district at 4.6 percent and 6.2 percent, respectively are the highest in the region. The health situation of the Makete people can also be observed through other proxy health indicators in Table 2.3 which include: Infant Mortality Rate (82 per 1,000 infants), Children under Five Years Mortality Rate (136 per 1,000 U5 children), HIV/AIDS prevalence (0.7 percent), Doctor/Population Ratio (11,800 people per doctor) and Hospital Bed/Population Ratio (245 patients per bed).

Table 2. 3: Selected Health Indicators for Makete District - a Comparison, 2006.

Indicator	Makete District	Regional Average
Orphaned Rate (percent)	4.6	1.7
Widowed Rate (percent)	6.2	4.2
Infant Mortality Rate (IMR)	82	102
Children Under Five Mortality Rate (U5MR)	136	166
HIV/AIDS Prevalence Rate (percent)	0.7	13.4
Doctor/Population Ratio	11,800	26,203
Hospital Bed/Population Ratio	245	664

Source: NBS Compiled Data Based on: Demographic and Health Survey; Agriculture Survey 2002/03; the 2002 Population Census Results; and Makete District Council Reports.

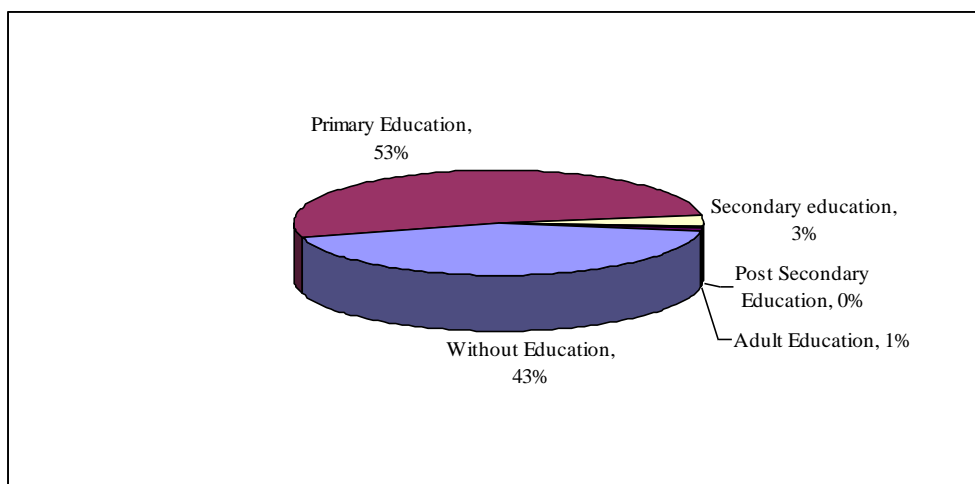
2.2.4 Literacy Rate and Level of Education

According to the 2002 Census Results, the literacy rate for individuals aged five years and above for Makete district was the lowest in Iringa region being 69 percent. Literacy rate among male heads of households was higher (60 percent) than that of females heads (55 percent).

With regard to education status, the National Sample Census of Agriculture 2002/03 reveals that the highest educational level for most heads of households was primary education (53 percent), followed by those without education 43 percent and those with secondary education (3 percent). Only

0.2 percent had post secondary education and those with adult education only were 0.8 percent. Figure 4 shows the percentage distribution of heads of households in Makete district by educational status.

Figure 4: Percentage Distribution of Heads of Households by Level of Education, Makete District, 2003



Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003.

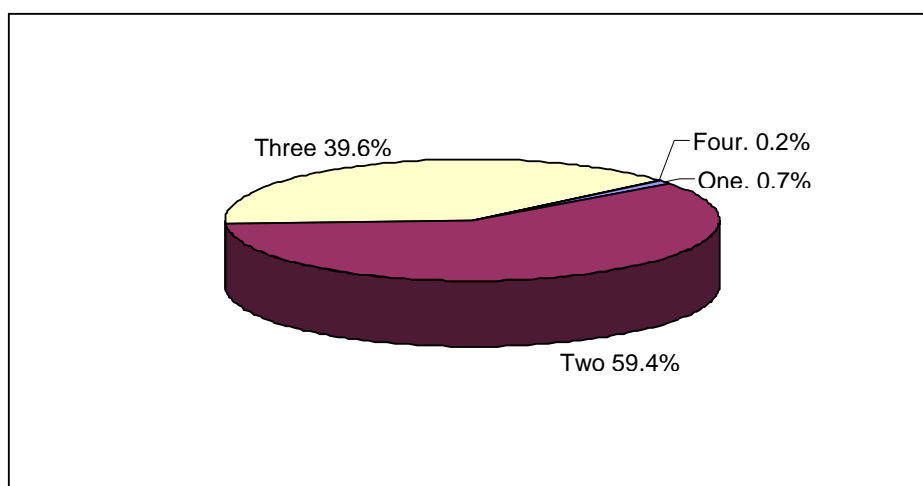
2.2.5 Food Consumption Patterns

Level of food consumption is also an indicator of poverty level of the household. Number of meals consumed in a day and frequencies of protein intake per week particularly meat and fish are most superior in measuring poverty levels of the households in the country.

2.2.5.1 Number of Meals per Day

The National Sample Census of Agriculture 2002/03 reveals that majority of rural agricultural households in Makete district normally have two meals per day (16,217 households or 58.6 percent), while 10,994 households (39.6 percent) have three meals. Moreover, the results also indicate that very few households have either one meal (321 households or 0.7 percent) or four meals per day (140 households, 0.2 percent). This result shows that food insufficiency affects a small proportion of rural households in the district.

Figure 5: Percentage Distribution of Rural Agricultural Households of Meals Taken per Day, Makete District, 2003

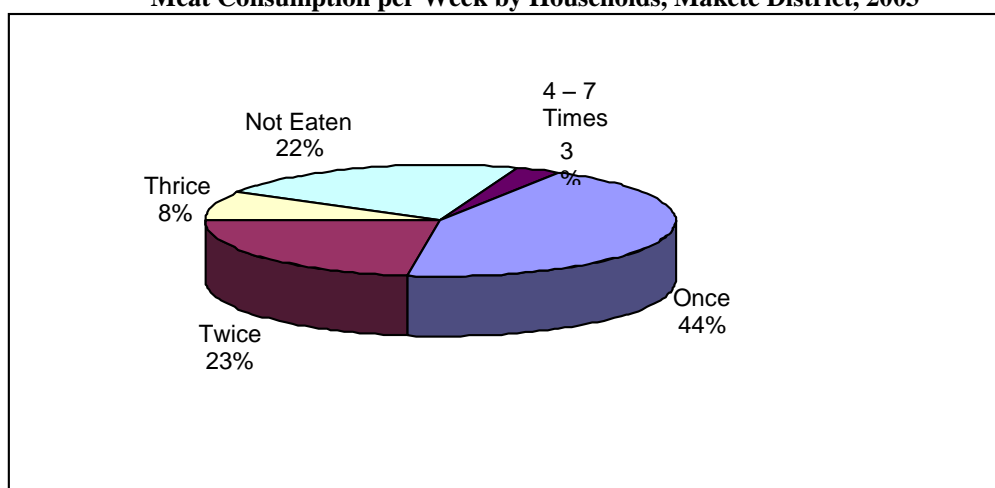


Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003

2.2.5.2 Protein (Meat and Fish) Consumption Frequencies

Makete district has a relatively small number of households that do not eat meat as reported during the Agricultural Sample Census in 2003. Figure 5a shows that most households ate meat once per week (12,224 households or 43.7 percent), followed by those who ate meat twice (5,775 households or 23.0 percent) then those who ate meat three times (2,281 households or 8.2 percent). About 5,636 households (22.4 percent) did not eat meat during the week prior to the enumeration.

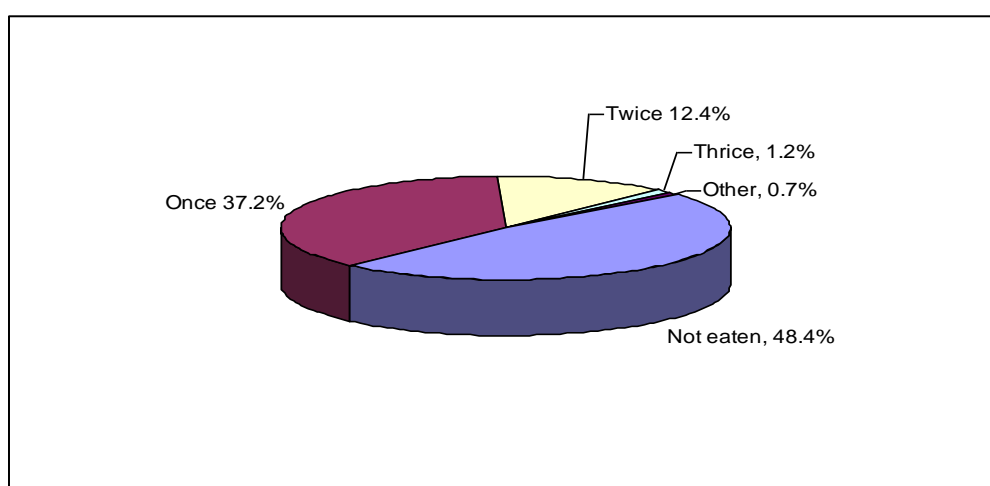
Figure 5 a: Percentage Distribution of Rural Agricultural Households by Frequency of Meat Consumption per Week by Households, Makete District, 2003



Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003.

The observation was different regarding fish consumption. About half (about 48.4 percent) of households did not eat fish during the week prior to the enumeration. However, as Figure 5b shows, about 37.2 percent and 12.4 percent of households ate once and twice per week, respectively and an insignificant number (0.7 percent of households) ate fish four to seven times in the week.

Figure 5 b : Percentage Distribution of Rural Agricultural Households by Frequency of Fish Consumption per Week by Household, Makete District, 2003



Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003

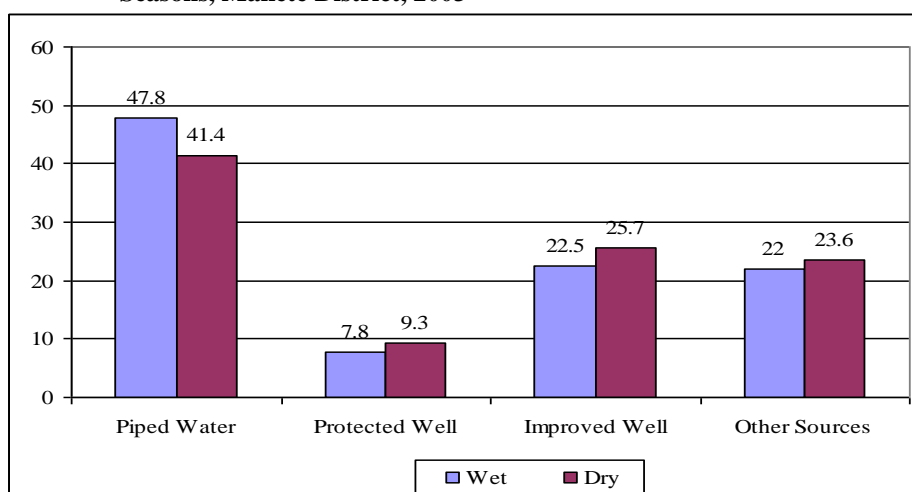
2.2.6 Access to Drinking Clean Water



The topography of the district acts as the main reason for the reliable sources of water

The topography and existence of permanent drainage system are the main reasons for the reliable sources of water in the district. Figure 6 shows that there is insignificant variation in the sources of water during wet and dry seasons. For example, the National Sample Census of Agriculture 2002/03 reveals that the proportion of Households that used piped water in the wet season was 47.8 percent compared to 41.4 percent in the dry season and piped water is the main source of drinking water in Makete district. It is followed by improved well for both seasons 22.5 percent in wet season and 25.7 percent in dry season.

Figure 6: Percentage of households by Type of Water Source during Wet and Dry Seasons, Makete District, 2003

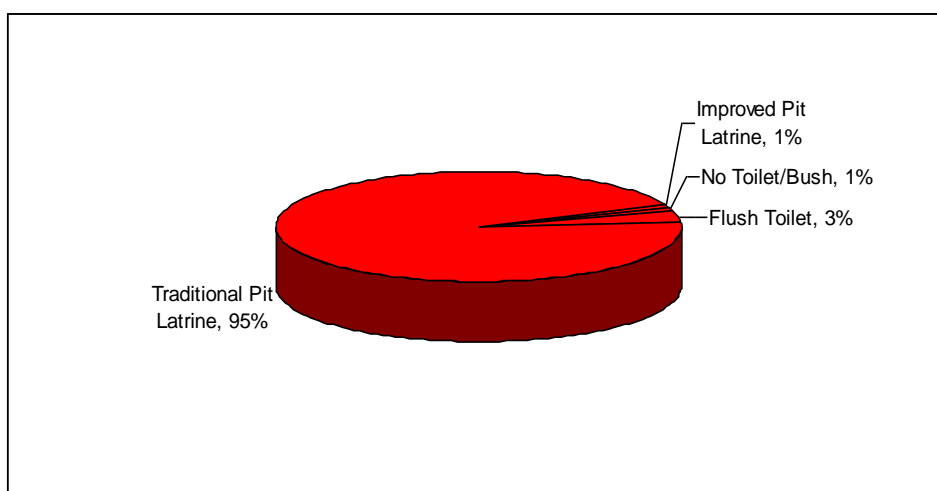


Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003

2.2.7 Types of Toilets

With respect to availability of toilets, the National Sample Census of Agriculture 2002/03 indicates that almost all households in Makete district (95.1 percent) use traditional pit latrines followed by flush toilets (3.4 percent) and improved pit latrines (0.7 percent). The percentage of households without toilets was insignificant accounting for only 0.7 percent of the households.

Figure 7: Percentage of Households by Type of Toilet Facility, Makete District, 2003



Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003

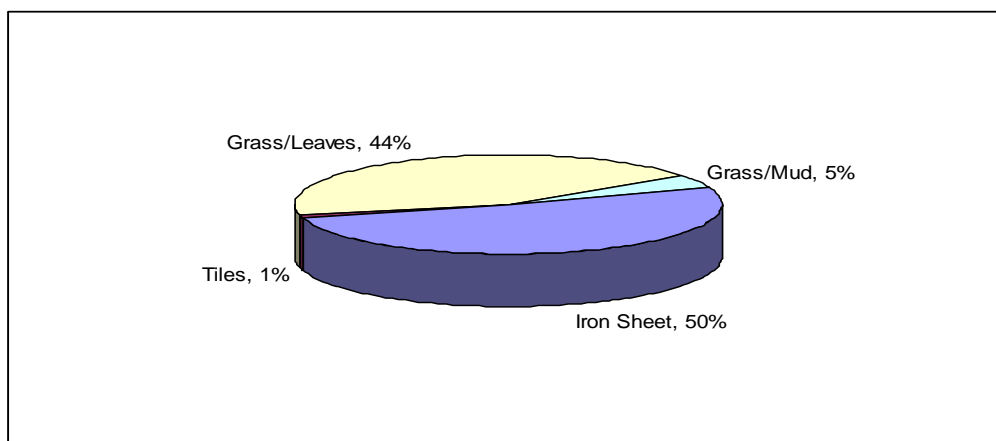
2.2.8 Roofing Materials



Grass and leaves are the common roofing materials in Makete rural areas

The National Sample Census of Agriculture 2002/03 indicates that grass and leaves are the most common roofing materials in rural areas in the country. The situation is slightly different in Makete district where 50 percent of households have iron sheets roofing, followed by grass or leaves (44 percent) and grass and mud (5 percent). However, none of the households have either concrete or asbestos roofing, while only about one percent of the households' dwellings are roofed with tiles. Figure 8 shows percentage of households by type of roofing material.

Figure 8: Percentage of Households by Type of Roofing Material, Makete District, 2003

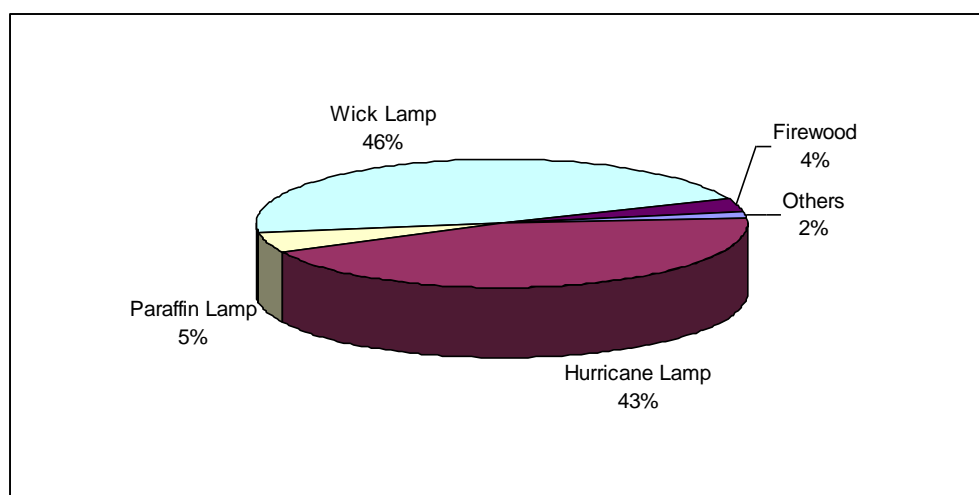


Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003

2.2.9 Source of Lighting Energy

Because of the lack of electricity in rural areas, the National Sample Census of Agriculture 2002/03 reveals that only 0.4 percent of households use it. Wick lamp was found to be the main source of lighting energy in Makete district. About 46 percent of total households use this source of energy, followed by hurricane lamp (43 percent) and paraffin lamp (5 percent), other sources such as solar, gas or biogas and firewood were used by very few (2 percent) households in the district. Figure 9 shows the percentage of households by main source of energy for lighting in Makete district.

Figure 9: Percentage of Households by Main Source of Energy for Lighting, Makete district, 2003

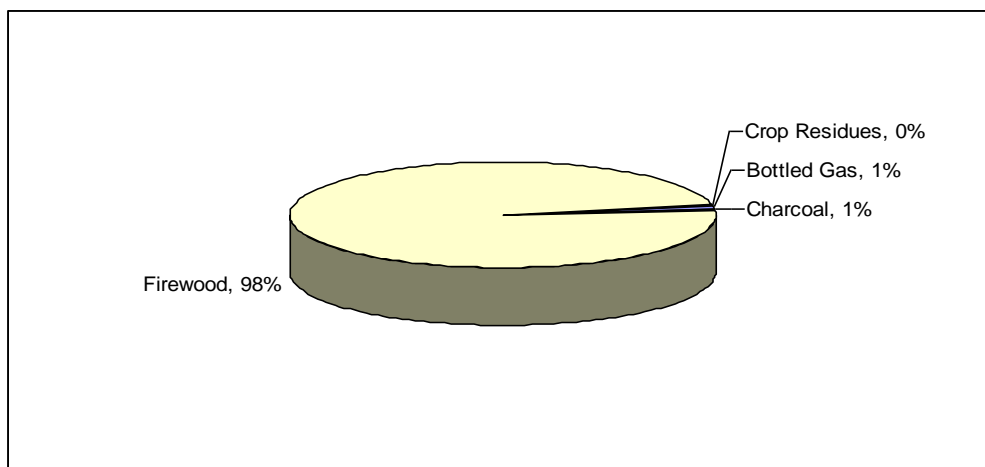


Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003

2.2.10 Source of Energy for Cooking

As reported in 1997 Makete District Socio - Economic Profile, firewood has remains to be the most prevalent source of energy for cooking as 98 percent of the households in Makete district use firewood, followed by charcoal and bottled gas (one percent each). An insignificant number of households use crop residues as a source of energy for coking. None of the households reported using modern and/or environmental friendly source of energy for cooking such as electricity, solar energy, biogas and livestock dung. If the current practice continues deforestation and depletion of natural vegetation through using firewood and charcoal will destroy the nature and ecology of Makete district.

Figure 10: Percentage of Households by Main Source of Energy for Cooking, Makete district, 2003



Source: NBS, National Sample Census of Agriculture, Iringa Region, 2003

2.2.11 Land Development

Land use planning is a key aspect for development of both urban and rural areas of any district in the country. The land needs in urban areas are dominated by the demand for building plots for residential, commercial, institutional and industrial purposes. In rural areas agricultural and other production activities are the major needs for land.



Grazing area is available for both indigenous and improved cattle in Makete District

The demand for surveyed land plots in urban centres has exceeded the supply for the last five years in Makete district. By the end of 2010 the cumulative number of building plots surveyed was 20 in Iwawa urban centre at Makete district headquarters although there was only one survey and allocated plot. Other urban centres of Bulongwa, Ikonda, Lipalilo, Matamba and Kitulo although had demands for plots, had no surveyed plots. It is obvious that lack of surveyed building plots in most cases create a problem of crowded environment and mushrooming of slums or shanty town at the end.

Table 2. 4: The Demand and Supply of Building Plots in Urban Centres by Ward, Makete District, 2009 and 2010

Ward	1 st Jan. to 31 st Dec.2009			Plot Allocate d as 31 st Dec. 2009	1 st Jan. to 31 st Dec.2010			Plot Allocated as 31.12.201 0
	No. of Urban Centre s	Deman d for Plots	Plot Surveye d		No. of Urban Centre s	Deman d for Plots	Plot Surveye d	
Iwawa	1	27	-	-	1	20	1	1
Lupalilo	1	18	-	-	1	22	-	-
Matamba	1	25	-	-	1	26	-	-
Total	3	70	-	-	3	68	1	1

Source: Makete District Executive Director's Office –Land, Natural Resources and Environment Department, 2011

In the planning of farms, grazing areas and human settlements in rural areas, the village is the first step. By the end of 2010, Makete district had managed to survey all 97 villages though they have yet to be offered their village land certificates. Efforts are now directed of surveying farms since only 2 farms were surveyed up to that time.

Table 2. 5: Village Land Planning in Rural Areas by Ward, Makete District, 2006

Division	Number of Wards	Total Number of Villages	Number of Villages Already surveyed	Percent of Villages Already Surveyed
Ukwama	4	18	18	100
Lupallilo	3	23	23	100
Bulongwa	2	17	17	100
Magoma	3	13	13	100
Matamba	3	18	18	100
Ikuwo	2	09	09	100
Total	17	97	97	100

Source: Makete District Executive Director's Office –Land, Natural Resources and Environment Department, 2011

CHAPTER THREE

Productive Sectors

3.0 Overview

Chapter three explains the performance of productive sectors in the district. These sectors include agriculture, livestock, natural resources, mining, industrial development and the land sector development.

3.1 Agriculture



Hand hoe is the common tilling tool in Makete district

As was reported in the 2007 Makete District Profile, agriculture continued to be the main source of livelihood for the residents of Makete district, it employs about 92 percent of the district workforce. Agriculture is also the main actor of the district's economy. According to the National Bureau of Statistics, in 2008, agriculture sub-sector in the district contributed 6.1 percent to the Iringa Regional GDP of Tshs. 1,447,270 Millions. Annual crops were the leading source of income followed by permanent crops, livestock and forestry.

Despite agriculture being the leading sub-sector in the economy of the district, poverty level among Makete residents still anchored due to reliance on small scale agriculture. Approximately more than 95 percent of the population depends on under-developed smallholder primary agricultural production, characterised by the use of inferior agriculture tools such as hand hoes and reliance upon traditional rain-fed cropping methods and animal husbandry in large part of the district. However, other challenges facing agriculture sector in the district are low fertility soils, minimal use of external farm inputs, environmental degradation, significant food crop loss (both pre- and post – harvest), inadequate food storage and preservation that results in significant commodity price fluctuation. Unreliable market outlets and poor transport network and few support mechanisms are also among the obstacles.

Food crops mainly produced in the district are maize, paddy, wheat, sweet potatoes, round potatoes and beans while coffee and pyrethrum are produced as cash crops. Makete people do also use food crops as cash crops in order to enhance their incomes and ensure food availability throughout the year.

3.1.1 Status of Agricultural Personnel

Availability of agriculture personnel is one of the important aspects in attainment of Kilimo Kwanza target not only in Makete district, but to the whole country. From 1st January to 31st December 2010 agriculture sub sector had a total of 29 employees with agriculture field/assistant officers constituting 96.6 percent of the total employees (Table 3.1). Table 3.1 also indicates that Lupalilo division where the district's headquarters is located had the highest concentration of employees (13), and, up to the end of 2010, Ikuwo and Magoma divisions had the least number of employees in agriculture sub-sector each with 2 employees.

Table 3. 1: Availability of Agriculture Personnel by Division, Makete District, 2010

Ward	Agriculture Officers	Agriculture Field/Assistant Officers	Total
Ikuwo	-	2	2
Lupalilo	1	12	13
Ukwama	-	4	4
Bulongwa	-	3	3
Magoma	-	2	2
Matamba	-	5	5
Total	1	28	29
Percent	3.4	96.6	100

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.2 Contribution to Regional Agricultural Production

With the reference of Table 3.2, tonnages produced at regional level during 2007/08 agriculture censuse was lower by 53.1 percent compared to 2003/04 agriculture censuse while the contribution of the district to the regional production was higher in 2007/08 than that of 2003/04. Moreover, 64 percent of pyrethrum produced in the region during the agriculture year of 2007/08 was from Makete. Paddy and beans production contributed the least to the regional production

Table 3. 2: District's Share to the Regional Production of Selected Major Food and Cash Crop Production during 2003/04 and 2007/08 Agriculture Censuses

Crop	Regional Production (Tons)		Makete District Production (Tons)		Percentage Contribution of the District to the Regional Production	
	2003/04	2007/08	2003/04	2007/08	2003/04	2007/08
Maize	637,510	383,035.10	32,200	23,816.03	5.1	6.2
Paddy	30,400	17,488.50	576	861.95	1.9	4.9
Wheat	21,000	12,646.30	6,250	4,263.66	29.8	33.7
Sweet Potatoes	63,630	2,974.60	639	276.47	1	9.3
Round Potatoes	325,840	80,958.30	49,084	27,305.01	15.1	33.3
Beans	62,670	37,413.28	1,620	1,694.60	2.6	4.5
Pyrethrum	170	609.67	42.3	390.03	24.9	64
Total	1,141,220	535,125.8				

Source: NBS, Agriculture Censuses Reports, 2003/04 and 2007/08

3.1.3 Agricultural Household and Involvement in Farming

Table 3.3 indicates the number of agricultural household members by the level of involvement in farming activity in Iringa region in 2007/08 agriculture year. With the exception of Iringa Urban and Njombe Mji, Makete district which is typical rural district had the least number (46,905) of agricultural household members who were full time in the farm. Those who worked part-time on the farm were 6 percent, rarely works on the farm (7 percent) and never works on the farm (8 percent) respectively.

Table 3. 3: The Number of Agricultural Household Members By Level of involvement in Farming Activity, Iringa Region 2007/08 Agricultural Year

District	Involvement in Farming							
	Works Full-time on Farm		Works Part-time on Farm		Rarely Works on Farm		Never Works on Farm	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Iringa Rural	101,062	18	9,592	22	48,654	20	49,489	15
Mufindi	99,871	18	7,633	18	87,467	35	76,334	23
Makete	46,905	9	2,514	6	16,521	7	27,008	8
Njombe	134,610	25	10,485	24	31,623	13	75,930	23
Ludewa	47,599	9	2,769	6	17,207	7	31,645	9
Iringa Urban	1,876	0	93	0	2,604	1	713	0
Kilolo	87,356	16	5,576	13	34,112	14	56,634	17
Njombe Mji	27,035	5	4,181	10	11,069	4	16,922	5
Total	546,315	100	42,843	100	249,257	100	334,675	100

NBS, Agricultural Censuse Data, 2007/08

3.1.4 Irrigation Prospects

During 2007/08 agriculture year, Makete district had 3 percent of the total agriculture households in Iringa region reported using irrigation (NBS, Agriculture Censuse data, 2007/08). Furthermore, the Makete District Authority managed to identify a total of 1,175 hectares useful for irrigation in 2010 (Table 3.4). This was an increase of 685 hectares (140 percent increase) from 490 hectares identified in 2003.

Table 3. 4: Irrigation prospects by Ward, Makete District, 2003 and 2010

Ward	Year 2003		Year 2010	
	Estimated Potential Area (Ha)	Area Under Irrigation (Ha)	Estimated Potential Area (Ha)	Area Under Irrigation (Ha)
Mfumbi	400	-	800	160
Bulongwa	40	-	175	30
Ikuwo	30	-	200	20
Ipepo	20	-	-	-
Total	490	-	1,175	210

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.5 Agricultural Inputs

Reducing rural poverty by delivering appropriate agricultural inputs and improving output markets for Tanzanian farmers are among the objectives of

"Kilimo Kwanza" ("Agriculture First") in Tanzania. In Kilimo Kwanza, priority was given to the distribution of chemical fertilizers, including establishing credit facilities for farmers, and setting up storage for a warehouse receipt system.

Makete is like other rural districts in Tanzania, the implementation of Kilimo Kwanza attributes to the increase in availability of agricultural inputs among small scale farmers. However, researches are needed to investigate if the subsidy program has fruitful results in terms of production increase.

3.1.5.1 Chemical Fertilizers

Chemical fertilizers in Makete district are of more use than organic fertilizers due to limited availability of organic fertilizers. Initiatives made by the government of Tanzania to introduce the system of distributing chemical fertilizers to farmers through 'Vouchers System' in the country, had positive impact in the district especially in the quantity of fertilizers supplied (Table 3.5). As Table 3.5 highlights, though there was a shortage of fertilizers, the quantity distributed to farmers increased by 379.5 percent (8,004 tones), from 2,109 tones in 2009/10 to 10,113 in 2010/11. Nevertheless, remarkable increase in demands of chemical fertilizers observed over the crop season of 2009/10 and 2010/11 has good indication on the increase of awareness among farmers on the use of chemical fertilisers for better crop yields.

Table 3. 5: Availability of Chemical Fertilisers (in Tones), Makete District, 2009/10 and 2010/11

Type of Fertilizer	2009/10			2010/11		
	Demand	Distributed	Shortage /Excess	Demand	Distributed	Shortage/Excess
DAP	2000	912	-1088	9652	2994	-6658
UREA	700	818	118	5296	2998	-2298
TSP	250	0	-250	2914	2014	-900
CAN	600	369	-231	5297	2107	-3190
MRP	300	10	-290	300	0	-300
District Total	3850	2109	-1741	23459	10113	-13346

TSP: Triple Super Phosphate; DAP: Double Ammonium Phosphate

CAN: Calcium Ammonium Nitrate; MRP: Minjingu Rock Phosphate

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.5.2 Fungicides

Table 3.5a highlights the list of fungicides used for controlling plant pests in the district. According to the table, fungicides distributed to farmers during crop season of 2010/11 were less by 2.5 tones compared to 16 tones distributed during the crop season of 2009/10. However, data provided in Table 3.5a also highlights that farm inputs suppliers had critical shortage of blue copper in 2009/10 and 2010/11 in such a way that they failed to meet the demand. There was a big difference on the quantity of blue copper demanded and distributed.

Table 3.5 a: Availability of Fungicides (in Tones), Makete District, 2009/10 and 2010/11

Type of Fungicide	2009/10			2010/11		
	Demand	Distributed	Shortage/ Excess	Demand	Distributed	Shortage/ Excess
Dithane M45	3	2	-1	3	1.7	-1.3
Ridomil	7	8	1	8	7.8	-0.2
Blue copper	30	6	-24	11	4	-7
District Total	40	16	-24	22	13.5	-8.5

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.5.3 Insecticides

Table 3.5b reveals that Sumithion, Actelic (50cc), Dazban (YLV), Dazban (50 EC) and Actelic dust were commonly used insecticides in 2009/10 and 2010/11 respectively. 153.5 litres (8.8 percent) of the requested insecticides in 2009/10 and 650.2 litres (37.6 percent of total requested) in 2010/11 was distributed to farmers in 2010/11 in Makete district.

Table 3.5 b: Availability of Insecticides (Ltrs, Tones), Makete District, 2009/10 and 2010/11

Type of Insecticide	2009/10			2010/11		
	Demand	Distributed	Shortage/ Excess	Demand	Distributed	Shortage /Excess
Sumithion	1100	-	-1100	1100	548	-552
Actelic 50cc	200	-	-200	200	98	-102
Dazban (YLV)	200	-	-200	200	-	-200
Dazban (50 EC)	220	150	-70	220	-	-220
Actelic Supp. dust	10 tones	3.5	-6.5	11	4.2	-6.8
District Total	1730	153.5	-1,576.5	1731	650.2	-1080.8

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.5.4 Improved Seeds

Based on the tonnage of improved seeds requested (demanded) and distributed, Makete district had maximum use of improved seeds of maize, wheat and beans (Table 3.5c). Crops such as paddy and pyrethrum were in low use during the crop seasons of 2009/10 and 2010/11.

Table 3.5 c: Availability of Improved Seeds (Tones), Makete District, 2009/10 and 2010/11

Type of Seed	2009/10			2010/11		
	Demand	Distributed	Shortage/ Excess	Demand	Distributed	Shortage/Excess
Maize	345	180	-165	395	329	-66
Wheat	500	134	-366	500	147	-353
Beans	168	168	0	400	178	-222
Paddy	1.4	1.4	0	1.9	1.5	-0.4
Pyrethrum	0.5	0	-0.5	0.5	0	-0.5
District Total	1014.9	483.4	-531.5	1297.4	655.5	-641.9

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.6 Farm implements



Mechanised agriculture is essential for agriculture development

Although agriculture mechanisation in Makete is limited by the topographic nature of the district, some development had been observed in 2010/11 compared to 2007/08 (Table 3.6). As the Table shows, the increase in

demands from 421 implements in 2007/08 to 625 in 2010/11 and also the increase of distributed implements from 205 in 2007/08 to 421 in 2010/11 was a good indication that the agriculture sector in the district is developing from hand hoe dependence to better agriculture tools. Moreover, ox-plough, ox-chain and ox-shares were distributed in large quantity than any other implements in 2010/11.

Table 3. 6: Availability of Agriculture Implements in Makete District, 2007/08 and 2010/11

Type of Implement	2007/08			2010/11		
	Demand	Distributed	Shortage/Excess	Demand	Distributed	Shortage/Excess
Ox plough	25	115	+90	30	114	84
Ox harrow	10	0	-10	20	10	-10
Oxbridge	10	15	+5	-	12	12
Oxcart	20	15	-5	-	15	15
Ox cultivator	15	15	0	-	-	-
Ox chain	180	17	-163	200	114	-86
Ox shares	160	8	-152	200	114	-86
Tractors	1	12	+11	5	14	9
Power tillers	0	8	+8	170	31	-139
District Total	421	205	-216	625	424	-201

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.7 Land under Cultivation

3.1.7.1 Area under major food crops cultivation

Table 3.7 gives estimated areas planted with major food crops in the district. As it was during the crop season of 2001/02 to 2005/06 (Makete District Profile Report of 2007), the same crop, maize was observed to be the most predominant crop grown in the district over the period 2007/08 – 2010/11, with an annual average planted area of 14,152 ha. The Table further indicates that beans had the smallest annual planted area of 3,591.5 ha.

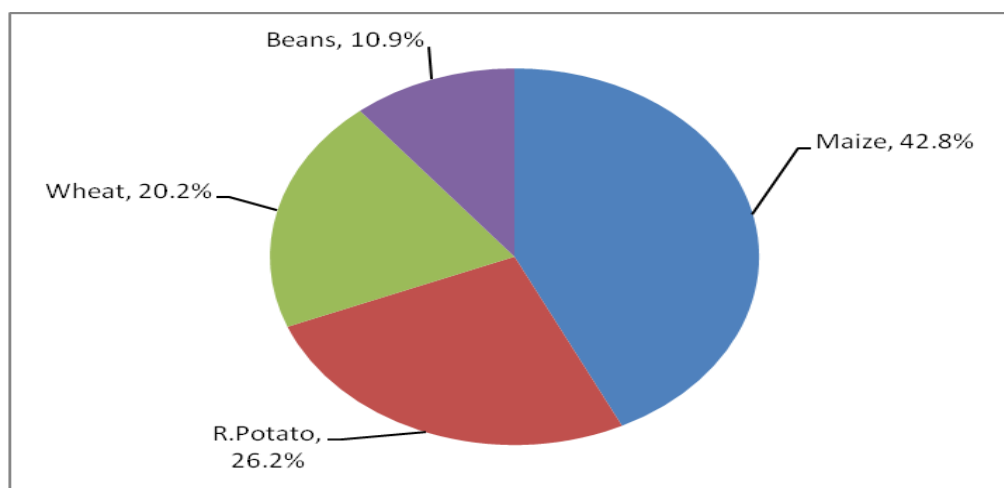


Maize is leading in terms of area planted with major food crops

Table 3. 7: Estimated Area (Ha) Planted with Major Food Crops, Makete District, 2007/08 to 2010/11

Crop	2007/08	2008/09	2009/10	2010/11	Annual Average	Percent
Maize	13200	13220	14725	15463	14152	42.8
R.Potato	8600	9000	8048	8994	8660.5	26.2
Wheat	7050	7250	4000	8468	6692	20.2
Beans	2098	4200	4009	4059	3591.5	10.9
District Total	30,948	33,670	30,782	36,984	33,096	100

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

Figure 11: Percentage of the Districts' Total Arable Land Planted with Major Food Crops, 2007/08-2010/11

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.7.2 Area under major cash crops cultivation

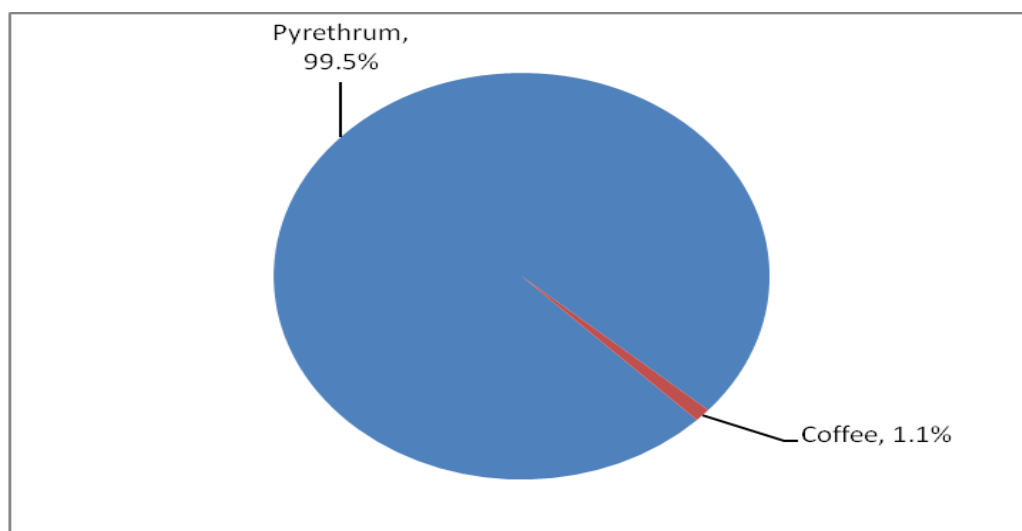
Pyrethrum and coffee are the principal cash crops in Makete district. Annual average planted area of these crops decreased by 2,105.8 ha (67.1 percent decrease) from 3,136.1 ha in 2005/06 (reported in Makete district profile report, 2007) to 1,030.3ha in 2010/11 as indicated in Table 3.8. Table 3.8 further indicates that with annual average planted area of 1,800 ha, the crop season of 2008/9 was the best year while 2010/11 was the worse with 469 ha.

Table 3. 8: Estimated Planted Areas (Ha) for Major Cash Crops, Makete District, 2007/08 to 2010/11

Crop	2007/08	2008/09	2009/10	2010/11	Annual Average
Pyrethrum	617	1800	1224	458	1024.8
Coffee	-	-	11	11	11
Total	617	1800	1235	469	1030.3

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

Figure 12: Percentage of the Districts' Total Arable Land Planted with Major Cash Crops, 2007/08-2010/11



Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.8 Crop Production

3.1.8.1 Food Crops

Table 3.9 highlights trend of major food crops production over the period 2007/08 to 2010/11. The district over the period under consideration, managed to produce a total of 334,391 tons averaged annually at 83,597 tons. This production was slightly higher than a total of 318,752 tons produced over the period of 2002/03 to 2005/06.

Further analysis of Table 3.9 reflects that production of major food crops in the district was in increasing trend. It increased by 43,462 tons (equivalent to 61.7 percent increase) from 70,223 tons in 2007/08 to 113,685 tons in 2010/11. Roundpotatoes was leading in production followed by maize and wheat. Tonnage of paddy produced the least at a total of 2,168 tons respectively.

Table 3. 9: Estimated Production (Tones) of Major Food Crops, Makete District, 2007/08 to 2010/11

Crop	2007/08	2008/09	2009/10	2010/11	Total	Annual Average
Maize	23760	23796	26509	27833	101,898	25,474.5
R.Potatoes	34400	36000	36924	71952	179,276	44,819
Wheat	7050	7250	8346	8468	31,114	7,778.5
Beans	2075	2100	2016	2030	8,221	2,055.3
Sorghum	722	830	900	432	2,884	721
Garden peas	776	735	745	866	3,122	780.5
Sweat potatoes	950	1956	1431	1371	5,708	1,427
Paddy	490	495	450	733	2,168	542
District Total	70223	73162	77321	113685	334,391	83597.8

Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

(a) Round Potatoes



The majority of farmers in Makete district grow round potatoes as both food and cash crop

The majority of farmers in Makete district grow round potatoes as both a food and a cash crop, and therefore it is a major source of cash income. Production of round potatoes remarkably increased by 37,552 tons (109.2 percent increase) from 34,400 tons in 2007/08 to 71,952 in 2010/11. Round potatoes are produced in all wards except Mfumbi ward.

(b) Maize

Maize is another important food crop grown in Makete district. Like round potatoes, maize is small holder crop which is grown for both household consumption and sale. As Table 3.9 shows, the average annual production of maize over the period of 2007/08 – 2010/11 was 25,474.5 tones for which the crop ranks second in the district. Maize is produced in all wards in the district.

(c) Wheat

Wheat rank third food crop in terms of production after round potatoes and maize (Table 3.9). It is used both as food and cash crop. Table 3.9 also highlights that production of wheat between 2007/08 and 2010/11 ranged from 7,050 to 8,468 tones. Wheat is produced in all wards except Mfumbi.

(d) Beans

Over the period of 2007/08 to 2010/11 beans ranked fourth important crop in terms of production. Its production hit the peak at 2,100 tones in 2008/09 and was worse during the crop season of 2009/10 at 2,016 tones respectively. Beans are produced in all wards in the district.

3.1.8.2 Cash Crops

Pyrethrum and coffee observed to be the major cash crops in the district over the period of 2007/08 to 2010/11. Area planted with cash crops in the district dropped by 2,105 hectares (67.1 percent) from 3,136.1 reported in Makete district profile Report of 2007 to 1,030.3 hectares reported in 2010/11 (Table 3.9).

The production of pyrethrum and coffee still declined in the district due to high cost of production against the revenue, stiff market, high transportation cost of farm produce as well as lack of cooperative societies which would help farmers sell their farm produce at affordable prices.

(a) Pyrethrum

Pyrethrum is the most important cash crop grown in Makete district. As Table 3.10 reveals, out of the total tonnage of 3,285.7 of cash crops produced over the period of 2007/08 to 2010/11, the share of pyrethrum was 3,283 tonnes, equivalent to 99.9 percent. At ward level, pyrethrum is produced mostly in Mang'oto, Lupila, Mbalatse, Bulongwa, Iniho, Ipelele, Lupalilo, Kipagalo, Iwawa, Matamba, Mlondwe, Kitulo, Ikuwo, Kigulu, Ukwama and Ipepo which constitutes about 99.3 percent of district production.



Pyrethrum is the leading cash crop in the district

Table 3.10: Estimated Production in tonnes under Major Cash Crops, Makete District, 2007/08 to 2010/11

Crop	2007/08	2008/09	2009/10	2010/11	Total	Annual Average
Pyrethrum	278	810	1829	366	3283	820.8
Coffee	-	-	2.7	-	2.7	0.7
Total	278	810	1831.7	366	3,285.7	821.4

Source District Executive Director's Office (Agriculture Department), Makete District, 2011

Coffee

Coffee is another cash crop in the district grown by small scale farmers. As Table 3.10 shows, contribution of coffee in production was insignificant. It was only 2.7 tones over the whole period under consideration.



Coffee is the second major cash crop in the district

3.1.8.3 Yield per Hectare of Major Food and Cash Crops

Performance and development of agriculture sector can also be evaluated by observing yield per hectare of crop harvests. National agriculture policy set standard of yield per hectare of major food and cash crops in the country. According to the policy, yield per hectare tends to increase under optimum use of farm inputs and better farm management skills supported with favorable climate.

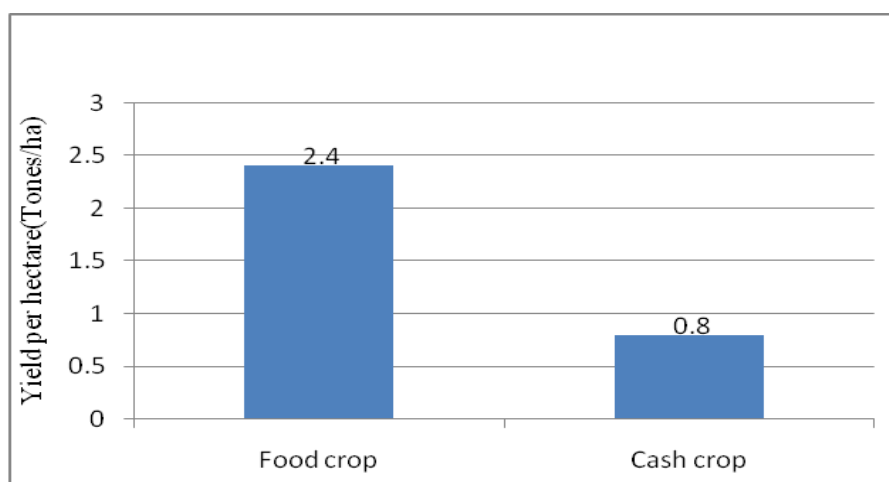
Table 3.11 highlights yield per hectare of both food and cash crops in Makete district over the four years period 2007/08 to 2010/11. On average, one hectare of food crop over the given period yield 2.4 tones/ha while 0.8 tones/ha was the yield for cash crops. Round potatoes had the best yield (5.2 tones/ha) for food crops while in cash crops pyrethrum had the best (0.8 tones/ha).

Table 3. 11: Production per Hectare of Major Food and Cash Crops, Makete District, 2007/08 – 2010/11

Crop	Food Crops			Cash Crops			
	2007/08 – 2010/11			2007/08 – 2010/11			
	Annual average planted area (ha)	Annual average harvests (Tones)	Average Yield (Annually) (Tones/ha)	Crop	Annual average planted area (ha)	Annual average harvests (Tones)	Average Yield (Annually) (Tones/ha)
Maize	14152	25,474.5	1.8	Pyrethrum	1024.8	820.8	0.8
R.Potato	8660.5	44,819.0	5.2	Coffee	11	0.7	0.1
Wheat	6692	7,778.5	1.2				
Beans	3591.5	2,055.3	0.6				
Total	33096	80,127.3	2.4	Total	1035.8	821.5	0.8

Source District Executive Director's Office (Agriculture Department), Makete District, 2011

Figure 13 : Yield per hectare of Major Food and Cash crops, 2007/08-2010/11



Source: District Executive Director's Office (Agriculture Department), Makete District, 2011

3.1.9 Crops Marketing

Crop marketing in Makete district involves both food and cash crops. Food crops like round potatoes, maize and wheat normally serve the internal markets of the district. Moreover, pyrethrum which is the main cash crop contributed most to the district revenue at a total of Tshs. 109,171,500 in 2010/11.

3.1.10 Investment Opportunities in Agriculture sector

Makete is among the districts in Iringa region which receives favourable rainfall suitable for growing both food and cash crops. For increasing crop

production, supply of chemical fertilizers at affordable prices is essential. System of subsidizing chemical fertilizers to farmers through 'Voucher system' needs to be emphasized to make more farmers benefit from this programme. Moreover, credit facilities for improved seeds is also important for better crop yield.

3.2 Livestock sub-sector

3.2.1 Introduction

Apart from agriculture, livestock keeping is also an important economic activity for Makete residents. According to 2002 Population and Housing Census Makete District Report, 1.06 percent of the district's population aged 5 years and above was engaged in this sub-sector. Livestock keeping normally done traditionally and involves mostly indigenous cattle, goats and poultry. Other livestock kept were sheep, donkeys and pigs (Table 3.13). However, livestock sub sector makes a big contribution to food security and poverty eradication at household level. Besides, this sub sector is an important source of protein food through meat, milk and poultry products.

3.2.2 The Status of Livestock Personnel

The quality of livestock services provided largely depends on the status of Livestock/veterinary/field officers. Table 3.12 highlights that for the period of January to December 2010 the district had a total of 11 staff in livestock sub-sector, and were less by 3 staff compared to 14 staff who were available in 2007 (Makete District Profile Report 2007, page 48).

Table 3. 12: Type and Total Number of Livestock Sub-sector Personnel by Ward, Makete district, January – December 2010

Ward	Livestock Officers/Veterinary Officer	Livestock Field Officers	Total
Iwawa	2	2	4

Ukwama	-	1	1
Lupalilo	-	1	1
Bulongwa	-	1	1
Matamba	-	1	1
Mbalatse	-	1	1
Iniho	-	1	1
Mlondwe	-	-	-
Kipangalo	-	-	-
Ipelele	-	1	1
Mang'oto	-	-	-
Ipepo	-	-	-
Lupila	-	-	-
Mfumbi	-	-	-
Kitulo	-	-	-
Ikuwo	-	-	-
Kigulu	-	-	-
Total	2	9	11

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.3 Livestock Population



Poultry (indigenous chicken) are the most populous livestock in the district

Table 3.13 displays estimated livestock population in Makete district in the year 2010. According to the table, livestock totalled at 123,442 found in the district in that particular year. Poultry with 54,756 population was the dominant livestock and accounted for 44.4 percent of the district's total livestock population, followed by cattle (30,818, 25 percent) and goats (24,653, 20 percent). Others were sheep (7,187, 5.8 percent), pigs (5,330, 4.3 percent) and the population of donkeys was the least (1,091 0.9 percent).

Proportion of livestock population by wards reveals that Matamba ranked first (13,898, 11.3 percent of the total livestock in the district), Iwawa ranked second (13,055, 10.6 percent) and Lupalilo ranked third (12,044, 9.8 percent). The fourth and fifth wards were Mlondwe (11,238, 9.1 percent) and Bulongwa (8,746, 7.1 percent), respectively. Nevertheless, Table 3.13 also indicates that Kigulu ward had the least number of livestock in 2010.

Further analysis of Table 3.13 indicates that, in 2010, Iwawa ward had the largest concentration of goats, sheep and pigs, Matamba populated mostly

with cattle and donkeys, and, Lupalilo ward had the highest concentration of poultry in the district.

Table 3. 13: Estimated Livestock Population by Ward, Makete District, 2010

Ward	Cattle	Goats	Sheep	Donkeys	Pigs	Poultry	Total	Percent
Bulongwa	1185	1651	198	-	513	5199	8746	7.1
Kipagalo	1223	489	96	-	178	3956	5866	4.8
Ipelele	3467	481	179	58	552	1634	5908	4.8
Lupalilo	2252	1721	700	11	394	6966	12044	9.8
Mang'oto	1242	953	327	8	176	1900	4606	3.7
Ukwama	689	774	98	-	223	1412	3196	2.6
Iniho	2788	651	242	10	413	2915	7019	5.7
Ipepo	435	1106	275	-	59	1917	3792	3.1
Lupila	752	2403	256	5	132	4283	7831	6.3
Iwawa	3334	3177	1147	289	738	4370	13055	10.6
Mbalatse	1345	829	235	2	32	1305	3748	3.0
Ikuwo	1228	1951	614	146	345	4320	8604	7.0
Kitulo	2026	1269	247	257	262	858	4919	4.0
Mfumbi	2047	2176	1051	4	82	1546	6906	5.6
Matamba	3821	2042	720	358	534	6423	13898	11.3
Mlondwe	2928	2848	776	89	519	4078	11238	9.1
Kigulu	56	132	26	-	178	1674	2066	1.7
Total	30818	24653	7187	1091	5330	54756	123442	100
Percent	25.0	20.0	5.8	0.9	4.3	44.4	100.0	

Source District Executive Director's Office (Agriculture Department), Makete District, 2011

(i) Cattle Population



Indigenous cattle is the second most populous livestock in the District

Referring to 2007/08 Agricultural Sample Censuse data, number of cattle in Makete district was 39,219 (8.3 percent of the total number of cattle in Iringa region). However, during the intercensal period of 2002/03 and 2007/08 the number of cattle in the district decreased by 114,128 (74 percent decrease) from 153,347 observed in Agriculture Censuse of 2002/03 to 39,219 of 2007/08 censuse. In the year 2010 cattle population in the district continued to decrease and reached 30,818. The effort made by the government to prevent natural environment and sources of water in the southern areas including Makete, caused many livestock keepers shifting to other areas in the country where they would feed their animals free from restrictions.

Table 3.14: Population Distribution of Cattle by Type and by District, Iringa Region, 2007/08 Agricultural Year

District	Farming Households	Population of Cattle by Type					Average Number of Herds per Household
		Indigenous Cattle	Improved Dairy Cattle	Improved Beef Cattle	Total	Per Centage	
						District Share	
Iringa							
Urban	47	295	155	0	450	0.1	9.6
Iringa							
Rural	5,282	58,941	973	0	59,915	12.6	11.3
Kilolo	5,576	51,933	328	328	52,589	11.1	9.4
Njombe	21,997	174,717	2,369	547	177,633	37.4	8.1
Makete	7,183	35,125	3,735	359	39,219	8.3	5.5
Mufindi	11,450	101,938	5,248	0	107,186	22.6	9.4
Ludewa	6,065	36,326	1,450	264	38,040	8.0	6.3
Total Region	57,600	459,275	14,258	1,498	475,031	100	8.2
Percent of Cattle Type		96.7	3.0	0.3	100		

Source: NBS, Agriculture Sample Census - Iringa Region, 2007/08

(ii) Goat Population

Goat population in Makete were continuously decreasing. It decreased by 25.3 percent from 74,661 observed during agriculture censuse of 2002/03 to 55,740 of 2007/08 agriculture censuse. It decreased further to 24,653 in year 2010.

Indigenous goats were the dominant goat type followed by improved dairy goats. The ecosystem of Makete district to a large extent favours dairy goat keeping. Kitulo dairy farm is a good example of large scale improved dairy goats keeping in the district.

(iii) Pig Population

Makete district had 3.5 percent of the total pig population found in Iringa region during agriculture year of 2007/08. The district also ranked sixth

district in pig population (Agriculture Censuse 2007/08). Compared to 2002/03 agriculture censuse, pig population decreased remarkably in 2007/08. They decreased by 35,905 pigs from 44,381 counted during agriculture censuse of 2002/03 to 8,476 of 2007/08 agriculture censuse. The number of pigs deceased further to reach 5,330 in year 2010.

(iv) Sheep Population

The 2007/08 Agriculture Sample Censuse results showed that Makete district had a total of 8,763 sheep and was the second district in Iringa region in sheep population after Njombe. The district also had 15.5 percent of the total sheep population of the whole Iringa region in that respective year. In the year 2010 the number of sheep in Makete slightly dropped to 7,187 from 8,763 of 2007/08. However, most of the households in the district kept sheep both for home consumption and as an asset to be used to solve family problems.

(v) Poultry Population

According to the Agriculture Sample Censuse 2007/08 data, 6.4 percent of all chicken in Iringa region were observed in Makete district. During that period, the district had a total of 150,842 poultry which was higher by 26.5 percent compared to 119,261 poultry observed during the 2002/03 Agriculture Sample Censuse. Unfortunately, the number of poultry in 2010 decreased by 63.6 percent from 150,842 in 2007/08 to 54,756 in 2010 respectively.

Table 3. 15: Population of Other Livestock by Type and District, Iringa Region, 2007/08

District	Type of Livestock			
	Chickens	Ducks	Donkeys	Rabbits
Iringa Urban	8,123	78	-	233
Iringa Rural	384,927	8,480	1,529	1,112
Kilolo	352,705	10,277	-	2,952
Njombe	700,957	3,850	418	11,083
Makete	150,842	1,508	1,508	2,011
Mufindi	535,454	7,792	-	7,633
Ludewa	210,572	593	396	5,340
Total Region	2,343,580	32578	3851	30364

Source : The 2007/08 Agriculture Sample Census Report – Iringa Profile

3.2.4 Grazing Land

Grazing land is defined as the land that is available for the grazing needs of livestock. It excludes all tsetse fly area, all wildlife and forest reserves also tree plantations, but it includes game controlled areas. In many cases it overlaps arable land and areas for ‘other use’. The district’s area annually used for grazing is estimated at 15,619 hectares, equivalent to 78.2 percent of the total land area suitable for grazing (Table 3.16). Moreover, grazing land in the district in 2010 was not under pressure due to the fact that 4,354 hectares (21.8 percent of the total land suitable for grazing) was unutilised (Table 3.16).

Table 3. 16: Estimated Area under Grazing by Ward, Makete District, 2010

Ward	Land Suitable for Grazing (Ha)	Land used for Grazing (Ha)	Unutilised suitable land(ha)
Ipelele	1525	1233	292
Lupalilo	2760	2015	745
Matamba	3116	2914	202
Bulongwa	2054	1806	248
Mfumbi	2187	1940	247
Ikuwo	2463	2007	456
Kitulo	6520	5250	1270
Kipagalo	1412	1102	310
Lupila	2786	1804	982
Iniho	2551	1710	841
Total	19,973	15,619	4,354
Percent	100	78.2	21.8

Source : District Executive Director's Office (Agriculture Department), Makete District, 2011

3.2.5 Major Livestock Diseases

The quality of livestock depends on the delivery of health services such as dips, veterinary health centres and water sources in the district. The service delivery constraints have caused poor animal health in the district.

3.2.5.1 Cattle Diseases

The most common diseases for cattle were tick borne, east coast fever, helminthiasis and black quarters. The district authority has not managed to reduce the number of morbidity of cattle. Helminthiasis was the most cause of morbidity in 2008, 2009 and 2010 in which 8,847, 6,677 and 5,672 herds of cattle were affected, respectively. Table 3.17 also indicates that east coast fever was the major killer disease in all three consecutive years indicated in the table.

Table 3. 17: Major Cattle Diseases Which Cause Morbidity and Mortality in Makete District in 2008, 2009 and 2010

Disease	Morbidity reported			Mortality reported		
	2008	2009	2010	2008	2009	2010
1.East Coast Fever	297	302	156	32	25	26
2.Anaplacmosis	32	26	21	-	-	1
3.Black Quarters	3	7	-	3	7	-
4.Helminthiasis	8,847	6,677	5,672	4	8	-
5.Foot Mouth	84	126	-	11	19	-
Total	9263	7138	5849	50	59	27

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.5.2 Goat Diseases

Table 3.17a shows that Helminthiasis was the most troublesome disease in Makete which caused goat morbidity of 2,864 in 2008, 3,456 in 2009 and 2,114 in year 2010. The number of goats' deaths caused by the respective disease was 29, 44 and 12 in 2008, 2009 and 2010 respectively.

Table 3.17 a: Major Goats Diseases which Caused Morbidity and Mortality in Makete District in 2008, 2009 and 2010

Disease	Morbidity reported			Mortality reported		
	2008	2009	2010	2008	2009	2010
Helminthiasis	2864	3456	2114	29	44	12
Total	2864	3456	2114	29	44	12

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.5.3 Sheep Diseases

As it had happened to cattle and goats, helminthiasis was also the most troublesome disease to sheep. Based on Table 3.17b, the disease was the only one which caused illness to sheep in those three consecutive years under consideration.

Table 3.17 b: Major Sheep Diseases which Caused Morbidity and Mortality in Makete District in 2008, 2009 and 2010

Disease	Morbidity reported			Mortality reported		
	2008	2009	2010	2008	2009	2010
1.Helminthiasis	56	38	32	-	-	-
2.Pneumonia	-	-	-	-	-	-
Total	56	38	32	-	-	-

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.5.4 Poultry Diseases

Helminthiasis was the major cause of poultry morbidity in 2008, 2009 and 2010, whereas, Newcastle was the second. In terms of poultry mortality, Table 3.17c reveals that Newcastle was leading disease followed by helminthiasis.

Table 3.17 c: Major Poultry Diseases that Caused Morbidity and Mortality in Makete District in 2008, 2009 and 2010

Disease	Morbidity reported			Mortality reported		
	2008	2009	2010	2008	2009	2010
1.New Castle Diseases	562	262	103	539	221	142
2.Fowl pox	234	168	96	21	17	11
3. Helminthiasis	1,072	1620	1123	74	155	48
Total	1868	2050	1322	634	393	201

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.6 Livestock Services

The delivery of livestock health services depends on facilities such as dips, veterinary health centres and water sources. The number of primary livestock health facilities shown in Table 3.18 were inadequate. Moreover, the only development made in the livestock sub sector in the district was to increase the number of dips which were working from 8 dips in 2007 (reported in Makete District Profile Report 2007) to 13 in 2010 as Table 3.18 shows.

Veterinary health centres are most important primary in combating diseases such as tick borne, and foot and mouth. Table 3.18 shows that there was no

veterinary health centre which was working (operating) in 2010. Therefore livestock quality in the district is in danger due to the absence of veterinary health centres which would be capable of controlling or preventing animal diseases.

Table 3. 18: Primary Livestock Facilities by Ward, Makete District, 2010

Ward	Dips			Veterinary Centers			Livestock Market/Auction
	W	NW	Total	W	NW	Total	
Lupalilo	2	-	2	-	1	-	-
Iwawa	2	-	2	-	1	-	1
Mang'oto	-	-	-	-	-	-	-
Lupalilo Division	4		4		2		1
Ukwama	-	-	-	-	-	-	-
Ipepo	-	-	-	-	-	-	-
Mbalatse	-	-	-	-	-	-	-
Lupila	-	-	-	-	-	-	-
Ukwama Division	-	-	-	-	-	-	-
Bulongwa	1	-	1	-	-	-	-
Kipagalo	-	-	-	-	-	-	-
Bulongwa Division	1	-	1	-	-	-	-
Iniho	1	-	1	-	-	-	-
Ipelele	1	-	1	-	-	-	-
Kigulu	-	-	-	-	-	-	-
Magoma Division	2		2	-	-	-	-
Matamba	2	-	2	-	-	-	-
Mlondwe	-	-	-	-	-	-	-
Kitulo	2	-	2	-	-	-	-
Matamba Division	4		4	-	-	-	-
Ikuwo	1	-	1	-	-	-	-
Mfumbi	1	-	1	-	1	-	1
Ikuwo Division	2	-	2	-	1		-
Total	13		13	-	3	-	2

N.B: W - Working

NW - Not Working

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.7 Marketing of Livestock and their Products

Increased private sector participation in marketing of livestock and livestock products in recent years has increased marketing channels for the livestock sub-sector. Table 3.19 gives quantity and value of livestock marketed in the

district in 2010. The district earned a total of Tshs. 286,275,900 from selling of beef cattle, goats, sheep, pigs, poultry, guinea pigs and rabbit. Highest earnings was from beef cattle at Tshs. 189,000,000 (66 percent of total revenue earned in the district) followed by pigs (Tshs. 47,180,000 or 16.5 percent) and sheep ranked third at (Tshs. 26,844,900 or 9.4 percent). Others were poultry (Tshs. 20,592,000 or 7.2 percent), rabbit (Tshs. 1,380,000 or 0.5 percent), goat (Tshs. 990,000 or 0.3 percent) and guinea pigs (Tshs. 289,000 or 0.1 percent) respectively. Moreover, the average price for each livestock is as shown in Table 3.19.

Table 3. 19: Marketed Livestock by Type (Official Markets) and Revenue Earned, Makete District, 2010

Livestock	Number of Livestock	Percent to the Total Livestock	Total Revenue (Tshs.)	Percent to the Total Revenue	Average Price (TShs)
Beef Cattle	756	12.9	189,000,000	66	250,000
Goats	33	0.6	990,000	0.3	30,000
Sheep	342	5.8	26,844,900	9.4	78,493
Pigs	674	11.5	47,180,000	16.5	70,000
Poultry	3432	58.6	20,592,000	7.2	6,000
Guinea pig	46	0.8	289,000	0.1	6,282
Rabbit	578	9.8	1,380,000	0.5	2387.6
Total	5861	100	286,275,900	100	

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.8 Hides and Skin Marketing

Table 3.20 highlights the number of livestock hides and skins marketed and their respective revenues in two years period 2009 and 2010. The number of pieces marketed dropped by 68.8 percent in 2010, from 1,130 pieces in 2009 to 352 in 2010. Likewise, revenue decreased by 79.6 percent in 2010 from Tshs. 2,728,869 in 2009 to 557,000 in 2010.

Table 3. 20: The Number of Livestock Hides and Skins Marketed by Type; Makete District, 2009 and 2010

Type of Hide/Skin	2009			2010		
	Pieces	Revenue (TShs)	Average Price	Pieces	Revenue (TShs)	Average Price
Cattle Hides	908	2,264,552	3435.1	254	508,000	2000
Goat Skins	411	430,317	3020.7	86	43,000	500
Sheep Skins	11	34,000	2221.3	12	6,000	500
District Total	1,130	2,728,869		352	557,000	

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.9 Milk Production

According to Table 3.21, highest milk production in both years was from dairy cattle. They produced a total of 324,630 litres worth Tsh.129,852,000 in 2008 and 361,154 litres valued at Tshs. 144,461,600 in 2009. So far, milk produced by dairy goats in each year observed to be of smallest volume due to the fact that dairy goat-rearing is not common in the district. Due to its scarcity and nutritious, milk from dairy goats was sold at a higher price than any other type of milk. It was sold at an average price of Tshs 500 per litre over the period under consideration compared to Tshs 400 and Tshs 450 for dairy and indigenous cattle respectively.

Table 3. 21: Number of Liters of Milk Marketed by Type; Makete District; 2008 and 2009

Livestock	2008			2009		
	Number of Liters	Revenue (TShs.)	Average Price per Litre	Number of Litre	Revenue (TShs)	Average Price per Litre
Indigenous Cattle	151,014	60,405,600	400	162,235	73,005,750	450
Dairy Cattle	324,630	129,852,000	400	361,154	144,461,600	400
Dairy Goats	42,151	21,075,500	500	48,619	24,309,500	500
District Total	517,795	211,333,100	408.10	572,008	241,776,850	422.70

Source: District Executive Director's Office (Livestock Department), Makete District, 2011

3.2.10 Investment Opportunities in Livestock sub-sector

There are too few dairy cattle and goats for both meat and milk production. However, the increase of such kinds of livestock should match with the development of livestock infrastructure such as dips, crushes and veterinary centres.

3.3 Natural Resources

3.3.1 Introduction

Natural resources sector is comprised of various sub-sectors including forestry, fisheries, bee-keeping and wildlife. The sector is very important in the contribution to social and economic development of the district. According to the 2002 Population and Housing Census Makete District Profile, the sector provides employment to about 0.5 percent of the total labour force in the district. Apart from economic gains, the sector also plays an important role in the maintenance of climate stability, conservation of water sources, soil fertility, controlling land erosion, and providing source of wood fuel, industrial materials and non wood products such as honey and bee-wax.



Human activities has reduced forest coverage in most part of Makete district

3.3.2 Status of Natural Resources Personnel

Table 3.22 shows status of natural resources personnel in Makete district. The decrease in number of staff from seven (7), reported in Makete District Profile Report 2007 to four in 2010, were among the reasons for under performance of this sector in 2010. Table 3.22 further shows that Lupalilo division which is the headquarters of the district had more staff than any other division.

Table 3. 22: Natural Resource Personnel by Ward, Makete District, Jan-Dec 2010

Division	Forest		Beekeeping		Wildlife		Total
	Male	Female	Male	Female	Male	Female	
Lupalilo	2	0	0	0	1	0	3
Magoma	0	0	0	0	0	0	0
Matamba	1	0	0	0	0	0	1
Ikuwo	0	0	0	0	0	0	0
Bulongwa	0	0	0	0	0	0	0
Ukwama	0	0	0	0	0	0	0
Total	3	0	0	0	1	0	4

Source: District Executive Director's Office (Forest and Natural Resources Department), Makete District, 2011

3.3.3 Forestry

Makete district has one of the best forest covers and ranks second among the districts in the region. The forests cover about 68 percent of total land area. Up to the end of year 2006, out of 5,800 sq. kms. of district land area, about 1,503 sq. kms. (25.9 percent) of land was covered by natural and planted forests and a total of 101 sq. kms. (1.7 percent) was covered by forest reserves. These forest reserves cover an area of about 81,290.8 hectares owned by central government, district council and village governments. Unfortunately, though the government has imposed protection measures against forest depletion, the district is suffering from illegal harvesting of wood trees and encroachment due to land demand for agricultural activities. Table 3.23 shows status of forest reserves and affected areas due to illegal harvest and encroachment areas.



Encroachment has created adverse Environment impact in Makete District

Table 3. 23: Status of Forest Reserves, Makete District, 2007

Name of Forest Reserve	Type	Ownership	Size in Hectares	Illegal Harvesting level	Encroached Area (Ha)
Madihani Forest Reserve (Maguli Forest Reserve)	Natural	Central Govt.	198	Severe	
Katenga/Livingstone	Natural	Central Govt.	26,365.4	Fair	n.a
Kipengere	Natural	Central Govt.	34,146.7	Fair	n.a
Numbe Valley	Natural	Central Govt.	2,738.5	Fair	n.a
Ndukunduku	Natural	Local Govt.	3,265.8	Fair	n.a
Chimala	Natural	Central Govt.	17842	Fair	n.a
Escapment	Forest				
Mfumbi/Usalimwani	Public Land	Joint Mang.	45,000	Severe	n.a
Idunda Forest Reserve	Natural	Community	50.0	Fair	n.a-
Luwumbu/Uganga	Natural	Community	50	Fair	n.a
	Forest				
Bulongwa/Mahulu	Natural	Community	5	Fair	n.a
	Forest				
Ludeve Ritual	Natural	Community	19	Fair	n.a
	Forest				
Ng'onde	Natural	Community	2.5	Fair	n.a
	Forest				
Ngunde	Natural	Community	2.5	Fair	n.a
	Forest				
Igege	Natural	Community	5	Fair	n.a
	Forest				
Ikuwo	Natural	Community	3.6	Fair	n.a
	Forest				
Sub Total		Central Govt.	81,290.6		
		Local Govt.	48,265.8	n.a.	n.a.
		Community.	137.6		
Total			129,693.0	n.a	n.a.

Source: District Executive Director's Office (Forest and Natural Resources Department), Makete District, 2007

3.3.3.1 Forest Plantation

In addition to natural forests, the district has plantation forests. The people of Makete district developed a tradition of planting trees because of their

local belief in forests and a high demand of fuel wood energy due to the cold weather. Furthermore, the increase in demands of timber for construction purposes in the country has made some people in the district to establish large scale forest plantation for commercial purposes in order to raise their income. At maturity stage, trees are harvested and sold to business men who came into the district from different part of the country.

Involvement of various groups including agencies, institutions, individuals in afforestation programmes has enabled the district to raise a total of 691,000 seedlings in 2008/09 and 405,000 in 2009/10 (Table 3.24). The common tree species planted include Cyprus, Pine and Eucalyptus.



Development partners have motivated people in engaging in planting trees

Table 3. 24: Number of Tree Seedlings Raised by Ward, Makete District 2008/09 and 2009/10

Ward	2008/09	2009/10
Ukwama	430,000	-
Mang'oto	-	88,000
Ikuwo	96,000	102,000
Iwawa	-	22,000
Bulongwa	45,000	60,000
Lupalilo	-	20,000
Lupila	-	18,000
Matamba	120,000	95,000
Total	691,000	405,000

Source: District Executive Director's Office (Forest and Natural Resources Department), Makete District, 2011

3.3.4 Natural Resources Products

3.3.4.1 Forest Products

Forest products such as timber, poles and charcoal earn revenue to the government through permits and taxes. Experience has shown that demand for timber and poles as well as revenue collection from those materials do increase in recent years due to significant increase in houses covered with iron sheets within and outside the district. On other way round, revenue collected from charcoal also increased as many people afford using charcoal rather than electricity and gas for cooking. Unfortunately, lack of reliable data collection system in the district hindered justification of the amount of revenue collected through tax on forests products.

3.3.4.2 Wildlife



Black and White Collubus Monkey in Kitulo national park

Makete district has one National Park and one Game Reserve. The two cover a total area of 1,976.25 sq. kilometers. Community participation in wildlife management for the purpose of protecting wildlife from poachers, illegal settlements and other human activities through Wildlife Management Areas (W.M.A) has managed to increase wildlife within these areas. The diversity of wildlife and plant species found in these areas includes the existence of some 40 flower species found only in this area. The area is also home to migratory birds notably Black, White and Adam's Stork as well as resident species mainly Denhams, and Kestrels. Others include Plantaeans, Orchids, Crassulas, Impatiens, Asters and Helidiyrysums. Kitulo also happens to be a major water catchment area for Lake Nyasa and Great Ruaha and where animals drink water and therefore needs protection.

3.3.4.3 Beekeeping

Makete District through technical and financial support from WWF managed to transform beekeeping industry from dependence of Traditional to Modern beehives



Traditional beehives



Modern beehives

Beekeeping in Makete district was undertaken as a part - time economic activity. Its contribution to the district economy was small compared to other income generating activities.. Table 3.25 shows development trend of the sub-sector from 2001 to 2006. The data indicate that people of Makete district are moving away from the use traditional beehives to modern ones. In 2001 the district had a total of 447 beehives, of which 88.4 percent were modern beehives. By 2003 the number had increased to 476 of which 94.7 percent were modern. Further to that in 2005 the beehives increased sharply to 4,215 units and modern beehives were leading again at 90.2 percent respectively.

Table 3. 25: Number of Beehives by Type, Makete District, 2001 – 2005

Year	Number of Beehives			Percent of Beehives		
	Traditional Beehives	Modern Beehives	Total	Traditional Beehives	Modern Beehives	Total
2001	52	395	447	11.6	88.4	100
2002	49	397	446	11.0	89.0	100
2003	25	451	476	5.3	94.7	100
2004	-	-	-	-	-	-
2005	415	3,800	4,215	9.8	90.2	100

Source: District Executive Director's Office (Forest and Natural Resources Department), Makete District, 2007

Mfumbi ward was the most suitable area for beekeeping in the district. The ward is rich in miombo woodlands characterized by rich milliner species. The miombo woodlands are usually preferred and the most suitable for nursing bee-colonies. Due to this, Table 3.26 shows that Mfumbi ward was leading in beeking at 19.7 percent of the total beehives in the district followed by Ikuwo (13.6 percent), Matamba (12.1 percent), Bulongwa (10.3 percent) and Lupila (9.5 percent). These five wards which together operated 65.7 percent of all beehives are considered potential areas for beekeeping in the district. Wards with the smallest number of beehives were Kipagalo and Kitulo (1.3 percent each), Iniho (1.7 percent), Iwawa (1.8 percent) and Mbalatse (1.9 percent).

Table 3.26: Number of Tradional and Modern Beehives by Ward, Makete District, 2005

Ward	Type of Beehives			Percent by Type		Percent by Ward
	Tradition Beehives	Modern Beehives	Total	Tradition Beehives	Modern Beehives	
Mang'oto	44	55	99	44.4	55.6	2.3
Mbalatse	32	46	78	41.0	59.0	1.9
Mfumbi	12	820	832	1.4	98.6	19.7
Bulongwa	49	384	433	11.3	88.7	10.3
Lupila	22	380	402	5.5	94.5	9.5
Ikuwo	14	560	574	2.4	97.6	13.6
Matamba	45	466	511	8.8	91.2	12.1
Ipepo	21	90	111	18.9	81.1	2.6
Mlondwe	12	125	137	8.8	91.2	3.3
Ukwama	12	102	114	10.5	89.5	2.7
Kipagalo	18	36	54	33.3	66.7	1.3
Kitulo	25	28	53	47.2	52.8	1.3
Iniho	21	52	73	28.8	71.2	1.7
Ipelele	88	120	208	42.3	57.7	4.9
Iwawa	-	76	76	0.0	100.0	1.8
Lupalilo	-	460	460	0.0	100.0	10.9
Total	415	3800	4215	9.8	90.2	

Source: District Executive Director's Office (Forest and Natural Resources Department), Makete District, 2007

Table 3.27 depicts the status of beekiping in the district over the period of 2008 – 2009. Although the district has extensive forest cover and large part of well-watered land which makes the district to have a great potential for beeking, data indicated in Table 3.27 evidenced the existing potential of this important economic activity not to be fully exploited. Further to that, comparison made on the number of beehives in 2008-2009 (Table 3.27) and that of 2005 (Table 3.27) reveals that there was a sharp decrease in beehives. The beehives decreased from a total of 4,215 in 2005 to 1,604 in 2008-2009. This is equivalent to a decrease of 61.9 percent respectively. Moreover, failure of the District Authority to manage and maintain Environmental Control and Beekiping Programme established by the World Wildlife Foundation in 2004/05 was the main reason attributed to the decrease in people's involvement in beekiping industry and hence the decrease in number of beehives over the period of 2008-2009. However, there is need for the District Authority to revive the programme for the essence of improving social economic status of her people.

Table 3. 27: Number of Tradional and Modern Beehives by Ward, Makete District, 2008 - 2009

Ward	Type of Beehives			Percent by Type		Percent by Ward
	Tradition Beehives	Modern Beehives	Total	Tradition Beehives	Modern Beehives	
Mang'oto	-	5	5	-	-	0.3
Mbalatse	-	-	-	-	-	-
Mfumbi	16	162	178	9.0	91.0	11.1
Bulongwa	-	31	31	-	-	1.9
Lupila	-	545	545	-	-	34.0
Ikuwo	-	-	-	-	-	-
Matamba	-	102	102	-	-	6.4
Ipepo	-	-	-	-	-	-
Mlondwe	147	295	442	33.3	66.7	27.6
Ukwama	-	-	-	-	-	-
Kipagalo	-	102	102	-	-	6.4
Kitulo	-	-	-	-	-	-
Iniho	-	64	64	-	-	4.0
Ipelele	-	-	-	-	-	-
Iwawa	-	32	32	-	-	2.0
Lupalilo	-	103	103	-	-	6.4
Total	163	1441	1604	42.2		

Source: District Executive Director's Office (Forest and Natural Resources Department), Makete District, 2011

3.3.5 Investment Opportunities in Natural Resources

(i) Forestry resource subsector

The district is well endowed with forest resources which are under pressure from timber logging, the demand for fuelwood and the expansion of land under cultivation. The introduction of dynamic reforestation to restore sustainability is called for. It should include strengthening of forest patrols to reduce risks from forest fires and control illegal harvesting. The proper finding of the management plans of individual forest resources could be beneficial especially in the long run. This should include empowerment of rural communities to participate in the management of these resources.

Beekeeping can provide employment to many youths in the district given its large forest resources. The beekeeping programmes need funding so much that the programme could go long way to reducing poverty in rural areas. Youths in groups can be trained on modern technology and proper management of beeking industry. Nevertheless, the District Authority can effectively make use the call by the government on Public Private Partnership (PPP) to welcome small medium enterprises and micro finance intermediaries like FINCA and PRIDE to provide soft loans to people involving in beeking industry.

(ii) Fishery resources sub sector

The district has very good potentials for fish production. The numerous wetlands provide opportunities for pond fishery. Makete district is fortunate in having Salmon gairdneri type of fish. This type of fish has been available in Makete district since 1962 when it was planted by Germany colonials. It is a fish that is very expensive in the world market. Other types of fish are Aerochromis Niloticus and Tilapia Melonuplura which have adapted well to the Makete district weather and fetch high price in the market. A dynamic and well funded fisheries programme can transform the income and nutrition

status of the rural households. This in turn can create an environment for the youths to stay in the rural areas.

(iii) Tourism



With the establishment of Kitulo National Park and Mpanga/Kipengere Game reserve famous for its unique birds and flowers, the district has attraction for tourists which can enable it to increase its income and that of its people. Kimani water falls is another tourist attraction in the district.

(iv) Eco-Tourism

Availability of good infrastructure such as accommodation facilities, telecommunication services, roads, banking/bureau de change services and tour operators are important ingredients for the development of competitive tourism industry.

The presence of Kitulo National park and other tourist attractions is expected to make the district among the tourist destinations in the country, in the near future. Therefore, investment is needed in accommodation facilities especially guest houses and lodges which would attract tourists. Furthermore, as far as there is only one bank operating in the district at the moment (NMB bank), there is a need for other bank like CRDB to open

branches to easy financial transactions not only to tourists but also to Makete people.

(v) Environmental conservation

Creeping desertification is the single most important threat to Makete environment whose causes include the uncontrolled felling of trees for timber, fuel and agriculture. The depletion of ground cover due to uncontrolled concentration of livestock and the destruction of cover at water sources do also contribute to desertification. The district has had to embark upon afforestation in order to arrest the rate of deforestation. Investment is therefore needed in the supply of tree seedlings, education in agro forestry and proper management and monitoring of the forest reserves.

3.4 Manufacturing Sector

Unlike Mufindi and Iringa districts, Makete district does not have many industries. The existing ones are small scale and scattered throughout the district. The district has neither medium scale nor large scale industries. The small scale industry in Tanzania context is defined as a non-farm economic activity which employs a number of employees not exceeding 49 and a capital investment of not more than Tshs. 200 million.

Table 3.28 shows that in 2010 the district had a total of 67 small scale industries which were operating. Iwawa ward which is the headquarters of the district had the highest number of industries (32) followed by Lupalilo (18) and Bulongwa (11). Lupila had the least number of industries (6). Some of the problems hindering the development of industrial sector in the district are unreliability of electricity and poor road network.

Table 3. 28: Small Scale Industries in Makete District, 2010

Ward	Main activity	Number of industries
Iwawa	Carpentry	12
	Welding	4
	Tailoring Mart	10
	Garage	6
Sub-Total		32
Lupalilo	Welding	3
	Tailoring Mart	5
	Carpentry	6
	Garage	4
Sub-Total		18
Lupila	Welding	1
	Plumbing	1
	Tailoring Mart	4
Sub-Total		6
Bulongwa	Carpentry	5
	Tailoring Mart	6
Sub-Total		11
Total		67

Source: District Executive Director's Office (Trade and Industry Department), Makete District, 2011

3.4.1 Investment Opportunities in manufacturing sector

Investment potential areas in the manufacturing sector in the district include:

- Agricultural processing industries

Agricultural products available for processing are many and varied. These are capable of supplying adequate raw materials for established industries throughout the year. Agricultural products available for processing includes maize, wheat, sorghum, round potatoes, sweet potatoes, fruits and vegetables.

- Industries for processing natural resources products such as honey and bee-wax and timber

3.5 Mining Sector

Various types of mineral deposits have been spotted in Makete district. The minerals are iron ore deposits which is believed to exist in Lupila and Ukwama wards, Kaolin in Mlondwe and Matamba wards, Gold in Mfumbi, Lupalilo, Lupila, and Kigulu wards, Platinum in Kitulo ward and other minerals including copper, manganese, chrome, ochre, talc, soap stone, etc. However, little is known about the actual potential of the minerals in the mentioned sites. As a result, the sector's contribution to the district economy is still negligible compared to agriculture and livestock sectors. Therefore, initiatives are needed to identify the actual potential of minerals available in the district through researches.

3.5.1 Investment Opportunities in Mining

Although Makete district believed to have a numerous number of minerals, yet the minerals do not contribute to the districts' as well as the national economy. Investment is therefore needed to find the actual potentials of minerals so as to boost the economy.

CHAPTER FOUR

Economic Infrastructure

4.0 Introduction

Chapter four explains the existing economic infrastructure in Makete district. It covers the road network development in terms of road classification, type of road surface and passability. Others include postal services, telephone services and other media services including radio and television facilities. In the energy sector developments in regards to hydro-electricity, biogas, solar panel, fuel wood and fossil fuels are discussed.



Most of the road networks in Makete district are gravel types which are passable a greater part of the year.

4.1 Road Network

Road transportation is the basic mode of transportation for goods and people within and outside the district of Makete. Therefore, road transport is one of the key sub-sectors that are responsible for sustainable development and poverty reduction in the district. Table 4.1 shows the length of road network by division and by type in Makete district. Makete district has a total road network of 809.7 kms compared to 784.8 kms in 2007. The roads that are maintained by the central government are classified as trunk and regional roads, while those that are maintained by the district council are called district and feeder roads; the rest of the roads are called village roads and are mostly maintained by villagers.

Table 4.1 shows that about 303.5 kilometres are district roads, 222.2 kilometres regional roads, 274 kilometres feeder roads and 10 kilometres trunk roads. The situation reveals that high percentage of roads in Makete district is district roads which are maintained by the district authority.

Table 4. 1: Length of Road Network by Ward and by Grade, Makete District, 2010

Division/Ward	Grade (Kms.)				Total
	Trunk	Regional	District	Feeder	
Mfumbi	10	35	15	10	70
Iwawa	-	15	15	20.5	50.5
Kitulo	-	23	12	13	48
Ipelele	-	22	5	15.2	42.2
Iniho	-	10	10.5	16	36.5
Bulongwa	-	14.2	10.5	18.6	43.3
Lupalilo	-	15	10.9	20	45.9
Mang'oto	-	12	13	28.3	53.3
Ipepo	-	10	10	10.5	30.5
Ukwama	-	3	17	10.5	30.5
Mbalatse	-	-	17.8	11.4	29.2
Matamba	-	36	36.7	20.8	93.5
Mlondwe	-	5	21.5	25	51.5
Ikuwo	-	-	37	23.5	60.5
Kigulu	-	-	16	2	18
Kipagalo	-	-	12	10.2	22.2
Lupila	-	22	43.6	18.5	84.1
Total	10	222.2	303.5	274	809.7

Source: District Executive Director's Office (Infrastructure Department), Makete District, 2011

4.1.1 Road Network Condition



Only twenty two kilometres of the road network found in Makete district is tarmac

As stated earlier, the district location at the periphery of the region, its topography and weather had influence the road network condition with a greater part being poor with a high degree of roughness, potholes and erosion. Table 4.2 shows that in 2010 about 54.7 percent of the road network was passable throughout the year as compared to only 26.7 percent in 2007, and 26.6 percent was passable greater part of the year as compared to 28.6 percent in 2007 while only 16.4 percent of the total road network was not passable most of the year as compared to 44.8 percent in 2007. This shows a great improvement in the road network condition in the district in only three years.

Table 4. 2: Passability of the Road Network by Ward, Makete District, 2010

Division/Ward	Condition of Network Throughout the Year in kms.			Total Road Network	Total Passable (Columns 2 +3)	Percentage Passable
	Passable Throughout the Year	Passable a Greater Part of the Year	Not Passable Most of the Year			
Lupila	45.6	20.0	18.5	84.1	65.6	78.0
Mfumbi	48.0	19.5	2.5	70.0	67.5	80.3
Ikuwo	37.0	15.2	8.3	60.5	52.2	62.1
Mbalatse	17.0	8.5	3.7	29.2	25.5	30.3
Bulongwa	26.0	8.7	8.6	43.3	34.7	41.3
Mang'oto	16.0	9.0	28.3	53.3	25.0	29.7
Matamba	55.0	25.5	13.0	93.5	80.5	95.7
Mlondwe	30.0	18.5	3.0	51.5	48.5	57.7
Kigulu	-	-	-	18.0	0	0.0
Kipagalo	8.0	4.0	10.2	22.2	12.0	14.3
Ipelele	32.0	5.0	5.2	42.2	37.0	44.0
Iniho	16.8	13.7	6.0	36.5	30.5	36.3
Iwawa	30.0	17.0	3.5	50.5	47.0	55.9
Lupalilo	20.9	19.0	6.0	45.9	39.9	47.4
Ipepo	12.0	8.5	10.0	30.5	20.5	24.4
Ukwama	18.2	6.0	6.3	30.5	24.2	28.8
Kitulo	30.8	17.2	0.0	48.0	48.0	57.1
% Share of District Total	54.7	26.6	16.4			

Source: District Executive Director's Office (Infrastructure Department), Makete District, 2011

As for the major road connections and road links, a greater part of the road links in Makete District is maintained by Tanroads and the quality of road surface is mostly gravel and the road condition is good or fair.

Table 4. 3: Major Road Connections and Road Links, Makete District, 2010

Major Inter - District Road Connections	Road links	Length of Road link (km)	Quality of road surface	Road Condition
Lupila--Ijangala	TANROADS	18.0	Gravel	Good
Makete--Nkenja	“	12.5	“	“
Ikuwo--Usalimwani	“	31.0	“	“
Matamba--Chimala	“	21.5	“	Fair
Lupila--Kipengele	“	50.6	“	“
Kinyika--Kikondo	“	15.5	“	Poor
Mang’oto--Ibaga	“	13.0	“	Fair
Bulongwa-Uteule	“	12.9	“	Fair
Uganga--Bulongwa	“	18.0	“	Fair
Ihanga--Tandala	“	18.0	“	Good
Lupila--Kijyombo	“	14.7	Earth	Fair
	DISTRICT			
Luvulunge--Ivilikinge	ROADS	6.4	Gravel+Earth	“
Nhungu--Kitekelo	“	8.5	Earth	Poor
Mbela--Ngoje	“	6.4	“	Fair
Makusi--Igege	“	4.1	“	Poor
Makusi--Lugoda	“	7.5	“	Poor

Source: District Executive Director’s Office (Infrastructure Department), Makete District, 2011

4.1.2 Road Classification and Type of Road Surface

As explained earlier, the type of road surface to a large extent determines the durability of the surface under pressure from traffic. In terms of road classification, the majority of the road network was comprised of district roads at 37.5 percent followed by feeder roads (33.8 percent) and regional roads (27.4 percent) while trunk roads were the least with only 1.3 percent. Comparing to the situation in 2007, the situation is not very different.

Only 22 kms of the road network is composed of tarmac road as compared to 10 kms in 2007 while 437.6 kms (54.0 percent of the network) were surfaced by gravel as compared to 331.9 kms in 2007 and 350.1 kms were earth surfaced as compared to 299.4 kms in 2007 and last the shortest duration after grading. Table 4.4 quantifies the quality of road surface

available in Makete district. Although a greater part of the road network was surfaced by earth, a greater part of the district was passable during rainy seasons and this makes transportation fair.

Table 4. 4: Length of Road Network by Type of Road Surface and By Ward, Makete District, 2010

Ward/Division	Type of Surface (Kms.)			
	Tarmac	Gravel	Earth	Total
Mfumbi	10.0	48.0	12.0	70.0
Ikuwo	-	37.0	23.5	60.5
Bulongwa	-	26.0	17.3	43.3
Mang'oto	12.0	16.0	25.3	53.3
Lupila	-	45.6	38.5	84.1
Mbalatse	-	17.0	12.2	29.2
Matamba	-	55.5	38.0	93.5
Mlondwe	-	30.0	21.5	51.5
Lupalilo	-	20.9	25.0	45.9
Iniho	-	16.8	19.7	36.5
Ipelele	-	32.0	10.2	42.2
Kitulo	-	30.8	17.2	48.0
Iwawa	-	30.0	20.5	50.5
Ukwama	-	18.0	12.5	30.5
Mbalatse	-	5	23	28
Kigulu	-	-	18.0	18.0
Kipagalo	-	2.0	20.2	22.2
Ipepo	-	12.0	18.5	30.5
Total	22.0	437.6	350.1	809.7

Source: District Executive Director's Office (Infrastructure Department), Makete District, 2011

4.2 Railway Services

There has been a change in terms of railway services in Makete district since 2007. It was reported previously that a small part on the northern side of the district is served by the railway line of the Tanzania Zambia Railway Authority (TAZARA). The rail – road passes through a small station called Mfumbi where wagons were loaded with goods to be ferried to other parts of

the country. Of late the station has been closed and no more railway services that are provided there. Goods that used to be ferried there have now to be sent to nearby railway stations in other districts.

4.3 Telecommunication services

Makete district enjoys telephone, postal and internet services. Cellular phone network has been made possible in the district through the following mobile companies; Tigo, Vodacom, Zain/Airtel and TTCL mobile. TTCL also provides network for land lines telephones. Based on Table 4.5, Tigo and Vodacom networks are widely accessed to the large part of the district. TTCL provides land line telephone services with a total of 72 land lines. On the other hand, residents of Makete enjoy television broadcasting services provided by Tanzania Broadcasting Corporation (TBC), Channel Ten, Independent Television Ltd (ITV), Star TV, East African Television (EATV) and Agape Television (ATN). All the television stations are broadcasting from Dar es Salaam. Likewise, the district has one radio station namely Kitulo Radio FM owned by the district council. Other radio programmes are received from Radio Tanzania Dar es Salaam (RTD), Radio Free Africa (RFA) and Radio One. Furthermore, the district has one postal office which is located in Iwawa ward very close to the district office.

Table 4. 5: Telecommunications Services in Makete District, 2010

No. of Tel. Lines (land lines)	No. of Television Stations	No. of Radio Stations	No. of Internet Centres	Mobile Phones Service providers		No. of Post Offices	No. of Sub-Post Offices
				Name	Estimated Coverage (%)		
72		1	26	Tigo Voda Zain TTCL(Mobile)	80 90 50 -	1	1

Source: District Executive Director's Office (Infrastructure Department), Makete District, 2011

4.4 Energy Sector Development

4.4.1 Electricity



TANESCO continued to be the principle supplier of electricity in the district, though there has been a tremendous increase in the utilization of solar and generators. A total of 0.32 MWH were used to electrify the district in year 2010 compared to 0.1 MW in 1988. In terms of household consumption, there was an increase in coverage compared to previous years. For example, according to the results of the Population and Housing Census of 2002, a total of 308 households were supplied with electricity in 2002 compared to 210 in 1988. In 2010 however, a total of 721 households were

supplied with electricity by TANESCO as compared to 600 households in 2007.

Table 4. 6: Electricity Supply in Makete District, 2010

Electricity Supply			
Demand (MWH)	Supply (MWH)	No. of Customers	
		Domestic	Commercial
0.32	4	721	42

Source: District Executive Director's Office (Infrastructure Department), Makete District, 2011

Religious organisations and private individuals have attempted to find their own source of electricity in the district. To date Bulongwa Lutheran Hospital has its own source of electricity from nearby waterfalls. Bulongwa village and nearby villages use this source of energy at a reasonable charge. As if this is not the end of the story of finding alternative source of electricity energy, Lupalilo Sunyi in Lupalilo ward has also its own source of electricity. The capacity produced in terms of MWH is not available.

4.4.2 Fuel Wood

Fuel wood is the dominant source of energy for the households, since most of them have no electricity. The main uses of fuel wood are cooking and heating and this has led to a high wood consumption in the district. The 2002 Population Census and Housing Makete district profile revealed that about 92 percent of households using firewood as their main source of energy for cooking. Although Makete district has enormous reserves of fuel wood, the current consumption has created an alarm as it threatens the survival of the forests. Alternatives to fuel wood had better be found soon if the district forests are to be saved from depletion.

4.4.3 Fossil Fuels

Makete district shares with the rest of the districts in the region with the consumption of large quantities of kerosene for lighting both in urban and

rural areas. Diesel and petrol fuels continue to be used to run the district economy, particularly the industrial, commercial, transport and service sectors. The 2002 Population and Housing Census results revealed that 0.53 percent of the households used kerosene/paraffin for cooking in the district. The result further revealed that the percent of households that used the various sources of energy for lighting have the following: wick lamp (76.74%), hurricane lamp (9.54%) and pressure lamps (0.45%).

4.4.4 Biogas and Solar Energy

As mentioned earlier the use of biogas has not yet been fully exploited in the district, but can be used as an alternative source of energy in order to reduce the excessive use of fuel wood for heating purposes. On the other hand, solar energy which was previously used only in Ikonda Hospital and Lupila Missionary is now used as alternative source of energy in most parts of Makete district. To date, though there is no accurate data on the number of solar and biogas users it is estimated that solar energy users has increased by about 24 percent while biogas users has increased by about 21 percent. Nevertheless, the district authorities should continue encouraging people to use these sources of energy as an alternative to fuel wood in order to reduce the pressure being exerted on forests by the local people.

4.4.5 Investment Opportunities.

With the growing demand for electricity energy in the villages and the unreliability of the power supply from TANESCO, the government should look at instituting a law that will make production of electricity an open market. Makete district is endowed with lots of water falls which if exploited well could ease the problem of electricity in the district as well as in the nearby districts.

CHAPTER FIVE

Social Services

5.0 Introduction

This chapter discusses the status of social services available in Makete district and covers health sector development in terms of morbidity, mortality, and reportable communicable diseases. It also covers HIV/AIDS prevalence, tuberculosis, mother and child health as well as health facilities. Moreover, education sector, water and sanitation are also discussed.

5.1 Health Sector

The government of Tanzania has been pursuing deliberate strategy to improve the health status and lives of its people. Among the strategies is to increase the accessibility of health facilities within the communities through establishing health centres in each ward in the country. However, the government still has a long way to go in improving accessibility of health facilities in Makete as the district still has inadequate number of health facilities as well as critical shortage of trained medical staff.



Renovation and Improvement of the health sector is important in reducing mortality

5.1.1 Health Facilities

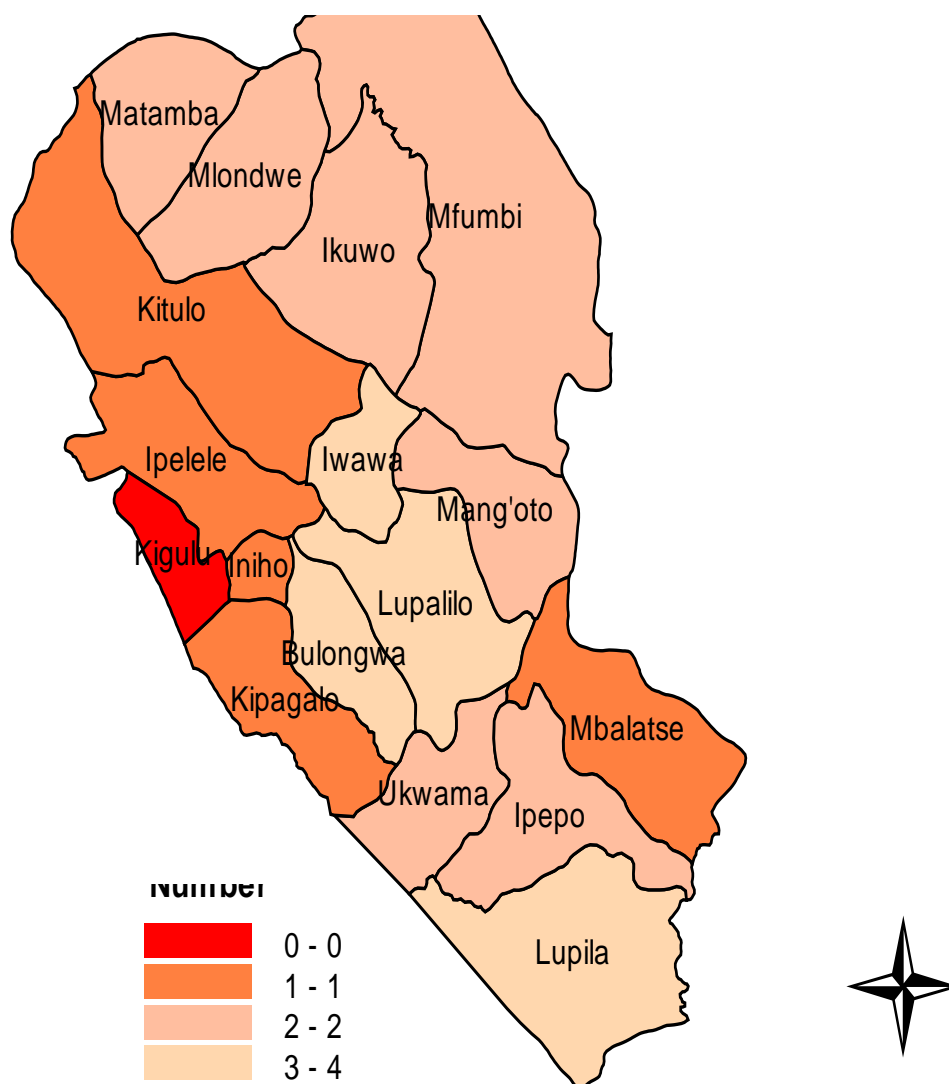
Health facilities refer to dispensaries, health centres and hospitals. Dispensary is the first health post in the district referral system. By national

standards, a dispensary is supposed to serve 10,000 people. Rural Health Centres (RHC) is the first referral centres for cases that cannot be handed by dispensaries. Thus, it is the second level of referral at the district. Rural health centre by national average standards, is supposed to serve 50,000 people. It is staffed by a Medical Assistant and several health auxiliaries. Moreover, district hospital forms the apex of the district referral system.

With the reference from Table 5.1, in 2010, Makete district had a total of 3 hospitals, 4 health centres and 26 dispensaries. However, number of hospitals and health centres in the year 2010 remain the same as they were reported in Makete profile of 2007. One dispensary constructed in Kitulo ward in the year 2010 increased the number from 25 of 2007 to 26 of 2010 respectively.

At division level, distribution of health facilities in 2010 shows similar pattern as that of 2007 and skewed towards two divisions, Lupalilo and Ukwama. The two divisions each had a total of 9 health facilities followed by Matamba division (5 health facilities). At ward level, Lupalilo and Lupilo had the best access of health services as each ward had a total of 4 health facilities. Moreover, Kigulu was the most disadvantaged area in health services as up to 2010 no any kind of health facility had been established, as a result, people living in this ward travel long distance to access the services from other wards.

Map 4: Makete District Showing the Distribution of the Selected Health Facilities by Ward, 2010



Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Table 5. 1: Availability of Health Facilities by Ownership and by Ward, Makete District, 2010

Division/ Ward							
	Hospitals		Health Centres		Dispensaries		
	Govt	Non Govt	Govt	Non Govt	Govt	Non Govt	Total Facilities
Lupalilo	0	1	0	0	1	2	4
Iwawa	1	0	0	0	2	0	3
Mang’oto	0	0	0	0	2	0	2
Lupalilo Division	1	1	0	0	5	2	9
Ukwama	0	0	0	0	1	1	2
Ipepo	0	0	0	0	1	1	2
Mbalatse	0	0	0	0	1	0	1
Lupila	0	0	1	0	2	1	4
Ukwama Division	0	0	1	0	5	3	9
Bulongwa	0	1	0	0	1	1	3
Kipagalo	0	0	0	0	0	1	1
Bulongwa Division	0	1	0	0	1	2	4
Iniho	0	0	0	0	0	1	1
Ipelele	0	0	1	0	0	0	1
Kigulu	0	0	0	0	0	0	0
Magoma Division	0	0	1	0	0	1	2
Matamba	0	0	1	0	0	1	2
Mlondwe	0	0	0	1	1	0	2
Kitulo	0	0	0	0	0	1	1
Matamba Division	0	0	1	1	1	2	5
Ikuwo	0	0	0	0	1	1	2
Mfumbi	0	0	0	0	1	1	2
Ikuwo Division	0	0	0	0	2	2	4
District Total	1	2	3	1	14	12	33

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Table 5.2 shows variation of health facilities growth status among wards in Makete district. The number of health facilities increased slightly from 30 in 2008 to 32 in 2009 and reached 33 in 2010.

Table 5. 2: Growth Status and Distribution of Health Facilities by Ward, Makete District, 2008, 2009 and 2010

Division/Ward	Number of Hospitals			Number of Health Centres			Number of Dispensaries		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Lupalilo	1	1	1	0	0	0	3	3	3
Iwawa	1	1	1	0	0	0	1	1	2
Mang'oto	0	0	0	0	0	0	2	2	2
Lupalilo Division	2	2	2	0	0	0	6	6	7
Ukwama	0	0	0	0	0	0	2	2	2
Ipepo	0	0	0	0	0	0	2	2	2
Mbalatse	0	0	0	0	0	0	1	1	1
Lupila	0	0	0	1	1	1	3	3	3
Ukwama Division	0	0	0	1	1	1	8	8	8
Bulongwa	1	1	1	0	0	0	2	2	2
Kipagalo	0	0	0	0	0	0	1	1	1
Bulongwa Division	1	1	1	0	0	0	3	3	3
Iniho	0	0	0	0	0	0	1	1	1
Ipelele	0	0	0	1	1	1	0	0	0
Kigulu	0	0	0	0	0	0	0	0	0
Magoma Division	0	0	0	1	1	1	1	1	1
Matamba	0	0	0	1	1	1	0	1	0
Mlondwe	0	0	0	0	1	0	1	1	1
Kitulo	0	0	0	0	0	0	1	1	1
Matamba Division	0	0	0	1	2	1	2	3	2
Ikuwo	0	0	0	0	0	0	2	2	2
Mfumbi	0	0	0	0	0	0	2	2	2
Ikuwo Division	0	0	0	0	0	0	4	4	4
District Total	3	3	3	3	4	3	24	25	26

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.1.1 Health Facility Ratios

According to Health Facility Ratio indicated in Table 5.3, there was a slight improvement in accessibility of health facilities in 2010 compared to 2007. This means that in 2010 Makete people travelled shorter distance (175.8 sq. kms) to reach health facility compared to 181.3 sq. kms reported in Makete District Profile of 2007, page 83). However, efforts made by the district council to establish a dispensary in Kitulo ward which was not available in 2007 helped to reduce distance travelled by Makete people to get health services. At division level, people living in Lupalilo division had the best access of health facility than any other division (on average, health facility can be accessed after every 128.3 sq. kms). Unlike that, Table 5.3 also indicates that in 2010, Magoma had difficulties in accessing health facilities than any other division in the district as on average, people living in this division accessed health services after every 332.2 sq. kms respectively.

Table 5. 3: The Number of Health Facilities⁺ in Relationship to Land Area by Division, Makete District, 2009 and 2010

	Year 2009				Year 2010			
	Total Land Area (sq.kms.)	Total Number of hfs	Average land Area in sq.kms Per hfs	Mean Average hfs per 100 sq. kms.	Total Land Area (sq.kms.)	Total Number of hfs	Average land Area in sq.kms. Per hfs	Mean Average hfs per 100 sq. kms.
Lupalilo	1,154.3	8	144.3	0.7	1,154.30	9	128.3	0.8
Ukwama	1,187.7	9	132.0	0.8	1,187.70	9	132.0	0.8
Bulongwa	518.2	4	129.6	0.8	518.2	4	129.6	0.8
Magoma	664.3	2	332.2	0.3	664.3	2	332.2	0.3
Matamba	1,038.9	5	207.8	0.5	1,038.90	5	207.8	0.5
Ikuwo	1,236.6	4	309.2	0.3	1,236.60	4	309.2	0.3
Total	5,800	32	181.3	0.6	5,800	33	175.8	0.6

Source: District Executive Director's Office (District Medical's Office), Makete District,

2011

Population coverage per health facilities was another indicator used to measure the performance of health sector in the district over the period of

2009 and 2010. Based on Table 5.4, slight improvement had been observed over the two years. Population coverage per health facility in 2010 was better than in 2009. It was 2.8 facilities per 10,000 persons compared to 2.7 observed in 2009. At division level, Table 5.4 also shows that Ukwama division had the best population coverage per health facility in both years. It was 4.0 in 2009 and 3.9 in 2010 respectively. On the other hand, Magoma and Matamba divisions each with 1.7 facilities per 10,000 persons in both years had the poorest population coverage per health facilities in the district.

Table 5. 4: Relating Health Facilities to the Population by Division, Makete District, 2009 and 2010

	2009				2010			
	Total	Total	Mean	H.f.s	Total	Total	Mean	H.f.s
Division	Population	Number of h.f.s	Average Population Per h.f.s	per 10,000 people	Population	Number of h.f.s	Average Population Per h.f.s	per 10,000 people
Lupalilo	29,053	8	3631.6	2.8	29,401	9	3266.8	3.1
Ukwama	22,745	9	2527.2	4.0	23,006	9	2556.2	3.9
Bulongwa	12,822	4	3205.5	3.1	12,965	4	3241.3	3.1
Magoma	11,576	2	5788.0	1.7	11,713	2	5856.5	1.7
Matamba	28,945	5	5789.0	1.7	29,338	5	5867.6	1.7
Ikuwo	12,859	4	3214.8	3.1	13,033	4	3258.3	3.1
Total	118,000	32	3,687.5	2.7	119,456	33	3,619.9	2.8

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Population per Doctor and Hospital Beds Ratios



The proportion of beds per population gives an indication of health facility availability

Table 5.5 shows average population per doctor for the years 2009 and 2010. The average population per doctor was much better in 2010 compared to 2009. One doctor in 2010 attended 7,964 persons while in 2009 the same doctor attended 13,111 persons. The presence of Makete Government district hospital and Ikonda Catholic Missionary hospital in Lupalilo division as well as Lutheran Missionary hospital in Bulongwa helped doctors in those two divisions to attend less number of people than doctors in other divisions.

Table 5. 5: Distribution of Doctors among Population by Division, Makete District, 2009 and 2010

Division	2009			2010		
	Total Population	Total Doctors	Average Population Per Doctor	Total Population	Total Doctors	Average Population Per Doctor
Lupalilo	29,053	6	4842.2	29,401	9	3266.8
Ukwama	22,745	0	.0	23,006	0	.0
Bulongwa	12,822	3	4274.0	12,965	4	3241.3
Magoma	11,576	0	.0	11,713	0	.0
Matamba	28,945	0	.0	29,338	2	14669.0
Ikuwo	12,859	0	.0	13,033	0	.0
Total	118,000	9	13,111	119,456	15	7,964

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Table 5.6 shows average population per hospital bed. At district level, there was insignificant improvement between 2009 and 2010. It improved from 231.8 persons per bed in 2009 to 225.8 persons in 2010. At division level, in both years, Lupalilo had the best population per hospital bed than any other division with 76.9 persons per bed in 2009 and 74.2 in 2010 respectively. Nevertheless, Ukwama division had the worst access to the hospital bed with 1,083 persons per bed in 2009 and 1,095.5 in 2010. It was followed by Matamba division with 782.3 persons per bed in 2009 and 752.3 in 2010.

Table 5. 6 : Number of Hospital Beds by Division and Average Population per Bed, Makete District, 2009 and 2010

Division	2009			2010		
	Total Population	Total Number of Beds	Average Population Per Bed	Total Population	Total Number of Beds	Average Population Per Bed
Lupalilo	29,053	378	76.9	29,401	396	74.2
Ukwama	22,745	21	1,083.1	23,006	21	1,095.5
Bulongwa	12,822	52	246.6	12,965	52	249.3
Magoma	11,576	21	551.2	11,713	21	557.8
Matamba	28,945	37	782.3	29,338	39	752.3
Ikuwo	12,859	0	0.0	13,033	0	0.0
Total	118,000	509	231.8	119,456	529	225.8

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

As the available official health facilities were not enough to serve the ever growing population of Makete district, the District Authority with the support from the government, established primary rural health service programmes to complement the shortages of health facilities in all 97 villages. Trained Traditional Birth Attendants (TBAs), Village Health Workers (VHWs) and Village Health Committees (VHCs) are key persons for the functioning of these programs. In terms of the number of those key persons, the performance of these programs in 2010 was worse compared to what was reported in Makete District Profile Report 2007 (page 87). Those persons accounted for 540 in 2007 compared to 489 observed in 2010 (Table 5.7).

Table 5.7 also shows that the average numbers per village for the 2010 were 2 Trained Traditional Birth Attendants, 2 Village Health Workers and 1 Village Health Committee per village.

Table 5. 7: Distribution of Complementary Rural Health Facilities by Ward, Makete District, 2010

Ward	Number of Villages	Total Trained TBAs	Ratio of TBAs per Village	Total VHWs	Ratio of VHWs per Village	Total VHCs	Ratio of VHCs per Village
Iwawa	8	16	2	16	2	8	1
Lupalilo	9	18	2	18	2	9	1
Mang'oto	6	12	2	12	2	6	1
Mbalatse	3	6	2	6	2	3	1
Lupila	6	12	2	12	2	6	1
Ipepo	5	10	2	10	2	5	1
Ukwama	4	8	2	8	2	4	1
Bulongwa	10	20	2	20	2	10	1
Kipagalo	7	14	2	14	2	7	1
Ipelele	6	12	2	12	2	6	1
Iniho	6	12	2	12	2	6	1
Matamba	7	14	2	14	2	7	1
Mlondwe	7	14	2	14	2	7	1
Kitulo	4	8	2	8	2	4	1
Ikuwo	5	10	2	10	2	5	1
Mfumbi	4	8	2	8	2	4	1
Kigulu	1	2	2	2	2	1	1
Total	97	196	2	196	2	97	1

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.1.3 Status of Health Personnel

The quality of health services provided largely depends on the status of health personnel. Table 5.8 highlights that in 2010 the district had a total of 140 employees in health sector. Out of the total employees, male workers constituted more than half (71 employees, 50.7 percent) and female workers were 69 (49.3 percent). Moreover, there was a decrease in health personnel in 2010 compared to 2007. Total employees in 2010 was less by 129 staff compared to 269 staff (Makete District Profile Report 2007, page 89) who were working in this sector in 2007. Deaths, retirement and brain drain were among the factors attributed to the decrease of health workers in the district. Table 5.8 further indicates that the district had critical shortage of specialist and medical doctors as well as radiologist.



Immunisation Campaigns have reduce deaths of Infants and children of under Five years in Makete

Table 5.8: Availability of Health Personnel Makete District, 2010.

Medical Personnel	Male	Female	Total	Percent
Specialist Doctors	0	0	0	0
Medical doctors	3	0	3	2.1
Ass. Medical Officers	11	1	12	8.6
Clinical Officers	13	2	15	10.7
Ass. Clinical Officers	5	0	5	3.6
Dental Surgeon	0	0	0	0
Ass. Dental Officer	1	0	1	0.7
Dental Therapist	1	0	1	0.7
Pharmacists	1	1	2	1.4
Pharmaceutical Technicians	1	1	2	1.4
Pharmaceutical Assistant	1	0	1	0.7
Laboratory Technicians	3	2	5	3.6
Laboratory Ass.	1	2	3	2.1
Radiologist	0	0	0	0
Radiographer	1	1	2	1.4
Radiographic Assistant	0	1	1	0.7
Nursing Officers	0	3	3	2.1
Trained Nurse/NM/PHN	3	26	29	20.7
MCHA	0	5	5	3.6
Medical Attendants	8	11	19	13.6
Health Officers	7	1	8	5.7
Health Assistants	2	0	2	1.4
Health Secretaries	1	1	2	1.4
Other Medical Carders	8	11	19	13.6
District Total	71	69	140	100
Percent	50.7	49.3	100	

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.2 Morbidity

Morbidity and Mortality are necessary criteria in defining health status of human beings. Morbidity shows the number of times people have developed various diseases. In short morbidity is the term used to refer to illness. In Tanzania, several policies and programmes had been developed to reduce mortality rate among Tanzanians. However, Health Management Information Systems (MTUHA) was among the inventories established by the government for recording morbidity and their causes in all hospitals. In Makete district, the inventory had shown that the ten most commonly reported causes of illnesses are those in Table 5.9a.

Out patients

Out of 63,673 out-patients recorded in 2009, 89.6 percent were suffering from one of the first five illnesses. In 2010 the first five causes of morbidity accounted to 90.2 percent of 64,502 out-patients. Moreover, as it was observed in Makete District Profile Report of 2007, (page 90), Acute Respiratory Infections (A.R.I) continued to be the leading cause of illness for out-patients in the district in 2009. Malaria ranked second and the third disease was Pneumonia. The fourth and fifth diseases were Diarrhoea and Eye Infection.



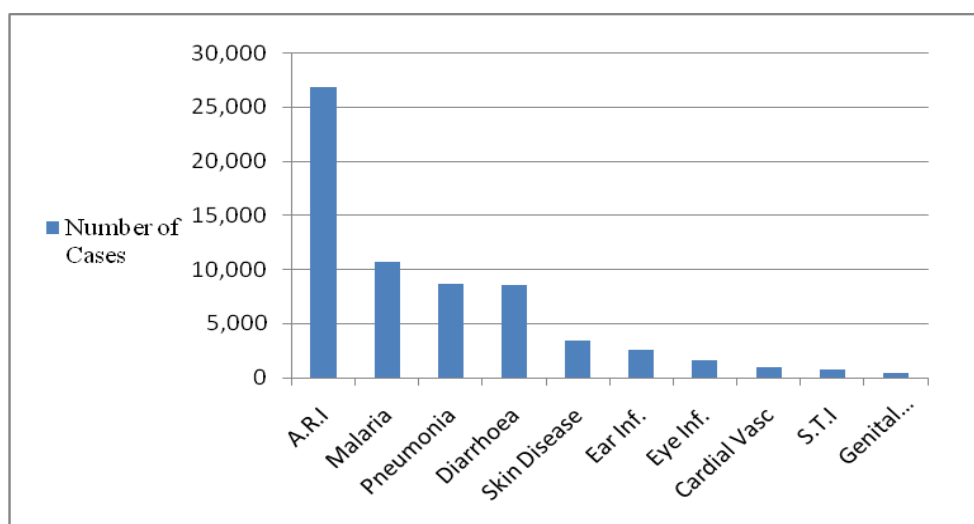
Malaria was ranked 2nd cause of morbidity in Makete District

A similar trend was observed in 2010 though there was a slight difference in the ranking and magnitude of cases. As it was in 2009, A.R.I persisted as the leading cause of morbidity in 2010. Malaria ranked second followed by Pneumonia. The fourth and fifth diseases were Diarrhoea and Skin diseases.

Table 5. 9: List of the Ten Most Commonly Reported Causes of Morbidity (Out Patients Only), Makete District, 2009 and 2010

Rank	2009			2010		
	Disease	Number of Cases	Percent Share of Top Ten	Disease	Number of Cases	Percent Share of Top Ten
1	A.R.I	26,315	41.3	A.R.I	26,818	41.6
2	Malaria	12,291	19.3	Malaria	10,733	16.6
3	Pneumonia	8,848	13.9	Pneumonia	8,684	13.5
4	Diarrhoea	6,665	10.5	Diarrhoea	8,528	13.2
5	Eye Infect.	2,946	4.6	Skin Disease	3,395	5.3
Sub Total		57,065	89.6	Sub Total	58,158	90.2
6	Skin Disease	2,599	4.1	Ear Inf.	2,587	4.0
7	S.T.I	1,595	2.5	Eye Inf.	1,623	2.5
8	Ear Inf.	1,155	1.8	Cardial Vasc	1,018	1.6
9	Cardial Vascular	764	1.2	S.T.I	698	1.1
10	Genital cancer	495	0.8	Genital cancer	418	0.6
Total		63,673	100		64,502	100

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Figure 14: Cases of Morbidity (Out patients Only), 2010

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

In patients

Out of 4,737 in-patients recorded in 2009 (Table 5.9a), 89.2 percent were suffering from one of the first five illnesses. In 2010 the first five causes of morbidity accounted for 91 percent of 9,463 in-patients. Pneumonia which ranked third among the causes of illness for out-patients (Table 5.9 above), is observed to be the leading source of illness for in-patients in Makete district in both years 2009 and 2010 (Table 5.9a). Furthermore, Table 5.9a depicts that Malaria ranked second in 2009 followed by Diarrhoea. The fourth and fifth diseases were Tuberculosis (TB) and Acute Respiratory Infections (A.R.I).

As it was stated above, Pneumonia was also the main agent of the morbidity for in-patients in 2010. Diarrhoea and Malaria ranked second and third while clinical AIDS was the fourth. However, ARI stands at fifth position among all diseases which commonly caused illnesses to in-patients in 2010 (Table 5.9a) respectively.

Table 5.9 a: List of the Ten Most Commonly Reported Causes of Morbidity (In Patients Only), Makete District, 2009 and 2010

2009				2010		
Rank	Disease	Number of Cases	Percent Share of Top Ten	Disease	Number of Cases	Percent Share of Top Ten
1	Pneumonia	2,394	50.5	Pneumonia	5,772	61.0
2	Malaria	952	20.1	Diarrhoea	1,134	12.0
3	Diarrhoea	365	7.7	Malaria	775	8.2
4	TB	290	6.1	Clinical AIDS	499	5.3
5	A.R.I	225	4.7	ARI	436	4.6
Sub Total		4,226	89.2	Sub Total	8,616	91.0
6	Anaemia	200	4.2	Cardial Vasc.	263	2.8
7	Clinical AIDS	139	2.9	Anaemia	227	2.4
8	P.I.D	62	1.3	TB	199	2.1
9	Cardial Vascular	62	1.3	PID	101	1.1
10	Eye Inf.	48	1.0	Eye Inf.	57	0.6
Total		4,737	100		9,463	100

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.3 Mortality

Mortality refers to death. However, understanding the prevalence of both morbidity and mortality is of paramount importance in planning health strategies for each portion of the community. Such information is also important in health managers and policy makers in deriving their objectives and priorities respectively.

Makete District Report of 2007 (page 93) reported that clinical AIDS was the main cause of mortality for in patients in the district. Health data of 2010 (Table 5.10), also indicated the same disease happened to be the leading killer disease in the district. Table 5.10 shows that out of 273 reported deaths in 2010, 102 (equivalent to 37.4 percent) were caused by clinical AIDS, followed by Pneumonia, Diarrhoea, Severe Malnutrition and Burns. Likewise, reports from the health department in Makete district indicates that

patients who are suffering from HIV/AIDS subjected to the highest risk of dying from Pneumonia compared to other diseases reported in Table 5.10.



A Practitioner briefing Patients on HIV/AIDS at Makete Hospital

Table 5. 10: List of the Ten Most Commonly Reported Causes of Mortality (In Patients Only), Makete District, 2010

Diseases	Number of deaths	Percent to the Total Deaths	Rank
Clinical AIDS	102	37.4	1
Pneumonia	66	24.2	2
Diarrhoea	55	20.1	3
Severe Protein malnutrition	11	4.0	4
Burns	11	4.0	4
Tuberculosis	9	3.3	5
Respiratory diseases	6	2.2	6
Non infectious gastro intestinal	5	1.8	7
Malaria	4	1.5	8
Urinary tract infections	4	1.5	8
Total	273	100	

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.4 HIV/AIDS Infections

Table 5.11 highlights data on prevalence of HIV/AIDS among pregnant women as it was captured from PMTCT reports in three large hospitals in the district. However, PMTCT service in Makete district over the period of 6

years, 2005 to 2010 had shown good performance in terms of the number of pregnant women who participated in such services and tested for HIV. They increased by 231 (38.9 percent) from 597 in 2005 (Makete District Profile Report 2007, page 96) to 828 in 2010 (Table 5.11). Moreover, HIV/AIDS sensitization campaigns among Makete people helped to reduce HIV infections among pregnant women in 2010 than it was 2005. This was due to the fact that, out of 828 pregnant women participated in PMTCT services and tested for HIV in 2010, only 64 of them (7.7 percent) were diagnosed to be HIV+ compared to 101 (16.9 percent) who were tested HIV positive in 2005.

Table 5. 11: Expectant Mothers who participated in the PMCTC in Makete Major Hospitals, 2010

Hospital	No. of new ANC Attendants	No. Screened	No. HIV+	Percent of HIV+	Number Given Niverapine	Percent of Given Niverapine
Makete Governmet District hosp.	328	328	27	8.2	27	100
Bulongwa Rutheran hospital	186	186	14	7.5	14	100
Ikonda Catholic hospital	314	314	23	7.3	23	100
Total	828	828	64	7.7	64	100

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

The introduction of VCT service in the district has made the screening of volunteers possible since 2005. From 2005 to 2010 the number of people who participated in VCT sharply increased by 15,853 people (413.7 percent), from 3,832 people who participated in VCT in 2005 to 19,685 in 2010. Also, as it was happened in 2005, the number of women who participated in VCT in 2010 (Table 5.12) were in large number (10,420) than male (9,265). Likewise, Table 5.12 indicates that more women (9.4 percent) were diagnosed to be HIV+ than men (8.6 percent).

Division wise, Table 5.12 also reveals that in 2010 Lupalilo division was leading in the number of people tested HIV+ (440). The urban nature was among the reasons for the division leading with people living with HIV infections as the division is the commercial centre and the headquarters of the district (Iwawa ward is the headquarter of the district and is found in this division). On the other hand, Ikuwo division had the least number of people infected with HIV+ (150) respectively.

Table 5. 12: Group of VCT Volunteers who were screened for HIV by Sex and by Division, Makete District, 2010

Division	Sex	Screened	HIV+	Percent HIV+
Bulongwa	Male	1530	153	10
	Female	1730	173	10
Sub- Total		3260	326	20
Magoma	Male	2000	100	5
	Female	1680	168	10
Sub- Total		3680	268	15
Ikuwo	Male	835	50	6
	Female	2500	100	4
Sub- Total		3335	150	10
Matamba	Male	1500	150	10
	Female	210	210	100
Sub- Total		1710	360	110
Ukwama	Male	1300	130	10
	Female	2000	100	5
Sub- Total		3300	230	15
Lupalilo	Male	2100	210	10
	Female	2300	230	10
Sub- Total		4400	440	20
Total by Sex	Male	9265	793	8.6
	Female	10420	981	9.4
Total	Both sexes	19,685	1,774	9

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.4.1 The Impact of HIV/AIDS

The socio-economic assessment of Makete district can not be discussed without addressing the extreme challenges caused by the HIV/AIDS and the effect of efforts so far made by various local and international organisations in combating the epidemic. HIV/AIDS is highlighted in this document, because it is a major health problem and a leading cause of mortality since its advent at the end of 1987. The other reason for addressing the epidemic stems from the role it plays in impoverishing families and generating widows, orphans and vulnerable children due to the loss of bread-winners in their families.

(i) The Increase of Widows

Understanding the status of HIV/AIDS prevalence in Makete is very difficult since many people die before reaching the hospital. Lack of VCT in remote areas where people can be tested in order to know their health status is a problem. Therefore, it is possible that there are people who live with the HIV/AIDS virus without knowing that they have it.

Data on widows are normally captured after every 10 years during National Population and Housing Censuses. The previous Makete District Profile of 2007 (page 98) used data gathered during 1988 and 2002 population censuses to show the extent of widowship in the district. However, 2012 population census will give the district another opportunity of quantifying widows.

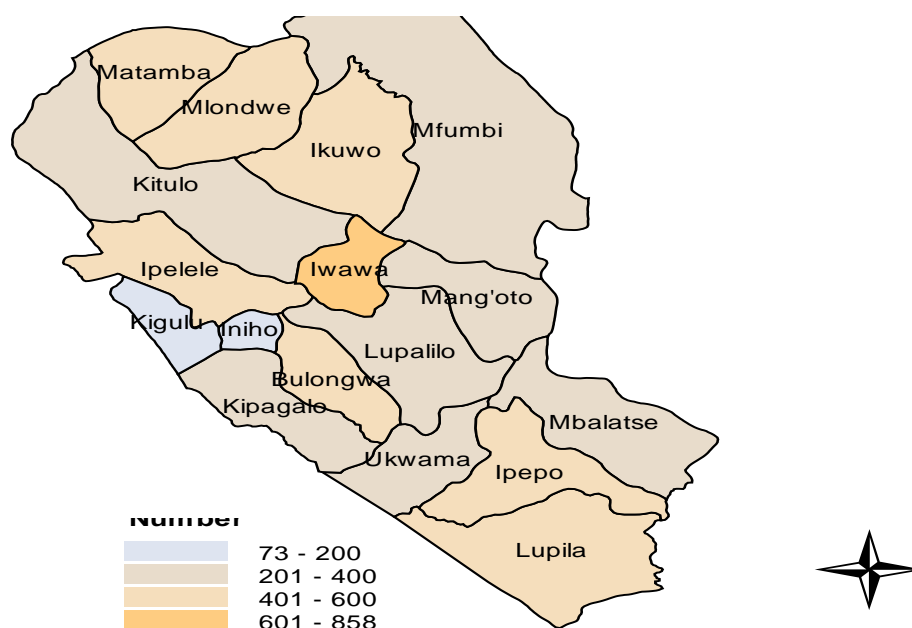
(ii) The Increase of Orphaned Children

An orphan is a child aged below 18 years who has lost one or both parents. According to UNICEF, child who has lost one parent is termed as 'single orphan' and who has lost both parents is a 'double orphan'. Based on Table 5.13, out of the total children aged 0-17 in 2009, 6,795 were orphans and 6,745 non-orphans. The Table further indicates that the number of most

vulnerable children who were orphans and non-orphans were higher for boys than girls at 3,787 (55.7 percent) and 3,484 (51.7 percent) respectively.

Being the headquarters of the district, Iwawa had the highest number of most vulnerable children with 858 orphans and 916 non-orphans. However, Kigulu which is the most disadvantaged ward in terms of accessibility of social services, had the smallest number (73) of most vulnerable children.

Map 5: of Makete District Showing the Level of Vulnerable Children by Ward, 2009



Source: District Executive Director's Office (District Medical's Office), Makete District, 2007

Table 5. 13: Number of Most Vulnerable Children by Ward, Makete District, 2009

Ward	Total Children Aged 0 - 17	Most Vulnerable Children									
		Orphans					Non Orphans				
		Girls	Girls Percent	Boys	Boys Percent	Total	Girls	Girls Percent	Boys	Boys Percent	Total
Iwawa	6511	431	50.2	427	49.8	858	411	44.9	505	55.1	916
Mang'oto	1809	138	45.8	163	54.2	301	143	45.5	171	54.5	314
Ipepo	2317	284	52.4	258	47.6	542	334	52.6	301	47.4	635
Ipelele	2323	135	24.3	421	75.7	556	136	48.7	143	51.3	279
Kigulu	270	32	43.8	41	56.2	73	32	43.8	41	56.2	73
Iniho	1748	75	45.2	91	54.8	166	84	45.7	100	54.3	184
Lupalilo	4264	101	45.1	123	54.9	224	163	47.2	182	52.8	345
Ukwama	1727	113	53.1	100	46.9	213	219	55.3	177	44.7	396
MBbalatse	1423	149	49.0	155	51.0	304	161	50.5	158	49.5	319
Kitulo	1147	142	48.5	151	51.5	293	142	48.5	151	51.5	293
Ikuwo	3322	201	34.5	381	65.5	582	201	52.8	180	47.2	381
Mfumbi	708	138	36.7	238	63.3	376	179	47.0	202	53.0	381
Lupila	2847	237	50.1	236	49.9	473	107	53.2	94	46.8	201
Bulongwa	2533	215	44.5	268	55.5	483	251	47.2	281	52.8	532
Kipagalo	2020	112	38.0	183	62.0	295	121	40.3	179	59.7	300
Mlondwe	3370	234	47.8	256	52.2	490	266	47.2	298	52.8	564
Matamba	4289	271	47.9	295	52.1	566	311	49.2	321	50.8	632
Total	42628	3008	44.3	3787	55.7	6795	3261	48.3	3484	51.7	6745

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.5 Reportable Communicable Diseases

The epidemic of reportable communicable diseases in Makete district occurs frequently especially during rainy seasons due to poor water supply and sanitation systems. Table 5.14 shows that cases of dysentery were the most epidemic. In 2010, 120 cases were treated compared to 67 cases in 2009 and 112 in 2008. Typhoid was the second epidemic disease. Its occurrences dropped from 64 cases in 2009 to 35 cases in 2010. The occurrence of other communicable diseases is as indicated in Table 5.14.

Table 5. 14: Number of Reported Cases of Reportable Communicable Diseases in Makete District, 2008, 2009 and 2010

Number	Disease	Number of cases		
		2008	2009	2010
1	Acute flaccid paralysis	1	0	1
2	Cholera	0	0	0
3	Dysentery	112	67	120
4	Measles	5	0	0
5	Meningitis	6	5	2
6	Plague	0	0	0
7	Rabid animal bites	5	3	0
8	Rabies	0	0	1
9	Typhoid	46	64	35
10	Neonatal tetanus	0	0	0
Total		175	139	159

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.6 Child Nutrition

Children, from the stage of foetuses to under - five years and their mothers are the most vulnerable group in the society. Therefore, reproductive and child health services are the most vital service in the district. Besides vaccination programme, children are also weighed to reveal how prevalent underweight is among them and hence the extent of child malnutrition. Nutritional food intake is associated with child health and therefore, poor diet can result into severe malnutrition which in turn manifests itself in high infant and child mortality rates.

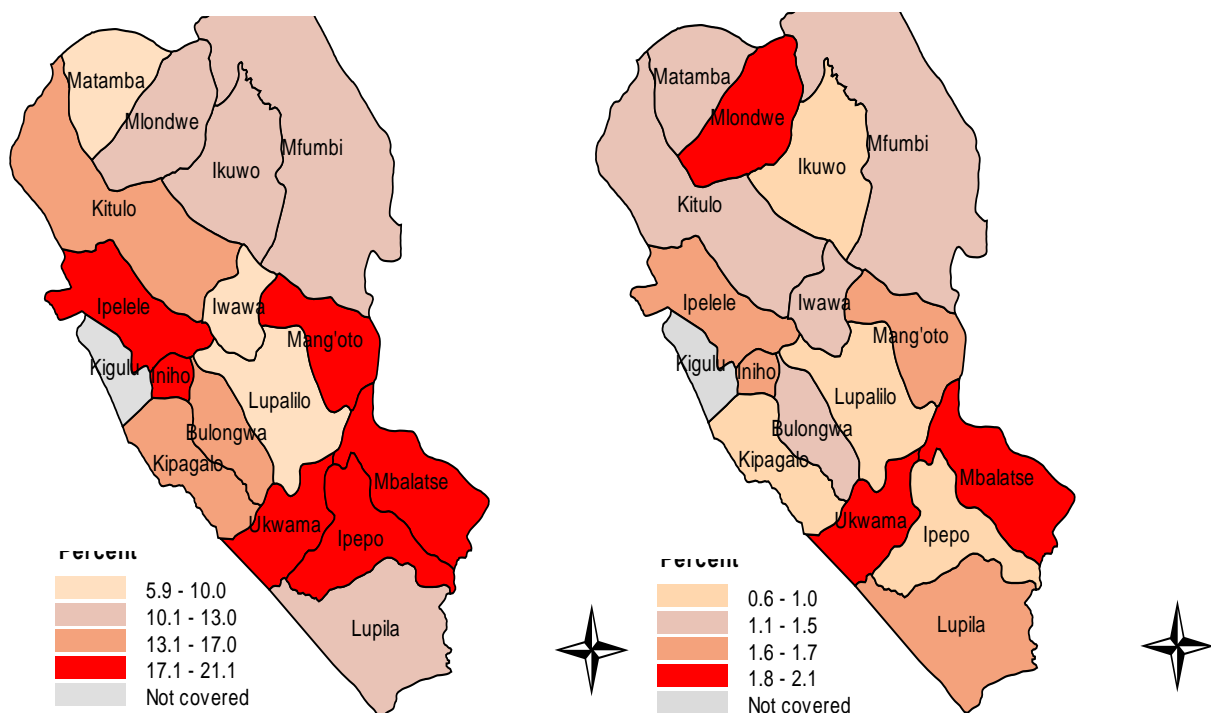
In 2008, 2009 and 2010, a total of 2,715; 2,795 and 2,503 children under one year were weighed respectively. The results show that the proportion of severe malnutrition was 0.6 percent in 2008 which slightly increased to 1.0 in 2009 and 1.3 percent in 2010.

Ward-wise, Table 5.15 shows that in 2008, the highest severe malnutrition was reported at Mbalatse ward (1.9 percent), followed by Iniho (1.6 percent) Ipepo and Bulongwa (0.9 percent each) and Mang'oto and Ipelele at 0.8 percent each one. Iwawa, Ukwama, Kipagalo, Mlondwe, and Mfumbi managed to control severe malnutrition as they had no percentage of children with severe malnutrition. The situation of severe malnutrition was worse in 2009 as it reached the peak at 27.6 percent in Mbalatse followed by Ipelele (23.8 percent), Ukwama (23.3 percent), Matamba (17.4 percent) and Bulongwa (16.3 percent) respectively. Table 5.15 further indicates that in 2010 the percentage of severe malnutrition was not critical as it was in 2009.

Map 6: Makete District Showing Status of Malnutrition by Ward, 2008- 2010

Moderately Malnutrition 2010

Severely Malnutrition 2010



Source: District Executive Director's Office (District Medical's Office), Makete District, 2007

Table 5. 15: Percentage of Severe Malnutrition for Children Under One Year by Ward, Makete District, 2008-2010

Ward	2008				2009				2010			
	Number Weighed	Percentage Moderately Underweight	Percentage Severely Underweight	Total	Number Weighed	Percentage Moderately Underweight	Percentage Severely Underweight	Total	Number Weighed	Percentage Moderately Underweight	Percentage Severely Underweight	Total
Iwawa	302	7.6	0.0	310	7.4	1.0	281	6.8	1.1			
Lupalilo	265	13.2	0.8	270	13.7	0.7	258	8.1	0.8			
Mang'oto	120	15.0	0.8	126	16.7	0.8	117	18.8	1.7			
Mbalatse	103	31.1	1.9	116	27.6	1.7	107	18.7	1.9			
Lupila	145	17.9	0.7	151	19.2	1.3	124	12.9	1.6			
Ipepo	109	26.6	0.9	116	21.6	0.9	109	21.1	0.9			
Ukwama	117	19.7	0.0	120	23.3	1.7	112	18.8	1.8			
Bulongwa	211	15.2	0.9	215	16.3	0.9	208	16.3	1.4			
Kipagalo	129	17.8	0.0	136	15.4	0.7	130	14.6	0.8			
Ipelele	127	29.1	0.8	130	23.8	1.5	123	17.9	1.6			
Iniho	129	20.9	1.6	130	20.0	1.5	116	18.1	1.7			
Matamba	245	18.8	0.4	242	17.4	1.2	237	5.9	1.3			
Mlondwe	98	18.4	0.0	101	15.8	1.0	94	10.6	2.1			
Kitulo	156	16.7	0.6	160	14.4	0.6	144	13.2	1.4			
Ikuwo	189	14.8	0.5	194	12.4	0.5	177	13.0	0.6			
Mfumbi	270	12.2	0.0	278	12.6	0.7	166	12.7	1.2			
Total	2715	17	0.6	2795	16.0	1.0	2503	13.0	1.3			

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.6.1 Mother and Child Health Care

Protection of expectant/lactating mothers and children from measles, tuberculosis, etc through immunisation programme (CSPD) supported by UNICEF has to a large extent reduced the risk of their being infected. This is evidenced by the decline of all mortality ratios related to mothers and children in 2010 compared to 2007 (Table 5.16). Infant Mortality rate dropped from 15 per 1,000 persons in 2007 to 12 deaths in 2010. Deaths of under five children decreased from 25 to 23 per 1,000 persons and estimated maternal mortality rate dropped from 350 to 110 per 100,000 mothers. Moreover, estimated prenatal mortality and neonatal mortality rates were low and remained almost constant at 13 and 7 deaths per 1,000 lives in 2007 and 14 and 10 deaths in 2010.

Table 5. 16: Estimates of Mortality Indicators, Makete District, 2007 and 2010

Year	Estimated IMR (Per 1,000)	Estimated U5MR (Per 1,000)	Estimated MMR (Per 100,000)	Estimated Prenatal Mortality Rate* (Per 1,000)	Estimated Neonatal Mortality Rate** (Per 1,000)
2007	15	25	350	13	7
2010	12	23	110	14	10

*Deaths of children from 7 months pregnancy to 28 days after birth per 1,000

**Deaths of children from day 0 to 28 days after birth per 1,000

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Reduction of deaths among children and their mothers is attributed to the massive coverage of immunisation campaigns done in the district. Table 5.17 reveals that in 2008 a total of 3,798 or 60 percent of targeted expectant mothers were vaccinated with TT2 in the district. In 2009, 3,790 or 62 percent of targeted pregnant women were vaccinated and 3,722 expectant or 72.3 percent of the targeted were vaccinated with TT2 in 2010.

At ward level, in 2008, Kipagalo ward with immunisation coverage of 49 percent (less than 50 percent) had the worst coverage than any other ward. The same ward also had the worst coverage of 52 percent in 2009. Efforts done by the District Authority on sensitization of expectants mothers' succeeded to raise immunisation coverage in 2010. In this year, the coverage hit the peak at 94 percent which was the highest compared to the past two years (Table 5.17).

Ward	2008					2009					2010				
	Total	Targeted	Total	Vaccinated	Percent Coverage	Total	Targeted	Total	Vaccinated	Percent Coverage	Total	Targeted	Total	Vaccinated	Percent Coverage
Iwawa	416		291		70	415		299		72	410		274		67
Lupalilo	280		218		78	279		204		73	272		205		75
Mang'oto	166		91		55	165		89		54	163		106		65
Mbalatse	156		103		66	155		104		67	146		98		67
Lupila	201		113		56	201		121		60	196		178		91
Ipepo	143		72		50	143		90		63	149		122		82
Ukwama	176		99		56	175		93		53	166		109		66
Bulongwa	386		193		50	386		228		59	368		230		63
Kipagalo	140		69		49	140		74		52	133		120		90
Ipelele	219		138		63	218		133		60	210		122		58
Iniho	148		101		68	148		89		60	138		99		72
Matamba	451		244		54	450		266		59	432		320		74
Mlondwe	256		140		55	256		143		56	306		212		69
Kitulo	156		108		69	156		111		71	144		101		70
Ikuwo	189		112		58	189		113		60	180		106		59
Mfumbi	315		189		60	314		195		62	309		290		94
Total	3798		2279		60	3790		2350		62	3722		2692		72

1. *Journal of the American Medical Association*, 1997; 277: 1039-1043.

Table 5. 18: Percentage of Children Under One Year Vaccinated DPT3/HB3 by Ward, Makete District, 2008-2010

Ward	2008			2009			2010		
	Total	Targeted	Total Vaccinated Percent Coverage	Total	Targeted	Total Vaccinated Percent Coverage	Total	Targeted	Total Vaccinated Percent Coverage
Iwawa	380	346	91	382	340	89	382	340	89
Lupalilo	240	187	78	241	217	90	241	217	90
Mang'oto	145	128	88	145	132	91	145	132	91
Mbalatse	140	122	87	141	128	91	141	128	91
Lupila	197	158	80	198	199	88	198	156	79
Ipepo	142	116	82	143	129	90	143	119	83
Ukwama	136	122	90	136	128	92	136	118	87
Bulongwa	322	254	79	322	283	88	322	283	88
Kipagalo	138	110	80	138	74	98	138	122	88
Ipelele	205	162	79	206	133	89	206	166	81
Iniho	138	115	83	138	123	89	138	123	89
Matamba	411	353	86	411	374	91	411	330	80
Mlondwe	248	206	83	248	213	86	248	213	86
Kitulo	133	109	82	133	120	90	133	120	90
Ikuwo	146	115	79	146	132	88	146	132	90
Mfumbi	259	201	80	260	256	89	260	249	96
Total	3380	2805	83	3388	2981	88	3388	2948	87

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Table 5.19 reveals that there was a decreasing trend in the number of children under one year who had received BCG vaccination in the district. They decreased by 2 percent from 3,798 in 2008 to 3,722 in 2010. At district level vaccination coverages were 88 percent, 81 percent and 86 percent of the total targeted children during the period of 2008, 2009 and 2010 respectively. At ward level, Table 5.19 reveals that Bulongwa had the highest vaccination coverage of 95 percent in 2008. Ukwama also had the highest in 2009 at 89 percent while Mlondwe with 94 percent vaccination coverage was the highest in 2010. Moreover, efforts should be made to improve vaccination coverage to those wards which had the coverage below that of the district.

Table 5. 19: Percentage of Children under One Year Vaccinated BCG by Ward, Makete District, 2008 - 2010

Ward	2008				2009				2010			
	Total Targeted	Total	Vaccinated	Percent Coverage	Total Targeted	Total	Vaccinated	Percent Coverage	Total Targeted	Total	Vaccinated	Percent Coverage
Iwawa	416		366	88	415		366	88	410		366	89
Lupalilo	280		252	90	279		198	71	272		235	86
Mang'oto	166		148	89	165		142	86	163		142	87
Mbalatse	156		125	80	155		137	88	146		116	79
Lupila	201		167	83	201		167	83	196		167	85
Ipepo	143		130	91	143		123	86	149		123	83
Ukwama	176		150	85	175		155	89	166		130	78
Bulongwa	386		367	95	386		326	84	368		326	89
Kipagalo	140		128	85	140		110	79	133		110	83
Ipelele	219		184	84	218		176	81	210		176	84
Iniho	148		117	79	148		103	70	138		123	89
Matamba	451		406	90	450		366	81	432		366	85
Mlondwe	256		225	84	256		201	79	306		287	94
Kitulo	156		139	89	156		112	72	144		112	78
Ikuwo	189		176	93	189		128	68	180		158	88
Mfumbi	315		265	84	314		264	84	309		264	85
Total	3798		3343	88	3790		3074	81	3722		3201	86

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

According to Table 5.20, children under one year vaccinated by OPV3 at district level had vaccination coverage of 83 percent in 2008, 88 percent in 2009 and 87 percent in 2010 respectively. At ward level, the wards which had the best coverage were Iwawa 91 percent in 2008, Kipagalo 98 percent in 2009 and Lupalilo and Ikuwo each with 90 percent in 2010.

Ward	2008					2009					2010				
	Total	Targeted	Total	Vaccinated	Percent Coverage	Total	Targeted	Total	Vaccinated	Percent Coverage	Total	Targeted	Total	Vaccinated	Percent Coverage
Iwawa		380		346	91		382		340	89		382		340	89
Lupalilo		240		187	78		241		217	90		241		217	90
Mang’oto		145		128	88		145		132	91		145		124	86
Mbalatse		140		122	87		141		128	91		141		116	82
Lupila		197		158	80		198		199	88		198		156	79
Ipepo		142		116	82		143		129	90		143		119	83
Ukwama		136		122	90		136		128	92		136		118	87
Bulongwa		322		254	79		322		283	88		322		283	88
Kipagalo		138		110	80		138		74	98		138		122	88
Ipelele		205		162	79		206		133	89		206		166	81
Iniho		138		115	83		138		123	89		138		123	89
Matamba		411		353	86		411		374	91		411		330	80
Mlondwe		248		206	83		248		213	86		248		213	86
Kitulo		133		109	82		133		120	90		133		109	82
Ikuwo		146		115	79		146		132	88		146		132	90
Mfumbi		259		201	80		260		254	89		260		228	88
Total		3380		2805	83		3388		2979	88		3388		2896	87

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

Measles vaccination to under one year children in Makete district, like in other districts in the region, was performed to protect them against measles. Based on Table 5.21, at district level, coverage for 2008 was 82 percent. The coverage for 2009 was 83 percent and in 2010 it was 84 percent of the targeted children.

The children vaccinated were 2,771 in 2008, 2,798 in 2009 and 2,846 in 2010. In 2008 Mang'oto and Ukwama had the best vaccination coverage at 88 percent each. Iwawa, Mang'oto and Iniho each with 89 percent coverage were the best in 2009 while in 2010 Lupalilo had the best at 90 percent.

Table 5. 21: Percentage of Children Under One Year Vaccinated Measles by Ward, Makete District, 2008 – 2010

Ward	2008			2009			2010		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Iwawa	380	317	83	382	340	89	382	340	89
Lupalilo	240	187	78	241	207	86	244	219	90
Mang'oto	145	128	88	145	129	89	145	124	86
Mbalatse	140	122	87	141	117	83	141	116	82
Lupila	197	158	80	198	166	84	198	159	80
Ipepo	142	116	82	143	100	70	143	119	83
Ukwama	136	119	88	136	110	81	136	118	87
Bulongwa	322	254	79	322	283	88	322	256	80
Kipagalo	138	110	80	138	109	79	138	119	86
Ipelele	205	162	79	206	159	77	206	166	81
Iniho	138	115	83	138	123	89	138	113	82
Matamba	411	352	86	411	315	77	411	330	80
Mlondwe	248	206	83	248	212	85	248	213	86
Kitulo	133	109	82	133	109	82	133	109	82
Ikuwo	146	115	79	146	118	81	146	117	80
Mfumbi	259	201	78	260	201	77	260	228	88
Total	3380	2771	82	3388	2798	83	3388	2846	84

Source: District Executive Director's Office (District Medical's Office), Makete District, 2011

5.1.7 Investment Opportunities for Health Sub-Sector

Makete district is facing an acute shortage of qualified healthcare workers, particularly in the most rural parts of the district. Shortage of drugs and health equipments put districts' residents in more risks of dying from diseases. Therefore, increasing qualified health workers going hand in hand with improving their living conditions is essential for improving health services in the district. Furthermore, adequate supply of drugs and health equipments is needed to cater the shortage.

EDUCATION SECTOR

5.2.0 An Overview

Education sector covers pre-primary, primary, secondary, educational colleges/vocational education. Therefore, the development of the sector in Makete district involves improving in all the above mentioned areas.

Pre-Primary Education



Pre-primary school is a prerequisite for standard one enrolment

Nursery schools are playing an increasingly important role in pre-school education of children aged 3-6 years. The condition set by the Ministry of Education and Vocational Training that all children legible to start standard one should have undergone pre-primary education, accelerated the establishment of pre-primary schools all over the country with Makete district being inclusive. Most of such schools annexed in government primary school compounds.

Based on Table 5.22, the district managed to increase the number of pre-primary schools from 88 in 2008 to 93 in 2009 and reaches 95 in 2010. The pre-primary schools distribution was not even as it skewed towards those wards with urban characteristics and have higher population like Lupalilo,

Iwawa, Matamba and Mlondwe. Kigulu ward which has typical rural characteristics and by being the least populated area, had the smallest number of pre-primary schools.

Map 7 : Makete District Showing Distribution of Pre- Primary Schools by Ward, 2010

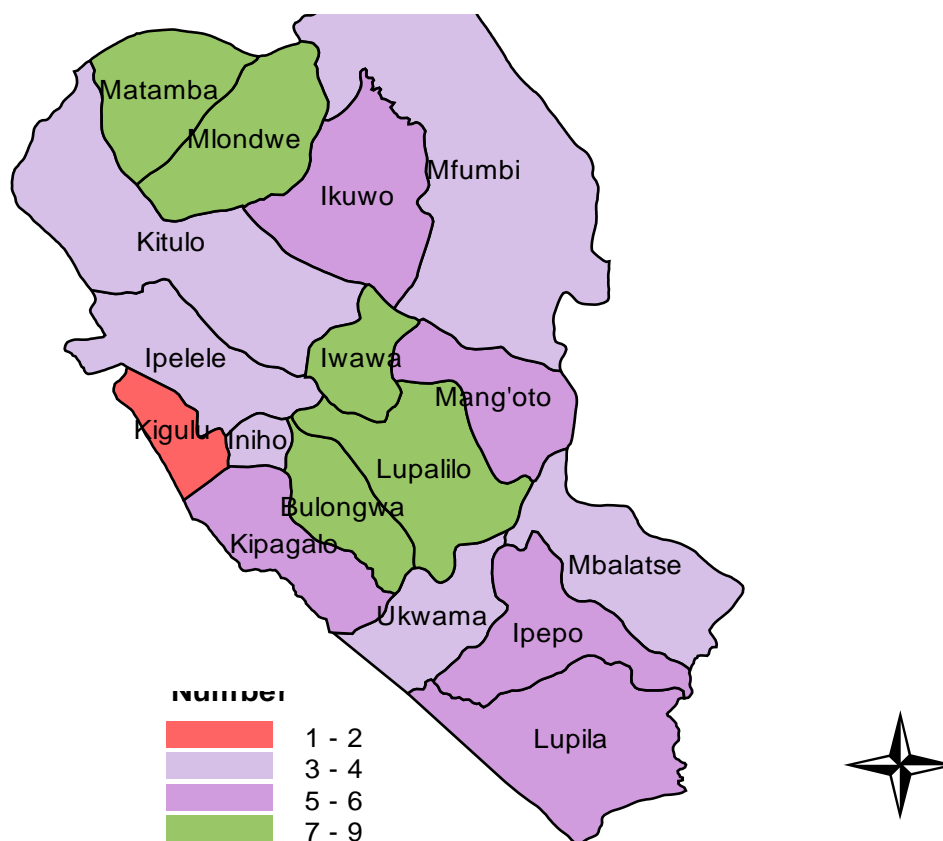


Table 5. 22: Number of Pre-Primary Schools by Ward, Makete District, 2008 – 2010

Ward	2008	2009	2010
Lupila	6	6	6
Ipepo	4	5	5
Mbalatse	3	4	4
Mang'oto	6	6	6
Ukwama	4	4	4
Lupalilo	8	9	9
Iwawa	8	8	8
Bulongwa	8	8	9
Kipagalo	6	6	6
Iniho	4	4	4
Ipelele	3	4	4
Matamba	8	8	8
Mlondwe	7	8	8
Kitulo	3	3	4
Mfumbi	3	3	4
Ikuwo	5	5	5
Kigulu	1	1	1
Total	88	93	95

Enrolment in Pre-Primary Schools

Table 5.23 shows enrolment of pre-primary schools in Makete district over the period of three years 2008, 2009 and 2010. Enrolment in pre-primary schools has been growing in the district. It increased by 5.8 percent from 4,250 pupils in 2008 to 4,497 in 2010. The increase was most probably as a result of awareness among parents and easy accessibility of pre-primary schools.

Ikuwo ward had the highest enrollment of pre-primary school pupils. Enrollment of pre-primary schools pupils in this ward increased by 45.8 percent from 2008 to 2010. However, Kigulu ward which is the most disadvantaged area in the district in terms of availability of social services

such as health, education and road network had the least number of pupils enrolled in pre-primary schools (Table 5.23).

Table 5. 23: Total Enrolment in Pre-Primary Schools by Ward, Makete District, 2008-2010

Ward	Number of Pupils Enrolled			Percent Increase in 2010 From 2008
	2008	2009	2010	
Lupila	281	384	277	-1.4
Ipepo	254	262	249	-2.0
Mbalatse	105	114	148	41.0
Mang'oto	156	170	164	5.1
Ukwama	153	120	159	3.9
Lupalilo	402	439	456	13.4
Iwawa	471	373	394	-16.3
Bulongwa	246	485	277	12.6
Kipagalo	314	207	192	-38.9
Iniho	193	221	247	28.0
Ipelele	149	180	128	-14.1
Matamba	467	535	509	9.0
Mlondwe	437	304	442	1.1
Kitulo	103	114	116	12.6
Mfumbi	187	188	239	27.8
Ikuwo	332	474	484	45.8
Kigulu	*	*	16	100
Total	4,250	4,570	4,497	5.8

* No enrolment

5.2.3 Primary Education

Primary school education is a basic right of every Tanzanian child of school going age (7-13). To render this possible the Government of Tanzania put in place the policy of Universal Primary Education (UPE) in 1974 making such education compulsory and setting out to make it available to every child. To achieve this goal communities have been mobilised for self help to provide practical and relevant education in partnership with Central and Local Governments Authorities.

There was insignificant increase in number of primary schools in the district. They increased from 95 in 2007 (as reported in Makete district profile report of 2007) to 97 in 2010 (Table 5.24). The slow increase in the number of schools is attributed to the lack of private sector participation. It is revealed in Table 5.24, that there was only one private primary school in the district.

Map 8: Makete District Showing the Distribution of Primary Schools by Ward, 2010

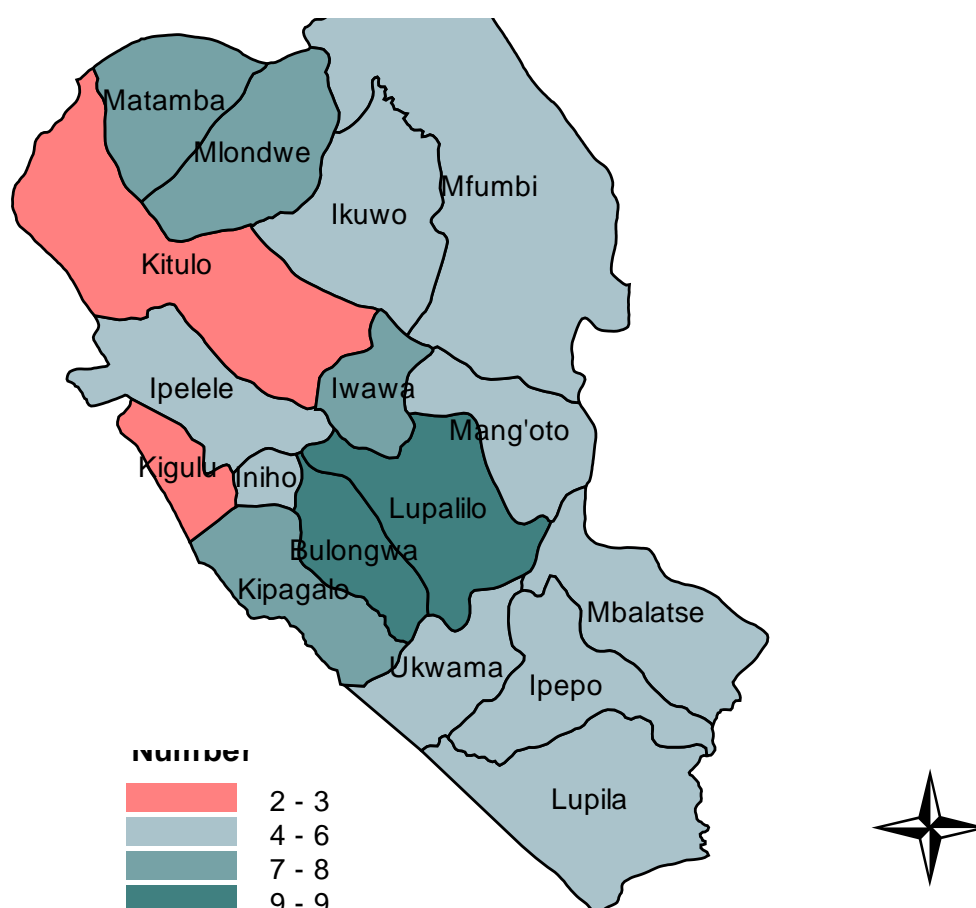


Table 5. 24: Number of Primary Schools by Ownership and by Ward, Makete District, 2008- 2010

Ward	2008		2009		2010	
	Pu	Pri	Pu	Pri	Pu	Pr
Lupila	6	-	6	-	6	-
Ipepo	5	-	5	-	5	-
Mbalatse	4	-	4	-	4	-
Mang'oto	6	-	6	-	6	-
Ukwama	4	-	4	-	4	-
Lupalilo	9	-	9	-	9	-
Iwawa	8	-	8	-	8	-
Bulongwa	9	-	9	-	9	-
Kipagalo	7	-	7	-	7	-
Iniho	4	-	4	-	4	-
Ipelele	5	-	5	-	5	-
Matamba	7	1	7	1	7	1
Mlondwe	8	-	8	-	8	-
Kitulo	3	-	3	-	3	-
Mfumbi	4	-	4	-	4	-
Ikuwo	5	-	5	-	5	-
Kigulu	2	-	2	-	2	-
Total	96	1	96	1	96	1

5.2.3.1 Coverage of Education System

Accessibility of primary school improved in the year 2010. It improved slightly from the average school per ward of 5.6 in 2007 (reported in Makete district profile report of 2007) to 5.7 of 2010 (Table 5.25). Bulongwa had the best school per ward ratio of 8. Hence, primary school pupils in Bulongwa walk shorter distance to reach the school than any other division. Unlike that, Magoma had the least average schools per ward of 3.7 which made pupils walk longer distances to access the schools.

Table 5. 25: Proportions of Schools by 100 Sq. kms. by Ward and Village, Makete District, 2010

Division	Land Area (sq.kms.)	Wards	No. of Villages	No. of Schools 2010	Average Schools Per		No. of Schools per 100 Sq.kms.
					Ward	Village	
Ukwama	1,187.7	4	18	19	4.8	1.1	1.6
Lupalilo	1,154.3	3	23	23	7.7	1.0	2.0
Bulongwa	518.2	2	17	16	8.0	0.9	3.1
Magoma	664.3	3	13	11	3.7	0.8	1.7
Matamba	1,038.9	3	17	19	6.3	1.1	1.8
Ikuwo	1,236.6	2	9	9	4.5	1.0	0.7
Total	5,800.3	17	97	97	5.7	1.0	1.7

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.3.2 Standard one enrolment

Despite community participation through Basic Education and Life Skills (BELS) and Child Friendly Schools (CFS) programmes financed by UNICEF which managed to motivate parents in remote areas to enrol their children, and thus, helped to improve the enrolment rate of standard one pupils at 100 percent in 2007 (Makete District Profile Report of 2007 pg 124)), the enrolment dropped drastically at a rate of 16 percent over the period of 2008-2009 (Table 5.26). Lack of sustainability of the above said programmes established by the UNICEF and inability of other stakeholders to support those initiatives were among the reasons for the decrease in enrolment of standard one pupils. However, initiatives made by the government to provide food for pupils while in school which started in 2009, boosted the enrolment at a rate of 7.8 percent over the period of 2009-2010 (Table 5.26).

Table 5. 26: Standard I Enrolment by Ward, Makete District, 2008-2010

Ward	2008	2009	2010	Change in Enrollment		Percentage Change in Enrollment	
				2008-2009	2009-2010	2008-2009	2009-2010
Lupila	154	138	150	-16	12	-10.4	8.7
Ipepo	166	146	141	-20	-5	-12.0	-3.4
Mbalatse	129	95	120	-34	25	-26.4	26.3
Mang'oto	162	145	130	-17	-15	-10.5	-10.3
Ukwama	159	138	94	-21	-44	-13.2	-31.9
Lupalilo	379	262	308	-117	46	-30.9	17.6
Iwawa	301	269	358	-32	89	-10.6	33.1
Bulongwa	212	177	176	-35	-1	-16.5	-0.6
Kipagalo	163	149	180	-14	31	-8.6	20.8
Iniho	146	126	102	-20	-24	-13.7	-19.0
Ipelele	201	170	161	-31	-9	-15.4	-5.3
Matamba	295	276	305	-19	29	-6.4	10.5
Mlondwe	286	250	274	-36	24	-12.6	9.6
Kitulo	148	88	90	-60	2	-40.5	2.3
Mfumbi	168	143	160	-25	17	-14.9	11.9
Ikuwo	214	182	220	-32	38	-15.0	20.9
Kigulu	64	58	61	-6	3	-9.4	5.2
Total	3347	2812	3030	-535	218	-16.0	7.8

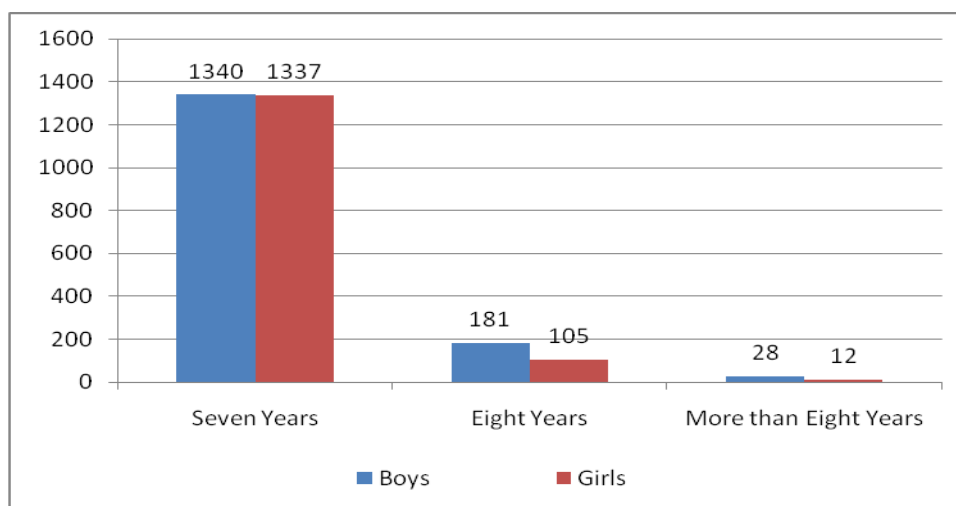
Source: District Executive Director's Office (Education Department), Makete District, 2011

According to Universal Primary Education (UPE), school going age is seven years. Based on Table 5.27, in 2010 children enrolled in standard one at the age of seven years accounted for 89.1 percent followed by those enrolled at eight years (9.5 percent). Only 40 children (1.3 percent) started standard one at the age of more than eight years. Table 5.27 also indicates that, in a given year, primary schools in the district managed to enrol more boys than girls of the age of seven years, respectively.

Table 5. 27: Standard I Enrolment by Age Group in Makete District 2010

Sex	Seven Years	Percent Enrolled	Eight Years	Percent Enrolled	More than Eight Years	Percent Enrolled	Total
Boys	1340	86.5	181	11.7	28	1.8	1549
Girls	1337	92.0	105	7.2	12	0.8	1454
Total	2,677	89.1	286	9.5	40	1.3	3003

Source: District Executive Director's Office (Education Department), Makete District, 2011

Figure 15: Standard 1 Enrolment by Age group, Makete District, 2010

Source: District Executive Director's Office (Education Department), Makete District, 2011

With reference to Table 5.28, total enrolment for boys was slightly higher than that of girls. Minor difference in the number of boys and girls enrolled was a result of the district's efforts to ensure girls get equal opportunity as boys in primary school education. Moreover, only three wards, Lupila, Mbalatse and Mlondwe wards, enrolment of girls was observed to be higher than that of boys.

Comparing the total enrolment of Standard I-VII in 2007 (Makete district profile report of 2007), and that of 2008 and 2010 (Table 5.28), more girls were enrolled in 2007. Also, total enrolment for both boys and girls shown in Table 5.28 was slightly lower than those reported in Makete District Profile of 2007.

Table 5. 28: Total (Std I - VII) Enrolment by Sex and by Ward, Makete District 2008 and 2010

Ward	2008					2010				
	Boys	Percent Boys	Girls	Percent Girls	Total	Boys	Percent Boys	Girls	Percent Girls	Total
Lupila	699	47.4	776	52.6	1475	592	47.1	665	52.9	1257
Ipepo	680	50.9	656	49.1	1336	643	51.7	601	48.3	1244
Mbalatse	423	48.2	455	51.8	878	378	48.2	407	51.8	785
Mang'oto	507	48.7	534	51.3	1041	476	49.4	487	50.6	963
Ukwama	532	53.0	472	47.0	1004	456	50.3	450	49.7	906
Lupalilo	1191	51.6	1118	48.4	2309	1064	51.2	1014	48.8	2078
Iwawa	1607	51.1	1538	48.9	3145	1522	52.5	1375	47.5	2897
Bulongwa	804	50.4	792	49.6	1596	714	50.8	691	49.2	1405
Kipagalo	633	51.5	597	48.5	1230	531	49.8	535	50.2	1066
Iniho	429	50.2	426	49.8	855	447	50.6	437	49.4	884
Ipelele	657	50.2	652	49.8	1309	597	51.2	568	48.8	1165
Matamba	1076	51.2	1024	48.8	2100	1038	51.5	977	48.5	2015
Mlondwe	983	50.2	977	49.8	1960	931	49.2	960	50.8	1891
Kitulo	392	51.4	370	48.6	762	361	51.2	344	48.8	705
Mfumbi	608	51.2	579	48.8	1187	537	50.4	529	49.6	1066
Ikuwo	889	50.3	879	49.7	1768	768	48.7	808	51.3	1576
Kigulu	141	48.6	149	51.4	290	158	53.2	139	46.8	297
Total	12,251	50.5	11,994	49.5	24245	11,213	50.5	10,987	49.5	22,200

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.4 Completion Rate

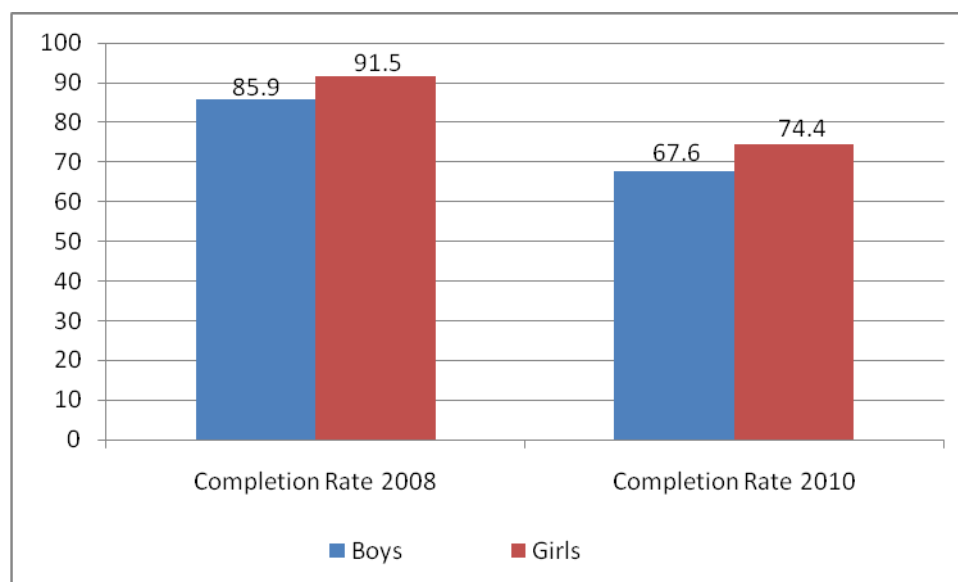
The completion rate is an indicator of the efficiency of the school system that shows the extent to which a cohort of pupils admitted in class one and complete the primary education cycle irrespective of whether they sit for the final examination or not.

From Table 5.29 it can be learnt that among 4,280 of the cohort pupils admitted in standard one in 2002, only 3,790 (88.6 percent) completed standard seven in 2008 in the district. More girls than boys managed to complete primary school education cycle in 2008 as the completion rate for girls was 91.5 percent compared to 85.9 percent of boys. At ward level, Mlondwe had the highest completion rate for both boys and girls while Mbalatse ward had the least (Table 5.29). Nevertheless, the number of pupils

who completed standard seven in 2008 in Mlondwe ward exceeded the number of pupils who joined standard one in 2002 due to migration of parents and guardians who tend to move with their family back home due to different reasons including sickness especially HIV/AIDS.

Table 5.29a presents the situation of the cohort of pupils admitted in standard one in 2004 and completed standard seven in 2010. Number of cohort pupils who completed standard seven in 2010 was less by 655 pupils (17.3 percent) compared to 3,790 pupils who completed in 2008. Also, as it was in 2008, more girls than boys completed standard seven in 2010. The completion rate for girls was 74.4 percent compared to 67.6 percent of boys. At ward level, Table 5.29a further indicates that Ikuwo had the best completion rate than any other ward in the district in that particular year whilst Kitulo ward had the worst respectively.

Figure 16: Rates of Completion of Primary Education in Makete, 2008 and 2010



Source: District Executive Director's Office (Education Department), Makete District, 2011

Table 5. 29: Number of Pupils Enrolled Std I in 2002 and Completed Std VII inn 2008 by Ward, Makete District

Ward	2002 to 2008								
	Enrolled 2002			Completed 2008			Completion Rate by Sex		Percent of Completion
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Bulongwa	158	146	304	138	136	274	87.3	93.2	90.1
Kitulo	128	112	240	108	106	214	84.4	94.6	89.2
Lupila	148	131	279	112	110	222	75.7	84.0	79.6
Ipepo	110	102	212	94	95	189	85.5	93.1	89.2
Ukwama	122	112	234	102	98	200	83.6	87.5	85.5
Matamba	158	144	302	148	144	292	93.7	100.0	96.7
Lupalilo	178	165	343	158	155	313	88.8	93.9	91.3
Ikuwo	112	99	211	101	99	200	90.2	100.0	94.8
Mlondwe	135	132	267	145	142	287	107.4	107.6	107.5
Mfumbi	128	114	242	113	110	223	88.3	96.5	92.1
Kipagalo	125	113	238	105	103	208	84.0	91.2	87.4
Mbalatse	104	95	199	61	60	121	58.7	63.2	60.8
Iniho	98	86	184	62	60	122	63.3	69.8	66.3
Ipelele	120	118	238	110	108	218	91.7	91.5	91.6
Iwawa	271	262	533	253	252	505	93.4	96.2	94.7
Mang’oto	132	122	254	102	100	202	77.3	82.0	79.5
Total	2227	2053	4280	1912	1878	3790	85.9	91.5	88.6

Source: District Executive Director's Office (Education Department), Makete District, 2011

Table 5.29 a: Number of Pupils Enrolled Std I in 2004 and Completed Std VII in 2010 by Ward, Makete District

Ward	2004 to 2010								
	Enrolled 2004			Completed 2010			Completion Rate by Sex		Percent of Completion
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Bulongwa	160	153	313	105	108	213	65.6	70.6	68.1
Kitulo	140	135	275	43	58	101	30.7	43	36.7
Lupila	142	123	265	102	118	220	71.8	95.9	83.0
Ipepo	126	112	238	82	91	173	65.1	81.3	72.7
Ukwama	148	139	287	68	53	121	45.9	38.1	42.2
Matamba	162	154	316	127	139	266	78.4	90.3	84.2
Lupalilo	174	178	352	145	153	298	83.3	86	84.7
Ikuwo	112	110	222	109	112	221	97.3	101.8	99.5
Mlondwe	140	131	271	112	118	230	80	90.1	84.9
Mfumbi	123	113	236	80	77	157	65	68.1	66.5
Kipagalo	130	121	251	99	76	175	76.2	62.8	69.7
Mbalatse	102	98	200	64	86	150	62.7	87.8	75.0
Iniho	104	97	201	59	61	120	56.7	62.9	59.7
Ipelele	123	119	242	103	97	200	83.7	81.5	82.6
Iwawa	263	240	503	138	141	279	52.5	58.8	55.5
Mang'oto	130	121	251	104	107	211	80	88.4	84.1
Total	2279	2144	4423	1540	1595	3135	67.6	74.4	70.9

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.5 Primary School Dropout rate

Data in table 5.30 highlights that primary school dropouts from 2008 to 2010 were in decreasing trend. It decreased from 86 dropouts in 2008 to 49 in 2009 and then dropped further to 36 in 2010. In all three years, more boys than girls dropped out of schools.

Truancy was seen as the leading source of drop out followed by deaths and other reasons. However, pregnancy was the least cause of drop outs over the period under consideration.

Table 5. 30: Drop Outs by Reasons, Makete District, 2008, 2009 and 2010

Reason	2008			2009			2010		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Truancy	36	25	61	27	14	41	15	11	26
Pregnancy	-	5	5	-	2	2	-	-	-
Death	8	5	13	-	3	3	7	2	9
Other	3	4	7	1	2	3	-		1
Total	47	39	86	28	21	49	22	14	36
Total Enrolment	12,251	11,994	24,245	11,532	11,361	22,893	11,213	10,987	22,200
Percent of Dropouts to the Total Enrolment	0.4	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.2

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.6 Pass Rate

Pass rate refers to the rate of passing the standard VII examinations and being selected to join Form I. This rate reflects the quality of primary education provided in the district.

Referring to Table 5.31, gender balance on education somehow observed in students who joined form one in 2010 and 2011. There was insignificant difference in the number of boys and girls who joined form one in that specific period. Furthermore, students selected to join form one in 2011 was less by 62 compared to 2,084 students prevailed in 2010.

Table 5. 31: Number of Students Who Joined Form I in Public Secondary Schools, Makete District, 2010 and 2011

Year	Student Selected				Total	Increase in Selection
	Boys		Girls			
	Number	Percent	Number	Percent		
2010	1081	51.9	1003	48.1	2084	
2011	1008	50.1	1004	49.9	2012	_-62

Source: District Executive Director's Office (Education Department), Makete District, 2011

It is observed from Table 5.31a that, out of 3,314 pupils who sat for standard VII examination, 2,084 pupils, equivalent to 62.9 percent were selected to join form one in 2010. Kipagalo lead other districts on the number (388) of pupils who sat for standard VII examination whilst Lupalilo had the largest number (246) of pupils who were selected to join form one. Although, almost equal number of boys (1,652) and girls (1,662) sat for the examinations, more boys (1,081) than girls (1,003) were selected to join form one.

Table 5.31 a: Number of Students Who Joined Form I in Public Secondary Schools by Sex and by Ward, Makete District, 2010

Ward	Pupils Sat for Std VII Examination			Pupils who Selected to Join Form I			Percent of Selected Pupils		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mlondwe	137	127	264	85	67	152	62	53	58
Iwawa	108	97	205	83	64	147	77	66	72
Mang'oto	115	103	218	83	83	166	72	81	77
Ipepo	82	80	162	37	37	74	45	46	46
Kipagalo	190	198	388	117	108	225	62	55	58
Ukwama	99	76	175	63	50	113	64	66	65
Kitulo	175	175	350	131	109	240	75	63	69
Iniho	68	53	121	29	34	49	43	65	41
Ikuwo	112	125	237	77	74	151	69	60	64
Bulongwa	64	86	150	32	31	63	50	36	43
Ipelele	69	66	135	46	32	78	67	49	58
Lupalilo	137	170	307	113	133	246	83	79	81
fumbi	116	112	228	62	61	123	54	54	54
Matamba	80	77	160	46	34	80	58	45	50
Lupila	59	59	118	49	49	98	83	83	83
Mbalatse	43	58	101	28	38	66	65	66	66
Total	1652	1662	3314	1081	1003	2084	65	60	63

Source: District Executive Director's Office (Education Department), Makete District, 2011

According to Table 5.31b, pupils who sat for Standard VII examinations in 2011 slightly surpassed that of 2010 by 179 pupils. Those who were selected to join form one in 2011 were less by 72 pupils compared to those of 2010

respectively. Table 5.31b further depicts that, slightly equal number of boys and girls completed standard seven as well as who joined form one in 2011. Iwawa was leading in the number of pupils who sat for standard seven examinations while Lupalilo lead other wards in number of pupils who joined form one.

Table 5.31 b: Number of Students Who Joined Form I in Public Secondary Schools by Sex and by Ward, Makete District, 2011

Ward	Pupils Sat for Std VII Examination			Pupils who Selected to Join Form I			Percent of Selected Pupils		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ikuwo	120	127	247	80	78	158	67	61	64
Ipelele	98	97	195	75	73	148	77	75	76
Bulongwa	105	103	208	82	80	162	78	77	77
Ipepo	82	85	167	37	40	77	46	47	46
Iwawa	164	198	362	102	108	210	62	55	58
Kipagalo	99	76	175	63	58	121	64	76	70
Lupalilo	161	175	336	111	105	216	69	60	65
Ukwama	65	53	118	29	38	67	45	72	58
Lupila	104	103	207	71	70	141	68	67	67
Mbalatse	64	86	150	32	35	67	50	41	46
Mang'oto	69	66	135	46	42	88	67	64	65
Matamba	116	120	236	96	89	185	83	79	81
Mlondwe	106	112	218	62	61	123	58	54	56
Mfumbi	83	77	160	46	40	86	55	52	53
Iniho	61	59	120	49	49	98	80	83	82
Kitulo	43	58	101	27	38	65	63	66	64
Total	1,540	1,595	3,135	1008	1004	2012	65	63	64

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.7 Primary School Facilities

It is the responsibility of the educational authorities like the Ministry of Education to collaborate with beneficiaries (the community) to make sure that basic education facilities such as classrooms, toilets, staff houses, teachers, furniture, libraries, bookstores and textbooks are in place

(i) Classrooms

In regard to classrooms, the requirement is 45 pupils per classroom (CPR 1:45). Table 5.32 reveals that in 2010 Makete District had a total of 580 classrooms which accommodated 22,200 pupils, at an average of 38 pupils per classroom or CPR of 1:38. However, initiatives made by the government in increasing the number of classrooms through community participation managed to decrease classrooms shortage in the district, from 27.5 percent deficit of 2006 (reported in Makete District Profile of 2007) to 26 percent deficit in 2010 (Table 5.32).

13 out of 17 wards in 2010 had CPRs which fall within the national standard of CPR of 1:45. Also, among the 4 wards which had CPRs above the national standard, Kigulu with CPR of 1:74 (67 percent deficit) was the most affected ward in terms of classrooms shortage.



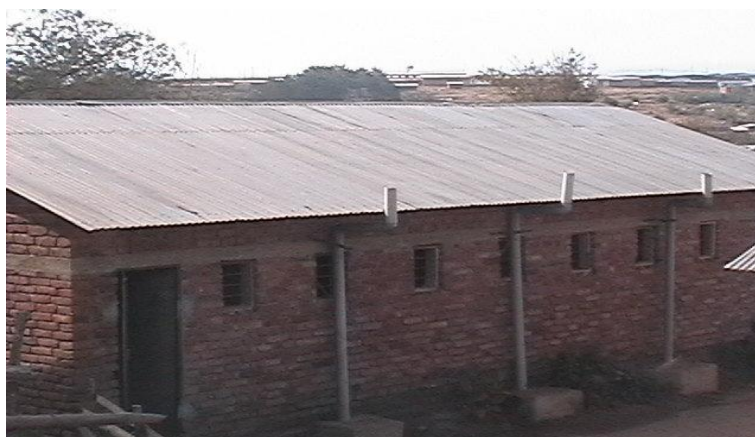
Pupils attending classes in Makete District

Table 5. 32: Availability of Classrooms in Primary Schools by Ward, Makete District, 2010

Ward	Number of Schools	Total Pupils	Available Classrooms	Classroom Pupils Ratio (CPR)	Required Classrooms	Deficit of Classrooms	
						Number	Percent
Kitulo	3	705	20	1:35	35	15	43
Lupalilo	9	2078	61	1:35	75	14	18
Ikuwo	5	1576	30	1:53	41	11	27
Ipepo	5	1244	27	1:37	40	13	33
Ipelele	5	1165	28	1:42	38	10	26
Iniho	4	884	29	1:30	32	3	9
Iwawa	8	2897	59	1:49	88	29	33
Kipagalo	7	1066	38	1:38	48	10	21
Lupila	6	1257	34	1:39	48	14	29
Mang'oto	6	963	37	1:26	42	5	12
Matamba	7	2015	40	1:59	58	18	31
Mbalatse	4	785	20	1:39	38	18	47
Mfumbi	4	1066	28	1:38	43	15	34
Ukwama	4	906	29	1:31	36	7	19
Bulongwa	9	1405	50	1:23	55	5	9
Mlondwe	8	1891	46	1:41	54	8	15
Kigulu	2	297	4	1:74	12	8	67
Total	96	22200	580	1:38	783	203	26

Source: District Executive Director's Office (Education Department), Makete District, 2011

(ii) **Toilets**



There is a need to increase the number of toilets in Makete District.

Table 5.32a shows that Makete district had 744 school toilets for 22,200 pupils. Hence, in the year 2010 the district had Toilet Pupil Ratio of 1:30 which was above the national standard required ratio of 1:24.

With the exception of primary schools available in Ikuwo and Bulongwa which had TPR of 1:23 and 1:18, the remaining schools found in 15 wards suffered from toilets shortage. Nevertheless, primary schools in Lupila and Kigulu with TPR of 1:63 and 1:59 were the most affected schools in terms of toilets shortage, respectively.

Table 5.32 a: Availability of Toilets in Primary Schools by Ward, Makete District, 2010

Ward	Total Pupils	Available Toilet	Toilet Pupils Ratio	Required Toilet	Deficit of Toilet	
					Number	Percent
Mfumbi	1066	24	1:44	50	26	52
Kitulo	705	24	1:29	36	12	34
Lupalilo	2078	72	1:29	97	25	26
Ikuwo	1576	70	1:23	77	7	9
Ipepo	1244	40	1:31	66	26	39
Ipelele	1165	44	1:26	63	19	30
Iniho	884	36	1:25	51	15	29
Iwawa	2897	88	1:33	118	30	25
Kipagalo	1066	40	1:27	52	13	25
Lupila	1257	20	1:63	60	34	57
Mang'oto	963	32	1:30	39	7	18
Matamba	2015	67	1:30	80	9	11
Mbalatse	785	17	1:46	49	32	65
Ukwama	906	30	1:30	44	20	45
Bulongwa	1405	77	1:18	81	4	5
Mlondwe	1891	58	1:33	75	17	23
Kigulu	297	5	1:59	16	11	68
Total	22,200	744	1:29	1045	301	29

Source: District Executive Director's Office (Education Department), Makete District, 2011

(iii) Staff Houses



Staff quarters is among important incentive for the teachers

Of the various teaching incentives, the provision of staff quarters is very crucial as it facilitates the retention of teachers and promotes teaching practice. Table 5.32b shows that Makete district had a total of 406 teachers' houses compared to actual requirement of 782 houses. If we look at the official House Teacher Ratio of 1:1, Makete district had a deficit of 209 houses (equivalent to 51 percent deficit) based on HTR.

Looking at ward level, Table 5.32b shows that Mbalatse was the only ward which had a surplus of 6 houses. The remaining 16 wards suffered from critical shortage of houses with Iwawa ward at 214 percent deficit, being the most affected. With the Urban nature and being the headquarters of the district, Iwawa is found to have better social services compared to other wards. As a result, most of the teachers prefer working in this ward rather than other places of the district, hence causing the ward leading in teachers' house shortages.

Table 5.32 b: Availability of Teachers' Houses by Ward, Makete District, 2010

Ward	Number of Available Teachers	Estimated Teachers	Actual Requirement of Houses	Available Houses	Deficit of Houses		Surplus/ Deficit Based on HTR	Percent of Deficit Based on HTR
					No.	Percent		
Mfumbi	30	33	33	22	11	33	-8	36
Mbalatse	16	26	26	22	4	15	6	27
Matamba	51	55	55	28	27	49	-23	82
Mang'oto	27	45	45	26	19	42	-1	4
Lupila	29	42	42	23	19	45	-6	26
Kipagalo	37	52	52	23	29	56	-14	61
Iwawa	88	94	94	28	66	75	-60	214
Iniho	25	29	29	16	13	45	-9	56
Ipelele	30	46	46	19	27	59	-11	58
Lupalilo	81	81	81	39	42	54	-42	107
Kitulo	18	28	28	13	15	53	-5	38
Ipepo	26	35	35	25	10	28	-1	4
Ikuwo	30	43	43	28	15	35	-2	7
Ukwama	21	35	35	28	7	20	-7	25
Bulongwa	55	66	66	32	34	51	-23	72
Mlondwe	45	60	60	32	28	46	-13	41
Kigulu	6	12	12	2	10	83	-4	200
Total	615	782	782	406	376	48	-209	51

Source: District Executive Director's Office (Education Department), Makete District, 2011

(iv) Furniture(Desks)

From Table 5.32c, Makete District had 8259 desks to accommodate 22,200 pupils in 2010 considering the official ratio of 1:3; the district needed only 7400 desks. Therefore Makete District has done more than enough work to ensure they provide conducive learning environment for primary school pupils in terms of availability of desks.

Desks deficit can be observed only in two wards, Ikuwo and Mlondwe each with the School DPR of 1:4. Ikuwo has 1576 pupils with 433 desks which made the ward having a deficit of 92 desks (21 percent deficit based on DPR) to comply with the official ratio of 1:3. Mlondwe has 1891 pupils with 458 desks, hence had a deficit of 172 desks (38 percent deficit) to meet the official DPR.



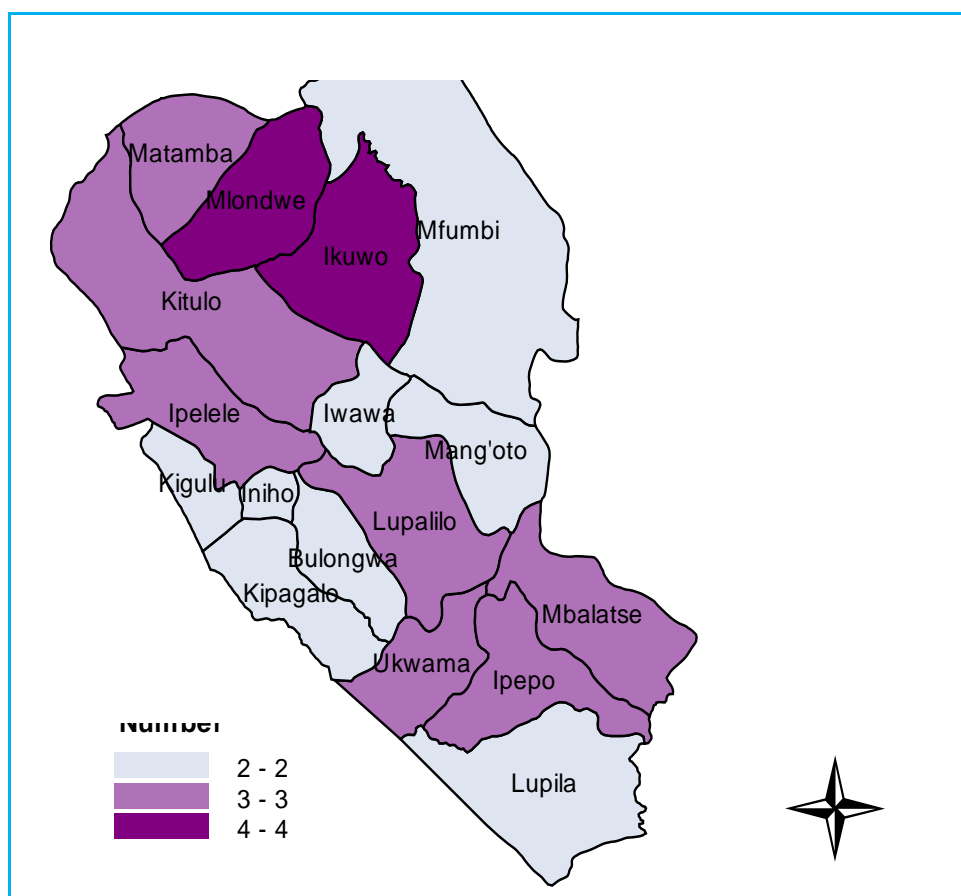
The increase in the number of desks has reduced dropouts

Table 5.32 c: Availability of Desks in Primary Schools by Ward, Makete District, 2010.

Ward	Total Pupils	Available Desks	Desk Pupils Ratio	Required Desks	Deficit of Desks		Deficit/surplus Based on DPR	Percent of Deficit/surplus Based on DPR
					No.	Percent		
Mfumbi	1066	432	1:2	543	111	24	77	18
Kitulo	705	269	1:3	357	88	25	34	13
Lupalilo	2078	793	1:3	1039	246	36	100	13
Ikuwo	1576	433	1:4	788	355	47	-92	21
Ipepo	1244	460	1:3	623	163	30	45	10
Ipelele	1165	395	1:3	587	192	42	7	2
Iniho	884	362	1:2	450	88	22	67	19
Iwawa	2897	1197	1:2	1453	256	19	231	19
Kipagalo	1066	451	1:2	565	114	22	96	21
Lupila	1257	590	1:2	630	40	13	171	29
Mang'oto	963	424	1:2	490	66	18	103	24
Matamba	2015	595	1:3	1010	415	42	77	13
Mbalatse	785	350	1:3	398	48	12	88	25
Ukwama	906	348	1:3	454	106	34	46	13
Bulongwa	1405	606	1:2	706	100	14	138	23
Mlondwe	1891	458	1:4	945	487	52	-172	38
Kigulu	297	96	1:2	162	66	40	3	3
Total	22200	8259	1:3	11,200	2941	26	859	10

Source: District Executive Director's Office (Education Department), Makete District, 2011

Map 9: Makete District Showing Desk Pupil Ratios in Primary Schools, 2010



(v) Teachers

The teacher to pupil ratio is an important indicator to show the quality of education provided in schools, the standard requirement is that one teacher should serve a class of 45 pupils (1:45). Makete District has an average TPR of 1:36.

Based on Table 5.32d, Kigulu ward had the highest deficit of teachers (17 percent deficit) followed by Ipepo (12 percent), Ikuwo (9 percent) and Lupila (8 percent) respectively. The remaining wards shown in the Table had surplus of teachers with Lupalilo being the leader with a surplus of 43 percent.

MKUKUTA target requires 90 percent of all primary schools to be staffed by skilled teachers by 2010. Table 5.32d shows only 76 percent of the schools in Makete had enough teachers in 2010. So, MKUKUTA target had not been achieved.



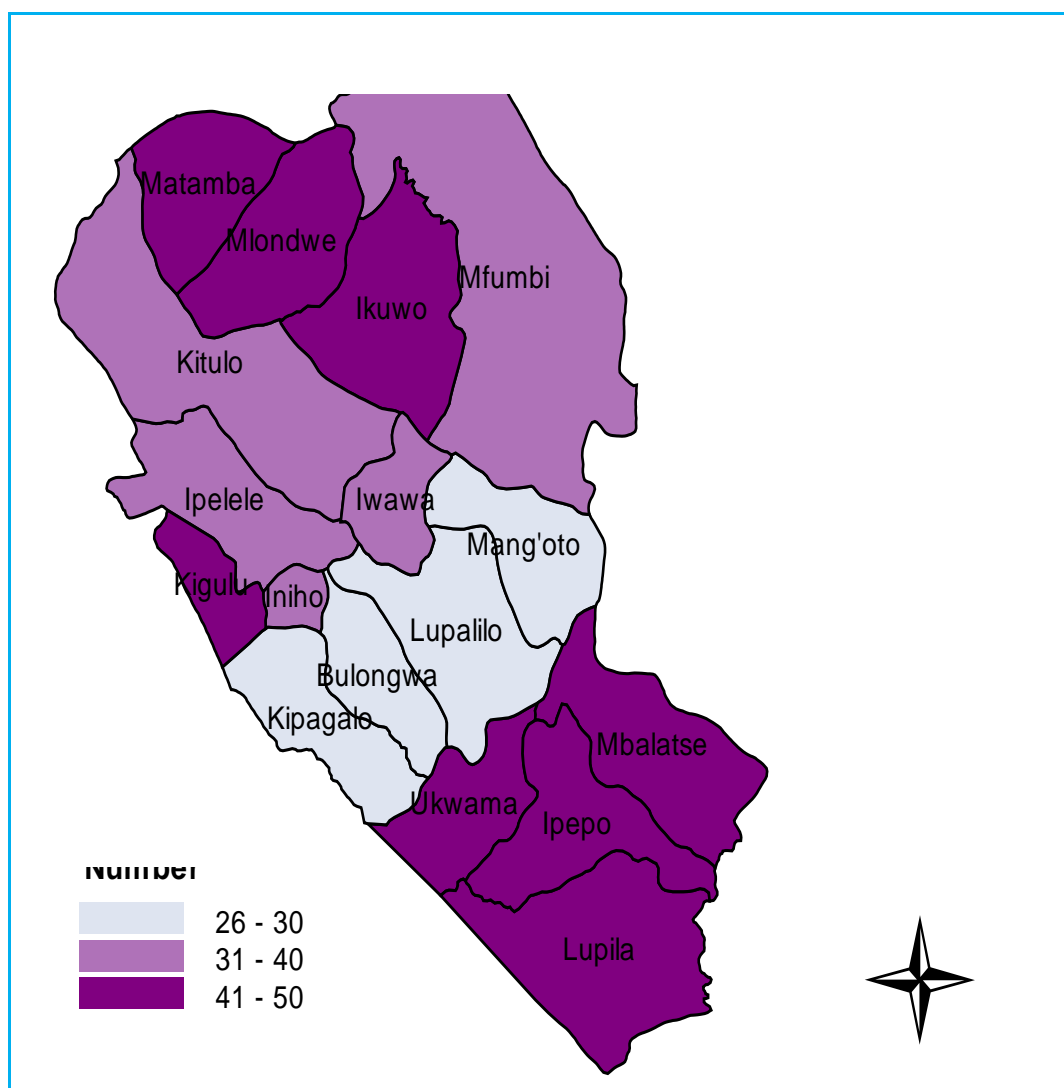
The teacher pupil ratio is an important indicator of quality of education provide.

Table 5.32 d: Availability of Primary School's Teachers (Grade A and B) by Ward, Makete District, 2010

Ward	Total Pupils	Required Teachers	Available Teachers	Deficit	Percent of Deficit	Deficit Based on TPR	Percent Deficit /surplus Based on TPR	Teacher Pupils Ratio
Mfumbi	1066	33	28	5	15	4	14	1:38
Kitulo	705	28	18	10	35	2	11	1:39
Lupalilo	2078	81	80	1	1.2	34	43	1:26
Ikuwo	1576	43	32	11	26	-3	9	1:49
Ipepo	1244	35	25	10	29	-3	12	1:50
Ipelele	1165	46	30	16	35	4	13	1:39
Iniho	884	29	25	4	14	5	20	1:35
Iwawa	2897	94	90	4	4	26	29	1:33
Kipagalo	1066	52	38	14	27	14	37	1:28
Lupila	1257	42	26	16	38	-2	8	1:48
Mang'oto	963	45	35	10	22	14	40	1:28
Matamba	2015	55	49	6	11	4	8	1:41
Mbalatse	785	26	19	7	27	2	11	1:41
Ukwama	906	35	22	13	37	2	9	1:41
Bulongwa	1405	66	50	16	24	19	38	1:28
Mlondwe	1891	60	42	18	30	0	2	1:45
Kigulu	297	12	6	6	50	-1	17	1:49
Total	22,200	782	615	167	22	122	20	1:36

Source: District Executive Director's Office (Education Department), Makete District, 2011

Map 10: Makete District Showing Teacher Pupil Ratios in Primary Schools, 2010



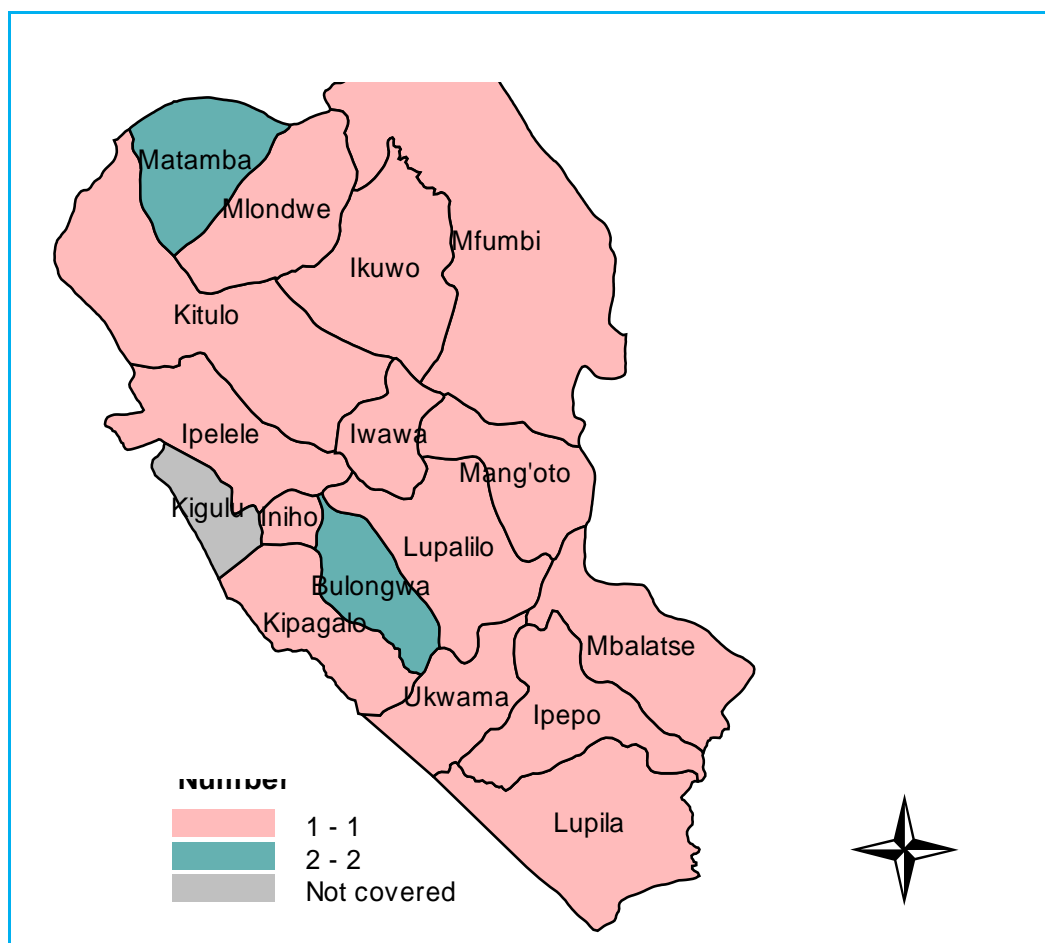
5.2.8 Secondary Education

The historical context and the poor nature of the economy of Makete district is the major factor that has contributed in the slow development of secondary education. Other factors include the remoteness of the district and lack of economic infrastructure. As a result, until 2006, the district had 9 public secondary schools in Ikuwo, Iwawa, Matamba, Mlondwe, Lupila, Iniho, Lupalilo, Ipepo and Bulongwa wards and 4 private ones located at Lupila, Bulongwa, Lupalilo and Matamba wards. The number of public schools increased to 13 in 2007 and then reached 14 in 2008 and 15 in 2009.

However, the number of private secondary schools decreased from four to two in 2007 due to the fact that the two private secondary schools in Lupila and Lupalilo were upgraded to public secondary schools.

By the end of 2010 public secondary schools increased to 16 due to the government campaign of establishing at least a secondary school in each ward. Out of the 17 wards, only one ward could not succeed in building a secondary school by that campaign and this is Kigulu ward (Table 5.33).

Map 11: Makete District Showing the Distribution of Secondary Schools by Ward, 2010



Source: District Executive Director's Office (Education Department), Makete District, 2007

Table 5.33: Number of Secondary Schools by Ownership and by Ward, Makete District 2007 2008, 2009 and 2010

Ward	2007		2008		2009		2010	
	Public	Private	Public	Private	Public	Private	Public	Private
Ikuwo	1	-	1	-	1	-	1	-
Iwawa	1	-	1	-	1	-	1	-
Matamba	1	1	1	1	1	1	1	1
Mlondwe	1	-	1	-	1	-	1	-
Lupila	1	-	1	-	1	-	1	-
Iniho	1	-	1	-	1	-	1	-
Lupalilo	1	-	1	-	1	-	1	-
Ipepo	1	-	1	-	1	-	1	-
Bulongwa	1	1	1	1	1	1	1	1
Kipagalo	1	-	1	-	1	-	1	-
Ipelele	1	-	1	-	1	-	1	-
Mang'oto	1	-	1	-	1	-	1	-
Mbalatse	-	-	-	-	-	-	1	-
Ukwama	-	-	-	-	1	-	1	-
Mfumbi	1	-	1	-	1	-	1	-
Kitulo	-	-	1	-	1	-	1	-
Kigulu	-	-	-	-	-	-	-	-
Total	13	02	14	02	15	02	16	02

Source: District Executive Director's Office (Education Department), Makete District, 2011

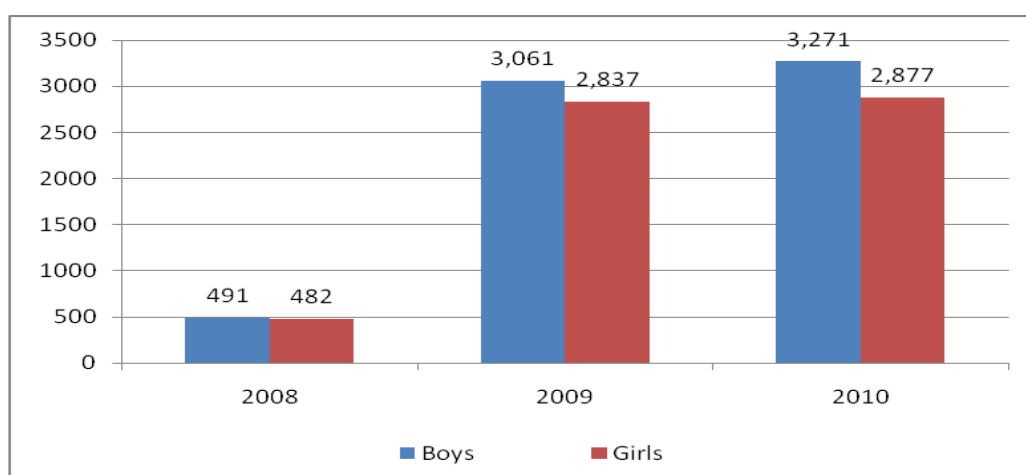
5.2.8.1 Secondary School Enrolment

The enrolment of students in Makete district increased with the increase of school infrastructures constructed through people's contribution of financial, material and human resources. According to Table 5.34, the district experienced remarkable increase of student's enrolment from 2008 to 2009. They increased by 4,925 students equivalent to an average annual growth of 506.2 percent. Insignificant increase of 250 students (4.2 percent increase) were observed over the period of 2009 and 2010.

Table 5. 34: Total (Form I – IV) Enrolment by Sex, Makete District 2008, 2009 and 2010

Year	Boys		Girls		Total	Percent Increase
	Number	Percent	Number	Percent		
2008	491	50.5	482	49.5	973	
2009	3,061	50.9	2,837	49.1	5,898	506.2
2010	3,271	53.0	2,877	47.0	6,148	4.2

Source: District Executive Director's Office (Education Department), Makete District, 2010

Figure 17: Total (Form I-IV) Enrolment by Sex in Secondary Schools, 2008-2010

Source: District Executive Director's Office (Education Department), Makete District, 2011

Table 5.35 shows the number of students who completed secondary school education by sex in Makete district. In 2008, out of 577 students who completed form IV, about 248 or 43 percent were girls and 57 percent were boys. The number of girls increased to 46 percent in 2009 while the number of boys decreased to 54 percent. In 2010 the number of girls completing form IV increased further to 47 percent while that of boys decreased to 52 percent. This is a great achievement in ensuring that more girls complete secondary education. Overall, the number of form IV leavers has been increasing year after year in Makete district. It can be observed that between

2008 and 2009 the number of form IV leavers increased by 57.5 percent and between 2009 and 2010 the percent shot up to 72 percent.

Table 5. 35: Number of students completed Secondary School Education by Sex, Makete District 2008, 2009 and 2010

Year	Boys		Girls		Total	Percent Increase
	Number	Percent	Number	Percent		
2008	329	57	248	43	577	
2009	495	54	414	46	909	57.5
2010	831	52	740	47	1,571	72.8

Source: District Executive Director's Office (Education Department), Makete District, 2011

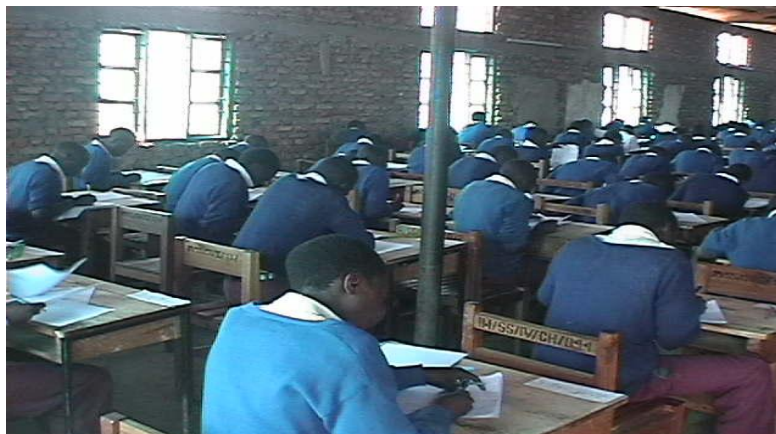
The enrolment of students in high schools in Makete district as for the enrolment in secondary schools; increased with the increase of school infrastructures constructed through people's participation and parents' awareness of the importance of education to their children. Table 5.36 shows that student's enrolment increased at an average annual growth of 110.3 percent per annum between 2008 and 2009, but then grew at a faster rate of 329.5 percent between 2009 and 2010. Unlike in the enrollment of girls in secondary schools, enrolment of girls in high schools rose from 14 percent in 2008 to 33 percent in 2009 but then fell sharply to 6.5 percent in 2010. This does not show a good picture. The authority should look at this matter seriously.

Table 5. 36: Total (Form V – VI) Enrolment “A” Level by Sex, Makete District, 2008, 2009 and 2010

Year	Boys		Girls		Total	Percent Increase
	Number	Percent	Number	Percent		
2008	25	86	4	14	29	
2009	41	67	20	33	61	110.3
2010	245	93.5	17	6.5	262	329.5

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.8.2 Pass Rates



Part of Iwawa High School students doing national examination

Table 5.37 shows the number of students who completed high school education by sex in Makete district. In 2008, out of 43 students who completed form VI, about 19 of them or 44 percent were girls and 56 percent boys. The number of girls decreased to 28 percent in 2009 while the number of boys increased to 72 percent. In 2010 the number of girls completing form VI increased from 28 to 37 percent while that of boys decreased from 72 to 63 percent. Unlike in completion of secondary education, the situation in this case is not good. Overall, the number of form VI leavers has been increasing year after year in Makete district. It can be observed that between 2008 and 2009 the number of form VI leavers increased from 43 to 98 or 127.7 percent but between 2009 and 2010 although the number increased from 98 to 112, the increase was only 14.3 percent.

Table 5.37: Number of students completed “A” Level Education by Sex, Makete District, 2008 to 2011

Year	Boys		Girls		Total	Percent Increase
	Number	Percent	Number	Percent		
2008	24	56	19	44	43	
2009	91	72	27	28	98	127.9
2010	71	63	41	37	112	14.3

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.8.3 Quantity and State of School Facilities

The quantity and quality of facilities for the secondary school system in Makete district are below the standards set by the educational authorities. The most common facilities are classrooms, toilets, staff quarters, libraries, laboratories, dormitories, desks and teachers. However, the following discussion only aims at indicating quantitative adequacy of the facilities in the district.

(i) Teachers

Expansion of secondary education should always go hand in hand with the increase in the number of teaching staff. By the end of 2010, Makete district had a total of 136 teachers distributed in 15 public secondary schools. This gives an average School Teachers Ratio of 1:9. At ward level, only 7 wards out of 16 with secondary schools had at least 9 teachers per school. These wards are Iwawa, Matamba, Mlondwe, Iniho, Lupalilo, Kipagalo and Mangóto which had established secondary schools with all four classes (Form I – IV). The required teachers were 233; therefore the district experienced a shortage of 97 teachers or 41 percent. Kitulo (70 percent deficit) and Ukwama (66 percent deficit) were the most affected wards. The others were Lupila and Ikuwo (55 percent each), and Ipepo and Bulongwa (50 percent each).

Table 5. 38: Availability of Public Secondary School's Teachers by Ward, Makete District, 2010

Ward	No. of School	Required Teachers	Available Teachers	Deficit of Teachers		School Teachers Ratio
				Number	Percent	
Ikuwo	1	18	8	10	55	1:8
Iwawa	1	30	20	10	33	1:20
Matamba	1	18	11	7	38	1:11
Mlondwe	1	18	9	8	44	1:9
Lupila	1	18	8	10	55	1:8
Iniho	1	18	14	4	22	1:14
Lupalilo	1	22	14	8	36	1:14
Ipepo	1	12	6	6	50	1:6
Bulongwa	1	12	6	6	50	1:6
Kipagalo	1	18	10	8	44	1:10
Ipelele	1	13	7	6	46	1:7
Mang'oto	1	12	9	3	25	1:9
Mbalatse	-	-	-	-	-	-
Ukwama	1	12	4	8	66	1:4
Mfumbi	1	12	7	4	33	1:7
Kitulo	1	10	3	7	70	1:3
Kigulu	-	-	-	-	-	-
Total	15	233	136	97	41	1:9

Source: District Executive Director's Office (Education Department), Makete District, 2011

(ii) Staff Quarters



Provision of teachers' quarters is one of the teaching incentives

Besides the shortage of teachers, the district also experienced a shortage of staff quarters in all wards. Table 5.39 shows that, the District School Houses Ratio was 1:2 which was much less than the District School Teachers Ratio of 1:9. The district required 229 houses based on 2010 demand. Only Ipepo ward had number of houses more than computed school teachers' ratio. The most affected wards were Matamba (95 percent), Bulongwa (94 percent), Kipagalo and Mfumbi (90 percent each) and Mlondwe (88 percent) shortage of staff houses.

The Local Authorities at ward level should take into account that the provision of staff houses is a basic incentive for teacher retention and promotion of effective teaching. Therefore, more efforts should also be directed towards building staff houses together with other facilities.

Table 5. 39: Availability of Teachers' Houses in Public Secondary Schools by Ward, Makete District, 2010

Ward	No. of Schools	Number of Houses			Percent Deficit	Rank
		Required	Available	Deficit		
Ikuwo	1	17	8	9	52	13
Iwawa	1	20	9	11	55	10
Matamba	1	22	1	21	95	1
Mlondwe	1	18	2	16	88	5
Lupila	1	30	8	22	73	7
Iniho	1	18	8	10	55	10.5
Lupalilo	1	20	3	16	80	6
Ipepo	1	03	7	0	0	13
Bulongwa	1	18	1	17	94	2
Kipagalo	1	10	1	9	90	3.5
Ipelele	1	10	4	6	60	9
		9	4	5	55	
Mang'oto	1					10.5
Mbalatse	-	-	-	-	-	-
Ukwama	1	06	2	4	66	8
Mfumbi	1	10	1	09	90	3.5
Kitulo	1	18	3	8	44	12
Kigulu	-	-	-	-	-	-
Total	15	229	62	173	75	

Source: District Executive Director's Office (Education Department), Makete District, 2011

(iii) Classrooms

Table 5.40 shows that of the required number of classrooms the district had 31 percent deficit. At ward level, all 15 wards registered shortages ranging from 13 percent to 56 percent. Mfumbi, Ipepo and Kitulo were the most affected with 56 percent deficit each, followed by Ipelele (50 percent), Bulongwa (44 percent) and Iwawa (42 percent). Matamba, Mlondwe and Iniho wards were the least affected with 13 percent and 14 percent deficit each respectively.

Table 5. 40: Availability of Classrooms in Public Secondary Schools by Ward, Makete District, 2010

Ward	No. of School	Number of Classroom			Percent Deficit	Ranking of Deficit
		Required	Available	Deficit		
Ikuwo	1	16	11	5	31	5
Iwawa	1	24	14	10	42	11
Matamba	1	16	14	2	13	10
Mlondwe	1	16	14	2	13	9
Lupila	1	16	12	4	25	7
Iniho	1	22	15	3	14	8
Lupalilo	1	16	13	3	19	8
Ipepo	1	16	7	9	56	3
Bulongwa	1	16	9	7	44	3
Kipagalo	1	12	10	4	33	4
Ipelele	1	16	12	8	50	2
Mang'oto	1	16	10	3	19	6
Mbalatse	-	-	-	-	-	-
Ukwama	1	4	5	-	-	-
Mfumbi	1	16	7	9	56	1
Kitulo	1	16	7	9	56	1
Kigulu	-	-	-	-	-	-
Total	15	254	160	78	31	

Source: District Executive Director's Office (Education Department), Makete District, 2011

Toilets



The district requirements were for 308 toilets in 2010 but only 209 were available leaving a shortage of 99 toilets (32 percent deficit). Table 5.41 shows that only 5 wards out of 15 had enough toilets in 2010. These wards were Matamba, Ipelele, Mangóto, Ukwama and Kitulo. Iniho ward was the most affected with a deficit of 67 percent, followed by Lupila (63 percent), Mfumbi (60 percent), Kipagalo and Iwawa (50 percent each) and Bulongwa (47 percent).

Table 5. 41: Availability of Students' Toilets in Public Secondary Schools by Ward, Makete District, 2010

Ward	No. of Schools	Number of Toilets		Deficit	Percent Deficit	Rank
		Required	Available			
Ikuwo	1	23	20	3	13	8
Iwawa	1	32	16	16	50	4
Matamba	1	40	40	0	0	0
Mlondwe	1	21	15	6	29	6
Lupila	1	16	6	10	63	2
Iniho	1	42	14	28	67	1
Lupalilo	1	26	20	6	23	7
Ipepo	1	9	8	1	11	9
Bulongwa	1	15	8	7	47	5
Kipagalo	1	20	10	10	50	4
Ipelele	1	10	10	0	0	0
Mang'oto	1	10	10	0	0	0
Mbalatse	-	-	-	-	-	-
Ukwama	1	16	16	0	0	0
Mfumbi	1	20	8	12	60	3
Kitulo	1	8	8	0	0	0
Kigulu	-	-	-	-	-	-
Total	15	308	209	99	32	

Source: District Executive Director's Office (Education Department), Makete District, 2011

Dormitories



Availability of dormitories will solve the problem of students' long distance walking

Construction of dormitories in rural areas is very essential due to the geographic nature of Makete district and distribution of human settlements. The availability of dormitories will help students to solve the problem of walking long distances and reduce the rates of drop outs due to pregnancies and truancy. Table 5.42 reveals the shortage of 102 (87 percent) dormitories in the district by year 2010.

Ranking of wards in terms of the level of shortages, Ikuwo, Matamba, Bulongwa, Kipagalo, Ipelele, Ukwama and Kitulo ranked first since none had a dormitory. Lupalilo (83 percent), Mlondwe (80 percent), Iwawa, Lupila and Mfumbi (75 percent each) and Iniho and Mangóto wards with 50 percent shortages each followed.

Table 5. 42: Availability of Dormitories in Public Secondary Schools by Ward, Makete District, 2010

Ward	No. of Schools	Number of Dormitories			Percent of Deficit	Rank
		Required	Available	Deficit		
Ikuwo	1	10	0	10	100	1
Iwawa	1	16	4	12	75	4
Matamba	1	12	0	12	100	1
Mlondwe	1	10	2	8	80	3
Lupila	1	8	2	6	75	4
Iniho	1	2	1	1	50	4
Lupalilo	1	12	2	10	83	2
Ipepo	1	9	5	4	44	6
Bulongwa	1	6	0	6	100	1
Kipagalo	1	8	0	8	100	1
Ipelele	1	8	0	8	100	1
Mang'oto	1	4	2	2	50	5
Mbalatse	-	-	-	-	-	-
Ukwama	1	3	0	3	100	1
Mfumbi	1	4	1	3	75	4
Kitulo	1	5	0	5	100	1
Kigulu	-	-	-	-	-	-
Total	15	117	19	102	87	

Source: District Executive Director's Office (Education Department), Makete District, 2011

Libraries

The library facility is considered as an essential but not a crucial facility for the development of knowledge and skills of a student. According to the standards set by the Ministry of Education and Vocation Training, every secondary school should have a library to enable students borrow and use supplementary books besides textbooks. Table 5.43 shows that no ward had a library at the end of 2010. This implies that no supplementary books were available for renting to students in the whole district of Makete.

There is no excuse in this regard since secondary school education system in the district is more than 15 years old. So it is important for the local authorities to include the provision of libraries in their school development plans in the near future.

Table 5. 43: Availability of Libraries in Public Secondary Schools by Ward, Makete District, 2010

Ward	No. of Schools	Number of Libraries			Percent of Deficit	Rank
		Required	Available	Deficit		
Ikuwo	1	1	0	1	100	1
Iwawa	1	1	0	1	100	1
Matamba	1	1	0	1	100	1
Mlondwe	1	1	0	1	100	1
Lupila	1	1	0	1	100	1
Iniho	1	1	0	1	100	1
Lupalilo	1	1	0	1	100	1
Ipepo	1	1	0	1	100	1
Bulongwa	1	1	0	1	100	1
Kipagalo	1	1	0	1	100	1
Ipelele	1	1	0	1	100	1
Mang'oto	1	1	0	1	100	1
Mbalatse	0	0	0	0	0	0
Ukwama	1	1	0	1	100	1
Mfumbi	1	1	0	1	100	1
Kitulo	1	1	0	1	100	1
Kigulu	0	0	0	0	0	0
Total	15	15	0	15	100	

Source: District Executive Director's Office (Education Department), Makete District, 2011

Desks

Table 5.44, shows the shortage of desks in all schools. By the end of 2010, the district had a shortage of 234 desks (4 percent) out of the required 6,087. On average, each school had a total of 415 desks instead of 406.

At ward level, the worst shortages were in Ipelele (17percent), Kipagalo (12 percent) and Iwawa (11 percent), whereas, the less affected wards were Ikuwo with 204 excess desks, Matamba with 76 excess desks, Bulongwa with 54 excess desks and Lupalilo with 33 excess desks.

Table 5. 44: Availability of Desks in Public Secondary Schools by Ward, Makete District, 2010

Ward	No. of Schools	Number of Desks			Percent of Shortage	Rank
		Required	Available	Shortage		
Ikuwo	1	496	700	0	0	0
Iwawa	1	822	729	93	11	3
Matamba	1	514	590	0	0	0
Mlondwe	1	485	491	0	0	0
Lupila	1	413	410	3	1	5
Iniho	1	523	523	0	0	0
Lupalilo	1	567	600	0	0	0
Ipepo	1	256	246	10	4	0
Bulongwa	1	303	357	0	0	0
Kipagalo	1	428	375	53	12	2
Ipelele	1	352	290	62	17	1
Mang'oto	1	301	288	13	4	4
Mbalatse	0	0	0	0	0	0
Ukwama	1	98	98	0	0	0
Mfumbi	1	285	285	0	0	0
Kitulo	1	244	244	0	0	0
Kigulu	0	0	0	0	0	0
Total	15	6,087	6,226	234	4	

Source: District Executive Director's Office (Education Department), Makete District, 2011

Laboratories



A laboratory is a necessary facility for students majoring in science subjects

The laboratory is a necessary facility for students majoring in science subjects. The specifications set by the government are that each school should have at least three laboratories for physics, chemistry and biology subjects. Table 5.45 shows that the district had only 4 laboratories located two each at Iwawa and Bulongwa wards. The actual demand is 45 and hence the deficit is 41 laboratories.

Table 5. 45: Availability of Laboratories in Public Secondary Schools by Ward, Makete District, 2010

Ward	No. of Schools	Number of Laboratories			Percent of Deficit	Rank
		Required	Available	Deficit		
Ikuwo	1	3	0	3	100	1
Iwawa	1	3	2	1	33	2
Matamba	1	3	0	3	100	1
Mlondwe	1	3	0	3	100	1
Lupila	1	3	0	3	100	1
Iniho	1	3	0	3	100	1
Lupalilo	1	3	0	3	100	1
Ipepo	1	3	0	3	100	1
Bulongwa	1	3	2	1	33	2
Kipagalo	1	3	0	3	100	1
Ipelele	1	3	0	3	100	1
Mang'oto	1	3	0	3	100	1
Mbalatse	0	0	0	0	0	0
Ukwama	1	3	0	3	100	1
Mfumbi	1	3	0	3	100	1
Kitulo	1	3	0	3	100	1
Kigulu	0	0	0	0	0	0
Total	15	45	4	41	91	

Source: District Executive Director's Office (Education Department), Makete District, 2011

5.2.9 Colleges and Vocation Training Schools



The Tandala TTC is the only teachers' college in Makete district.

Makete district is not well endowed with colleges and vocational training schools. Until 2010, the District had one college, namely, Tandala Teacher's Training College (Primary Education) located in Lupalilo Ward, two vocational training centres as shown in Table 5.46 and two post-primary technical education-training centres.

Table 5. 46 : List of Vocational Training Centres by Ward, Makete District, 2010

Ward	Name	Capacity	Total Enrolment 2010	Skills Taught
Iwawa	Shukrani IDYDC	102	50	Life Skills, Tailoring, Carpentry, Masonry and Tie & Die
Matamba	Matamba Post Pr. Voc .Training	120	10	Carpentry , Masonry, Tailoring & Domestic Sc.
Kipagalo	ELCT Madihani	40		Tailoring & Domestic Sc.
Bulongwa	Bulongwa Post Pr.Voc. Training	120	11	Carpentry & Masonry

Source: District Executive Director's Office (Education Department), Makete District, 2011



Part of the VETA buildings which are under construction at Iwawa.

5.2.10 Adult Education

Makete district has made a remarkable improvement in the eradication of illiteracy since the 1970's. Along with expansion of primary and secondary education, the district has also expanded adult education using primary schools as centres and the head teachers acting as in-charge of the adult education campaigns through the MEMKWA programme.

Table 5.47 shows that in 2006 the district had 95 adult education centres but in 2008 they had decreased to six (6). The recruitments of adults into adult training centres and the MEMKWA programme in 2006 were 13,270 and 943 persons respectively. Adult enrolment into centres dropped sharply to zero as a result of a big decrease of adult centres while the enrolment of over-aged children into MEMKWA decreased to 304. The number of adult persons joining MEMKWA programme decreased unexpectedly due to lack of sensitization campaigns to adults.

Table 5. 47: Number of Adult Education Centres and Total Enrolments by Ward, Makete District, 2006, 2008, 2009 and 2010

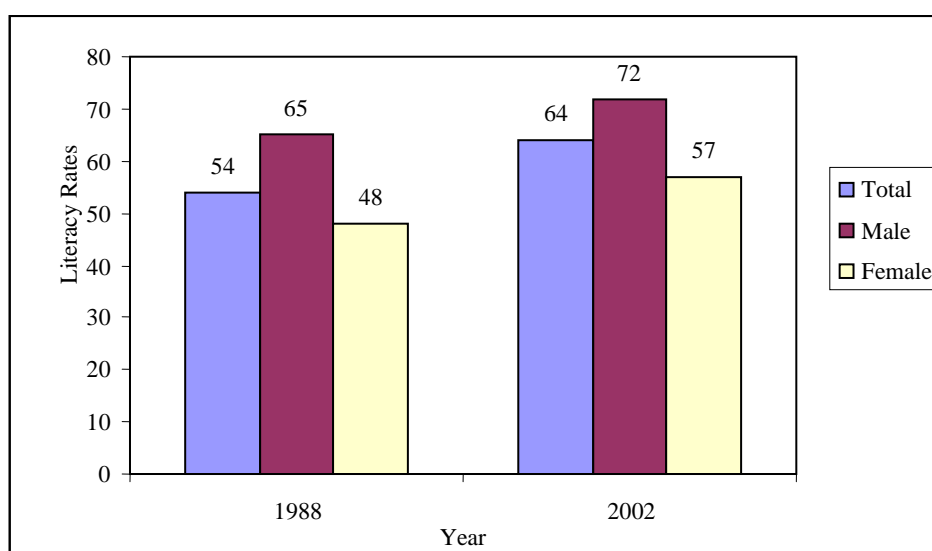
Ward	Number of centres				Total enrolment				MEMKWA enrolment			
	2006	2008	2009	2010	2006	2008	2009	2010	2006	2008	2009	2010
Ikuwo	5	-	-	-	1,002	-	-	-	10	-	-	-
Iwawa	8	1	1	1	2,401	-	-	21	245	22	6	15
Matamba	7	2	2	1	995	-	-	11	160	65	-	5
Mlondwe	8	-	-	1	483	-	-	70	148	63	-	-
Kipagalo	7	-	-	-	1,902	-	-	-	49	47	-	-
Lupila	6	-	-	2	885	-	-	42	141	-	-	-
Iniho	4	-	-	1	301	-	-	15	0	-	-	-
Ipelele	6	-	-	-	406	-	-	-	44	43	-	6
Lupalilo	9	-	-	1	992	-	-	-	0	-	-	-
Kitulo	3	1	1	-	203	-	-	-	80	65	-	-
Mang'oto	6	-	-	-	519	-	-	-	0	-	-	-
Mbalatse	4	-	-	-	609	-	-	-	0	-	-	-
Ukwama	4	-	-	-	918	-	-	-	0	-	-	-
Ipepo	5	-	-	-	1,056	-	-	-	34	-	-	-
Mfumbi	4	2	2	-	301	-	-	-	0	-	15	26
Bulongwa	9	-	-	-	297	-	-	-	32	-	-	-
Kigulu	-	-	-	-	-	-	-	-	-	-	-	-
Total	95	6	6	7	13,270	-	-	169	943	304	21	52

Source: District Executive Director's Office (Education Department), Makete District, 2007

5.2.11 Literacy Rate

As reported earlier, there has been an improvement in the literacy rate in Makete district since 1988. In 1988 only 54 percent of the population aged 5 years and above was literate compared to 64 percent in year 2002. When comparing both sexes, the literacy rate was lower among the female population (57 percent) than among the male population (72 percent). Figure 18 compares the levels of literacy between sexes in 1988 and 2002.

Figure 18: Comparison of Literacy Rates by Sex, Makete District, 1988 and 2002



Source: 2002 Population and Housing Census Report, Makete District Profile, 2004

Age-wise, the data depicts the actual picture of improvement in education sector since the colonial period. Table 5.59 shows that the literacy rates are skewed towards the young population, of which the highest rate recorded, is at teens (10 – 14 years, 89 percent) before declining gradually towards the old population. The lowest literacy rate (14 percent) recorded is for those aged 80 years and above.

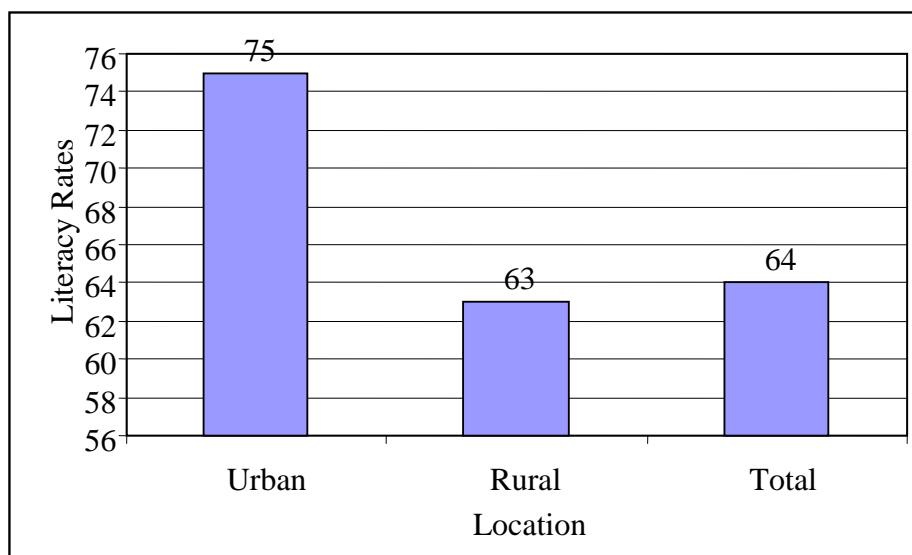
Table 5. 48: Distribution of Population by Age Groups, Literacy and Sex, Makete District, 2002

Age Group	Population			Literacy Rates		
	Male	Female	Total	Male	Female	Total
5 – 9	7,367	7,626	14,993	34	38	36
10 – 14	7,744	7,426	15,170	90	88	89
15 – 19	4,967	4,873	9,840	85	84	85
20 – 24	3,333	4,769	8,102	85	80	82
25 – 29	3,383	4,159	7,542	85	78	81
30 – 34	2,535	3,660	6,195	88	77	82
35 – 39	2,082	2,816	4,898	88	63	74
40 – 44	1,881	2,327	4,208	81	41	59
45 – 49	1,265	1,967	3,232	75	31	48
50 – 54	1,221	2,178	3,399	71	20	38
55 – 59	961	1,853	2,814	64	18	34
60 – 64	1,190	1,685	2,875	44	14	26
65 – 69	913	1,216	2,129	55	10	29
70 – 74	662	1,191	1,853	40	8	20
75 – 79	420	600	1,020	40	13	24
80+	440	625	1,065	28	4	14
Total	40,364	48,971	89,335	72	57	64

Source: 2002 Population and Housing Census, Makete District Profile, 2004

Comparing rural – urban literacy, the district portrays the same picture of literacy as any other rural district in Tanzania. Literacy is higher in the urban population (75 percent) than in the rural population (63 percent) as shown in Figure 19.

Figure 19: Literacy Rates by Location, Makete District, 2002



Source: 2002 Population and Housing Census Report, Makete District Profile, 2004

5.2.12 Investment Opportunities in Education.

Further investment is required in both secondary and primary education so that quality education is available. Quality education can be attained when there is sufficient investment in all school facilities including qualified teachers, classrooms, laboratories, libraries, dormitories, school toilets, learning and teaching materials.

5.3 WATER SUPPLY AND SANITATION

Rural Water Supply



Natural springs are a major source of water supply in the rural areas of Makete.

Owing to the topographic nature and weather of Makete district, natural springs are major source of water supply in rural areas. Other water sources such as shallow wells, boreholes, rain water and the like are not commonly used. The data from the Water Department shows that in 2010 the rural population was supplied water by 29 piped water schemes as opposed to 51 in 2007. Twelve water schemes, equivalent to 29 percent of the rural water schemes consisting of gravity and diesel engines which used to supply water are no longer working.

Table 5.49 shows the number and type of rural water source by ward in Makete district. From the table it can be clearly noted that the main source of water for the rural population in Makete district is the piped water followed by the springs and shallow wells. At ward level it may be observed that springs and shallow wells are the most sources of water (Table 5.49).

Table 5. 49: Number and Type of Rural Water Sources by Ward, Makete District, 2010

Ward	Charco		Spring		Shallow Well		Rain water Harvest Tanks		Bore holes		River water		Piped Scheme	
	W	NW	W	NW	W	NW	W	NW	W	NW	P	S	W	NW
Lupalilo	-	-	1	-	1	-	-	-	-	-	-	-	5	1
Iwawa	-	-	1	-	1	-	-	-	-	-	-	-	4	1
Mang'oto	-	-	1	-	1	-	-	-	-	-	-	-	2	0
Lupila	-	-	1	-	1	-	-	-	-	-	-	-	4	2
Ukwama	-	-	1	-	1	-	-	-	-	-	-	-	3	0
Bulongwa	-	-	1	-	1	-	-	-	-	-	-	-	2	3
Kipagalo	-	-	1	-	1	-	-	-	-	-	-	-	0	2
Iniho	-	-	1	-	1	-	-	-	-	-	-	-	1	0
Ipelele	-	-	1	-	1	-	-	-	-	-	-	-	1	0
Kigulu	-	-	1	-	-	-	-	-	-	-	-	-	0	0
Matamba	-	-	1	-	1	-	-	-	-	-	-	-	0	2
Mlondwe	-	-	1	-	1	-	-	-	-	-	-	-	1	0
Kitulo	-	-	1	-	1	-	-	-	-	-	-	-	1	0
Ikuwo	-	-	1	-	1	-	-	-	-	-	-	-	2	1
Mfumbi	-	-	-	-	-	-	-	-	-	-	1	-	1	0
Ipepo	-	-	1	-	1	-	-	-	-	-	-	-	2	0
balatse	-	-	1	-	1	-	-	-	-	-	-	-	0	0
Total	-	-	16	-	15	-	-	-	-	-	1	-	29	12

Note: W= Working, NW= Not Working, P=Permanent, S=Seasonal

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011



In order to provide adequate supply of potable water to the residents of Makete district, different types of water technologies are being used. Table 5.50 shows the number and type of technology used in rural water scheme by ward in Makete district in 2010. The table depicts that, there is only one type of technology used in supplying water to the rural population of Makete district. The table further reveals that the gravity piped technology is the most common technology used to supply water to the rural population in Makete district with 29 water sources using this type of technology. Lupalilo ward is leading by having 5 followed by Iwawa and Lupila wards with 4 and Ukwama ward with 3 (Table 5.50).

Table 5. 50: Number and Type of Technology Used in Rural Water Schemes by Ward, Makete District, (2010)

Ward	Type of Technology										Total	
	Wind		Electricity		Diesel		Hand		Gravity			
	Mill		Pump		Pump		Pump		Piped			
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW
Lupalilo	-	-	-	-	-	-	-	-	5	1	5	1
Iwawa	-	-	-	-	-	-	-	-	4	1	4	1
Mang’oto	-	-	-	-	-	-	-	-	2	0	2	0
Lupila	-	-	-	-	-	-	-	-	4	2	4	2
Ukwama	-	-	-	-	-	-	-	-	3	0	3	0
Bulongwa	-	-	-	-	-	-	-	-	2	3	2	3
Kipagalo	-	-	-	-	-	1	-	-	0	1	0	2
Iniho	-	-	-	-	-	-	-	-	1	0	1	0
Ipelele	-	-	-	-	-	-	-	-	1	0	1	0
Kigulu	-	-	-	-	-	-	-	-	0	0	0	0
Matamba	-	-	-	-	-	-	-	-	0	2	0	2
Mlondwe	-	-	-	-	-	-	-	-	1	0	1	0
Kitulo	-	-	-	-	-	-	-	-	1	0	1	0
Ikuwo	-	-	-	-	-	-	-	-	2	1	2	1
Mfumbi	-	-	-	-	-	-	-	-	1	0	1	0
Ipepo	-	-	-	-	-	-	-	-	2	0	2	0
Mbalatse	-	-	-	-	-	-	-	-	0	0	0	0
Total	-	-	-	-	-	1	-	-	29	12	29	9

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

Table 5.51 shows the percentage of the rural population by ward, which was served with clean water in 2010. Through government initiatives and efforts made by DANIDA, UNICEF and religious institutions in 1990's the percentage of rural population served with clean water had increased from 49.1 percent in 1996 to 60.0 percent in 2006. However, the percentage had decreased to 55.9 in 2010 due to the fact that many schemes mentioned above have died or have not been repaired. At the ward level, Iniho ward was best served with all its residents getting clean water, followed by

Mangóto and Iwawa (86 percent) and Ukwama (81.2 percent). Ipepo, Matamba and Mlondwe wards were the least served with only 26.8 percent, 27.0 percent and 27.3 percent of their populations getting clean water respectively. It is surprising that 50 years after independence residents of Mbalatse and Kigulu have yet to be served with clean drinking water. The District Authority and the Council should look at this seriously.

Table 5. 51 : Percentage of Rural Population Served with Clean Water by Ward, Makete District, 2010

Division	Ward	Total Rural Population	Population Served with Clean Water	Percent Population Served with Clean Water
Lupalilo	Lupalilo	10195	7339	72.0
	Iwawa	9,606	8,261	86.0
	Mang'oto	4513	3866	86.0
Sub total		24,314	19,466	80.1
Ukwama	Lupila	7605	4045	53.2
	Ukwama	4692	3811	81.2
	Ipepo	6608	1768	26.8
	Mbalatse	3840	0	0.0
Sub total		22745	9624	42.3
Bulongwa	Bulongwa	7652	4014	52.5
	Kipagalo	5170	2016	38.9
Sub total		12822	6030	47.0
Magoma	Iniho	4705	4705	100
	Ipelele	5800	3998	68.9
	Kigulu	1071	0	0.0
Sub total		11576	8703	75.2
Matamba	Matamba	11893	3211	27.0
	Mlondwe	10487	2867	27.3
	Kitulo	6565	4798	73.0
Sub total		28945	10876	37.6
Ikuwo	Ikuwo	7466	6201	83.0
	Mfumbi	5393	2366	43.9
Sub total		12859	8567	66.6
Grand total		113,261	63,266	55.9

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

The management of rural water supply schemes in the district, according to the water policy, is carried out by Village Water Committees (VWCs). Table 5.52 shows that all villages in Makete district except those in Kigulu and Iniho wards had managed to establish Village Water Committees by the end of 2010.

Table 5.52 also shows that women participation in a Village Water Committee in 2010 was slightly lower (235) than men (268). In 2006 women were 314 and men were 309. The Village Water Committee/Group manages the water schemes by using a Village Water Fund (VWF). Village Water Committees in Makete district had collected a total amount of Tshs. 32,804,490.56 by the end of 2010 (an increase of about 63 percent) as compared to 20,069,836.45 in 2006. Comparing to other wards, the same Kigulu and Iniho wards failed to form the Village Water Committees and hence failed to collect any funds. Mlondwe recorded the highest revenue (Tshs. 15,415,109.00) followed by Matamba (Tshs. 5,000,000.00) and Ukwama (Tshs. 4,282,801.00), the least revenue was from Kipagalo ward at Tshs. 87,000.00. Lupalilo and Kitulo wards although had formed VWCs the amount of revenue collected was not available.

Table 5. 52: Number of Rural Village Water Committees, Village Water Funds and Funds in the VWFs by Ward, Makete District, as at 31.12 2010

Division	Ward	Village Water Committees			Village Water	Total funds in Tshs
		Members		Total members	Fund	
		Male	Female		(VWF)/Water Users Group (WUG)	
	Lupalilo	16	14	30	VWF	-
Lupalilo	Iwawa	28	20	48	VWF	1,419,419.25
	Mang’oto	18	19	37	VWF	805,400.00
Sub total		62	53	115		2,224,819.25
	Lupila	5	4	9	VWF	120,000.00
Ukwama	Ukwama	15	17	32	VWF	4,282,801.56
	Ipepo	21	10	31	VWF	600,000.00
	Mbalatse	15	15	30	VWF	500,000.00
Sub total		56	46	102		5,502,801.56
Bulongwa	Bulongwa	34	33	67	VWF	783,760.75
	Kipagalo	5	4	9	WUG	87,000.00
Sub total		39	37	76		870,760.75
	Iniho	0	0	0	WUG	0.00
Magoma	Ipelele	20	19	39	VWF	2,170,000.00
	Kigulu	0	0	0	VWF	0.00
Sub total		20	19	39		2,170,000.00
	Matamba	30	30	60	VWF	5,000,000.00
Matamba	Mlondwe	33	24	57	VWF	15,415,109.00
	Kitulo	6	6	12	VWF	-
Sub total		69	60	129		20,415,109.00
Ikuwo	Ikuwo	17	15	32	VWF	1,331,000.00
	Mfumbi	5	5	10	WUG	290,000.00
Sub total		22	20	42		1,621,000.00
Grand Total		268	235	503		32,804,490.56

* **VFWs** = Village Water Funds, **WUG** = Water Users Groups

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

Urban Water Supply

Table 5. 53: Number and Type of Urban Water Sources by Ward, Makete District, 2010

Ward	Chaco		Spring		Shallow Well		Rain water Tanks		Bore holes		River water		Lake water		Dam		Piped Scheme	
	W	NW	W	NW	W	NW	W	NW	W	NW	P	S			P	S	W	NW
Iwawa	-	-	5	-	-	-	-	-	-	-	1	-	-	-	-	-	5	-
Total	-	-	5	-	-	-	-	-	-	-	1	-	-	-	-	-	5	-

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

The situation in regard to water supply in the urban areas is shown in Tables 5.53 and 5.54 above and below. Table 5.53 shows the number and type of urban water sources by ward. It may be observed that there were about 11 water sources in Iwawa urban areas. Out of these springs and piped water have five sources each while only one is from river water source.

The urban population of Makete district supplied by 5 gravity water supply systems, which are located at Ivalalila, Ludihani, Mpangala, Isapulano, Maleutsi and Mpangala in Iwawa Township and the last one is located in Matamba Sub-Township. All of the systems tap water from nearby springs. Although these systems are still operating, two of them have multiple technical problems that sometimes lead to acute shortage of water supply. They were constructed way back in 1979.

Table 5. 54: Number of Water Schemes by Type of Technology by Ward, Makete District, 2010

Ward	Type of Technology										Total	
	Wind Mill		Electricity Pump		Diesel Pump		Hand Pump		Gravity Piped			
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW
Iwawa	-	-	-	-	-	-	-	-	5	1	5	1
Total	-	-	-	-	-	-	-	-	5	1	5	1

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

Information received from the District Engineer's Office reveals that in 2010 approximately 1,700 cubic meters of water were actually supplied per day

compared to 1,444 cubic meters reported in 2006 and 580 cubic meters in 1995. The demand for water for urbanites in Iwawa alone was estimated to be 4,500 cubic metres as it can be revealed in Table 5.55. The current capacity enables about 33 percent of urbanites in Iwawa Township to get clean water.

Table 5. 55: Percentage of Urban Population Served with Clean Water by Ward, Makete District, 2010

Ward	Estimated Demand in cubic Meters per day	Actual Supply in cubic Meters per day	% Population Served
Iwawa	4500 CM	1700CM	33
Total	4500CM	1700CM	33

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

The mentioned capacity of water supply is not enough and leads to acute shortage of water which will no doubt persist due to rapid urbanisation (6.9 percent) in Makete district. As proposed earlier, the District Authority should ensure that short and long term plans for urban water supply are in place as soon as possible.

5.3.3 Water Supply Personnel

Unlike health and education sectors, all personnel for the water sector (rural and urban) are located at the district headquarters. This is a new setup, different from the previous setup where all technical staff was posted at ward headquarters. Although in 2006 there was no attrition caused by deaths of rural water supply personnel, in 2010 there was one death. Therefore, out of 11 rural water supply personnel, 10 remained at the end of 2010. Professionally, the 2010 water personnel consisted of one Engineer, six Technicians and three Plumbers.

Table 5. 56: Attrition of Personnel in Water Supply by Ward, Makete District, 2010

District	Total all Personnel as at 1.1.2010	Cause and Number of dropouts				
		Death	Retirement	Brain drain	Other	Total
Makete	11	1	-	-	-	1
Total	11	1	-	-	-	1

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

As it was in 2006, no attrition occurred in the urban water supply personnel in 2010. Therefore, all 9 personnel were retained. Professionally, they consisted of a manager, one technician, one accountant, five plumbers and a revenue collector who is the only female.

Table 5. 57: Type and Number of Water Supply Personnel by Ward, Makete District, 2010

Engineers	Technicians	Plumber	Pump attendant	Pump mechanics	Total
1	6	3	-	-	10

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

5.3.4 Sanitation

Makete district does not have a waste disposal system. Therefore, there are no proper ways of disposing solid waste and wastewater. Very few households have septic tanks and the most common way of disposing human waste is through pit latrines (Table 5.58). Moreover, with the lack of cesspit emptiers and solid waste dump trucks, over-flooding sewage and uncollected garbage pollutes the environment of Matamba and Iwawa townships. At the same time, diarrhoea and water born diseases are rampant in the district due uncollected animal dung and improper covering of human faeces during the rainy seasons.

Table 5.58: Availability of Rural Toilet Facilities by Ward, Makete District, 2010

Division/ Ward	Estimated Total Number of Households	Total Number of Households with Toilets	Percentage of Households with Toilets	Total Number of Households without Toilets	Percentage of Households without Toilets
Lupalilo	3457	3240	93.7	217	6.3
Iwawa	3591	3473	96.7	118	3.3
Mang'oto	1004	1004	100.0	0	0.0
Lupalilo Division	8052	7717	95.8	335	4.2
Lupila	1558	1557	99.9	1	0.1
Ukwama	1119	1119	100.0	0	0.0
Ipepo	1776	1776	100.0	0	0.0
Mbalatse	973	970	99.6	3	0.4
Ukwama Division	5426	5422	99.9	4	0.1
Bulongwa	1643	1633	99.4	10	0.6
Kipagalo	1320	1320	100.0	0	0.0
Bulongwa Division	2963	2953	99.7	10	0.3
Iniho	975	975	100.0	0	0.0
Ipelele	1459	1459	100.0	0	0.0
Kigulu	236	236	100.0	0	0.0
Magoma Division	2670	2670	100.0	0	0.0
Matamba	2997	2874	95.9	123	4.1
Mlondwe	2290	2290	100.0	0	0.0
Kitulo	789	789	100.0	0	0.0
Matamba Division	6076	5953	98.0	123	2.0
Ikuwo	1725	1710	99.1	15	0.9
Mfumbi	811	765	94.3	46	5.7
Ikuwo Division	2536	2475	97.6	61	2.4
Total	27723	27190	98.1	533	1.9

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

Table 5.58a shows the distribution of basic sanitation facilities in Makete district. According to the results of the 2002/03 National Sample Census of

Agriculture, the most commonly used type of toilet in Makete district was the traditional pit latrine which was used by 23,988 households in 2003. In 2010 however, 27,190 households used this type of toilet. All households in nine wards had toilets namely, Mangóto, Ukwama, Ipepo, Kipagalo, Iniho, Ipelele, Kigulu, Mlindwe and Kitulo. Lupila ward with 99.9 percent followed by Mbalatse wards (99.6 percent), Bulongwa ward (99.4 percent) and Ikuwo ward (99.1 percent). On the other hand, there were two wards with high percentages of people without toilets. These are Lupalilo ward with 6.3 percent of its people without toilets followed by Mfumbi ward with 5.7 percent.

As for the urban part of Iwawa ward, as many as 118 households (3.3 percent) had no toilet facilities. This is not a healthy situation. The Health Officers should take action to prevent outbreaks in the near future.

Table 5.58 a: Availability of Urban Toilet Facilities by Ward, Makete District, 2010

Division/ Ward	Estimated Total Number of Households	Total Number of Households with Toilets	Percentage of Households with Toilets	Total Number of Households without Toilets	Percentage of Households without Toilets
Iwawa	3591	3473	96.70	118	3.3
Total	27723	27190	98.10	533	1.9

Source: District Executive Director's Office (Water Supply and Sanitation Department), Makete District, 2011

5.3.5 Investment Opportunities in Water Supply

Makete district is endowed with a lot of springs and rivers. Although the district has made some efforts in providing safe and clean water to its urban population, this is not the case in the rural areas. Investment is needed in regard to the supply of pipes, water tanks, pumping equipment and the increase of the capacity of water storage. There are also opportunities for tapping and bottling clean and safe water from the numerous springs in the district that can be sold within the country or exported. This can increase the income of the district and its people.

CHAPTER SIX

Other Development Issues

6.0 Introduction

Chapter six discusses other development issues including gender empowerment such as day care centres, women economic groups, youth economic groups, cooperative development (SACCOS) as well as women's participation in managerial, political, professional and technical fields.

6.1 Gender Empowerment

In African culture it is known that female spend a lot of time in attending home activities which are unpaid activities. In that aspect various measures are put in place to minimize the time spent by women and girls in attending home activities. Gender empowerment aims at empowering women to participate fully in Policy and decision making as well as participate in economic activities. Measures to be taken include the use of family planning, opening and operating day care centres, establishment of women economic groups, participation in SACCOS, CBOs and other cooperative activities. These initiatives are also being implemented in Makete district.

6.1.1 Day Care Centers

Day care centres are important to keep children aged 3 to 4 before they join pre-primary school. Day care is important because they keep children away from their mothers and hence give them opportunities to participate in economic activities and hence improve their social economic status.

Judged by 2009 and 2010 data in Table 6.1, there has been little progress in increasing accessibility of day care centres in the district. On average, one day care centre in 2009 was serving one ward. The situation a bit improved to 2 centres serving a single ward in 2010. Likewise, the number of children taken to day care centres increased by 64.2 percent from 1,122 children in

2009 to 1,842 in 2010. Moreover, establishment and enrolment of children in day care centres was higher in those areas with high population density and urban characteristics like Mang'oto, Lupalilo, Mbalatse, Lupila and Iwawa as Table 6.1 indicates.

Table 6.1: Distribution of Day Care Centers by Ward, Makete District, 2009 and 2010

Ward	2009				2010			
	Number of Centres	Number of children			Number of Centres	Number of children		
		Male	Female	Total		Male	Female	Total
Mlondwe	-	-	-	-	4	68	78	146
Mang'oto	4	285	310	595	4	323	342	665
Mfumbi	-	-	-	-	1	11	17	28
Lupalilo	4	66	98	164	4	90	113	203
Mbalatse	5	28	33	61	5	30	39	69
Bulongwa	1	20	16	36	1	16	20	36
Lupila	6	83	109	192	6	87	112	199
Iwawa	1	20	36	56	2	68	94	162
Ikuwo	1	10	8	18	1	9	12	21
Iniho	-	-	-	-	-	-	-	-
Kigulu	-	-	-	-	-	-	-	-
Ukwama	-	-	-	-	-	-	-	-
Matamba	-	-	-	-	4	53	18	71
Ipepo	-	-	-	-	5	91	85	176
Kitulo	-	-	-	-	-	-	-	-
Ipelele	-	-	-	-	1	33	33	66
Total	22	512	610	1122	38	879	963	1842

6.1.2 Women Economic Groups



Women have continued to receive loans from government and non government organisations and religious institutions. However, the number of women economic groups decreased by 56 percent from 118 reported in Makete profile of 2007 to 52 shown in Table 6.2 below. Table 6.2 also reveals that a total of Tshs 4,700,000 was loaned to 23 women economic groups in year 2010.

Table 6. 2: Number of Women Economic Groups by Ward, Makete District, 2010

Ward	2010			
	Total no. of Groups	Total Members	No. of Groups Assisted	Total Loaned Tshs.
Iniho	4	25	4	-
Iwawa	9	45	6	-
Kitulo	2	12	-	-
Mlondwe	2	10	-	-
Lupila	3	17	-	-
Bulongwa	5	25	2	900,000
Matamba	5	25	2	700,000
Kipagalo	4	26	1	500,000
Mfumbi	4	20	2	1,000,000
Ipelele	5	22	2	600,000
Ikuwo	4	20	2	600,000
Ipepo	1	6	-	-
Mbalatse	2	10	1	400,000
Mang'oto	-	-	-	-
Lupalilo	2	10	-	-
Kigulu	-	-	-	-
Ukwama	-	-	-	-
Total	52	273	23	4,700,000

Source: District Executive Director's Office Makete District 2010

6.2 Women's Participation in Policy and Decision-Making

Table 6.3 reveals discouraging level of women participation in professional, managerial and political post in Makete district. In all decisive position, still there was no significant increase in the number of women particularly in managerial and legislative bodies which included membership in the national assembly and in the post of district councilors. Among 1,199 posts, only 368 posts were filled by female and so far up to the year 2010, there was no female member of parliament from the district. Table 6.3 further depicts that the proportion of female in managerial position was insignificant

(10 posts) compared to male (113 posts). Hence, more effort needs to be done in order to reach the MDG of fifty percent by the year 2015.

Table 6. 3: Participation in Managerial, Political, Professional and Technical Personnel by gender by Ward, Makete District, 2010

Ward	Managerial		Professionals/ Technicians		Politicians (MPs, DC)		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Iwawa	9	2	302	172	9	1	320	175
Lupalilo	9	1	11	7	10	1	30	9
Mang'oto	7	0	20	5	7	0	34	5
Mbalatse	4	0	18	10	4	0	26	10
Lupila	7	1	27	14	7	2	41	17
Ipepo	6	0	13	10	5	1	24	11
Ukwama	5	0	21	12	5	0	31	12
Bulongwa	11	0	30	15	10	2	51	17
Kipagalo	8	2	20	11	7	1	36	14
Iniho	7	1	30	16	6	1	43	18
Ipelele	8	2	25	13	8	2	43	17
Kigulu	1	0	4	0	2	0	7	0
Matamba	7	2	32	20	9	3	48	25
Mlondwe	10	0	19	13	8	1	37	14
Ikuwo	7	1	3	9	10	2	20	12
Mfumbi	4	0	16	9	4	1	24	10
Kitulo	3	0	9	2	4	0	16	2
Total	113	10	600	339	115	19	831	368

Source: District Executive Director's Office Makete District 2010

6.3 Youth Economic Groups

Table 6.4 shows that, at ward level, only 5 out of 17 wards had youth economic groups. These were Iwawa, Lupila, Bulongwa, Ipelele and Matamba wards all with a total of 52 groups. Matamba was leading in number of youth economic groups at 21. The number of wards with youth economic groups decreased by one from 6 wards reported in Makete district Profile Report of 2007 to 5 wards in 2010 (Table 6.4). Initiatives made by

Makete District Authority together with NGOs to encourage youth organise themselves into economic groups as a condition of getting loans brought positive results as the total member in those groups increased from 152 (reported in Makete district profile of 2007) to 271 in 2010 (Table 6.4). Recovered money was at 79.3 percent (Tshs. 6,341,000) of the total money loaned to youth. This was a good indication that money loaned was not squandered instead used for economic activities.

Table 6. 4: Youth Economic Groups and Total Money Loaned by Ward, Makete District, 2010

Ward	Total Number of groups	Total Membership	No. of Groups Assisted 2009	Total Loaned 2009 (Tshs)	Total Loans of 2009 Recovered as at 31 Dec. 2010	Total Loans not Recovered as at 31 Dec. 2010	Percent of Loans not Recovered
Iwawa	12	58	12	2,000,000	1,761,000	239,000	12
Lupalilo	-	-	-	-	-	-	-
Mang'oto	-	-	-	-	-	-	-
Mbalatse	-	-	-	-	-	-	-
Lupila	5	25	3	2,000,000	2,000,000	-	0
Ipepo	-	-	-	-	-	-	-
Ukwama	-	-	-	-	-	-	-
Bulongwa	8	46	5	2,000,000	580,000	1,420,000	71
Kipagalo	-	-	-	-	-	-	-
Iniho	-	-	-	-	-	-	-
Ipelele	6	32	3	2,000,000	-	2,000,000	100
Kigulu	-	-	-	-	-	-	-
Matamba	21	110	11	2,000,000	2,000,000	-	0
Mlondwe	-	-	-	-	-	-	-
Ikuwo	-	-	-	-	-	-	-
Mfumbi	-	-	-	-	-	-	-
Kitulo	-	-	-	-	-	-	-
Total	52	271	34	8,000,000	6,341,000	3,569,000	44.6

Source: District Executive Director's Office Makete District 2010

6.4 Savings and Credit Cooperative Societies (SACCOS)

In the year 2010 a total of 19 registered SACCOS were reported as compared to 16 in 2006. Table 6.5 shows that Iwawa had a total of 6 SACCOS with about 430 members whereby Mlondwe had 2 SACCOS with

499 members and a total value of shares deposited by members in all wards was Tshs. 43,823,997. Iwawa accumulated the highest share of Tshs.22,428,547 about 51.2 percent of the total followed by Lupalilo with Tshs. 10,300,000 (23.5 percent). Mang'oto had the lowest share of Tshs. 390,500 (0.9 percent).

Table 6. 5: Active SACCOS by Ward, Makete District, 2010

Ward	No. of SACCOS (Registered and Active)	Total Membership		Total Value of Shares (Tshs) as at 31.12.2010	Percent of the Total Shares
		Male	Female		
Iwawa	6	315	115	22,428,547	51.1
Lupalilo	2	109	102	10,300,000	23.5
Mang'oto	1	35	14	390,500	0.9
Bulongwa	1	25	23	681,000	1.6
Kipagalo	-	-	-	-	-
Iniho	1	35	24	1,092,450	2.5
Ipelele	1	35	8	2,344,000	5.3
Matamba	3	138	43	3,453,500	7.9
Mlondwe	2	499	39	1,335,000	3.0
Mfumbi	-	-	-	-	-
Ikuwo	-	-	-	-	-
Ukwama	-	-	-	-	-
Lupila	1	28	3	989,000	2.5
Kitulo	1	45	37	810,000	1.8
Mbalatse	-	-	-	-	-
Ipepo	-	-	-	-	-
Kigulu	-	-	-	-	-
Total	19	1264	408	43,823,997	100

Source: District Executive Director's Office Makete District 2010

6.5 Savings and Credit Cooperative Groups (SACCOG)

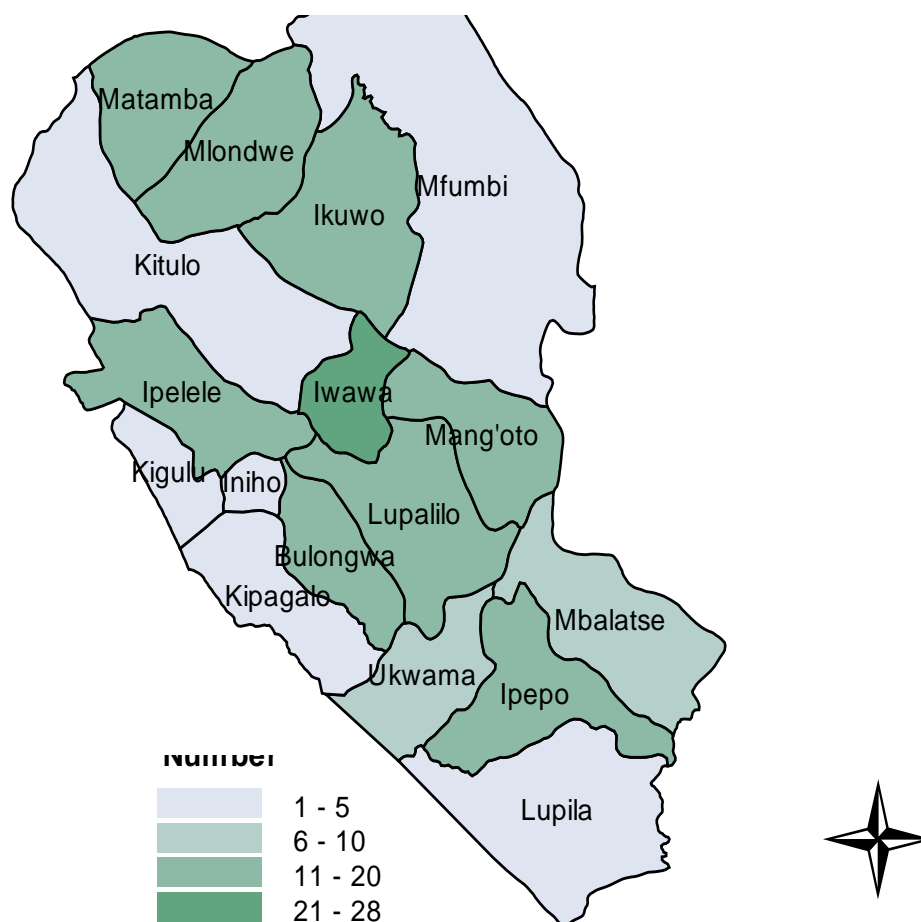
A total of 180 Credit Cooperative Groups was observed in the district (Table 6.6). Women accounted for 53.7 percent of the total members compared to 46.3 percent of male. Most of SACCOG groups were established in Iwawa (28). Mfumbi and Kigulu had the least number of SACCOG groups.

Table 6. 6: Service and Credit Cooperative Groups (SACCOG) by Ward, Makete District, 2010

Ward	Number of Groups	Members		Total Members	Percent	
		Male	Female		Male	Female
Iwawa	28	326	489	815	40	60
Lupalilo	19	119	170	289	41.2	58.8
Mang'oto	14	52	74	126	41.3	58.7
Bulongwa	12	143	185	328	43.6	56.4
Kipagalo	2	33	5	38	86.8	13.2
Iniho	4	30	77	107	28.0	72.0
Ipelele	12	177	136	313	56.5	43.5
Matamba	16	165	189	354	46.6	53.4
Mlondwe	14	82	37	119	68.9	31.1
Mfumbi	1	18	11	29	62.1	37.9
Ikuwo	20	171	199	370	46.2	53.8
Ukwama	7	39	61	100	39.0	61.0
Lupila	5	17	7	24	70.8	29.2
Kitulo	4	69	63	132	52.3	47.7
Mbalatse	8	24	84	108	22.2	77.8
Ipepo	13	124	62	186	66.7	33.3
Kigulu	1	10	8	18	55.6	44.4
Total	180	1599	1857	3456	46.3	53.7

Source: District Executive Director's Office Makete District 2010

Map 12: Makete District Showing Services and Credit Cooperative Groups by Ward, 2010



6.6 Financial Institutions

Lack of infrastructure especially rural roads is among the limiting factor for the increase in financial institutions in Iringa region and Tanzania Mainland in general. Most of banks and non-banks financial institutions in the region are skewed in favour of the urban areas living rural areas grossly. Moreover, Makete being a typical rural district share the same consequences with other rural districts in Iringa region as up to the end of 2010; National Microfinance Bank (NMB) was the only bank operating in the district. The district also lack non-banking financial institutions.

MAKETE DISTRICT COUNCIL

Vision

A Council which is capable of delivering sustainable quality services to all stakeholders

Mission

To provide sustainable social and economic services through participation of all stakeholders.