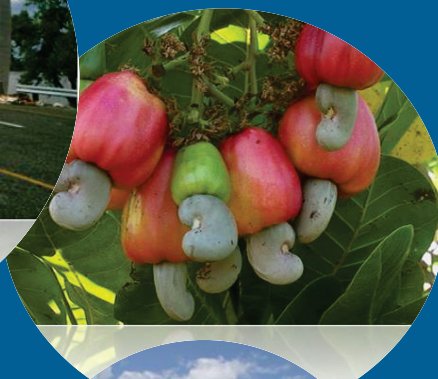




United Republic of Tanzania

MTWARA REGION SOCIO-ECONOMIC PROFILE 2015





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Jointly prepared by:

National Bureau of Statistics and

Mtwara Regional Commissioner's Office

March, 2018

Foreword



Goals of Tanzania's Development Vision 2025 are in line with United Nation's Sustainable Development Goals (SDGs) 2030. The vision's major goals include achieving high quality livelihood for the people; achieving food security; developing a strong and competitive economy; combating inequality and empowering women and girls. Monitoring the progress in achieving these goals, requires availability of timely and accurate statistical information at all levels.

Problems occurring in both urban and rural areas are many. Experience shows that delivery of quality social and economic services requires a continuous and sustainable improvement of strategies with community participation from time to time. High primary school enrolment rates recently attained have to be sustained using available resources and so is the policy of making sure that all pupils who pass Standard Seven Examination join Form One. The food situation is still precarious; infant and maternal mortality rates while showing signs of decline are still high. Unemployment in rural areas triggers mass migration of youths to the already overcrowded urban centres.

Health problems due to HIV/AIDS pandemic have been quite severe among the economically active population hindering efforts to advance smoothly into the 21st century of science and technology. The pandemic has left an increasing number of orphans, broken families and considerable suffering. AIDS together with environmental deterioration are among the new developmental problems which cannot be ignored.

Efforts by the Mtwara Regional Authority to meet these challenges are hampered by many factors including ill prepared rural development programs followed by weak implementation, as well as monitoring and supervision of these programs. Shortcomings in policy formulation, project identification, design and implementation due to lack of adequate reliable information on the rural development process have to be addressed appropriately. The availability of adequate, relevant and reliable qualitative and quantitative information at district level is a prerequisite for formulating, planning, implementation, monitoring and evaluation of districts' policies and development programs.

Mtwara Region has prepared this socio-economic profile by using its own funds. The publication of the Mtwara Regional Social-Economic Profile Series by the Regional Management Team with technical backstopping from the National Bureau of Statistics should be viewed as a step towards finding feasible solution to the existing problem of data and information gap at regional level.

The Mtwara Regional Social-Economic Profile covers a wide range of statistics and information on geography, population, social services, economic infrastructure, productive sectors and cross cutting issues. It is believed that, such information is vital to policy makers, planners, researchers, donors and functional managers.

This Profile has taken advantage of the cumulative experience gained from the production of various regional and district socio-economic profiles in the country. It provides valuable information to our clients. Constructive views and criticisms are invited from stakeholders and various readers to enable this profile become a better tool in the formulation and implementation of the country's policies.

I would like to acknowledge with thanks, the contribution made by the Office of the Regional Administrative Secretary, National Bureau of Statistics and other staff of the region who devoted their time and efforts to ensure the successful completion of this assignment.



Alfred C. Luanda

Regional Administrative Secretary

March, 2018

Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
ACSEE	Advanced Certificate of Secondary Education Examination
ACB	Akiba Commercial Bank
ARV	Antiretroviral
ADO	Assistant Dental Officers
AMOs	Assistant Medical Officers
BCG	Bacillus Calmet Guerin (TB Vaccine)
TPB	Tanzania Postal Bank
TPR	Toilet Pupil Ratio /Teacher Pupil Ratio
CSEE	Certificate of Secondary Education Examination
CPR	Classroom Pupil Ratio
CO	Clinical Officers
CBO	Community Based Organization
CBPP	Contagious Bovine Plural Pneumonia
CCPP	Contagious Caprine Pleuro Pneumonia
CRDB	Cooperative and Rural Development Bank
CRDB	Cooperative Rural Development Bank
CFR	Crude Fertility Rate
DPR	Desk Pupil Ratio
DPT3/HB3	Diphtheria Pertusis Tetanus 3RD doze/ Haemoglobin Level
DC	District Council
DDS	Doctor of Dental Surgery
ECF	East Coast Fever
ECF	East Coast Fever
IMR	Infant Mortality Rate
FMD	Foot and Mouth disease
GIS	Geographical Information System
Govt.	Government
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
Ha	Hectare
HTR	House Teacher Ratio
HIV	Human Immunodeficiency Virus
IGAs	Income Generating Activities
IMR	Infant Mortality Rate
LSD	Lumpy skin
MMR	Maternal Mortality Rate
MOs	Medical Officers
MDGs	Millennium Development Goals
MVC	Most Vulnerable Children
NBC	National Bank of Commerce
NBS	National Bureau of Statistics
NMB	National Microfinance Bank
NER	Net Enrolment Ratio
NCD	New Castle Disease

OPV3	Oral Polio Vaccine 3 rd Doze
PR	Pass Rate
PLHA	People Living with HIV/AIDS
PHC	Population and Housing Census
PMTCT	Prevention Mother to Child Transmission
PHCDP	Primary Health Care Development Programme
PITC	Provider Initiative Testing and Counseling
RVF	Rift Valley Fever
SACCOS	Savings and Credit Cooperative Societies
Sq. Km.	Square Kilometer
STD VII	Standard Seven
TPB	Tanzania Postal Bank
TPR	Teacher to Pupils Ratio
TT2	Tetanus Toxoid 2 nd doze
TC	Town Council
TBAs	Traditional Birth Attendants
TB	Tuberculosis
U5MR	Under Five Mortality Rate
VHC	Village Health Committee
VHWs	Village Health Workers
VWC	Village Water Committee
VWF	Village Water Fund
VCT	Voluntary Counseling and Testing
WUG	Water User Group
MMC	Mikindani Municipal Council

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CHAPTER ONE

Land, Climate, Agro-Ecological Zones and People

1.0 Overview

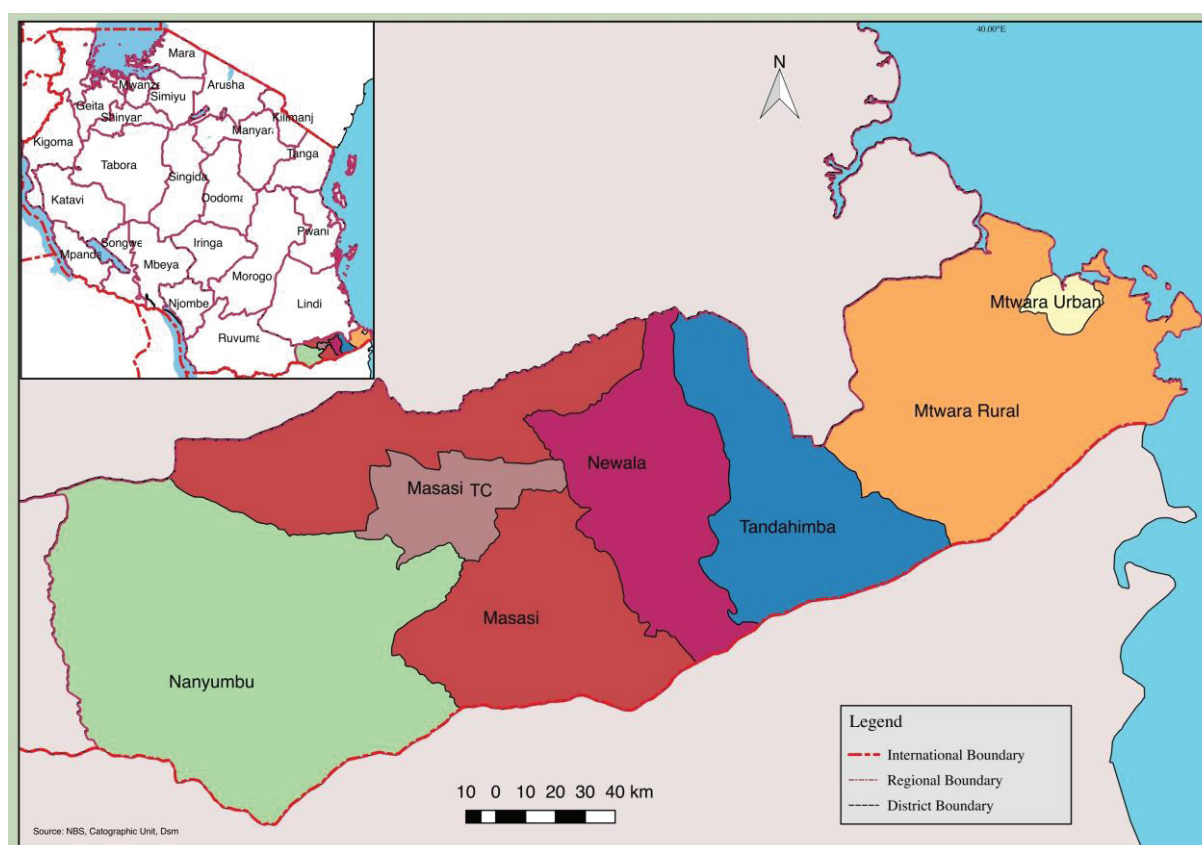
This chapter gives information about the geographical location, land area, administrative units, climate and agro-ecological zones of Mtwara Region. Moreover, information about ethnic groups, migration, population distribution, size and other demographic characteristics are also highlighted in this chapter.

1.1 Geographical location

Mtwara Region, before independence, was among 9 districts constituting Southern Province under British Colonial Administration. Other districts were Newala, Masasi, Nachingwea, Lindi, Kilwa, Tunduru, Songea and Mbinga. In 1962 one year after independence; the government restructured the Southern Province into two regions namely Mtwara and Ruvuma. These were strategically done to redefine newly government role, functions and accountability towards people centered development. However, in 1971 Mtwara Region was later subdivided into two regions, namely Mtwara and Lindi.

Mtwara Region is one of the 26 regions of Tanzania Mainland. It is located in the southern part of Tanzania, between longitudes 38° and 40°, 30" East of Greenwich and latitudes 10°, 05" and 11°, 25" South of the Equator. It borders with Lindi Region to the north, the Indian Ocean to the east and separated by the Ruvuma River from Mozambique in the south. To the west it borders with Ruvuma Region as shown in map 1.

Map 1: Map of Tanzania Showing Location of Mtwara Region, 2015



Source: NBS, Cartographic Unit, Dsm

Land area

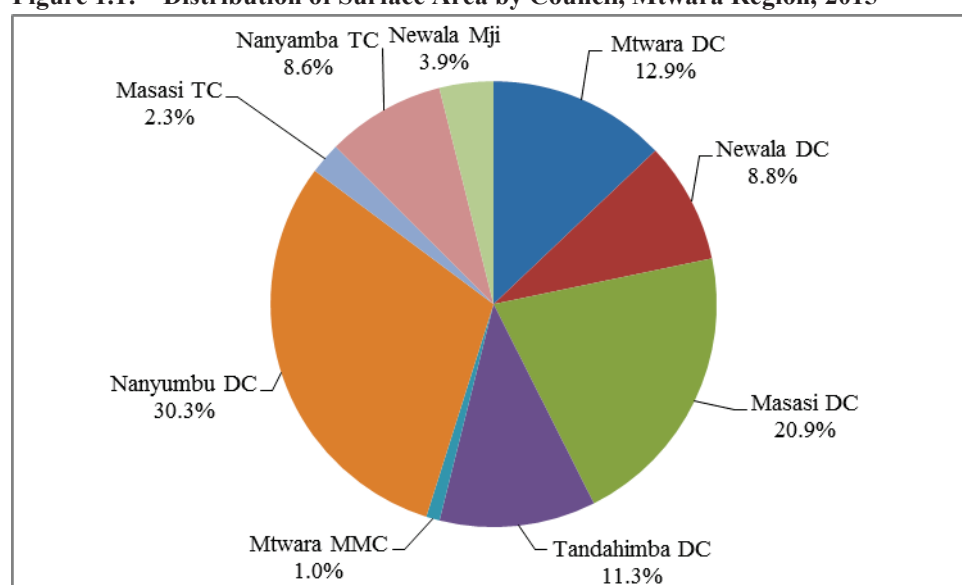
The region has a surface area of about 1,672,000 hectares (16,720 sq. km) or 1.9 percent of Tanzania Mainland land area (885,987 sq. km). About 1,421,200 hectares (14,212 km square), equivalent to 85 percent of the region's land area, are suitable for human settlement, livestock keeping as well as agricultural production.

The smallest surface area of the Local Government Authorities in the region is in Mtwara/Mikindani Municipal Council which has 163 sq. kms and the largest council is Nanyumbu District Council (5,071.0 sq. km). Table 1.1 and Figure 1.1 show the distribution of the region's land and surface area among the district councils.

Table 1.1: Distribution of Councils by Land and Water Area in Sq km, Mtwara Region, 2015

Council	Land Area		Water Area		Total Surface Area	
	Sq. Km	Percent	Sq. Km	Percent	Sq. Km	Percent
Mtwara	2,159	12.94	0	0	2,159	12.91
Newala	1,471	8.81	0	0	1,471	8.80
Masasi	3,490	20.91	0	0	3,490	20.87
Tandahimba	1,894	11.35	0	0	1,894	11.33
Mtwara						
Mikindani MC	163	0.98	0	0	163	0.97
Nanyumbu	5,071	30.39	0	0	5,071	30.33
Masasi TC	379	2.27	0	0	379	2.27
Nanyamba TC	1,406	8.43	32	0.2	1,438	8.60
Newala Mji	655	3.92	0	0	655	3.92
Total	16,688	100	0	0	16,720	100.0

Source: Mtwara Regional Commissioner's Office 2015

Figure 1.1: Distribution of Surface Area by Council, Mtwara Region, 2015

Source: Mtwara Regional Commissioner's Office 2015

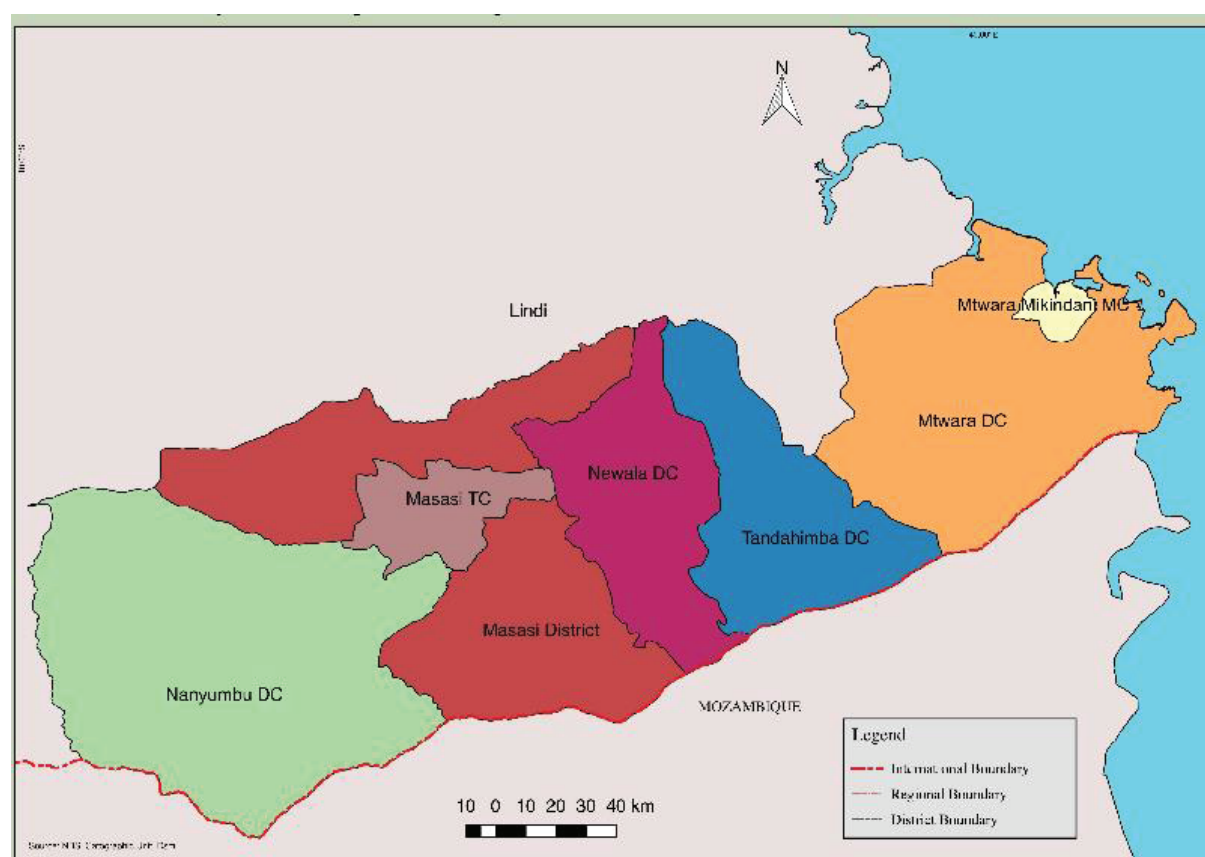
1.2 Administrative Units

Administratively, the region is subdivided into 5 districts namely Mtwara Rural, Masasi, Newala, Nanyumbu, Tandahimba and Mtwara Urban. There are 9 Local Government Authorities which are Mtwara-Mikindani Municipal Council, Masasi District Council, Mtwara District Council, Newala District Council, Tandahimba District Council, Nanyumbu District Council, Newala Town Council, Masasi Town Council and Nanyamba Town council. It has 27 divisions, 190 wards, 189 Mitaa, 799 villages, 3,449 hamlets and 10 parliamentary Constituencies as shown in Table 1.2.

Table1.2: Distribution of Councils by Area and Administrative Units, Mtwara Region, 2015

Council	Area Sq. Km.	Divisions	Wards	Villages	Hamlets	Mitaa	Constituents
Mtwara District	2159	5	21	110	421	0	1
Newala DC	1,471	3	22	107	303	0	1
Masasi District	3,490	5	34	166	889	0	2
Tandahimba DC	1,894	3	31	143	654	0	1
Mtwara-Mikindani MC	163	2	18	0	0	111	1
Nanyumbu DC	5,071	4	17	93	525	0	1
Masasi TC	379	2	14	31	145	58	1
Nanyamba TC	1,438	1	17	87	323	9	1
Newala TC	655	2	16	48	189	11	1
Total	16,720	27	190	799	3,449	189	10

Source: Mtwara Regional Commissioner's Office 2015

Map 2: Showing Mtwara Region Administrative Unit and Boundaries, 2015


Source: NBS, Cartographic Unit, Dsm

The average area per ward in Mtwara Region, as shown in Table 1.3, is 88.0 sq. km. It ranges between 9.1 sq. km in Mtwara Mikindani Municipal and 298.3 sq. km in Nanyumbu District Council. At village/mtaa level, the average area per village/mtaa in the Region is 17.2 sq. km, but varies between 1.5 sq. km in Mtwara Mikindani Municipal and 54.5 sq. km per village/mtaa in Nanyumbu District Council.

In the region, the average population per ward was 6,689 persons. The average population per ward varied from 5,408 in Mtwara District Council to 8,874 persons in Nanyumbu District Council. At regional level, the average population per village/mtaa was 1,305. However, average persons ranging from 976 people per mtaa/village in Mtwara Mikindani Municipal to 1,622 people per village in Nanyumbu District Council.

Table 1.3: Distribution of Councils by Area of Wards and Villages, Mtwara Region, 2012

Council	Area Sq. Km.	Total Population	Wards			Villages/Mitaa		
			Number	Average per Ward (Sq. Km)	Average population per Wards	Number	Average per Village/Mitaa (Sq. Km)	Average population per Village/Mtaa
Mtwara DC	3,597	228,003	38	94.7	6000	206	17.5	1107
Newala DC	2,126	205,492	38	55.9	5408	166	12.8	1238
Masasi DC	3,490	247,993	34	102.6	7294	166	21.0	1494
Tandahimba DC	1,894	227,514	31	61.1	7339	143	13.2	1591
Mtwara-Mikindani MC	163	108,299	18	9.1	6017	111	1.5	976
Nanyumbu	5,071	150,857	17	298.3	8874	93	54.5	1622
Masasi TC	379	102,696	14	27.1	7335	89	4.3	1154
Total	16,720	1,270,854	190	88.0	6689	974	17.2	1305

Source: Mtwara Regional Commissioner's Office, and the 2012 Population and Housing Census

1.3 Climate, Soil and Topographical

1.4.1 Climate

Prevailing winds are critical in determining climate for Mtwara Region which borders with the Indian Ocean. During the November - May period, the dominant winds from north-east bring hot humid rainy weather and dry cooler weather between June and October.

The mean annual rainfall ranges from 800 mm to 900 mm. However, the amount of total annual precipitation tends to vary with altitude. Likewise temperatures vary from 270 C as the highest monthly mean along the coastal area in December to 230 C in July. Relative humidity drops from 87 percent in March to 79 percent in October while temperatures and humidity are lower inland.

1.4.2 Topographical and Drainage

Topographically the region is divided into two halves; the coastal plain with its complexity landform and basement plain dominated by Makonde Plateau at 300 mm to 400 mm. It is generally low level with isolated rocky hills and steep river sides. The western half lying beyond the Makonde Plateau drains to the south through the tributaries of the Ruvuma River. The Maombi and Mbuo rivers drain most of the Makonde Plateau

1.4.3 Soil

Geologically, Mtwara Region is divided into two parts. The eastern coastal part is characterized by quaternary tertiary sediments and Mesozoic cretaceous rocks; and the western part comprises a Paleozoic basement complex of highly metamorphosed rocks. The region can be divided into three different geographic vegetation belts namely the grassland and bushes in the east; woodlands covering the Northeastern side; and wooden grassland of the Ruvuma valley.

Geology determines soils. The region has two geological zones and hence two geologically determined soils types. The first zone is geologically the coastal sedimentary formation extending some 125 kms from the Indian Ocean to the edge of the Makonde Plateau of Newala. This zone produces deep, well drained, sandy soils of low fertility and low moisture holding capacity. They are produced from sandstones. Some areas give rise to marine heavy clay soils or vertisols. Further, coastal limestones produce red, well drained, heavy textured Soils

The second zone geologically extends west of the coastal sediments. It is a zone of pre-Cambrian basement rocks consisting of gneisses and granulites. Soils from this basement are variable. They are deep, well drained, red clays to the north of Masasi Town and along the Ruvuma river valley that consists of alluvial soil with peal type humus soil called “Ngapa”. These are the best soils in the region since they suit best the upland crops of the region and are extremely fertile and easily cultivable even during the rainy season. South of Masasi course grained sandy soils occur frequently.

1.4 Vegetation

The region has divided into three different geographic vegetation belts namely the grassland and bushes in the east; woodlands covering the Northeastern side; and wooden grassland of the Ruvuma valley. Furthermore the region has a vast of Forest Reserves and Game Reserves/ Parks: A large part of forest composition in these forest areas is of various valuable tree species such as Mpingo (*Dalbergia melanoxylon*), Mninga (*Pterocarpus angolensis*) and Mvule (*Mellicia excelsa*). There are two game reserves. These are Msanjesi (44,425 ha.) and Lukwika/ Lumesule (21,025 ha) both of which are in Nanyumbu district.

1.4.1 Agro-ecological zone

Climatic conditions as well as geological features have been the base of identifying different agro-ecological zones in Mtwara Region. Basically the region ecologically has divided into four distinctive agro-ecological zones depending to climate, landform, agriculture and soil/vegetation characteristics.

1.4.2 South half of Mtwara rural and South-East of Newala

The area characterized with monomodal rainfall with annual precipitation exceeding 1000mm and 6 months of growing season (November – April), low attitude. Isohyperthermic temperatures, soil of low fertility.

1.4.3 North half of Mtwara Rural

Monomodal rainfall averaging 600mm-1000mm in six months (November-April) mid altitude. Isohyperthermic temperatures, Soil of low fertility with medium moisture retaining capacity.

1.4.4 The South East of Mtwara Rural

The southern east of Mtwara rural had Binomodal rainfall pattern with annual precipitation of over 600mm and the growing season last seven months (November-May). The Soil had high fertility and of alluvial origin and low altitude.

The whole of Masasi (Except Northern Part) North and West Part of Newala

The monomodal rainfall averaging 600mm to 1000mm in five months of growing seasons (December-April) and low altitude Isohyperthermic temperature had soil of low fertility.

1.5 Population

A population is a source of labour for the production of goods and services and is responsible for the consumption of various products. The size, structure, distribution and quality of a population are among the important parameters for economic development. However, population growth increases demand for food, water, energy and other natural resources for its survival and development, which subsequently increases consumption of natural resources. The growth and distribution of the population also determine the demand for food and location of essential social services, such as education, health, water, transport and housing. Sustainable socio-economic development simply means improving the well-being of most people.

1.5.1 Ethnic Groups

The main indigenous ethnic groups in Mtwara Region are Makonde, Makua, Yao, Wamatambwe and Mwela. Makonde is the dominant tribe which is found in all councils except Nanyumbu DC. Other major tribes which are also found in the region is as shown in Table 1.4.

Table 1.4: Major Tribes by Council, Mtwara Region, 2015

Councils	Number of Ethnicity Group	Major Ethnicity Groups	Minor Ethnicity Groups
Mtwara District	5	Makonde	Chaga, Makua, Wahaya and Wazaramo
Newala DC	1	Makonde	
Masasi District	6	Makua, Yao and Makonde	Mwera, Ngoni and Sukuma
Tandahimba DC	4	Makonde and Makua	Ndendeule and Mwera
Mtwara-Mikindani MC	6	Makonde, Mwela, Yao and Makua	Chaga and Kinga
Nanyumbu DC	3	Makua and Yao	Wamatambwe
Masasi TC	4	Makua, Makonde, Mwela and Yao	Chaga, Ngoni and Kinga
Nanyamba TC	1	Makonde	
Newala TC	1	Makonde	

Source: Regional Commissioner's Office, 2015

1.5.2 Population Size and Growth

The population of Mtwara Region has experienced significant population growth during the 1988 and 2012 period. It increased from 888,882 in 1988 Census to 1,124,481 in 2002 and reached 1,270,854 in 2012.

The population of Mtwara Region has continued to grow during the 1988 – 2012 period. The 1988 and 2002 censuses recorded intercensal growth rate of 1.7 percent and the 2002-2012 inter-censal population growth rate was 1.2 percent. The population growth rate of rural areas was 0.9 percent and that of urban areas was 2.4 percent between 2002 and 2012. The region accounts for 2.9 percent of the total population of Tanzania Mainland (2012 Census).

Table 1.5: Distribution of the Population by Council and Population Growth, Mtwara Region, 1988, 2002 and 2012

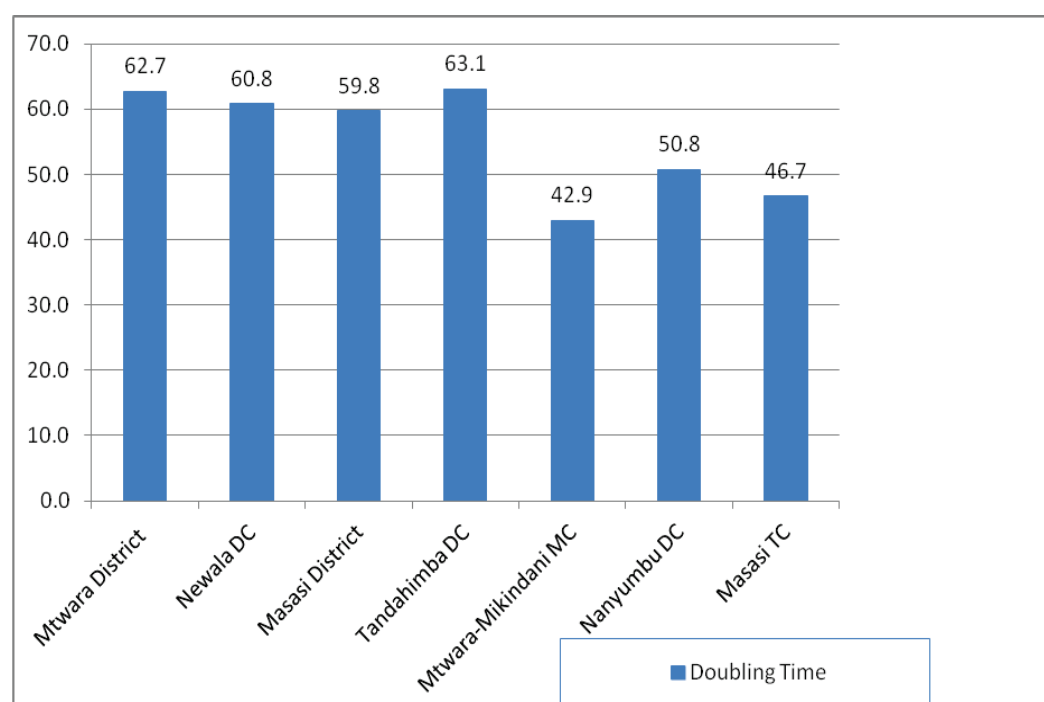
Council	Population Size			Increase		Percentage change		Growth Rate per annum		Doubling Times (Years)
	1988	2002	2012	1988-2002	2001-2012	1988-2012	2002-2012	1988-2002	2002-2012	2002-2012
Mtwara Region	888,882	1,124,481	1,270,854	235,599	146,373	26.5	13	1.7	1.2	56.6
Rural	761,117	895,942	979,350	134,825	83,408	17.7	9.3	1.2	0.9	77.9
Urban	127,765	228,539	291,504	100,774	62,965	78.9	27.6	4.2	2.4	28.5
Mtwara District	169,312	204,157	228,003	34,845	23,846	20.6	11.7	1.3	1.1	62.7
Newala DC	307,715	183,344	205,492	124,371	22,148	-40.4	12.1	-3.7	1.1	60.8
Masasi District	335,448	220,852	247,993	114,596	27,141	-34.2	12.3	-3.0	1.2	59.8
Tandahimba DC		203,837	227,514	203,837	23,677	na	11.6		1.1	63.1
Mtwara-Mikindani MC	76,407	92,156	108,299	15,749	16,143	20.6	17.5	1.3	1.6	42.9
Nanyumbu* DC	na	131,612	150,857	na	19,245	na	14.6	na	1.4	50.8
Masasi TC*	na	88,523	102,696	na	14,173	na	16	na	1.5	46.7

*Nanyumbu District and Masasi Town did not exist in 1988 they were parts of Masasi District

Source: National Bureau of Statistics, Computed Data from 1988, 2002 and 2012 Population Censuses Reports.

Doubling time is another key population indicator which shows how many years the region or council would double its population. This indicator alerts the decision makers to review their socio-economic goals and targets take into consideration of expected socio-economic pressures caused by their demands. The population of Mtwara Region will double after 56.6 years (Table 1.5). Doubling time vary across the councils, ranging between 42.9 years (Mtwara Mikindani Municipal Council) and 63.1 years in Tandahimba District Council. This means that, population of Mtwara Mikindani Municipal Council will double early compared to Tandahimba.

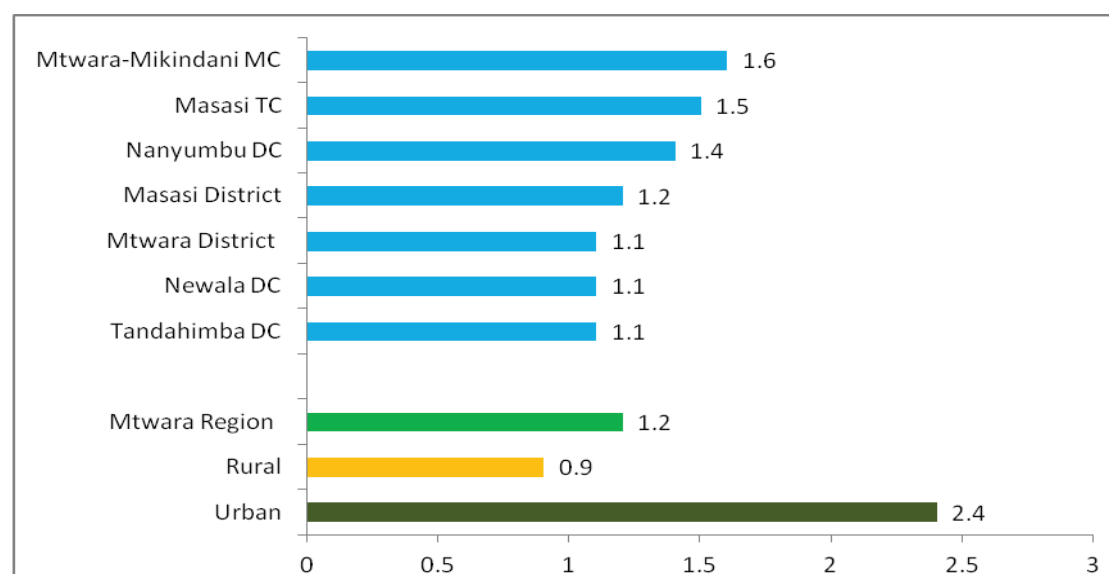
Figure 1.2: Estimated Doubling Time (Years) by Council, Mtwara Region, 2012



Source: National Bureau of Statistics, Population Censuses Report, 2012

Figure 1.4 shows the Average Annual Inter-Censal Population Growth Rates by district in Mtwara Region. Results indicate that the average annual inter-censal population growth rates for the 2002-2012 period vary across districts. It ranges between 1.1 percent recorded in Tandahimba, Newala, Masasi District and 1.6 percent recorded in Mtwara Municipal Council. The region has the fourth lowest growth rate of 1.2 percent after Iringa (1.2 percent), Lindi (0.9 percent) and Njombe (0.8 percent) as shown in Table 1.6 and Table 1.7.

Figure 1.3: Average Annual Inter-Censal Population Growth Rates by District, Mtwara Region, 2002 to 2012 Censuses



Source: National Bureau of Statistics, Population Censuses Report, 2012

Table 1.6: Distribution of Population and Growth Rate by Region in Tanzania Mainland, 2002 and 2012

Region	Population		Increase 2002 – 2012		
	2002	2012	Increase	Rate (Percent)	Average annual rate (percent)
Mtwara	1,124,481	1,270,854	146,373	13.0	1.2
Dodoma	1,692,025	2,083,588	391,563	23.1	2.1
Arusha	1,288,088	1,694,310	406,222	31.5	2.7
Kilimanjaro	1,376,702	1,640,087	263,385	19.1	1.8
Tanga	1,636,280	2,045,205	408,925	25.0	2.2
Iringa	837,847	941,238	103,391	12.3	1.2
Morogoro	1,753,362	2,218,492	465,130	26.5	2.4
Pwani	885,017	1,098,668	213,651	24.1	2.2
Dar Es Salaam	2,487,288	4,364,541	1,877,253	75.5	5.6
Lindi	787,624	864,652	77,028	9.8	0.9
Ruvuma	1,113,715	1,376,891	263,176	23.6	2.1
Mbeya	2,063,328	2,707,410	644,082	31.2	2.7
Singida	1,086,748	1,370,637	283,889	26.1	2.3
Tabora	1,710,465	2,291,623	581,158	34.0	2.9
Rukwa	729,060	1,004,539	275,479	37.8	3.2
Kigoma	1,674,047	2,127,930	453,883	27.1	2.4
Shinyanga	1,249,226	1,534,808	285,582	22.9	2.1
Kagera	1,791,451	2,458,023	666,572	37.2	3.2
Mwanza	2,058,866	2,772,509	713,643	34.7	3.0
Mara	1,363,397	1,743,830	380,433	27.9	2.5
Manyara	1,037,605	1,425,131	387,526	37.3	3.2
Njombe	648,464	702,097	53,633	8.3	0.8
Katavi	408,609	564,604	155,995	38.2	3.2
Simiyu	1,317,879	1,584,157	266,278	20.2	1.8
Geita	1,337,718	1,739,530	401,812	30.0	2.6
Tanzania Mainland	33,459,292	43,625,354	10,166,062	30.4	2.7

Source: The United Republic of Tanzania Population and Housing Census, 2012 Vol. 1

Table 1.7: Average Annual Rates of Population increase for the Inter-censal Periods 1978-1988, 1988-2002 and 2002-2012, by Region, Tanzania Mainland

Region	Average annual rate (percent)			Difference in Annual Rates	
	1978-1988	1988-2002	2000-2012	-1	-2
Mtwara	1.4	1.7	1.2	0.3	-0.5
Dodoma	2.4	2.2	2.1	-0.2	-0.1
Arusha	3.8	3.9	2.7	0.1	-0.2
Kilimanjaro	2.0	1.6	1.8	-0.4	0.2
Tanga	2.1	1.8	2.2	-0.3	0.4
Iringa	2.5	1.6	1.1	-0.9	-0.5
Morogoro	2.6	2.6	2.4	0	-0.2
Pwani	2.1	2.4	2.2	0.3	-0.2
Dar Es Salaam	4.8	4.3	5.6	-0.5	1.3
Lindi	2.0	1.4	0.9	-0.6	-0.5
Ruvuma	3.3	2.5	2.1	-0.8	-0.4
Mbeya	3.1	2.4	2.7	-0.7	0.3
Singida	2.6	2.3	2.3	-0.3	0
Tabora	2.4	3.6	2.9	1.2	-0.7
Rukwa	4.4	3.5	3.2	-0.9	-0.3
Kigoma	2.8	4.8	2.4	2.0	-2.4
Shinyanga	2.9	3.3	2.1	0.4	-1.2
Kagera	2.6	3.1	3.2	0.5	0.1
Mwanza	2.6	3.2	3.0	0.6	-0.2
Mara	2.7	2.6	2.5	-0.1	-0.1
Manyara	na	3.9	3.2	na	-0.7
Njombe	na	na	0.8	na	na
Katavi	na	na	3.2	na	na
Simiyu	na	na	1.8	na	na
Geita	na	na	2.6	na	na
Tanzania Mainland	2.8	2.8	2.7	0	-0.1

(1) Is difference in growth rates from the period 1988-2002 and that of 1978-1988

(2) Is difference in growth rates from the period 2002-2012 and that of 1988-2002

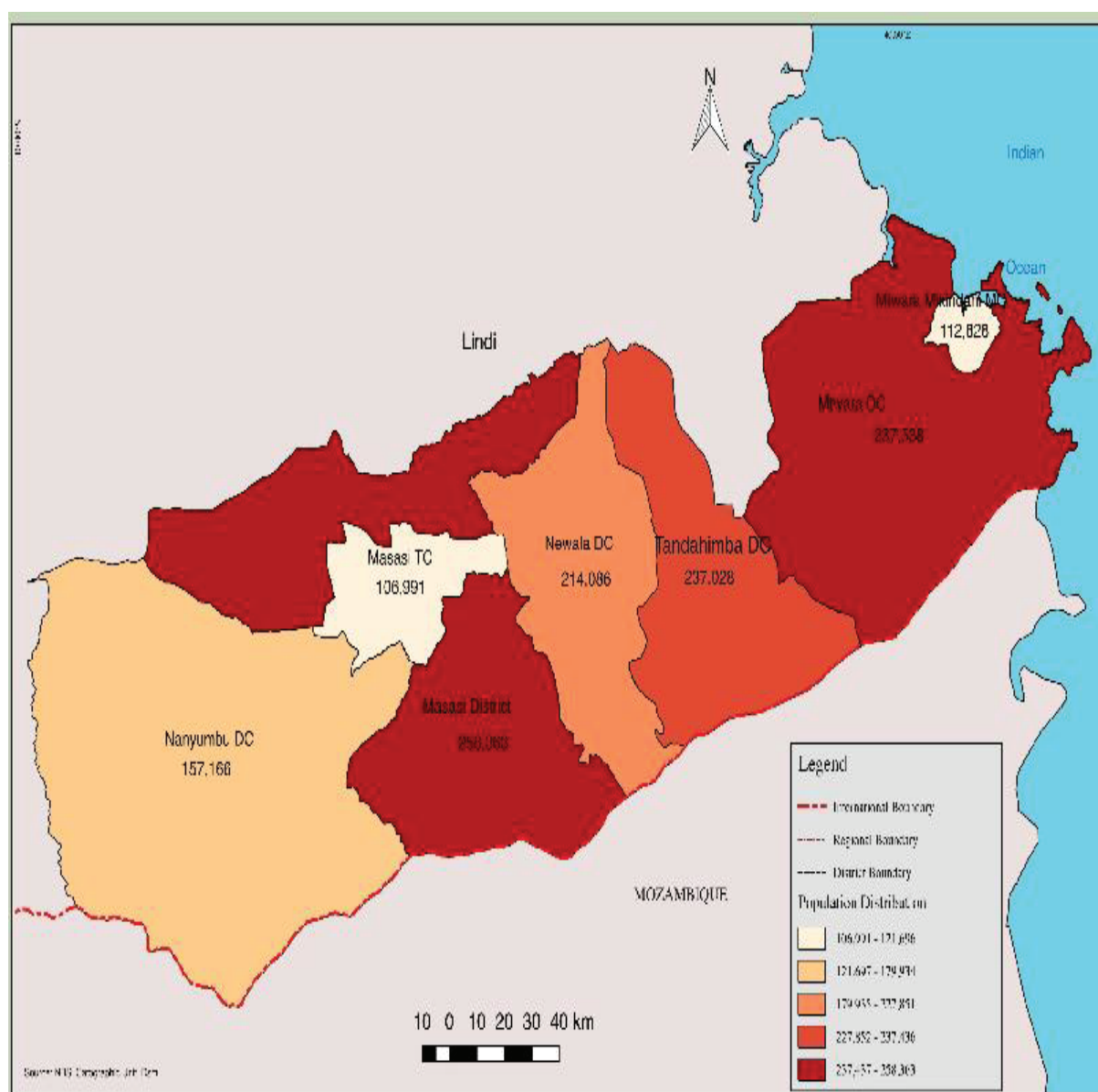
Source: Computed from the Tanzania Population and Housing Census 1988, 2002 and 2012 Population and Housing Census, Population Distribution by Administrative Units Vol. 1

1.5.3 Population Density

Between 2002 and 2012, Mtwara Region has experienced an increase of a population density from 76-79 persons per square kilometer which is above the national average of 49 persons per square kilometer for Tanzania Mainland.

Table 1.8 gives the population density at district council level for the years 2002 and 2012 censuses. In 2002, Mtwara Mikindani Municipal Council had population density of 565 persons per sq. km and was the most densely populated council, followed by Masasi Town Council with the population density of 234 persons per sq. km. In 2012, Mtwara Mikindani Municipal Council had population density of 664 persons per sq.km followed by Masasi Town Council with 271 persons per sq.km and the lowest are Nanyumbu (30 persons per Sq.kms) followed by Mtwara District Council (63 person per sq.km) and Masasi District Council (71 persons per sq.km).

Map 3: Map of Mtwara Region showing Population Distribution by Council, 2015



Source: NBS, Cartographic Unit, Dsm

Table 1.8 : Distribution of Population by Council and Growth Indicators, Mtwara Region, 2002, 2012 Censuses and 2015 Projected

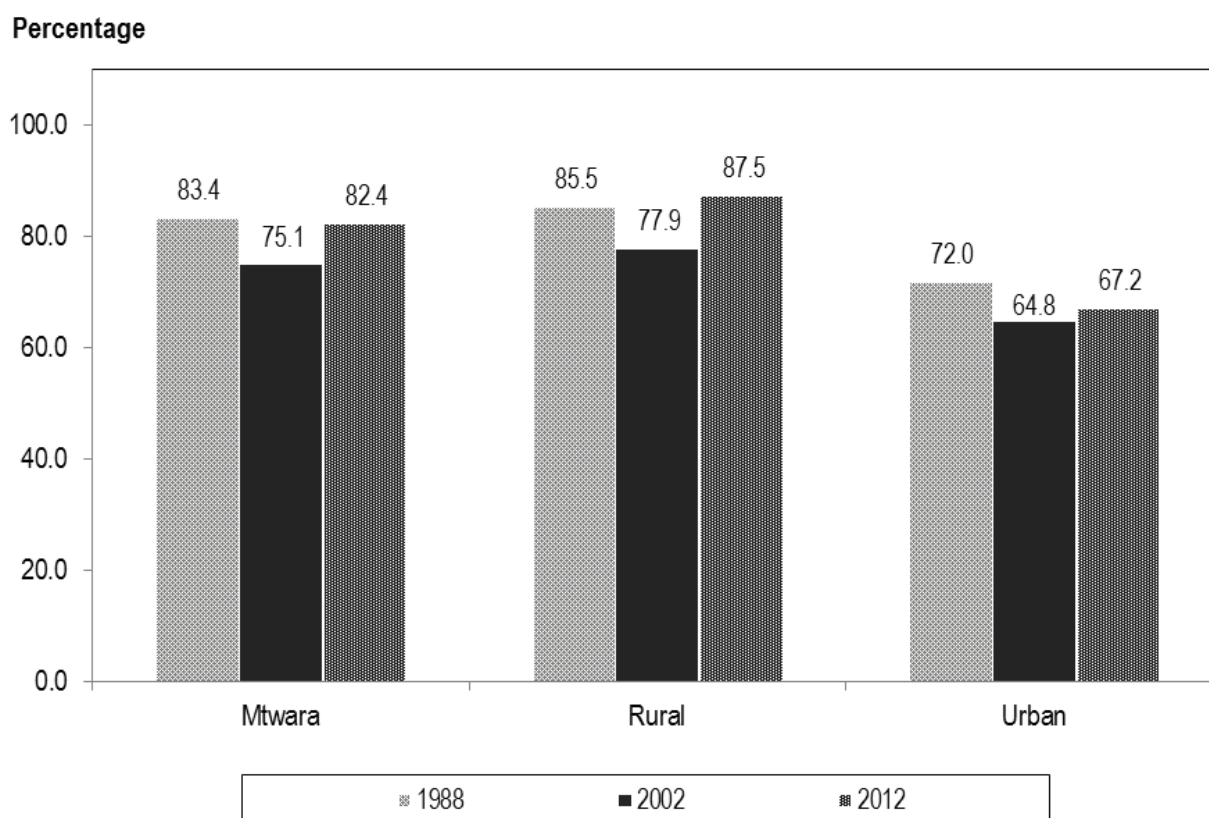
Council	Land area Sq. Km	2002 Pop. Census Number Total	Pop. density	2012 Pop. Census			Pop. density	2015 Pop. Census			Pop. Density	Change 2002- 2012 (Percent)	Change 2012 - 2015 (Percent)	Annual Growth Rate (2002- 2012) (Percent)	Annual Growth Rate (2012- 2015) (Percent)
				Number				Number							
				Male	Female	Total		Male	Female	Total					
Mtwara Region	16720	1,124,481	67	599,648	671,206	1,270,854	76	624,725	699,275	1,324,000	79	13.0	4.2	1.2	1.4
Mtwara District	3,597	204,157	63	107,922	120,081	228,003	63	112,435	125,103	237,538	66	11.7	4.2	1.1	1.4
Newala DC	2,126	183,344	86	95,018	110,474	205,492	97	98,992	115,094	214,086	101	12.1	4.2	1.1	1.4
Masasi District	3,490	220,852	55	118,976	129,017	247,993	71	123,951	134,412	258,363	74	12.3	4.2	1.2	1.4
Tandahimba DC	1,894	203,837	108	105,322	122,192	227,514	120	109,726	127,302	237,028	125	11.6	4.2	1.1	1.4
Mtwara-Mikindani MC	163	92,156	565	51,062	57,237	108,299	664	53,197	59,631	112,828	692	17.5	4.2	1.6	1.4
Nanyumbu DC	5,071	131,612	26	72,237	78,620	150,857	30	75,258	81,908	157,166	31	14.6	4.2	1.4	1.4
Masasi TC	379	88,523	234	49,111	53,585	102,696	271	51,165	55,826	106,991	282	16.0	4.2	1.5	1.4

Source: The United Republic of Tanzania Population and Housing Censuses, 2002 and 2012.

1.5.4 Dependency Ratio

The 2012 Census revealed that the age dependency ratio was 82.4 for Mtwara Region (Figure 1.5), implying that there were 100 people in age 15–64 supporting 82.4 persons in age groups 0-14 and 65 years and above. There was a gradual increase in age dependency ratio in Mtwara rural and a gradual decline in Mtwara urban between 1988 and 2012.

Figure 1. 4: Age Dependency Ratio; Mtwara Region, 1988, 2002 and 2012 Censuses



Source: The United Republic of Tanzania Population and Housing Censuses, 1988, 2002 and 2012

1.6 Age and Sex Profile

1.6.1 Population Distribution (Age) and Sex Ratio

Sex ratio by age groups provides an important index of possible age misreporting. Under normal circumstances, the general trend of sex ratio is to gradually decline with age, eventually falling below 100, whereby the number of females begins to exceed the number of males and the difference grows larger with advancing ages. Tables 1.9, 1.10 and 1.11 present population distribution in terms of age and sex composition.

The overall sex ratio for Mtwara Region was 89.3 males for every 100 females. (89.5 for rural areas and, 88.7 for Urban areas) indicating an excess of female over male population. However, the sex ratio for the population aged 10-14 years was above 100 indicating an excess of males over females for Mtwara Region and was equal to 100 (equal number of

males and females) for children aged 5-9 years. For Mtwara rural, it was above 100 for population aged 10-19 years and was 100 for children aged 5-9 years (Table 1.10). On the other hand, Mtwara urban sex ratio is more than 100 for population aged below five (5) years (Table 1.11).

Table 1.9: Population by Five Year Age Groups and Sex, Mtwara Region, 2012 Census

Age Group	Both Sexes		Male		Female		Sex Ratio
	Number	Percentage	Number	Percentage	Number	Percentage	
Total	1,270,854	100	599,648	100	671,206	100	89.3
0-4	168,655	13.3	84,093	14.0	84,562	12.6	99.4
5-9	166,560	13.1	83,263	13.9	83,297	12.4	100
10-14	154,260	12.1	77,919	13	76,341	11.4	102.1
15-19	106,811	8.4	52,683	8.8	54,128	8.1	97.3
20-24	96,612	7.6	41,587	6.9	55,025	8.2	75.6
25-29	89,734	7.1	38,581	6.4	51,153	7.6	75.4
30-34	87,390	6.9	37,963	6.3	49,427	7.4	76.8
35-39	78,337	6.2	35,569	5.9	42,768	6.4	83.2
40-44	66,574	5.2	30,770	5.1	35,804	5.3	85.9
45-49	52,699	4.1	24,323	4.1	28,376	4.2	85.7
50-54	48,320	3.8	22,580	3.8	25,740	3.8	87.7
55-59	34,518	2.7	15,743	2.6	18,775	2.8	83.9
60-64	35,598	2.8	16,332	2.7	19,266	2.9	84.8
65-69	26,178	2.1	11,730	2.0	14,448	2.2	81.2
70-74	23,856	1.9	10,835	1.8	13,021	1.9	83.2
75-79	15,113	1.2	7,180	1.2	7,933	1.2	90.5
80+	19,639	1.5	8,497	1.4	11,142	1.7	76.3

Source: The United Republic of Tanzania Population and Housing Census, 2012

Table 1.10: Population by Five Year Age Groups and Sex, Mtwara Rural, 2012 Census

Age Group	Both Sexes		Male		Female		Sex Ratio
	Number	Percentage	Number	Percentage	Number	Percentage	
Total	979,350	100.0	462,639	100.0	516,711	100.0	89.5
0–4	134,389	13.7	66,880	14.5	67,509	13.1	99.1
5–9	132,900	13.6	66,561	14.4	66,339	12.8	100.3
10–14	119,677	12.2	61,135	13.2	58,542	11.3	104.4
15–19	77,105	7.9	38,726	8.4	38,379	7.4	100.9
20–24	68,763	7.0	29,570	6.4	39,193	7.6	75.4
25–29	65,669	6.7	28,228	6.1	37,441	7.2	75.4
30–34	64,897	6.6	27,863	6.0	37,034	7.2	75.2
35–39	59,397	6.1	26,901	5.8	32,496	6.3	82.8
40–44	51,081	5.2	23,431	5.1	27,650	5.4	84.7
45–49	41,187	4.2	18,818	4.1	22,369	4.3	84.1
50–54	38,009	3.9	17,631	3.8	20,378	3.9	86.5
55–59	27,519	2.8	12,340	2.7	15,179	2.9	81.3
60–64	28,645	2.9	12,999	2.8	15,646	3.0	83.1
65–69	21,533	2.2	9,507	2.1	12,026	2.3	79.1
70–74	19,680	2.0	8,964	1.9	10,716	2.1	83.7
75–79	12,609	1.3	5,981	1.3	6,628	1.3	90.2
80+	16,290	1.7	7,104	1.5	9,186	1.8	77.3

Source: The United Republic of Tanzania Population and Housing Census, 2012

Table 1.11: Population by Five Year Age Groups and Sex, Mtwara Urban, 2012 Census

Age Group	Both Sexes		Male		Female		Sex Ratio
	Number	Percent	Number	Percent	Number	Percent	
Total	291,504	100.0	137,009	100.0	154,495	100.0	88.7
0–4	34,266	11.8	17,213	12.6	17,053	11.0	100.9
5–9	33,660	11.5	16,702	12.2	16,958	11.0	98.5
10–14	34,583	11.9	16,784	12.3	17,799	11.5	94.3
15–19	29,706	10.2	13,957	10.2	15,749	10.2	88.6
20–24	27,849	9.6	12,017	8.8	15,832	10.2	75.9
25–29	24,065	8.3	10,353	7.6	13,712	8.9	75.5
30–34	22,493	7.7	10,100	7.4	12,393	8.0	81.5
35–39	18,940	6.5	8,668	6.3	10,272	6.6	84.4
40–44	15,493	5.3	7,339	5.4	8,154	5.3	90.0
45–49	11,512	3.9	5,505	4.0	6,007	3.9	91.6
50–54	10,311	3.5	4,949	3.6	5,362	3.5	92.3
55–59	6,999	2.4	3,403	2.5	3,596	2.3	94.6
60–64	6,953	2.4	3,333	2.4	3,620	2.3	92.1
65–69	4,645	1.6	2,223	1.6	2,422	1.6	91.8
70–74	4,176	1.4	1,871	1.4	2,305	1.5	81.2
75–79	2,504	0.9	1,199	0.9	1,305	0.8	91.9
80+	3,349	1.1	1,393	1.0	1,956	1.3	71.2

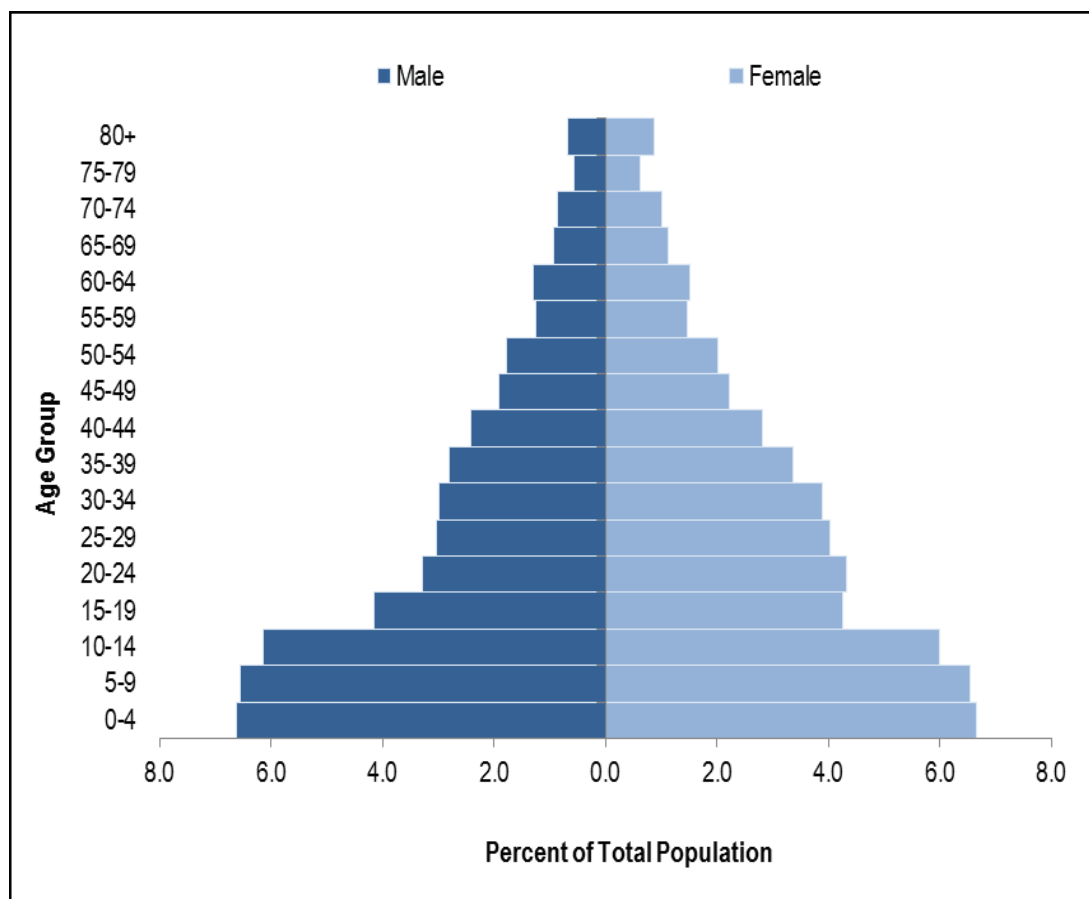
Source: The United Republic of Tanzania Population and Housing Census, 2012

1.6.2 Population Pyramid

A population pyramid shows the age structure of a population. Figures 1.16 to 1.8 show population pyramids by five year age groups for Mtwara Region. The figures have broader bases indicative of high fertility and mortality rates and a youthful age structure. These shapes are representative of the age-sex composition of other regions in Tanzania Mainland. However, a typical pyramid for major urban centres has a different structure. For example the

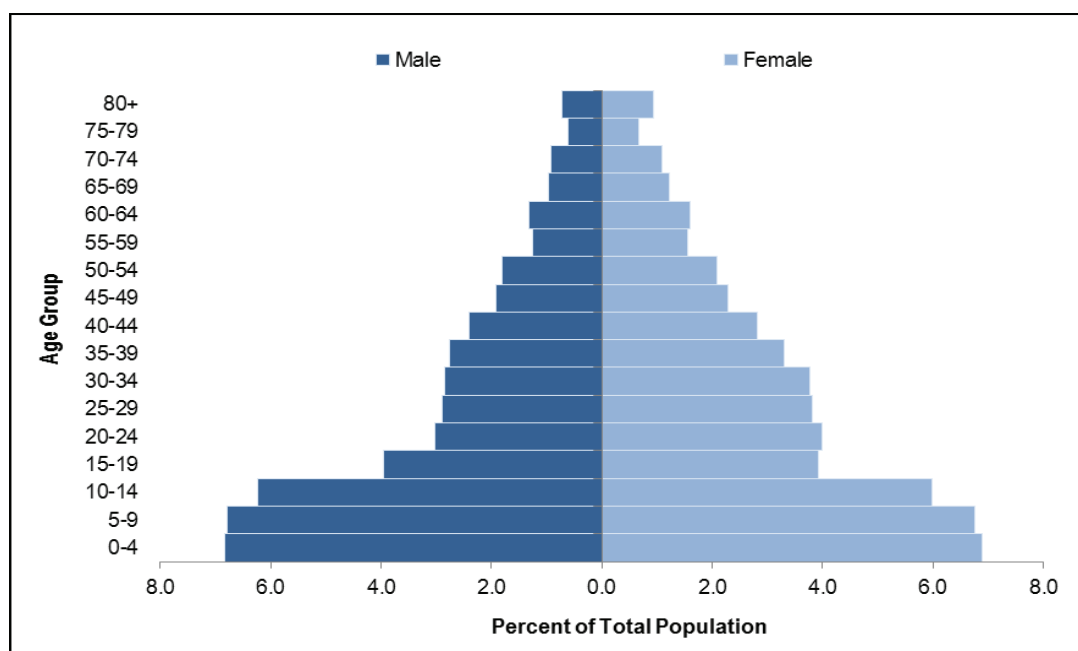
pyramid of Mtwara urban (Figure 1.8) shows a bulge in age group 10–24, an indication of youth in-migration from rural areas. The bulge in Mtwara urban pyramid is more evident among the female population than the male population.

Figure 1.5: Population Pyramid for Five Year Age Groups, Mtwara Region, 2012 Census



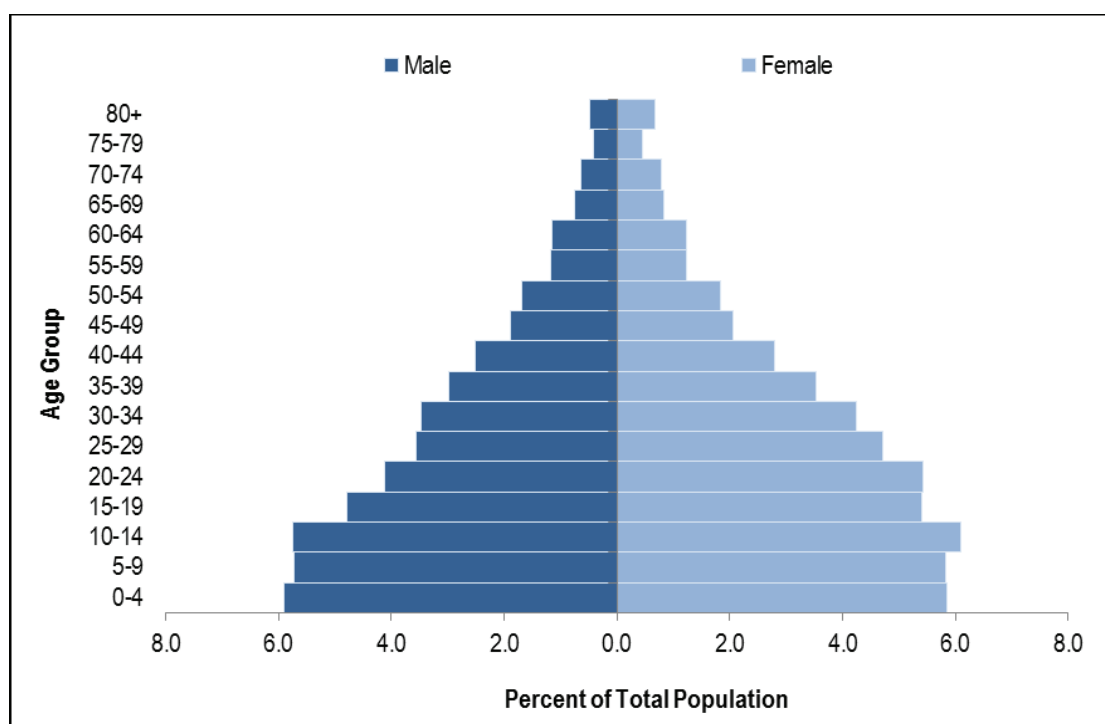
Source: The United Republic of Tanzania Population and Housing Census, 2012

Figure 1. 6: Population Pyramid for Five Year Age Groups, Mtwara Rural, 2012 Census



Source: The United Republic of Tanzania Population and Housing Census, 2012

Figure 1. 7: Population Pyramid for Five Year Age Groups, Mtwara Urban, 2012 Census



Source: The United Republic of Tanzania Population and Housing Census, 2012

1.6.3 Household and Household Size

According to the 2012 Population and Housing Census (PHC), Mtwara Region had a total of 342,165 private households. Seventy seven (77.3) percent of the private households (264,596 households) were in rural areas and 22.7 percent (77,569 households) were in urban areas (Table 1.12).

Table 1.12: Number and Percentage Distribution of Private Households by District and Rural-Urban; Mtwara Region, 2012 Census

District/Council	Total		Rural		Urban	
	Number	Percentage	Number	Percentage	Number	Percentage
Mtwara Region	342,165	100	264,596	77.3	77,569	22.7
Mtwara	58,602	17.1	55,266	94.3	3,336	5.7
Newala	58,035	17.0	50,884	87.7	7,151	12.3
Masasi	67,720	19.8	59,318	87.6	8,402	12.4
Tandahimba	60,872	17.8	49,431	81.2	11,441	18.8
Mtwara Municipal	27,968	8.2	1,971	7.0	25,997	93.0
Nanyumbu	40,746	11.9	35,297	86.6	5,449	13.4
Masasi Town	28,222	8.2	12,429	44.0	15,793	56.0

Source: Population and Housing Census (PHC), 2012

CHAPTER TWO

Regional Economy

2.0 Introduction

This chapter describes the economy of Mtwara Region by observing its status and trends of both economic and non-economic indicators. Economic indicators include Gross Domestic Product (GDP), Per Capita Gross Domestic Product and categories of occupations for the residents of Mtwara Region. Non-economic indicators cover demographic characteristics, health and education status of Mtwara residents, the durability and quality of the houses in terms of the building materials used. The availability of social amenities in or around the house such as access to drinking water, source of energy for cooking and lighting and toilet facilities are also considered.

Mtwara Region has agriculture as its main economic activity, employing about 90 percent of the economically active population. It is famous for producing both food and cash crops. The main food crops produced in Mtwara Region include: maize, paddy, cassava and sorghum. The main cash crop is cashewnut. Livestock keeping is also an important economic activity in the region.

The region has a variety of tourism attractions which include virgin beaches on a 125 kilometer coastline, scenic Msimbati bay, the Mikindani historical old town and Monuments. The game reserves are Masanjesi and Lukwisa/Lumese, which are rich in a variety of wildlife species.

2.1 Regional Gross Domestic Product

Mtwara Region's economic performance from 2011 to 2015 is determined from the report produced by NBS. The 2015 National Accounts of Tanzania revised/new series data shows Mtwara Region's GDP has been increasing steadily from TZS 1.4 million in 2011 to TZS 1.8 million in 2013 and reached TZS 2.4 million in 2015 and become eighteenth contributor to national GDP (Table 2.1).

Table 2.1: Regional GDP at Current Market Prices, Tanzania Mainland, 2011–2015 TZS Million

Region	2011	2012	2013	2014r	2015p
Dodoma	1,629,710	1,904,068	2,151,647	2,423,440	2,635,574
Arusha	2,497,812	2,929,003	3,366,418	3,786,625	4,271,447
Kilimanjaro	2,426,866	2,788,912	3,217,876	3,619,216	4,126,036
Tanga	2,505,042	2,884,020	3,312,524	3,714,878	4,235,095
Morogoro	2,602,233	3,001,144	3,433,705	3,866,343	4,453,211
Pwani	978,880	1,135,341	1,285,513	1,442,903	1,644,962
Dar es salaam	8,807,745	10,402,309	12,259,974	13,711,568	15,631,679
Lindi	999,604	1,159,599	1,312,577	1,482,763	1,690,403
Mtwara	1,363,242	1,625,221	1,788,397	2,016,876	2,362,928
Ruvuma	2,042,814	2,341,755	2,699,334	3,037,272	3,544,392
Iringa	2,791,441	3,224,478	3,677,346	4,137,386	4,816,738
Mbeya	3,849,235	4,500,842	5,272,770	5,931,050	6,761,610
Singida	997,621	1,178,718	1,305,922	1,474,791	1,635,873
Tabora	2,110,684	2,426,906	2,786,134	3,132,934	3,453,511
Rukwa	1,818,199	2,100,974	2,414,520	2,718,398	3,180,865
Kigoma	1,545,842	1,779,335	2,051,034	2,295,890	2,635,574
Shinyanga	3,181,439	3,693,951	4,203,285	4,727,302	5,389,294
Kagera	2,091,867	2,418,560	2,793,235	3,140,906	3,580,745
Mwanza	4,769,027	5,619,758	6,654,600	7,477,587	8,452,013
Mara	1,971,697	2,266,604	2,612,931	2,925,666	3,335,364
Manyara	1,781,579	2,052,714	2,353,486	2,654,623	3,026,366
Tanzania Mainland	52,762,581	61,434,214	70,953,227	79,718,416	90,863,681
r:revised p:provisional					

Source: National Bureau of Statistics

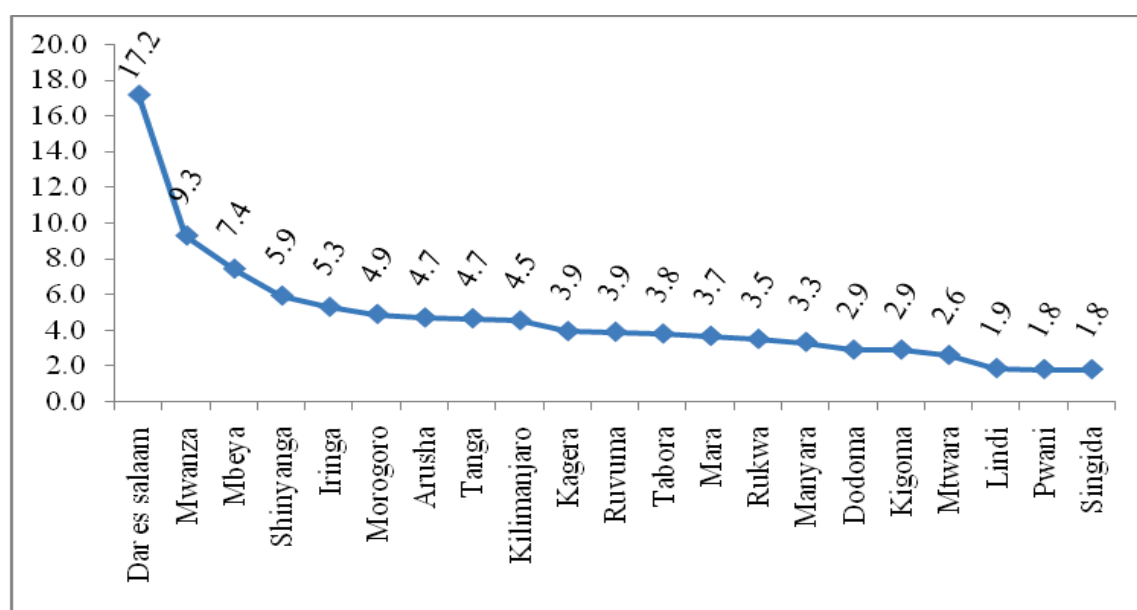
Table 2.2 shows the trend of GDP and Per Capital GDP at Current Prices in Million (TZS), Tanzania Mainland, from 2011 – 2015. The trend shows that GDP at current prices increased from TZS 52,762,581 in 2011 to TZS 90,863,681 in 2015. From 2012 to 2015, Per Capita GDP at current prices increased from TZS 1,408,223 in 2012 to TZS 1,918,928. The average contribution to National GDP increased from 1.1 percent in 2013 to 1.6 percent in 2015.

Table 2.2: GDP and Per Capita GDP at Current Prices, Tanzania Mainland, 2011 – 2015

Year	GDP at Current Prices (TZS Million)	Per Capita GDP at Current Prices				Regional Contribution to National GDP
		GDP Percent Change	Exchange Rate (TZS/US \$)	TZS	US\$	
2011	52,762,581	0	1,557.4	0	0	0
2012	61,434,214	16.4	1,571.7	1,408,223	896.0	0
2013	70,953,227	15.5	1,598.7	1,582,797	990.1	1.1
2014	79,718,416	12.4	1,652.5	1,730,405	1,047.1	1.4
2015	90,863,681	14	1,985.4	1,918,928	966.5	1.6

Source: National Accounts of Tanzania, National Bureau of Statistics

Figure 2.1 shows trend of regional share of GDP at current market prices. The region contributed 2.6 percent to the national GDP at current market prices.

Figure 2. 1: Percent Regional Shares of GDP at Current Market Prices, Tanzania Mainland, 2015

Source: NBS, National Accounts of Tanzania,

2.1.1 Sector Contribution to the Region GDP

Regional GDP computed in 2015 also shows steady increase of sector contribution to the economy. Table 2.3 shows that in 2013, 2014 and 2015 agriculture continued to be the main sector in the region contributing about 80.3 percent of Regional GDP. This was followed by services sector (17.4 percent) and industry and construction sector (2.3 percent). However, the contribution of street vendors (3.4 percent) and related activities were not included in the

computation of the Regional GDP. This is a challenge to the region. There is a need to solve this challenge by providing them with facilities to formalize their businesses in order to capture their income into the regions' GDP.

Table 2.3: Sector GDP estimates contribution, 2013, 2014 and 2015, Mtwara Region

Sector	2013		2014		2015	
	Amount	Percent	Amount	Percent	Amount	Percent
Agriculture	760,425	71.4	1,019,635	76.9	1,777,533	80.3
Crops	380,417	35.7	492,737	37.2	960,964	43.4
Livestock	379,801	35.7	526,561	39.7	814,688	36.8
Forestry and Hunting	52,90386	0	145,95547	0	1,200	0.1
Fishing	154.89546	0	191.44268	0	682.0501	0
Industry and Construction	12,491	1.2	7,656	0.6	51,002	2.3
Mining and Quarrying	614.4448	0.1	708.016	0.1	33,179	1.5
Manufacturing	5,251	0.5	3,467	0.3	6,170	0.3
Electricity	5,404	0.5	1,409	0.1	8,510	0.4
Water	884.33899	0.1	1,809	0.1	2,692	0.1
Construction	337.5582	0	262.54733	0	451.26415	0
Services	291,682	27.4	298,176	22.5	383,990	17.4
Trade, Hotels and Restaurants	4,578	0.4	5,585	0.4	5,843	0.3
Transport and Communication	559.1	0.1	574.6	0	706	0
Finance and Insurance	22,384	2.1	605.17886	0	881.57072	0
Real Estate	190,248	17.9	194,653	14.7	237,909	10.8
Business Services	9789.2	0.9	9716.2	0.7	9059.2	0.4
Public Administration	5,316	0.5	7,026	0.5	9,203	0.4
Education	28,555	2.7	36,624	2.8	53,387	2.4
Health	13,329	1.3	18,683	1.4	38,391	1.7
Other services	16923.857	1.6	24708.437	1.9	28610.006	1.3
TOTAL GDP	1,064,598	100	1,325,467	100	2,212,525	100

Source: National Bureau of Statistics, National Accounts Data, 2016

2.1.2 Contribution of Councils to the Regional GDP

Table 2.4 shows the computed GDP estimates by council in Mtwara Region for 2013, 2014 and 2015 years. Newala District Council contributed 39.4 percent of region's GDP in 2015 due to its location and status, followed by Mtwara District Council (19.7 percent), Masasi District Council (11.8 percent) and Tandahimba District Council (10.3 percent). On the other hand, Mtwara/Mikindani Municipal Council's (8.8 percent) share in the GDP was very little in 2015 (Table 2.4).

Table 2.4: GDP Estimates Contribution by Council, 2013, 2014 and 2015 (Mill. Tsh), Mtwara Region

Council	2013		2014		2015	
	Amount	Percent	Amount	Percent	Amount	Percent
Mtwara DC	162,634	15.3	192,166	14.5	436,697	19.7
Newala DC	289,545	27.2	474,303	35.8	871,277	39.4
Masasi DC	152,406	14.3	203,046	15.3	260,904	11.8
Tandahimba DC	107,891	10.1	151,470	11.4	227,581	10.3
MtwaraMMC	147,143	13.8	144,650	10.9	193,963	8.8
Nyanyumbu DC	116,716	11.0	47,380	3.6	89,024	4.0
Masasi TC	88,264	8.3	112,453	8.5	133,078	6.0
Total	1,064,598	100.0	1,325,467	100.0	2,212,525	100.0

Source: National Bureau of Statistics, National Accounts Data, 2016

2.1.3 Regional Per Capita GDP

Regional Per Capita Gross Domestic Product is obtained by dividing the Total Gross Domestic Product by the total population of a region in a given year. It shows how much of the region's total income each person would get if it is distributed equally. However, Mtwara ranked 18th Region in the Tanzania Mainland in terms of per capita income (Table 2.5).

Table 2.5: Per Capita GDP at Current Prices by Region, Tanzania Mainland, 2012 and 2015

Region	Per Capita Income (TZS) 2012	Rank	Per Capita Income (TZS) 2015	Rank
Dar -es salaam	10,402,309	1	15,631,679	1
Mwanza	5,619,758	2	8,452,013	2
Mbeya	4,500,842	3	6,761,610	3
Shinyanga	3,693,951	4	5,389,294	4
Iringa	3,224,478	5	4,816,738	5
Morogoro	3,001,144	6	4,453,211	6
Arusha	2,929,003	7	4,271,447	7
Tanga	2,884,020	8	4,235,095	8
Kilimanjaro	2,788,912	9	4,126,036	9
Tabora	2,426,906	10	3,453,511	12
Kagera	2,418,560	11	3,580,745	10
Ruvuma	2,341,755	12	3,544,392	11
Mara	2,266,604	13	3,335,364	13
Rukwa	2,100,974	14	3,180,865	14
Manyara	2,052,714	15	3,026,366	15
Dodoma	1,904,068	16	2,635,574	16
Kigoma	1,779,335	17	2,635,574	17
Mtwara	1,625,221	18	2,362,928	18
Singida	1,178,718	19	1,635,873	21
Lindi	1,159,599	20	1,690,403	19
Pwani	1,135,341	21	1,644,962	20
Tanzania Mainland	12,935,971		18,812,544	

Source: National Bureau of Statistics, National Accounts Data, 2015

2.1.4 District Per capita GDP

Looking at the distribution of the region's economy, Newala District Council recorded the highest per capita GDP in the region in the last three years of 2013 (TZS 289,545), 2014 (TZS 474,303) and 2015 (TZS 871,277). Masasi Town Council recorded the least per capita GDP in 2013 while Nanyumbu District Council had the lowest per capita GDP in 2014 and 2015.

Table 2.6: Per Capita GDP Estimates by Council, 2013, 2014 and 2015 (Mill. Tsh), Mtwara Region

Council	2013		2014		2015	
	Amount	Rank	Amount	Rank	Amount	Rank
Mtwara DC	162,634	2	192,166	3	436,697	2
Newala DC	289,545	1	474,303	1	871,277	1
Masasi DC	152,406	3	203,046	2	260,904	3
Tandahimba DC	107,891	6	151,470	4	227,581	4
Mtwara MC	147,143	4	144,650	5	193,963	5
Nyanyumbu DC	116,716	5	47,380	7	89,024	7
Masasi TC	88,264	7	112,453	6	133,078	6

Source: National Bureau of Statistics, National Accounts Data, 2016

2.1.5 Non-income Indicators

As stated earlier, besides GDP and per capita GDP, there are other non-income indicators that depict economic performance in a region. These indicators include food security, food consumption patterns, net enrolment, adult literacy rate, health indicators, and access to drinking safe water. They also include housing conditions in terms of types of toilet, roofing materials and source of energy for lighting as well as for cooking.

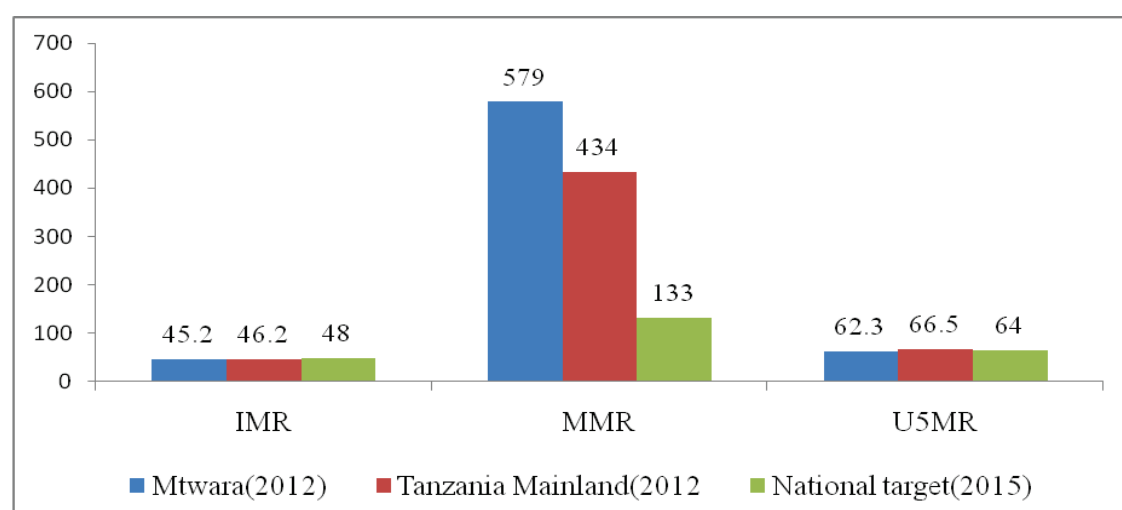
2.2 Well-being of the People

Figure 2.2 shows a great achievement of well-being of Mtwara residents by achieving two targets three years before time. The 2012 population census shows that infant mortality rate has reached 45.2 deaths per 1,000 live births (Table 2.7) against the targeted 48 deaths per 1,000 live births to be reached in 2015, while under five mortality rate for the region was 62.3 deaths per 1,000 live births in 2012 compared with 64 deaths per 1,000 live births set to be reached in 2015. One general observation from these results is that Mtwara Region has managed to reduce both health indicators three years before the set time (Figure 2.2).

Table 2.7: Basic Health Indicators by Sex, Mtwara Region and Tanzania Mainland, 2012

Health Indicator	Mtwara Region			Tanzania Mainland		
	Male	Female	Both Sexes	Male	Female	Both Sexes
Crude Death Rate (CDR)	11.2	10.0	10.6	10.1	8.6	9.4
Adult Mortality Rate (AMR)	10.4	9.7	10.1	9.0	7.9	8.4
Infant Mortality Rate (IMR)	52.3	38.0	45.2	50.9	41.3	46.2
Child Mortality Rate (CMR)	21.9	13.9	18.0	23.0	19.6	21.3
Under 5 Mortality Rate (U5MR)	73.0	51.4	62.3	72.7	60.1	66.5
Maternal Mortality Rate (MMR)		579			434	
Life Expectancy (LE)	61.8	65.1	63.4	59.7	63.7	61.7

Source: National Bureau of Statistics, 2012 Population and Housing Census Report, 2015

Figure 2.2: Status of Infant and Under 5 Mortality Rates Against National Targets, Mtwara Region, 2012

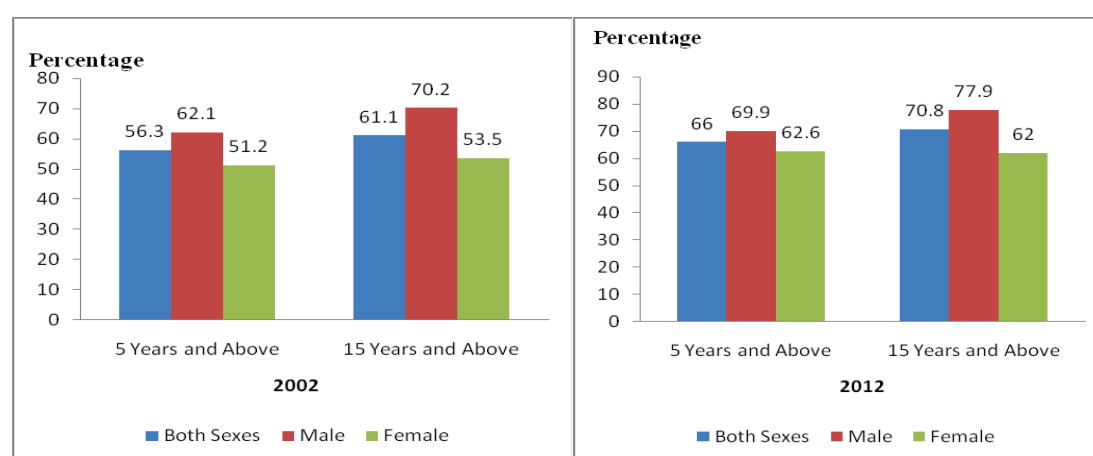
Source: National Bureau of Statistics, 2012 Population and Housing Census Report, 2015

The achievement of economic development of Mtwara Region can also be assessed by observing the health status of residents using health indicators such as life expectancy and basic mortality rates. Generally, the region has shown successive improvement in reducing childhood mortality to targets set in the Millennium Development Goals (International goals) as well as in MKUKUTA goals (National goals). According to National goals, the country targeted to reduce under-five mortality and infant mortality up to 64 and 48 deaths per 1,000 live births in 2015, respectively. Likewise, the target for maternal mortality was to reach 133 maternal deaths per 100,000 live births in 2015. However, the 2012 Population and Housing Census (PHC) recorded a high maternal mortality rate of 579 which was higher than the national figure (434) and also well above the targeted level of 133 maternal deaths per 100,000 live births to be reached in 2015.

2.3 Literacy and Level of Education

Literacy and level of education attained by the community gauge the quality of human resource of the country. Adult literacy rate (i.e. literacy rate for population aged 15 years and above) was 70.8 percent and was higher in urban areas (82 percent) than in rural areas (67 percent). Adult literacy for males (77.9 percent) was higher than that of females (62.0 percent). Adult literacy rates range from 83.3 percent in Mtwara Municipal Council to 57.8 percent in Mtwara District Council. Generally, literacy increased from 56.3 percent in 2002 to 66.0 in 2012 while adult literacy increased from 61.1 percent in 2002 to 70.8 percent in 2012.

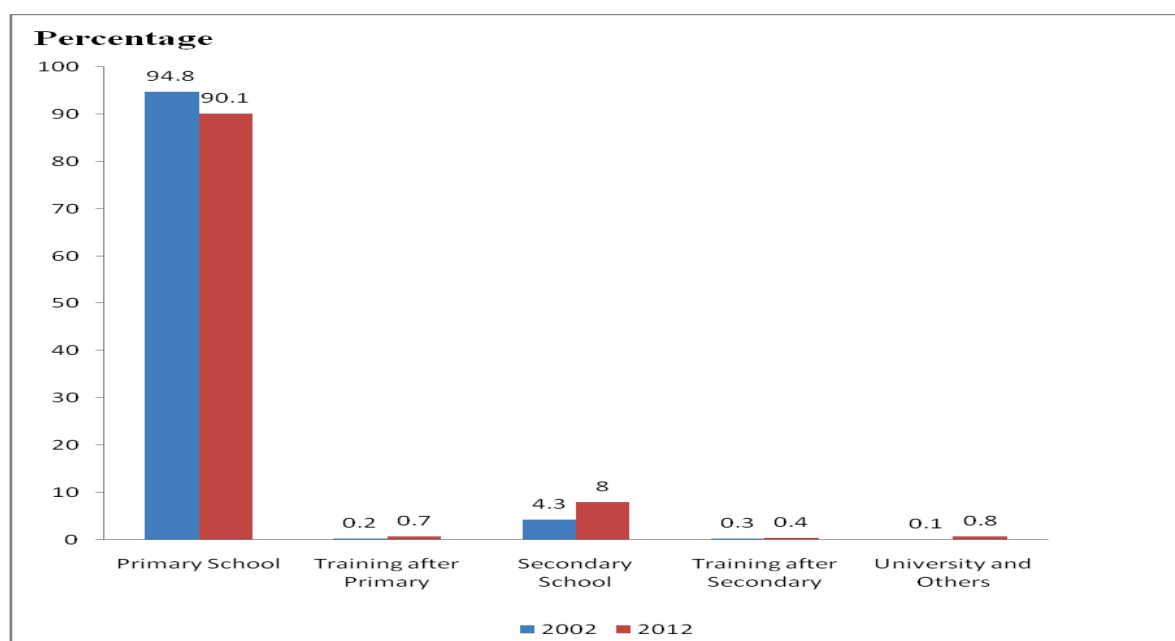
Figure 2.3: Levels of Literacy Rate by Location (Rural – Urban), Mtwara Region, 2002 and 2012



Source: 2002 and 2012 Population and Housing Census (PHC)

The Region also observed improvement in the education attainment levels between 2002 and 2012 Censuses. The proportion of the population aged 5 years and above that had attained secondary education during inter-censal period increased from 4.3 percent in 2002 to 8.0 percent in 2012 and from 0.1 percent to 0.8 percent for University or equivalent level between 2002 and 2012 respectively. The results also show that the regional population who completed primary education decreased from 94.8 percent in 2002 to 90.1 percent in 2012 (Figure 2.4).

Figure 2.4: Population Aged Five Years and Above by Level of Educational Attainment; Mtwara Region, 2002 and 2012 Censuses



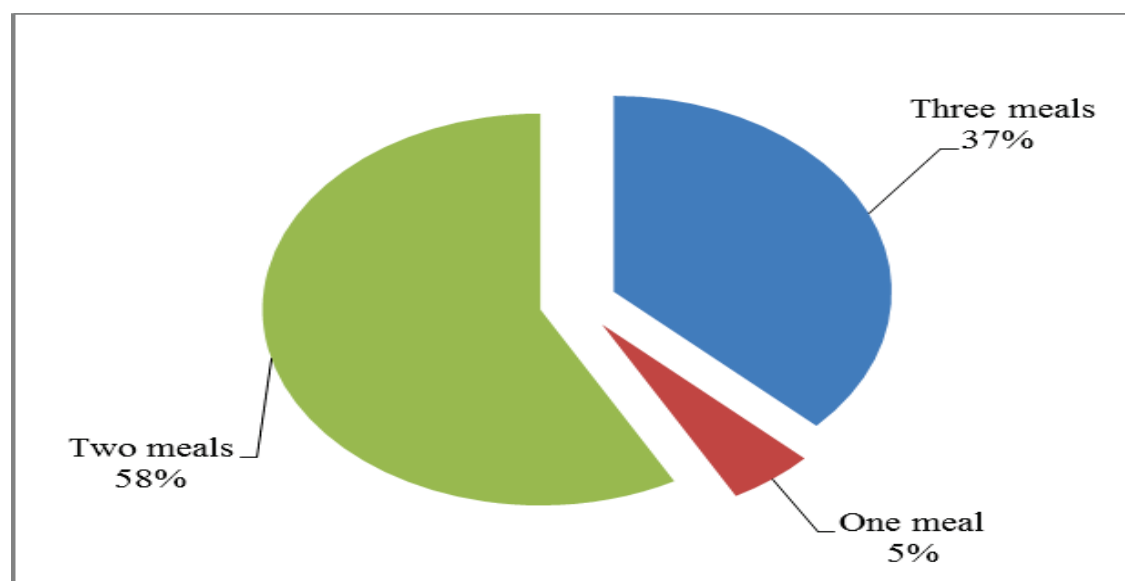
Source: 2002 and 2012 Population and Housing Census (PHC)

2.4 Food Security and Food Consumption Patterns

Food security and level of food consumption is also an indicator of economic status of the household. The number of meals consumed in a day and the frequencies of protein intake per week particularly meat and fish are most superior in measuring economic status of the households in the region.

2.5 Food Security – Number of Meals

According to the 2007/08 National Sample Census of Agriculture in Mtwara Region, majority of households in Mtwara Region normally had 2 meals per day (58 percent of the households in the region). This was followed by 3 meals per day (37 percent) and one meal per day (5 percent). Masasi and Mtwara Rural Districts had the largest percent of households eating one meal per day, followed by Tandahimba, Newala and Nanyumbu District Council.

Figure 2.5: Percentage of Households Reporting Status of Food Satisfaction, Mtwara Region, 2007/08

Source: NBS, National Sample Census of Agriculture, Mtwara Region, 2007/08.

Table 2.8 shows meal consumption per day in each council of Mtwara Region. Masasi District Council had the largest number (36,504) of agricultural households eating two meals per day followed by Newala (28,665) and Mtwara District Council (26,682). Masasi District Council had the largest number (61,858) of agricultural households eating three meals per day and Mtwara Municipal Council has the lowest number (3,575) of agricultural households eating three meals per day (Table 2.8). A small proportion of agricultural households which eat three meals as recommended by World Health Organisation (WHO) is an evidence of food insufficiency in the region.

Table 2.8: Number of Agricultural Households Reporting Number of Meals the Household Normally Has per Day by District, 2007/08

District	One	Two	Three	Total
MtwaraRural	3,103	26,682	20,477	50,261
Newala	2,015	28,665	14,668	45,349
Masasi	3,360	36,504	21,994	61,858
Tandahimba	2,555	24,973	19,513	47,041
MtwaraUrban	278	1,748	1,549	3,575
Nanyumbu	2,243	25,284	13,763	41,290
Total	13,554	143,856	91,964	249,374
Percentage	5.4	57.7	36.9	100.0

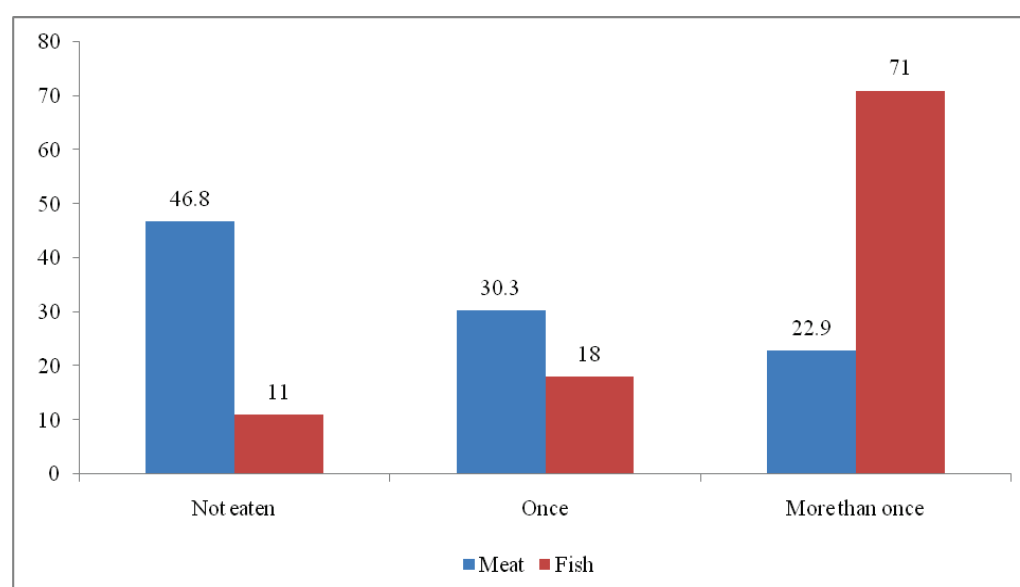
Source: NBS, National Sample Census of Agriculture, Mtwara Region, 2007/08

2.6 Protein (Meat and Fish) Consumption Frequencies

Protein intake among people in Mtwara Region shows fish preference than meat. The results of the 2007/08 National Sample Census of Agriculture shows that, regardless of having large population of livestock, majority (46.8 percent) of the agricultural households never consumed meat during the week preceding the census. Very few agricultural households (22.9 percent) had meat more than once during the respective week.

The scenario is different for fish consumption; majority (71 percent) of agricultural households in Mtwara Region consumed fish more than once during the week preceding the census. Very few agricultural households had fish (18 percent) once and those who had never consume fish during the week preceding the census were only 11 percent (Figure 2.6).

Figure 2.6: Percentage of Households by the Frequency of Protein (Meat and Fish) Intake, Mtwara Region, 2007/08



Source: NBS, National Sample Census of Agriculture Mtwara Region, 2007/08

The observation was different regarding protein intake at council level. Mtwara District Council (83.0 percent) and Mtwara Municipal Council (83.3 percent) were the biggest fish consumers in the region (Table 2.9). Mtwara (41.7 percent) and Nanyumbu (43.5 percent) District Councils were the least meat consumers in the region. About 46.8 percent of the agricultural households in Mtwara Region did not eat meat is an indication of fish preference to their protein intake.

Table 2.9: Percentage of Households by the Frequency of Protein (Meat and Fish) Intake, Mtwara Region, 2007/08

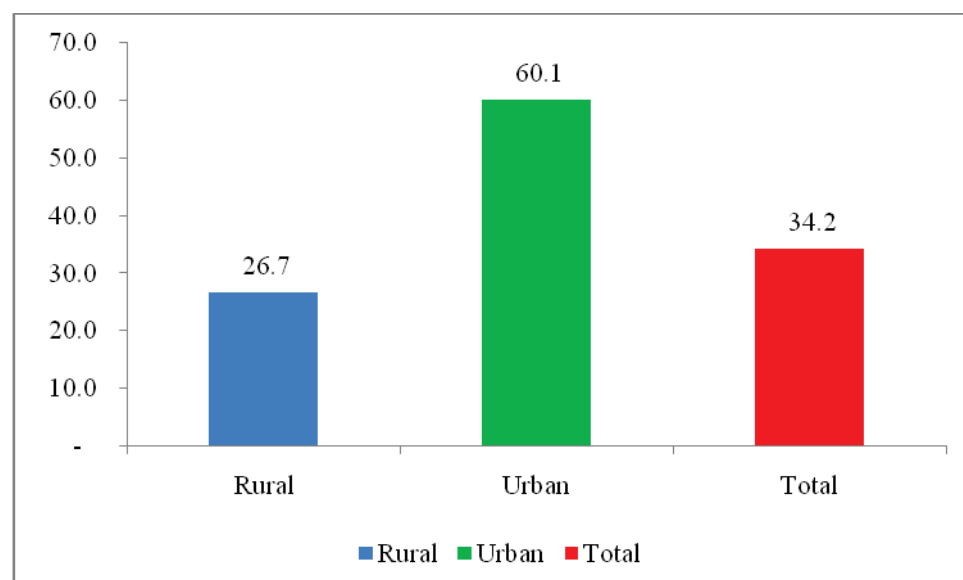
Council	Not Eaten		Once		More than Once		Total HHs	
	Meat	Fish	Meat	Fish	Meat	Fish	Meat	Fish
Mtwara DC	41.7	3.5	35.6	13.6	22.7	83.0	50,261	50,261
Newala DC	48.6	15.1	32.1	28.6	19.3	56.3	45,349	45,349
Masasi DC	49.9	10.6	26.4	16.5	23.7	72.8	61858	61858
Tandahimba DC	47.7	14.8	31.9	16.0	20.5	69.1	47,041	47,041
Mtwara MMC	70.0	5.6	17.8	11.1	12.2	83.3	3,575	3,575
Nyanyumbu DC	43.5	12.6	26.9	16.5	29.6	70.9	41,290	41,290
Masasi TC*	0.0	0.0	0.0	0.0	0.0	0.0	0	0
Total	46.8	11.0	30.3	18.0	22.9	71.0	249,374	249,374
Percent	46.8	11.0	30.3	18.0	22.9	71.0	100	

Source: NBS, National Sample Census of Agriculture, Mtwara Region, 2007/08.

Masasi TC* data included in Masasi DC

2.6.1 Access to Drinking Clean Water

The 2012 Population and Housing Census shows that almost 34.2 percent of households have access clean and safe drinking water from improved sources in Mtwara Region. Figure 2.7 shows that access of safe and clean drinking water in Mtwara Region is higher (60.1 percent)

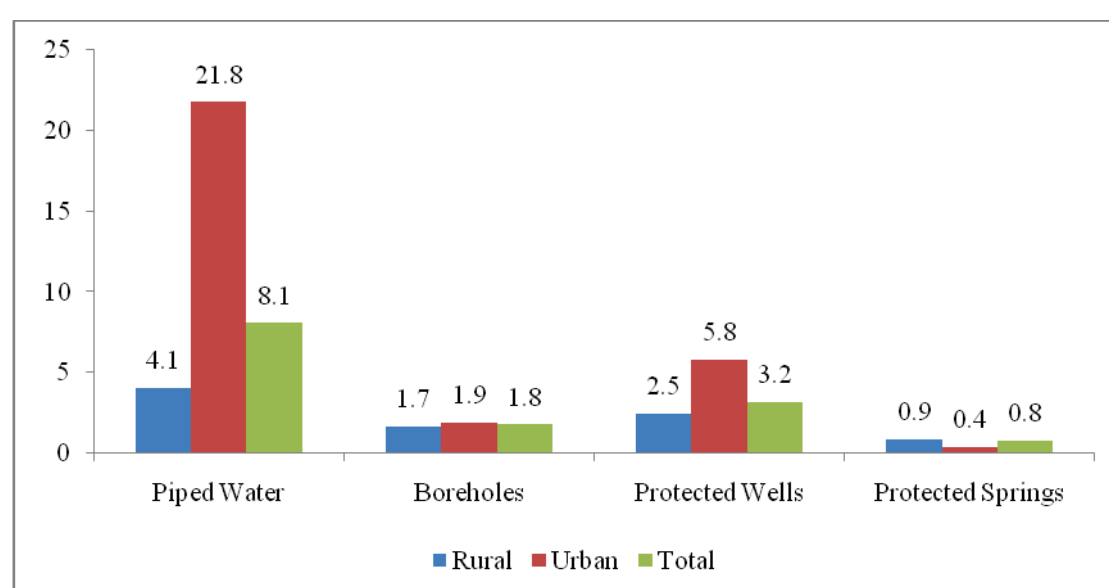
Figure 2.7: Percentage of Households access Drinking Water by Location, Mtwara Region, 2012

Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

Looking at sources of drinking water, Figure 2.8 shows that overall 8.1 percent of private households in Mtwara Region used piped water as the main source of drinking water, followed

by protected wells (3.2 percent) and protected dug wells (9.7 percent). Variations occurred between urban and rural areas. In urban areas, 75.5 percent of private households used piped water as their main source of drinking water followed by protected dug wells (6.6 percent), while protected spring used by only 0.5 percent of urban private households. In rural areas, large number of private households uses boreholes (15.5 percent) and protected springs (0.8 percent) as their main source of drinking water. Only 4.1 percent of rural households have an access to piped water indicating more efforts are needed to ensure the accessibility of drinking water in rural areas of Mtwara Region.

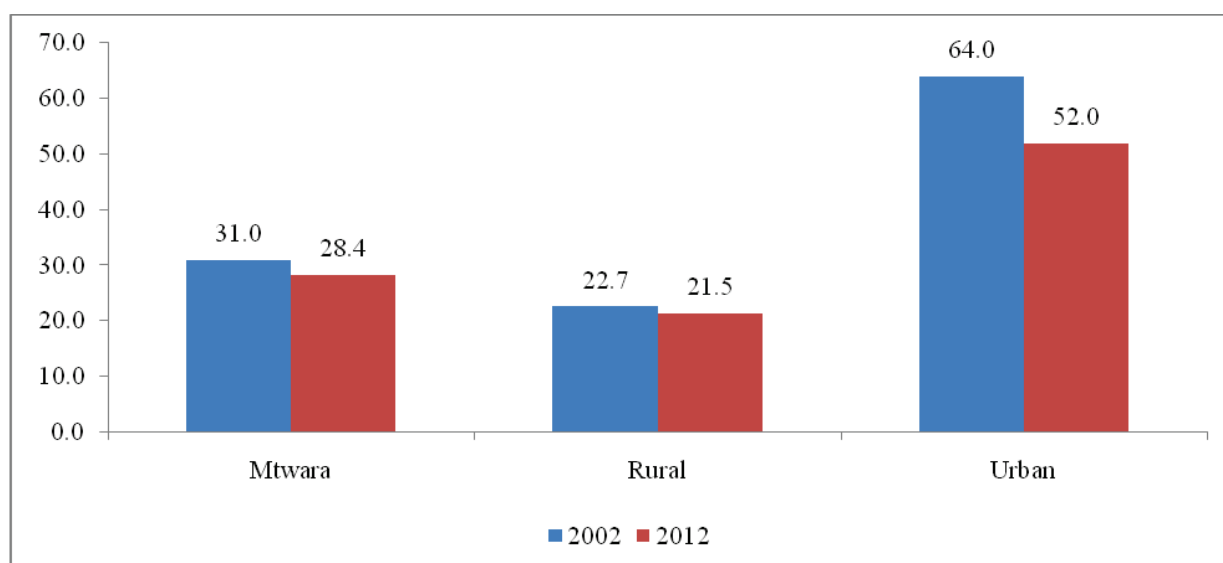
Figure 2.8: Percentage of Households Access to Drinking Water by Type of Water Source, Mtwara Region, 2012



Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

Figure 2.9 shows that 28.4 percent of private households in Mtwara Region had access to piped water as the main source of drinking water in 2012 compared to 31.0 percent in 2002. Access to piped water in Mtwara urban areas decreased from 64.0 in 2002 to 52.0 percent in 2012. The proportion of rural households decreased from 22.7 percent in 2002 to 21.5 percent in 2012 (Figure 2.9).

Figure 2.9: Percentage Distribution of Households Using Piped Water as Main Source of Drinking Water and Residence; Mtwara Region, 2002 and 2012 Censuses

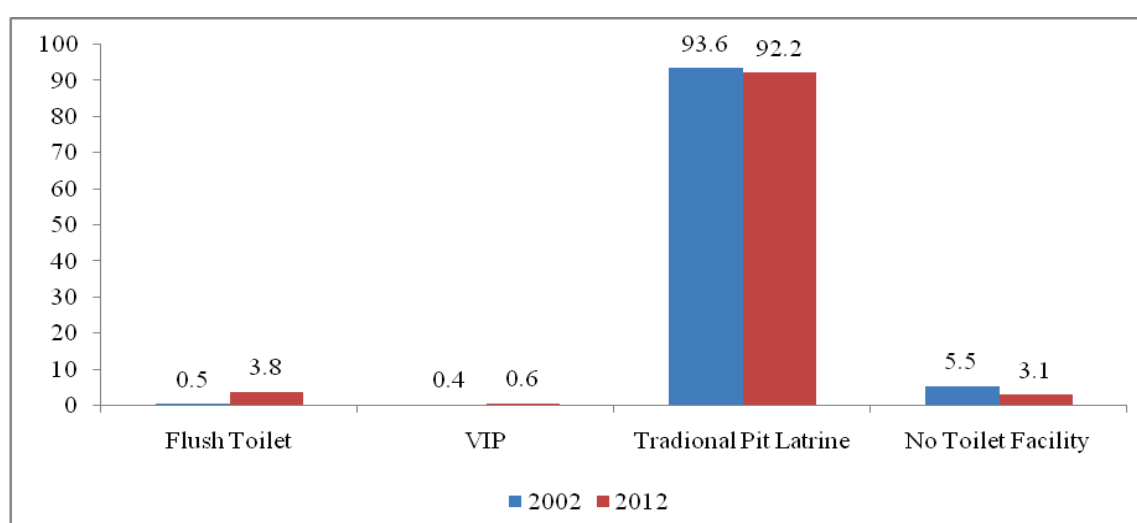


Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

2.7 Types of Toilets Facility

Type of toilet facility is another non- income poverty indicator of the households. The 2012 Population and Housing Census Report shows a slight decrease in households with no toilet facility from 5.5 percent in 2002 to 3.1 percent in 2012. Figure 2.10 also shows that the use of traditional pit latrines in Mtwara Region decreased from 93.6 percent in 2002 to 92.2 percent in 2012 while households with flush toilets increased from 0.5 percent to 3.8 percent in the same period.

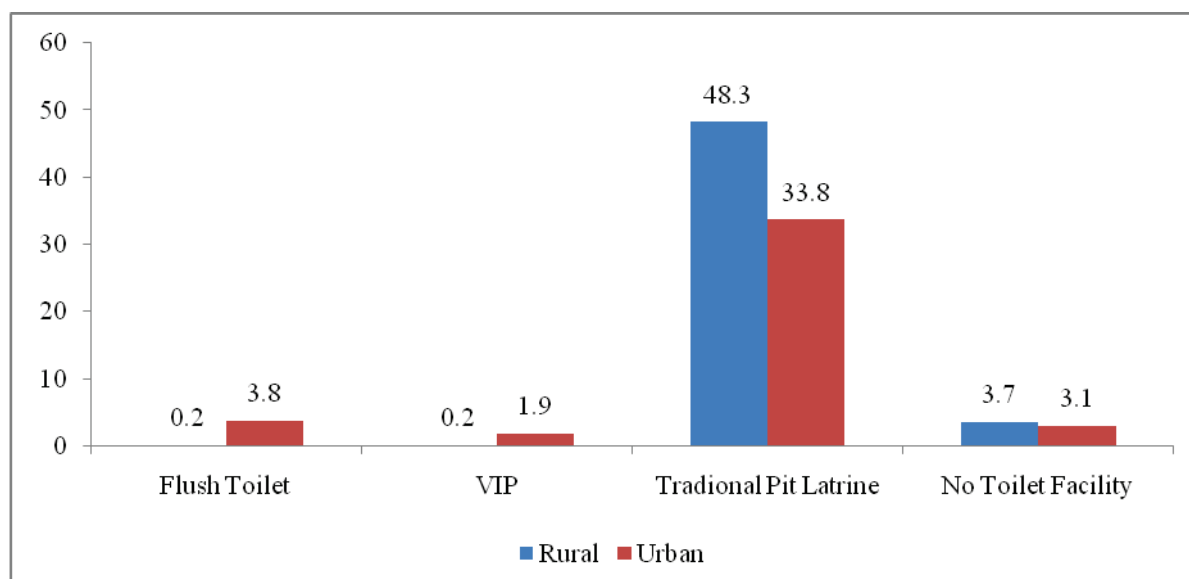
Figure 2.10: Percentage Distribution of Households by Type of Toilet Facility, Mtwara Region 2002 and 2012



Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

The availability of toilets between rural and urban locations in the region differs significantly. With the exception of households with traditional pit latrines as well as households with no toilet facilities, urban areas had the highest proportions of households with other types of toilet facilities (flush toilets and VIP) than rural households (Figure 2.11).

Figure 2.11: Percentage Distribution of Households by Type of Toilet Facility and Location, Mtwara Region, 2012



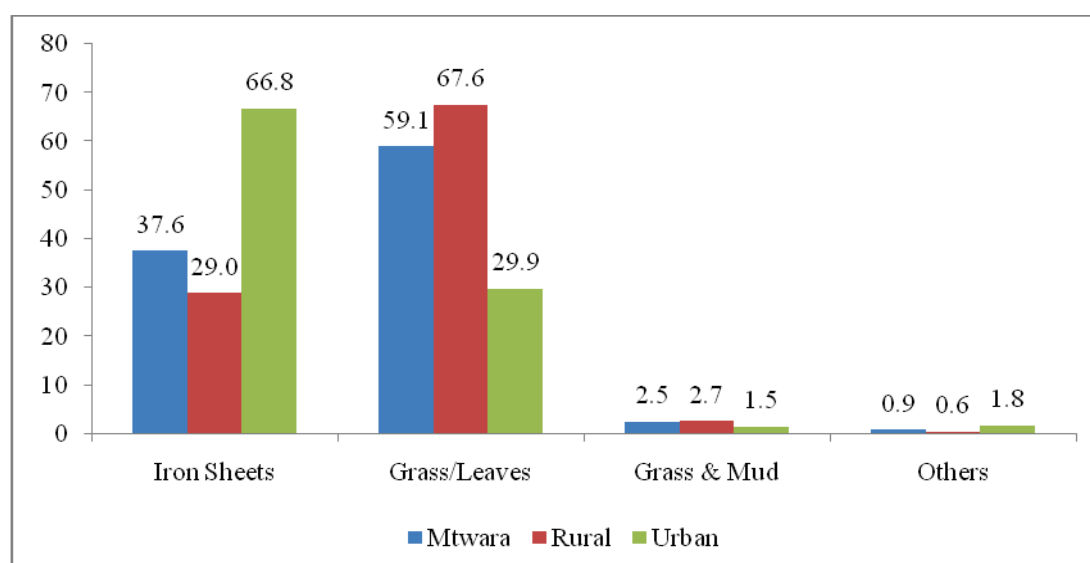
Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

2.7.1 Housing Condition

Analysis of the condition of the dwelling units, the durability and quality of the houses are looked at in terms of the building materials used for the main elements of houses, namely, the roof, the walls and the floor. The availability of social amenities in or around the house is also considered. It is evident from the census results that great improvement in housing condition has been made in Mtwara Region in 2012.

General observation made is that, there has been a rise in the proportion of households living in dwelling units built with modern or conventional building materials. The 2012 PHC results also show that the majority of households (59.1 percent) had used grass or leaves as the main roofing material, followed by iron sheet (37.6 percent). Usage of iron sheets was very high in urban areas whereby 67.6 percent of all households had iron sheets roofs compared to 29.0 percent in rural areas. (Figure 2.12).

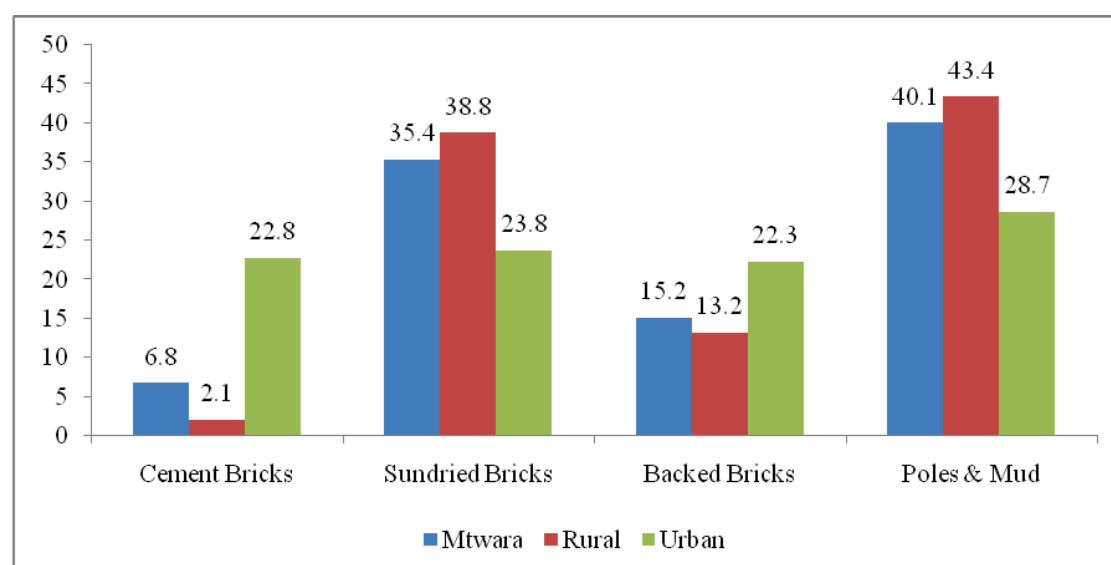
Figure 2.12: Percentage of Households by Type of Roofing Materials, Mtwara Region, 2012



Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

Another notable feature concerning dwellings is that there was a remarkable rise in the use of modern wall materials in 2012. Data on wall materials reveal that, majority (40.1 percent) of households in Mtwara Region had used poles and mud as the main wall materials. This was followed by sundried bricks (35.4 percent) and backed bricks (15.2 percent). Looking at rural and urban differentials, both rural (43.4 percent) and urban areas (28.7 percent) of the region were dominated by walls made up by poles and mud.

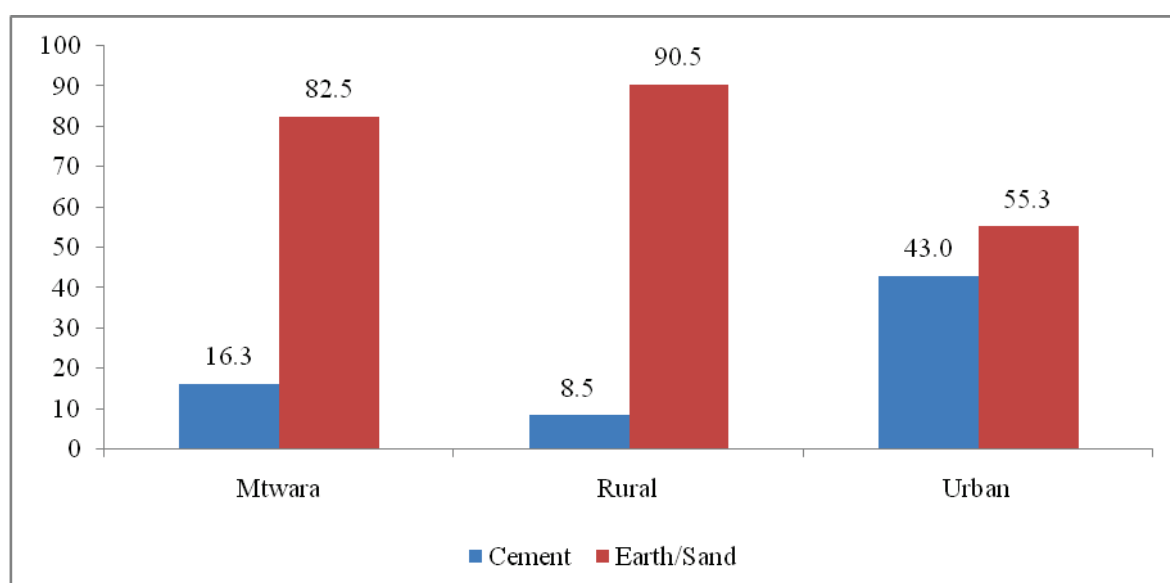
Figure 2.13: Percentage of Households by Type of Wall Materials, Mtwara Region, 2012



Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

Flooring is also an important indicator on the quality of dwellings on measuring poverty of private households. Figure 2.14 indicates that about 82.5 percent of the total private households used earth or sand as the main flooring materials, followed by cement (16.3 percent). In both urban and rural areas, earth and sand were the most common flooring material used (55.3 percent and 90.5 percent, respectively), followed by cement (43.0 percent and 8.5 percent respectively) (Figure 2.14).

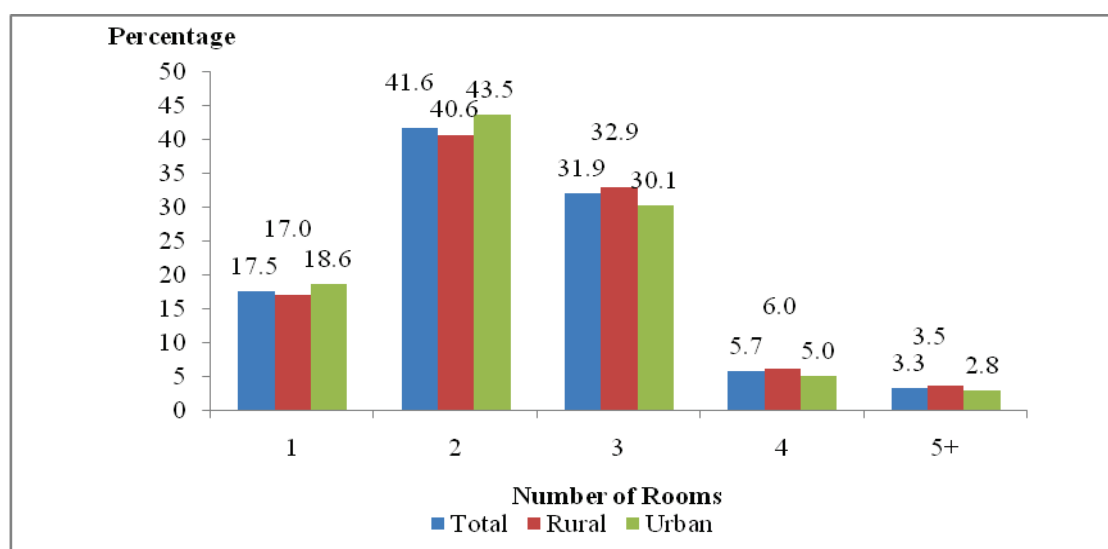
Figure 2.14: Percentage of Households by Type of Flooring Materials, Mtwara Region, 2012



Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

Figure 2.15 shows that about 59 percent of the households in Mtwara Region had one or two rooms for sleeping and 31.9 percent had three rooms for sleeping. Only nine (9) percent of households had more than three rooms for sleeping. The proportion of households with only one room for sleeping is higher in urban (18 percent) than rural areas (17.0 percent). There is no marked difference between male and female headed households in the average number of rooms for sleeping.

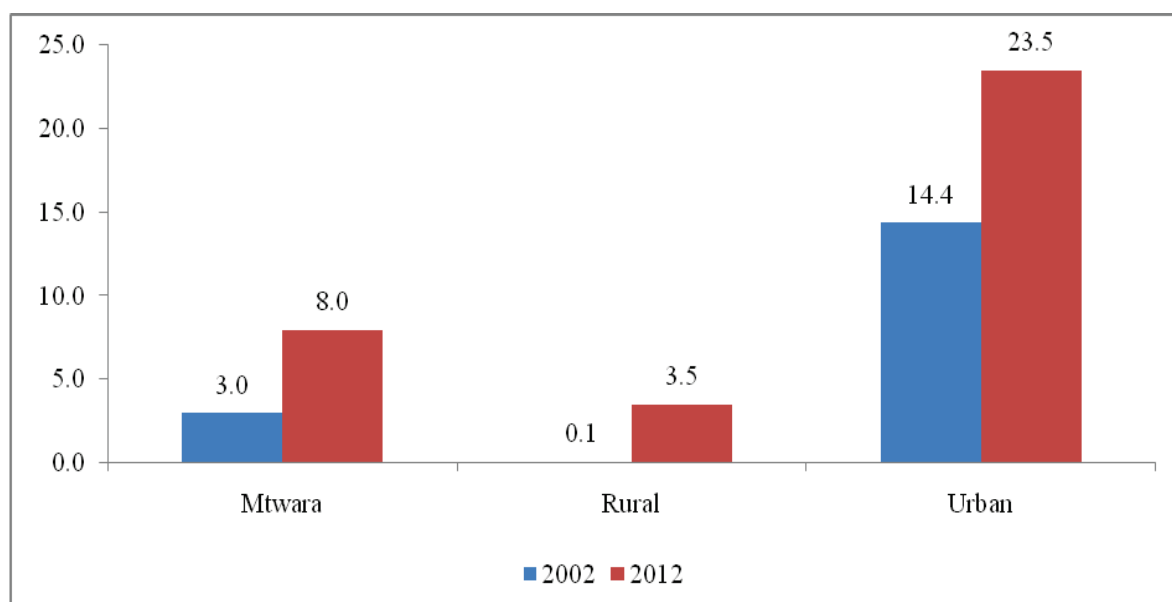
Figure 2.15: Percentage Distribution of Households by Number of Rooms for Sleeping, Rural and Urban; Mtwara Region, 2012 Census



Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

Figure 2.16 indicates that about eight percent of households in Mtwara Region reported using electricity as the main source of energy for lighting (2012 Census). There were more households in urban areas that reported using electricity (23.5 percent) compared with rural households (3.5 percent).

Figure 2.16: Percentage of Households by Location and Main Source of Energy Used for Lighting, Mtwara Region, 2002 and 2012

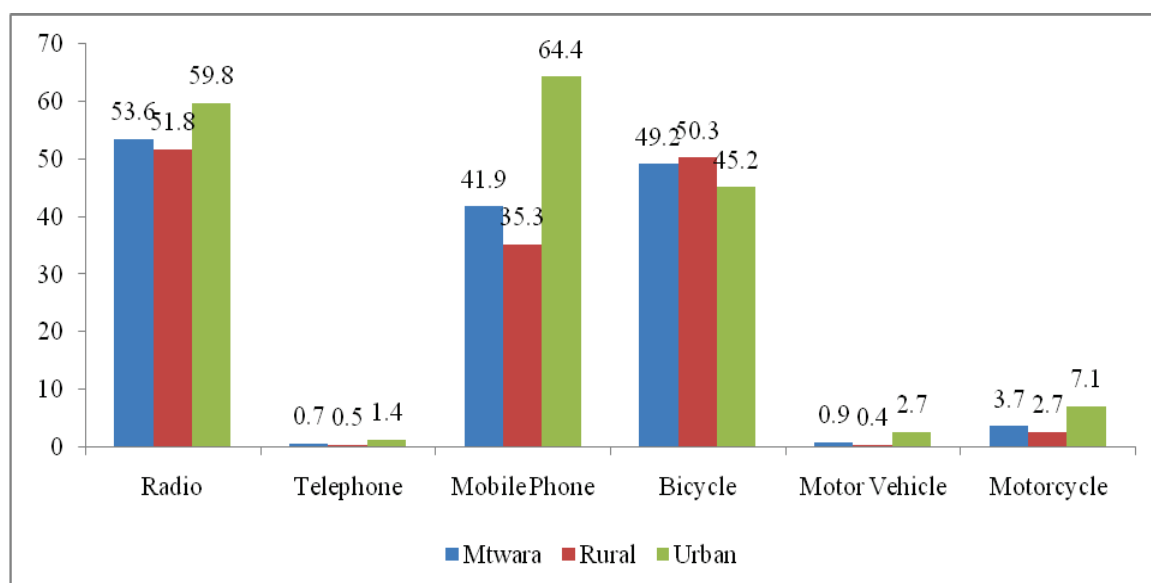


Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

Economic development in Mtwara Region is also monitored by observing the ownership of assets including modern communication and transport facilities, home appliances and

implements. Figure 2.17 shows that the ownership of mobile phone was higher (64.4 percent) in urban than households (35.3 percent) in rural areas. Likewise, radios were owned by 59.8 percent of households in urban compared with 51.8 percent of households in rural areas. It was further observed that although bicycles were owned by 49.2 percent of all private households, the asset was less common among households in urban (45.2 percent) compared with households (50.3 percent) in rural areas.

Figure 2.17: Percentage of Households Owned Communication Facilities by Type, Mtwara Region, 2012



Source: NBS, Population and Housing Census, Mtwara Region Socio-economic Profile Report, 2012

CHAPTER THREE

Productive Sectors

3.0 Overview

This Chapter presents the performance of productive sectors in Mtwara Region. These sectors include agriculture, livestock, natural resources, mining and the industrial development sector.

3.1 Agriculture

3.1.1 Introduction

Agriculture is the mainstay of Mtwara Region. A total of 257,833 out of 342,165 households in the region (equivalent to approximately 75 percent) were engaged in agricultural activities (2012 National Population Census). Masasi District Council had the highest number of private households (56,285 households) engaged in agriculture. Agriculture is also an economic activity in urban areas whereby 16.4 percent of households (42,225 households) were involved in agricultural activities in the 2011/12 agricultural year.

Table 3.1: Number of Households Engaged in Agriculture by Council, Rural and Urban Residence during 2011/12 Agriculture Year; Mtwara Region

District /Council	Total Number of Households	Households Engaged in Agriculture	Percent of Households Engaged in Agriculture		
			Total	Rural	Urban
Mtwara	58,602	44,986	76.8	94.2	5.8
Newala	58,035	46,474	80.1	90	10
Masasi	67,720	56,285	83.1	88.9	11.1
Tandahimba	60,872	48,152	79.1	82.9	17.1
Mtwara Municipal	27,968	8,826	31.6	16.2	83.8
Nanyumbu	40,746	33,681	82.7	87.6	12.4
Masasi Town	28,222	19,429	68.8	53.9	46.1
Region Total	342,165	257,833	75.4	83.6	16.4

Source: National Bureau of Statistics - 2012 Population and Housing Census

3.1.1 Distribution of Arable Land

Table 3.2 shows that 55.0 percent of region arable land (605,289 hectares) has being utilized for crop production in the 2014/15 season. Apart from Mtwara MMC and Masasi Town Council, Tandahimba District Council has managed to utilize larger part (85.4 percent) of its arable land in the 2014/15 season followed by Masasi District Council (63.4 percent) but least utilized in Nanyumbu District Council (32.9 percent).

Table 3.2: Percentage Distribution of Arable Land by Council; Mtwara Region, 2014/15

Council	Total land Area (ha)	Total Arable land (ha)	Percent of Council Arable land	Arable land Under Cultivation (ha)	Percent of Arable land under cultivation	Percent of Land Area to the Total Land Area
Mtwara DC	359,700	107,899	30.0	58,862	54.6	21.5
Newala DC	212,600	178,679	84.0	89,011	49.8	12.7
Masasi DC	405,100	273,148	67.4	174,048	63.7	24.2
Tandahimba DC	189,400	164,211	86.7	140,295	85.4	11.3
Mtwara MMC	16,300	13,701	84.1	10,597	77.3	1.0
Nyanyumbu DC	451,000	340,369	75.5	111,924	32.9	27.0
Masasi TC	37,900	21,695	57.2	20,552	94.7	2.3
Total	1,672,000	1,099,702	65.8	605,289	55.0	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.2 Food Crops

3.2.1 Area under Food Crops Cultivation

With reference to Table 3.3, cassava, maize, paddy, sweet potatoes, sorghum, yams, bambaranuts, cowpeas, beans, pigeon peas and finger millets are major food crops grown in Mtwara Region during the period of 2010/11 to 2014/15. However, the best crop season out of five seasons referred was year 2014/15, of which more hectares were planted with major food crops than the region annual average of 224,965 hectares. Minimum hectares were grown in 2010/11 covered 191,132 hectares in the region. Table 3.3 also shows that maize was the dominant food crop grown in the region utilizing an average of 41.0 percent of arable land in the specified seasons followed by cassava (34.4 percent) and sorghum (10.3 percent). Finger millets, yams and banana were grown in small hectarage (0.1 percent each) followed by beans (0.2 percent) and sweet potatoes (0.3 percent).

Table 3.3: Estimated Land Area (ha) under Major Food Crops by Council, Mtwara Region, 2010/11 – 2014/15

Crop	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Maize	74,323	87,922	93,274	98,953	106,614	92,217	41.0
Cassava	71,171	75,806	78,250	76,217	84,983	77,285	34.4
Sorghum	18,875	22,815	24,030	24,101	25,502	23,064	10.3
Paddy	17,297	24,007	21,448	21,579	24,520	21,770	9.7
Bambara Nuts	3584	4192	5139	4534	2,475	3,985	1.8
Pigeon peas	2,436.0	2,323.0	2,078.0	2,083.0	5,134.0	2,811	1.2
Cowpeas	2340	2160	2115	1935	2,305	2,171	1.0
Sweet potatoes	389	475	517	480	1,647	702	0.3
Beans	366.0	411.0	469.0	366.0	183.0	359	0.2
Finger millets	234	267	299	297	295	278	0.1
Yams	0	0	0	0	908.0	182	0.1
Banana	116	146	219	127	95	141	0.1
Regional Total	191,132	220,524	227,838	230,672	254,660	224,965	100

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(i) Maize

In terms of area under major food crops cultivation, maize outweighs other food crops by occupying 41.0 percent (Table 3.3 above) of the total arable land area under main food crops cultivation in the region. Table 3.4 shows that at council level, Nanyumbu council with cumulative annual average of 44,967.0 hectares (37.7 percent) had the largest area under maize cultivation over the specified period, followed by Masasi (29.9 percent), Tandahimba (11.3 percent), Newala (9.6 percent), Mtwara (8.4 percent), Masasi Town Council (2.9 percent) and Mtwara Municipal Council (0.2 percent) had the insignificant area under maize cultivation in the referred period (Table 3.4).

Table 3.4: Estimated Area (Ha) Under Major Food Crops (Maize) by District; Mtwara Region, 2010/11–2014/15.

Council	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Nanyumbu	41,302.5	41,402.5	41,485.0	49,365.0	51,280.0	44,967.0	37.7
Masasi DC	33,701.3	35,309.8	35,105.0	36,916.0	36,931.6	35,592.7	29.9
Tandahimba	7,402	10,094	13,500	15,842	20,341	13,435.8	11.3
Newala DC	11,106.0	11,131.0	11,584.0	10,048.0	13,123.0	11,398.4	9.6
Mtwara DC	5,302.0	11,186.0	11,758.9	10,981.8	10,826.0	10,010.9	8.4
Masasi TC	0	3,363.6	4,471.9	5,119.8	4,603.5	3,511.8	2.9
Mtwara MMC	291.2	276.8	259.4	299.4	276.9	280.7	0.2
Total	99,104.7	112,763.5	118,164.7	128,572.1	137,382.0	119,197.4	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(ii) Cassava

Cassava is the second major food crop in terms of the area under main food crops cultivation. It covers 34.4 percent (Table 3.3) of the regional total land area under major food crops cultivation. Table 3.5 shows that Newala District Council with cumulative annual average area of 41,693.6 hectares (42.7 percent) under cassava cultivation led other councils in the region. The second council was Tandahimbawith cumulated annual average area of 25,227.7 hectares (25.8 percent) followed by Nanyumbu District Council (16,599.6 hectares, 17.0 percent), Masasi District Council (6,045.0 hectares, 6.2 percent), Mtwara District Council (3,918.0 hectares, 4.0 percent) and Mtwara Mikindani Municipal Council (3,667.4 hectares, 3.8 percent). Masasi Town Council (594.5 hectares, 0.6 percent) had insignificant arable land used for growing cassava over the period of specified time.

Table 3.5: Estimated Area (Ha) Under Major Food Crops (Cassava) by Council; Mtwara Region, 2010/11– 2014/15.

Council	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Newala DC	45,386.0	45,386.0	42,850.0	36,286.0	38,560.0	41,693.6	42.7
Tandahimba	14,891	19,497	24,654	30,326	36,771	25,227.7	25.8
Nanyumbu	12,047.3	15,093.3	21,983.3	18,835.3	15,038.7	16,599.6	17.0
Masasi DC	6,979.2	6,431.7	6,259.6	5,164.7	5,390.0	6,045.0	6.2
Mtwara DC	-	-	-	-	19,590.0	3,918.0	4.0
Mtwara MMC	3,894.4	3,774.8	3,630.3	3,519.3	3,518.3	3,667.4	3.8
Masasi TC		672.3	789.1	853.7	657.6	594.5	0.6
Total	83,198.4	90,854.5	100,166.5	94,984.4	119,525.4	97,745.9	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(iii) Sorghum

Sorghum, like cassava, covered an annual average area of 23,064 hectares and becomes one among the major food crops in terms of area under cultivation in the specified period of time. The crop had a share of 10.3 percent of arable land under cultivation in the region (Table 3.3). Table 3.6 shows that Mtwara District Council with cumulative annual average area of 2,343.0 hectares (45.2 percent) under sorghum cultivation led other councils in the region. The second council was Nanyumbu with cumulative annual average area of 1,712.0 hectares (32.6 percent) followed by Newala District Council (590.0 hectares, 12.1 percent).

Table 3.6: Estimated Area (Ha) Under Major Food Crops (Sorghum) by Council; Mtwara Region, 2010/11– 2014/15.

Crop	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Mtwara DC	6,997.0	10,668.0	11,569.7	11,126.0	11,715.0	2,343.0	45.2
Nanyumbu	6,566.0	6,808.0	6,978.9	8,683.5	8,560.0	1,712.0	32.6
Newala DC	2,930.0	3,020.0	3,025.0	2,043.0	2,950.0	590.0	12.1
Mtwara MMC	1,420.5	1,327.9	1,335.6	1,334.8	1,051.3	210.3	5.6
Masasi DC	961.7	991.0	1,121.0	913.2	1,225.4	245.1	4.5
Tandahimba	-	-	-	-	-	-	-
Masasi TC	-	-	-	-	-	-	-
Total	18,875.2	22,814.9	24,030.2	24,100.5	25,501.7	5,100.3	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(iv) Paddy

According to Table 3.3, paddy covered an annual average area of 21, 770 hectares among the major food crops in terms of area under cultivation. The crop had a percentage share of 9.7 of total arable land in the region. Table 3.7 shows that Mtwara District Council with cumulative annual average area of 8,138.0 hectares (37.3 percent) under paddy cultivation led other councils in the region. The second council was Masasi District Council cultivated cumulated annual average area of 5,773.2 hectares (26.4 percent). Mtwara Municipal was the least council with only 90.6 hectares, equivalent to 0.4 percent.

Table 3.7: Estimated Area (Ha) Under Major Food Crops (Paddy) by Council; Mtwara Region, 2010/11–2014/15.

District/Council	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Mtwara	6365.3	10661	7941.3	6382.3	9340.25	8138.0	37.3
Masasi	4,808.0	5,755.0	5,829.6	6,117.2	6,356.2	5773.2	26.4
Newala	4,038.0	3,875.0	3,686.0	3,315.0	2,046.0	3392.0	15.5
Nanyumbu	1,360.0	1,415.0	1,428.9	2,544.0	3,354.0	2020.4	9.3
Tandahimba	626.0	848.9	1,098.8	1,864.4	2,122.0	1312.0	6.0
Masasi Town	0	1,404.2	1,446.8	1,340.5	1,315.2	1101.3	5.0
Mtwara Municipal	120.0	93.0	84.0	84.0	72.0	90.6	0.4
Total	17,317.3	24,052.1	21,515.4	21,647.4	24,605.6	21827.5	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.3 Cash Crops

3.3.1 Area under Cash Crops Cultivation

Table 3.8 shows that cashewnut is the major cash crops in Mtwara Region followed by maize, sesame, pigeon peas, sorghum, groundnuts, paddy and sunflower. On average, a total of 205,454.1 hectares are planted with these crops annually with cashewnut being the dominant crop. In 2014/15, cashewnut was planted in the largest land area (174,285.9 hectares) compared to the previous years. However, the areas planted with cash crops in the 2010/11, 2011/12 and 2012/13 seasons were below the annual average land area (205,454.1 hectares).

Table 3.8: Estimated Land Area (ha) under Major Cash Crops by Council, Mtwara Region; 2010/11 – 2014/15

Crop	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Cashewnut	121,389.9	133,927.2	142,508.3	152,063.2	174,285.9	144,834.9	70.5
Maize	24,781.5	24,841.5	24,891.0	29,619.0	30,768.0	26,980.2	13.1
Sesame	9,182.2	12,407.3	11,912.5	11,331.1	12,918.0	11,550.2	5.6
Pigeonpeas	6,428	9,042	8,978	8,888	11,795	9,025.9	4.4
Sorghum	6,566.0	6,808.0	6,978.9	8,683.5	8,560.0	7,519.2	3.7
Groundnuts	3,380.3	3,288.3	3,361.6	3,276.4	3,199.2	3,301.1	1.6
Paddy	1,360.0	1,415.0	1,428.9	2,544.0	3,354.0	2,020.3	1.0
Sunflower	0	0	0	620.0	490.0	222.00	0.1
Total	173,087.6	191,729.0	200,058.8	217,025.1	245,370.1	205,454.1	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(i) Cashew nut



In terms of area under major cash crop cultivation, cashewnut outweighs other cash crops by occupying 70.5 percent (Table 3.8) of the total arable land area. Table 3.9 shows that at council level, Tandahimba District Council with annual average of 53,540.9 hectares (36.7 percent) had the largest area under cashewnut cultivation over the specified period, followed by Newala (24.3 percent), Masasi (18.9 percent), Mtwara (12.7 percent), Mtwara Municipal (3.7 percent), Masasi Town Council (3.0 percent) and Nanyumbu (0.6 percent).

Table 3.9: Estimated Area (Ha) Under Major Cash Crops (Cashewnut) by District; Mtwara Region, 2010/11– 2014/15.

Council	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Tandahimba	41,509	49,745	52,645	58,074	65,731	53,540.9	36.7
Newala DC	30,878.0	31,589.0	32,120.0	32,842.0	49,847.0	35,455.2	24.3
Masasi DC	24,919.1	26,778.4	27,410.8	29,593.2	29,015.0	27,543.3	18.9
Mtwara DC	17,156.0	19,077.4	23,803.0	17,227.0	15,331.0	18,518.9	12.7
Mtwara MMC	6,927.5	5,372.6	5,136.0	5,060.8	4,579.4	5,415.2	3.7
Masasi TC	0	1,364.9	1,393.2	9,266.3	9,782.5	4,361.4	3.0
Nanyumbu	880	880	880	920	920	896.0	0.6
Total	122,269.6	134,807.3	143,388.0	152,983.3	175,205.90	145,730.9	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(ii) Sesame

According to Table 3.8, sesame covered an annual average area of 11,550.2 hectares among the major cash crops in terms of area under cultivation. The crop had a percentage share of 5.6 of total arable land in the region. Table 3.10 shows that Mtwara District Council with annual average area of 5,612.7 hectares (48.6 percent) under sesame cultivation led other councils in the region. The second council was Masasi District Council which cultivated annual average area of 4,721.9 hectares (40.9 percent) while Tandahimba was the least council with only 518.4 hectares (4.5 percent).

Table 3. 10: Estimated Area (Ha) Under Major Food Crops (Sesame) by Council; Mtwara Region, 2010/11– 2014/15.

Council	Estimated Land Area (ha)					Annual Average	Annual Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Mtwara DC	3,724.0	6,739.0	5,916.6	5,223.0	6,461.0	5,612.7	48.6
Masasi DC	4,238.2	4,448.2	4,802.4	4,950.7	5,170.0	4,721.9	40.9
Nanyumbu	2,621	3,700	3,700	3,670	3,400	3418.2	22.8
Newala DC	827.0	761.0	704.0	585.0	609.0	697.2	6.0
Tandahimba	393	459	490	572	678	518.4	4.5
Mtwara MMC	-	-	-	-	-	-	-
Masasi TC	-	-	-	-	-	-	-
Total	11,803	16,107	15,613	15,001	16,318	14,968.4	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.3.2 Food Crops Production

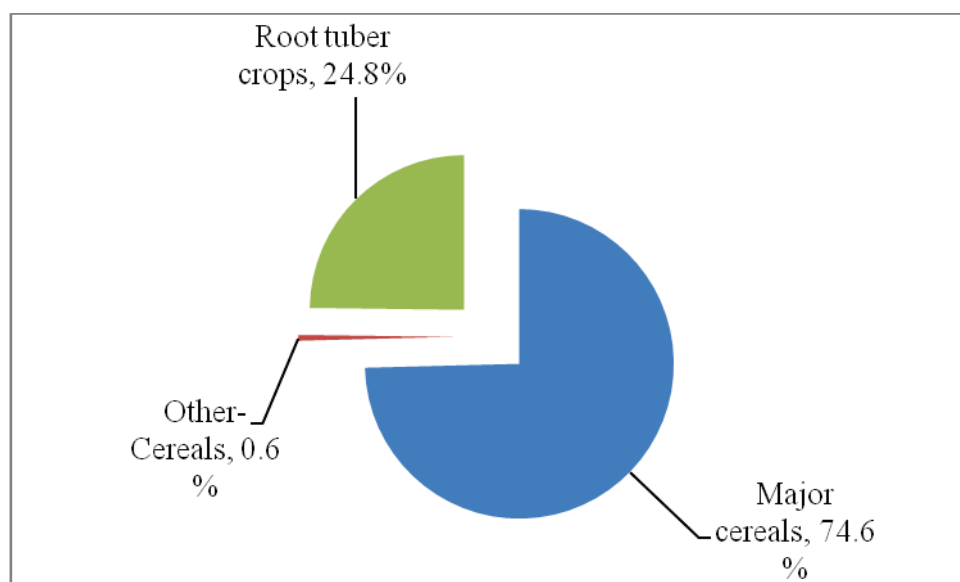
For five years, 2010/11-2014/15, Mtwara Region produced a total of 25,059,042.8 tons of major food crops (Table 3.11). The average annual production was 5,011,809 tons. Major cereals (paddy and maize) contributed 74.6 percent to the total production. Tonnage (14,678,008.3) of maize produced was the largest followed by paddy (4,006,595.8tons).

Cassava, one of the root tuber crops produced 24.8 percent (6,204,104.2 tons) of the total food crops production. Sorghum had a share of only 0.3 percent of total production in the region. Beans, Bambara nuts and pigeon peas were the least produced crops which contributed (0.1 percent each) of the total production.

Table 3. 11: Estimated Production in tons of Major Food Crops; Mtwara Region; 2010/11 – 2014/15

Crop	Estimated Production in tons					Annual Average	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Major cereals							
Maize	42,474	64,083	6,766,281	7,730,231	74,940	2,935,602	58.6
Paddy	14,770	36,072	2,002,033	1,925,917	27,804	801,319	16.0
Other-Cereals							
Sorghum	10,529	13,662	19,171	14,360	15,746	14,693	0.3
Beans	5,475.2	6,745.2	7,128.5	6,663.4	7,292.3	6,661	0.1
Bambara Nuts	5,961.0	5,906.0	5,908.0	5,152.0	2,800.0	5,145	0.1
Pigeon peas	2,436.0	2,323.0	2,078.0	2,083.0	5,134.0	2,811	0.1
Cowpeas	2598.7	2440.9	2416.6	2255.8	2,648	2,472	0.0
Finger millets	154	181	226	204	237	200	0.0
Root tuber crops							
Cassava	185,388	180,222	2,940,508	2,392,338	505,649	1,240,821	24.8
Sweet potatoes	598.375	809.5	1042.6	824	2,561	1,167	0.0
Banana	460	600	1,057	593	353	613	0.0
Yams	0	0	0	0	1,521.0	304	0.0
Total	270,844	313,043	11,747,850	12,080,621	646,684	5,011,809	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

Figure 3. 1: Percentage Share of Food Crops Production, Mtwara Region; 2010/11 – 2014/15

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(i) Production of Maize

Maize has recently gained popularity as the leading food crop in the region. It accounts for about 58.6 percent of total tonnage of all major food crops produced in Mtwara Region (Table 3.11). Table 3.12 shows that maize is grown in all district councils but at different production levels. Nanyumbu District Council an average annual production of 26,980.20 tons was the leading

council in maize production in the region. It accounted for 29.9 percent of the region's annual average maize production of 90,218.7 tons. Mtwara Municipal Council produced the least tonnage of 534.62 per annum (0.6 percent).

Table 3.12: Production of Maize (tons) by Council, Mtwara Region; 2010/11 – 2014/15

Council	Estimated Production in tons					Annual Average	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Masasi TC	-	7,364.80	7,370	7,105.10	6,708.3	5,709.64	6.3
Nanyumbu	24,781.50	24,841.50	24,891.00	29,619.00	30,768.0	26,980.20	29.9
Masasi DC	15,755.20	18,345.10	18,087.20	17,462.40	17,791.8	17,488.34	19.4
Newala DC	9,781.00	13,281.00	13,375.00	15,391.00	25,153.0	15,396	17.1
Tandahimba	11,116	13,095	13,321	17,859	15,241	14,126	15.7
Mtwara DC	5,482.00	11,696.50	12,485.90	10,922.10	9,330.2	9,983.34	11.1
Mtwara MMC	340	300	618.1	700	715	534.62	0.6
Total	67,255.7	88,923.9	90,148.2	99,058.6	105,707.3	90,218.7	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(ii) Production of Cassava

Cassava is the second most important food crop in terms of production in Mtwara Region. Over the season of 2010/11 – 2014/15 Mtwara Region harvested 293,741.5 tons per annum (Table 3.13). More than half of the harvested maize (54.5 percent) was produced in Newala District Council. This was followed by Nanyumbu District Council (16.1 percent) and Tandahimba District Council (10.8 percent). Masasi Town Council harvested the least proportion of maize (0.7 percent). On the other hand, 2014/15 was the best season as 558,764.6 tons was harvested while 2012/13 was the worst season with 206,621.8 tons.

Table 3. 13: Production of Cassava (tons) by Council, Mtwara Region; 2010/11 – 2014/15

Council	Estimated Production in tons					Annual Average	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Masasi TC	-	2,762.10	2,760	2,218	2,762.1	2,100.4	0.7
Newala DC	97,876.8	105,528.80	105,754.8	105,826.80	385,600.0	160,117.4	54.5
Nanyumbu	36,142	45,280	23,294	79,343	53,116	47,435.0	16.1
Tandahimba	27,261	30,968	31,260	30,775	38,446	31,742.0	10.8
Mtwara DC	37,163.0	17,682.0	18,595.5	15,930.2	57,173.5	29,308.8	10.0
Masasi DC	19,747.4	19,941.0	21,017.5	18,256.1	17,713.0	19,335.0	6.6
Mtwara MMC	3,340.0	3,340.0	3,940.0	3,940.0	3,954.0	3,702.8	1.3
Total	221,530.2	225,501.9	206,621.8	256,289.1	558,764.6	293,741.5	100

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.3.3 Food Security

The 2007/8 Agriculture and Livestock Census shows that Mtwara is among regions which have chronic and transitory food insecurity due to poor or no harvests caused by inadequate moisture and persistently delayed, uneven and erratic rains. The consequences of shortage of production cause increase of food prices. Moreover, apart from shortage of agricultural produces, shortage of rainfall/drought has already caused unprecedented social havoc between pastoralist and peasant communities in Mtwara as well as other areas of Tanzania as they scramble for grazing land and water resources.

3.3.4 Major Cash Crops Production

Production of cash crops in Mtwara Region fluctuated over the specified period as indicated in Table 3.14. The region managed to harvest an average of 2,717,337.2 tonnes of cash crops per season between 2010/11 and 2014/15. The best season was 2012/13 which produced 3,469,554.9 tons of cash crops while the worst season was 2014/15 which the region produced 3,119,737 tons. There are number of reasons for the amounts of cash crops harvested to fluctuate, among others, lack of insecticides, fertilizers, prices and cost of production against revenue.

Table 3.14: Estimated Production of Major Cash Crops (Tons), Mtwara Region; 2010/11 – 2014/15

Crop	Estimated Production in tons					Annual Average	Percent Annual
	2010/11	2011/12	2012/13	2013/14	2014/15		
Cashewnut	248,295.4	253,608.70	247,920.2	272,985.4	268,939.5	258,349.8	9.5
Pigeon peas	476,647	2,074,966	2,513,684	1,712,810	1,841,320	1,723,885.4	63.4
Green gram	76,169	700,671	696,873	1,147,729	997,752	723,838.8	26.6
Sesame	5,607.4	6,819.3	6,643.1	7,309.10	6,408.80	6,557.5	0.2
Groundnuts	4,204.4	4,116.0	4,434.6	4,712.60	4,726.20	4,438.8	0.2
Sunflower	-	-	-	-	590.5	266.9	0.0
Total	810,923.2	3,040,181	3,469,554.9	3,145,546.1	3,119,737	2,717,337.2	100

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(i) Production of Cashewnut

Cashewnut has recently gained popularity as one of the sources of income for producers of the cash crop in the region. It accounts for 9.5 percent of total tonnage of all major cash crops produced in Mtwara Region (Table 3.14). Table 3.15 shows the region harvested 258,349.8 tons of cashewnut per annum. Most of the harvests was observed in Masasi District

Council (36.8 percent) followed by Nanyumbu District Council (28.9 percent). Mtwara Mikindani Municipal Council harvested the least proportion of cashewnut (0.4 percent). The best harvests of cashewnuts of 272,985.4 tons were in 2013/14 while the worst of 247,920.2 tons was in the season of 2012/13.

Table 3.15: Production of Cashewnut (tons) by Council, Mtwara Region; 2010/11 – 2014/15

Council	Estimated Production in tons					Annual Average	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
Masasi TC	0	5,165	5,165	4,596	5,811	4,147.4	1.6
Newala DC	15,095	17,394	16,844	16,947	20,626	17,381.2	6.7
Masasi DC	90,779.40	93,615.80	94,740.70	99,005.30	97,808.30	95,189.9	36.8
Nanyumbu	74,728.60	74,744.10	74,755.80	74,758.10	74,758.10	74,748.9	28.9
Tandahimba	47,595	34,425	33,052	56,696	40,718	42,497	16.4
Mtwara DC	19,332	27,511	22,071	19,619	28,154	23,337	9.0
Mtwara MMC	765.4	753.8	1,291.70	1,364.0	1,064.1	1,047.8	0.4
Total	248,295.4	253,608.70	247,920.2	272,985.4	268,939.5	258,349.8	100

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.3.5 Crop Marketing

Table 3.16 shows an indicative estimated amount of cash crops marketed and revenue earned in Mtwara Region during the 2014/15 season. A total of 196,819,526 kilograms of cashewnuts, paddy, sorghum, pigeon peas, sesame, maize, cassava, green gram, cow peas, Bambara nuts and groundnuts were marketed in the region which earned a sum of Tshs. 272,669,990,986. Most of the revenue earned from cashewnut which accounted for 62.0 percent of total revenue, followed by paddy (10.1 percent), sorghum (6.2 percent) and pigeon peas (5.6 percent). Others include sesame (4.1 percent), maize (4.0 percent), bambara nuts (0.1 percent) and groundnuts was the least council earned only Tsh. 402,558,000 of the region's revenue.

Table 3.16: Amount and Value of Cash Crops Purchased by Council; Mtwara Region, 2014/15

Crop	Amount Purchased (Kgs)	Average Price per Kg (Tshs.)	Revenue Earned in Tshs	Percent Earnings
Cashewnuts	100,410,185	1,800	169,078,424,500	62.0
Paddy	18,321,733	1,300	27,561,182,488	10.1
Sorghum	10,743,757	1,200	16,933,257,000	6.2
Pigeon peas	9,182,277	1,500	15,357,114,582	5.6
Sesame	5,051,908	1,800	11,189,809,200	4.1
Maize	14,185,022	700	10,939,308,477	4.0
Cassava	26,667,188	350	10,124,234,528	3.7
Green gram	10,721,594	1,300	8,817,617,200	3.2
Cow peas	1,267,490	1,000	1,863,927,010	0.7
Bambara nuts	134,186	3,000	402,558,000	0.1
Groundnuts	134,186	3,000	402,558,000	0.1
Total	196,819,526		272,669,990,986	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

Contrary to the fact that Masasi Town Council is the main producer of cashew nut in the region followed by Newala District Council, the situation happened to be opposite when considering marketing of such crop (Table 3.17). Newala District Council was the first council in Mtwara Region for marketing cashew nut. The council marketed 19,332,305 kilogram of cashew nut worth Tshs. 46,397,532,000, equivalent to 27.4 percent of total revenue earned by the region through selling of that crop. Never the less, Mtwara District Council was the second by earning 25.8 percent of the region's cashew nut revenue obtained. Tandahimba District Council earned 25.6 percent and was the third in cashew nut marketing followed by Masasi District Council (9.3 percent), Nanyumbu District Council (6.1 percent), Masasi Town Council (4.2 percent) and Mtwara MMC earning 1.6 percent in earning revenue for marketing of such crop in year 2014/15.

Table 3.17: Amount of Cashew nut Marketed and Revenue Earned by Council; Mtwara Region, 2014/15

Council	Amount Purchased (Kgs)	Average Price per Kg (Tshs.)	Revenue Earned in Tshs	Percent Earnings
Newala DC	19,332,305	2,400	46,397,532,000	27.4
Mtwara DC	22,704,500	1,900	43,558,740,000	25.8
Tandahimba	35,258,691	1,200	43,281,224,400	25.6
Masasi DC	10,235,424	1,200	15,769,538,100	9.3
Nanyumbu	8,582,229	1,200	10,298,674,800	6.1
Masasi TC	3,232,916	2,200	7,112,415,200	4.2
Mtwara MMC	1,064,120	2,500	2,660,300,000	1.6
Total	100,410,185	1,800	169,078,424,500	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

In 2014/15, paddy was the second cash crop marketed in the region after cashew nut (refer Table 3.6 above). Paddy earned 10.1 percent of the region's total revenue obtained from marketing of all types of cash crops. On the other hand, Table 3.18 shows that Mtwara District Council leading

on the data of the amount of paddy sold. By comparing the revenue earned by councils, Mtwara District Council earned 96.8 percent followed by Masasi District Council (2.3 percent). Masasi Town Council with only 0.9 percent was the least council which earned the minimum amount (Tsh.248,613,488) of all revenue obtained from selling paddy in the region.

Table 3.18: Amount of Paddy Marketed and Revenue Earned by Council; Mtwara Region, 2014/15

Council	Amount Purchased (Kgs)	Average Price per Kg (Tshs.)	Revenue Earned in Tshs	Percent Earnings
Mtwara DC	14,824,500	1,800	26,684,100,000	96.8
Newala DC	0	0	0	0.0
Masasi DC	3,142,101	1,500	628,469,000	2.3
Tandahimba	0	0	0	0.0
Mtwara MMC	0	0	0	0.0
Nanyumbu	0	0	0	0.0
Masasi TC	355,132	700	248,613,488	0.9
Total	18,321,733	1,300	27,561,182,488	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

Table 3.16 shows that sorghum with 6.2 percent of earning in the region was the third valuable cash crop in the region. Table 3.19 shows the amount of sorghum marketed in the crop season of 2014/15. Out of 10,743,757 kg of sorghum marketed in 2014/15 season, the region managed to earn a sum of Tshs. 16,933,257,000. Mtwara District Council was the first council in marketing of sorghum by earning 95.2 percent of the region's revenue obtained from selling of that crop. The second council was Tandahimba earned 4.5 percent of total earnings while Masasi District Council earned the least (0.2 percent).

Table 3.19: Amount of Sorghum Marketed and Revenue Earned by Council; Mtwara Region, 2014/15

Council	Amount Purchased (Kgs)	Average Price per Kg (Tshs.)	Revenue Earned in Tshs	Percent Earnings
Mtwara DC	9,938,200	1,500	16,127,700,000	95.2
Newala DC	-	-	-	-
Masasi DC	37,500	1,000	37,500,000	0.2
Tandahimba	768,057	1,000	768,057,000	4.5
Mtwara MMC	-	-	-	-
Nanyumbu	-	-	-	-
Masasi TC	-	-	-	-
Total	10,743,757	1,200	16,933,257,000	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

Pigeon peas with 5.6 percent of earnings were the fourth valuable cash crop in the region (Table 3.16 above). Table 3.20 shows marketing status of pigeon peas in the crop season of 2014/15. The region marketed a total of 9,182,277 kg of pigeon peas and earned a sum of Tshs. 15,357,114,582 in 2014/15 season. Masasi Town Council was the first council in marketing of paddy by earning 51.5 percent of the region's revenue obtained from selling the respective crop.

Masasi District Council was the second (27.0 percent), Nanyumbu District Council was the third (20.3 percent) while Tandahimba District Council was the last (1.3 percent).

Table 3. 20: Amount of Pigeon peas Marketed and Revenue Earned by Council; Mtwara Region, 2014/15

	Amount Purchased (Kgs)	Average Price per Kg (Tshs.)	Revenue Earned in Tshs	Percent Earnings
Mtwara DC	0	0	0	0
Newala DC	0	0	0	0
Masasi DC	2,758,091	1,500	4,140,501,100	27.0
Tandahimba	200,000	1,000	200,000,000	1.3
Mtwara MMC	0	0	0	0
Nanyumbu	1,832,191	1,700	3,114,724,700	20.3
Masasi TC	4,391,995	1,800	7,901,888,782	51.5
Total	9,182,277		15,357,114,582	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.3.6 Irrigated Agriculture

Mtwara Region is endowed with a potential area for irrigation prospects of about 19,430 hectares due to its geographical location, topography and ecological conditions (Table 3.21). However, in



2014/15 season the region managed to utilize only 3,459.5 hectares, equivalent to 17.8 percent of the estimated irrigation area. The largest irrigated area was in Masasi District Council (40.5 percent) followed by Newala District Council (40.1 percent). The smallest area was cultivated in

Mtwara Mikindani Municipal Council (22.4 per cent). Major crops irrigated were paddy and vegetables (tomatoes, cabbage, Chinese cabbage, amaranths, egg plant, onion and watermelon).

Table 3. 21: Distribution of Irrigation Prospects and Crop Grown by Council, Mtwara Region; 2014/15

Council	Potential Area		Irrigated Area		
	Area (Ha)	Percent	Hectares	Percent	Major crops
Mtwara DC	5,092	26.2	344	6.8	Paddy
Newala DC	2,120	10.9	850	40.1	Paddy
Masasi DC	3,212	16.5	1299.5	40.5	Vegetables
Tandahimba	7,473	38.5	953	12.8	Paddy
Mtwara MMC	58	0.3	13	22.4	Vegetables
Nanyumbu	1,475	7.6	0	0.0	Paddy
Masasi TC	0	0	0	0.0	
Total	19,430	100	3,459.50	17.8	

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.4 Farm inputs

3.4.1 Introduction

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 is directed at transforming traditional agriculture which depends on hand hoe to mechanised agriculture and improving agriculture extension services through employing more extension officers. Furthermore, the distribution of chemical fertilizers, establishment of credit facilities for farmers and setting up of storage through a warehouse receipt system were introduced to reinforce crops production.

Mtwara Region, like other regions in Tanzania, the implementation of ‘Kilimo Kwanza’ has led to the increase in availability of agricultural inputs especially chemical fertilizers and improved seeds among small scale farmers. However, scientific research is needed to investigate the impact of “Kilimo Kwanza” on crops productivity.

(i) Chemical Fertilizers

Soil infertility, plant pests and diseases are among the factors which limit agricultural production in Mtwara Region. Over the past five years, the Region’s soils have depended on application of chemical fertilizers for optimum crop harvests. UREA, DAP, SA and CAN were the most used chemical fertilizers in the region.

As Table 3.22 shows, a total of 135,201 tons of different types of chemical fertilizers were used in the region from 2010/11 to 2014/15, UREA being the leading chemical fertilizer which accounted for 56.2 percent of the total kilograms of chemical fertilizers. Other types of chemical fertilizers were DAP (39.6 percent), SA (2.8 percent) and CAN (1.4 percent).

Table 3.22: Type and Quantity of Chemical Fertilizers (Tons) Distributed to Farmers, Mtwara Region, 2010/11-2014/15

Type of Fertilizers	Quantity Distributed (in Kilograms)					Total Distribution	Average Annual	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15			
UREA	5,100	22,050	23,225	8,621	16,950	75,946	15,189	56.2
DAP	2,300	17,500	15,075	3,621	15,100	53,596	10,719	39.6
SA	649	500	800	790	1,000	3,739	748	2.8
CAN	345	450	200	425	500	1,920	384	1.4
Total	8,394	40,500	39,300	13,457	33,550	135,201	27,040	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(ii) Fungicides

Table 3.23 shows the distribution of different type of fungicides between 2010/11 and 2014/15 in Mtwara Region. Out of 13 different types of fungicides used in Mtwara Region, Sulphurdust were the most distributed fungicide with total distribution of 9,915,532 litres (54.4 percent), followed by Sulfexsulphur 5,934,563 litres, Devisulphur 1,851,645 litres (10.2 percent). Falpro 168 litres and Falmenol 110 litres were the least important fungicides distributed in the region. One general observation from these data is that distribution of fungicides mostly depends on the demand from farmers and type of crops grown in a particular location.

Table 3.23: Type and Quantity of Fungicides (in Litres) Distributed to Farmers; Mtwara Region; 2010/11-2014/15

Type of Fungicides	Quantity Distributed (in Litres)					Total Distribution	Average Annual	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15			
Sulphurdust	865,789	1,512,115	1,563,996	2,186,855	3,786,777	9,915,532	1,983,106	54.4
Sulfexsulphur	21,082	23,079	25,043	2,933,522	2,931,837	5,934,563	1,186,913	32.6
Devisulphur	10,541	10,541	11,185	909,995	909,383	1,851,645	370,329	10.2
Transmute	10,541	11,741	12,343	179,004	11,214	224,843	44,969	1.2
Mupavil	15,116	26,351	23,879	35,810	41,212	142,368	28,474	0.8
Cumulus	21,672	21,832	21,967	14,998	14,928	95,397	19,079	0.5
Mofidan	6,050	4,150	4,426	4,684	4,445	23,755	4,751	0.1
Ugonal	2,107	2,448	2,252	8,125	2,804	17,736	3,547	0.1
Rav	599	1,532	576	716	1,415	4,837	967	0.0
Palm Brand	700	0	0		0	700	140	0.0
Powrshot	500	0	10	0	0	510	102	0.0
Falpro	0	0	168	0	0	168	34	0.0
Falmenol	100	0	10	0	0	110	22	0.0
Total	954,797	1,613,789	1,665,855	6,273,709	7,704,015	18,212,164	3,642,433	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(iii) Insecticides/Pesticides

Table 3.24 shows distribution of insecticides in Mtwara Region for the year 2010/11 to 2014/15. Of the listed insecticides in Table 3.24, powershot was the least distributed insecticide and is basically of less importance. On the other hand, Ninja, Duduall, Hexaconazole and Selecron were highly distributed accounted for 59.7 percent, 32.7 percent, 2.6 percent and 2.1 percent, respectively.

Table 3.24: Type and Quantity of Insecticides (in Litres) Distributed to Farmers, Mtwara Region; 2011-2015

Type of Insecticides	Quantity Distributed (in Litres)					Total Distribution	Average Annual	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15			
Ninja	7,331	9,602	16,622	23,829	13,529	70,914	14,183	59.7
Duduall	4,649	6,286	5,339	8,549	13,963	38,787	7,757	32.7
Hexaconazole	1,800	0	0	1,327	0	3,127	625	2.6
Selecron	1,060	1,482	0	0	0	2,542	508	2.1
Rav	0	120	406	344	234	1,104	221	0.9
Falpro	0	0	765	0	0	765	153	0.6
Karate	250	251	102	0	0	603	121	0.5
Mocron	200	200	82	0	0	482	96	0.4
Ugonal	0	0	0	444	0	444	89	0.4
Power Shot	0	0	13	0	0	13	3	0.0
Total	15,291	17,942	23,329	34,493	27,726	118,780	23,756	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

(iv) Improved Seeds

Use of improved seeds is among important factors for increasing agricultural productivity (output per unit of land). Rice is the leading crop in having a wide range of improved seeds in the region. Table 3.25 shows that TXD 306 Rice, IR 64, TXD 88(Rice), TXD 220 (Rice) and Supa BC are improved seeds for rice which were mostly distributed in the region during the referred seasons. Other improved seeds for maize, sorghum, groundnuts, sesame and cashew nuts were distributed in minimum quantities.

Table 3.25: Type and Quantity of Improved seeds (Kgs) Distributed to Farmers; Mtwara Region; 2011-2015

Type of Improved Seeds	Quantity Distributed (in Litres)					Average Annual	Percent
	2010/11	2011/12	2012/13	2013/14	2014/15		
TXD 306 Rice	30,060	36,000	30,200	30,030	30,080	31,274	18.0
IR 64	30,000	30,000	30,000	30,000	30,000	30,000	17.3
TXD88(Rice)	30,000	30,000	30,000	30,000	30,000	30,000	17.3
TXD220(Rice)	30,000	30,000	30,000	30,000	30,000	30,000	17.3
Supa BC	30,000	30,000	30,000	30,000	30,000	30,000	17.3
Lindi2000Sorghum	0	30,000	30,000	0	0	12,000	6.9
Maize	1,500	1,876	1,800	2,000	3,500	2,135	1.2
Maize (Open Pollinated Variety)	0	0	124	124	8,750	1,800	1.0
Paddy (TXD 306)	0	0	0	0	7,125	1,425	0.8
Sorghum	3,500	1,500	578	600	100	1,256	0.7
TMV 1		2,400	2,400	-	2	960	0.6
Maize (STAHA)	1,550	1,550	60	70	100	666	0.4
Naliendele(Sorghum)	0	1,500	1,500	0	0	600	0.3
Ziada(Groundnuts)	0	1,500	1,500	0	0	600	0.3
Cashew nuts	100	100	460	560	840	412	0.2
Groundnut	0	0	0	0	1,500	300	0.2
Groundnuts (Nyota)	70	80	100	250	300	160	0.1
Paddy	0	90	200	100	115	101	0.1
Sesame (Naliendele 92)	50	60	70	75	100	71	0.0
Mtwara92(Sorghum)	0	0	0	0	0	0	0.0
Total	156,830	196,656	188,992	153,809	172,512	173,760	100.0

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

3.4.2 Agriculture Implements

The use of agriculture implements depends on the size of farms owned by households and or investors. Table 3.26 shows that the traditional implements were highly demanded compared with modern and sophisticated implements in the region. In 2014/15, a total of 69 tractors were distributed in the region against a demand of 203 tractors and only 145 power tillers were distributed which was less than the required 420. One general observation from these data is that local authorities in Mtwara Region should educate their farmers on the need of changing farming system from tradition to modernised agriculture in order to increase their productivities.

Table 3.26: Availability of Agriculture Implements, Mtwara Region;2015

Type of Implements	Demand	Supplied	Deficit (-) / Excess
Ox plough	98	74	-24
Ox harrow	61	0	-61
Oxridger	27	0	-27
Oxcart	61	74	13
Ox cultivator	91	0	-91
Ox chain	54	0	-54
Ox shares	88	0	-88
Tractors	203	69	-134
Power tillers	420	145	-275
Ox-planters	21	12	-9
Total	1,124	374	-750

Source: Mtwara Region, Compiled Data from Councils (Agriculture Departments), 2015

Policy implication in Agriculture Sector

Agriculture sector performance in terms of food and cash crop production does not give a blight future on the status of food security as well as to the economy of the region which largely depends on agriculture. Limited access of agricultural inputs especially to peasant farmers, low prices of agricultural produces, poor agricultural practices as well as adverse weather conditions are the causes of the region's poor agriculture performance. To revive the sector, the region needs to adopt Kilimo Kwanza guidelines by improving extension services, ensure reliable supply of agricultural inputs through improving implementation procedures of National Agricultural Input Voucher Scheme (NAIVS) policy.

Investment Opportunities in Agriculture Sector

Potential areas for investment in agriculture include, crop production, supply of agriculture inputs and farm implements at affordable prices. Agro- processing industries especially sorting and packaging industry for vegetables and fruits; and Irrigation farming by construction of irrigation infrastructures by utilizing Ruvuma and other seasonal rivers and drilling of borehole wells for irrigation.

3.5 Livestock

3.5.1 Introduction

The livestock sector including poultry plays a significant role in the economy of households in Mtwara Region. It is the second most important economic activity after agriculture. Livestock generates considerable amount of income and determines the household economic and social status in many communities. The 2012 PHC collected information on the number of households involved in livestock keeping.

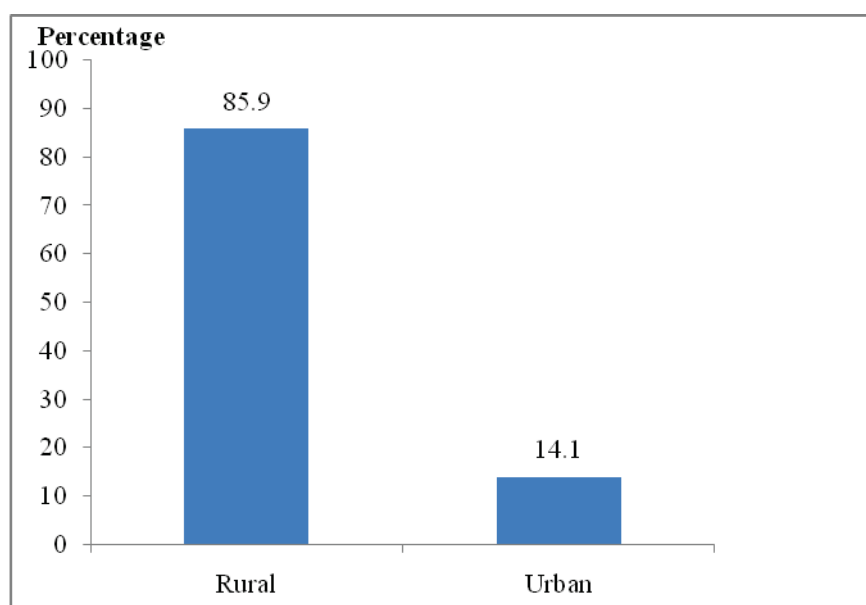
Table 3.27 presents the number of households that kept livestock and poultry in rural and urban areas in the Census night. It was revealed that out of 342,165 households in Mtwara Region, 55.8 percent (equivalent to 135,200 households) were keeping at least one type of livestock, of which 116,163 households (85.9 percent) were in rural areas and 19,037 households (14.1 percent) were in urban areas.

Furthermore, it was noted that the district with the largest proportion of households involved in livestock keeping was Masasi District Council (30,565 households) which constituted 45.1 percent of its total households, and the smallest district was Mtwara Municipal Council (5,034 households).

Table 3.27: Households Keeping Livestock by District, Rural and Urban during 2011/12 Agriculture Year; Mtwara Region, 2012 Census

District/Council	Total Number of Households	Total Households keeping Livestock	Percentage of households keeping livestock		
			Total	Rural	Urban
Mtwara	58,602	21,651	36.9	96.0	4.0
Newala	58,035	28,279	48.7	92.2	7.8
Masasi	67,720	30,565	45.1	91.1	8.9
Tandahimba	60,872	26,595	43.7	85.1	14.9
Mtwara Municipal	27,968	5,034	17.9	14.0	86.0
Nanyumbu	40,746	13,474	33.1	91.1	8.9
Masasi Town	28,222	9,602	34.0	61.1	38.9
Total	242,165	135,200	55.8	85.9	14.1

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Figure 3. 2: Percentage Distribution of Households that Kept Livestock in Rural and Urban Areas; Mtwara Region, 2012 Census

Source: NBS, Population and Housing Census, 2012

Table 3.28 shows distribution of estimated livestock by species in each council of Mtwara Region in 2015. Goats outnumbered other types of large and medium size livestock (298,013) followed by cattle (32,684) and sheep (15,274). Donkeys (131) are not commonly kept in the region. Table 3.28 also shows that there was a large population of poultry especially indigenous chicken (1,311,495) and significant population of improved chicken for both broilers and layers (92,044).

Table 3.28: Estimated Livestock Population by Council, Mtwara Region; 2015

Council	Cattle	Goats	Sheep	Donkeys	Pigs	Indigenous chicken	Chicken (Broilers & Layers)
Mtwara DC	3,997	50,543	3520	0	0	185,171	32605
Newala DC	2,497	163,157	1,487	0	487	438,436	10,600
Masasi DC	8,268	19,146	939	122	4,571	212,982	0
Tandahimba	5,021	47862	8,010	0	98	237,108	26,782
Mtwara MMC	3,066	6,350	488	0	1,408	70,133	17,757
Nanyumbu	7404	8597	728	9	396	117706	0
Masasi TC	2,431	2,358	102	0	2667	49,959	4300
Total	32,684	298,013	15,274	131	9,627	1,311,495	92,044

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

(i) Cattle

Table 3.29 shows that indigenous type of cattle was the dominant type of livestock in Mtwara Region. It accounted for 84.3 percent of the region's total cattle population while improved dairy cattle contributed 15.7 percent in 2015.

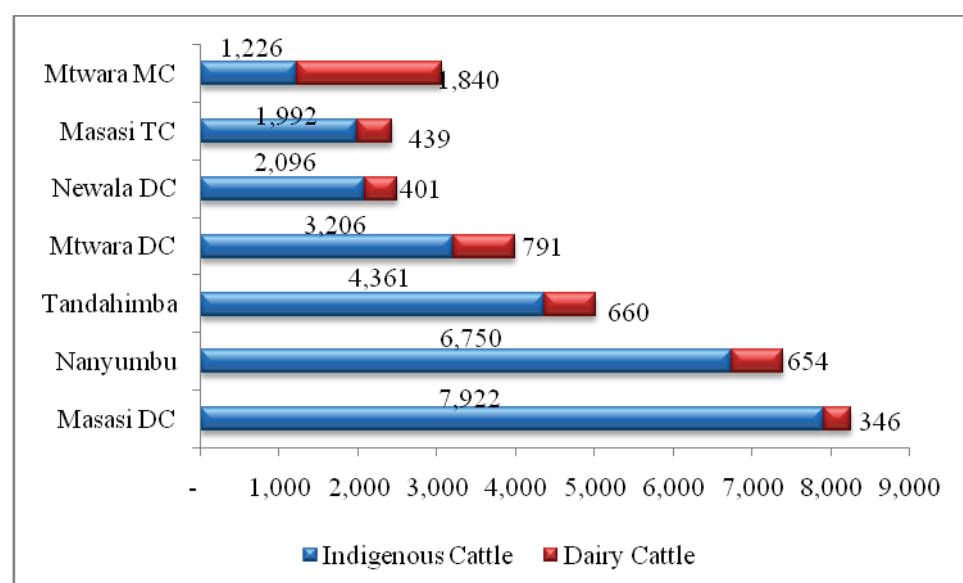
At council level, Masasi District Council had the largest proportion (28.8 percent) of the region's total cattle population followed by Nanyumbu (24.5 percent), Tandahimba (15.8 percent), Mtwara (11.6 percent), Newala (7.6 percent) and Masasi Town (7.2 percent). Mtwara Municipal Council had the least proportion (4.4 percent) of cattle population in Mtwara Region.

In the case of improved dairy cattle, most of them were recorded in Mtwara Municipal (35.9 percent) followed by Mtwara (15.4 percent), Tandahimba (12.9 percent), Nanyumbu (12.7 percent), Masasi Town (8.6 percent), Newala (7.8 percent) and lastly Masasi District Council (6.7 percent).

Table 3.29: Distribution of Cattle by Type and Council, Mtwara Region; 2015

Council	Indigenous Cattle	Percent of Indigenous Cattle	Dairy Cattle	Percent of Dairy Cattle	Region Total	Percent of Region
Masasi DC	7,922	28.8	346	6.7	8,268	25.3
Nanyumbu	6,750	24.5	654	12.7	7,404	22.7
Tandahimba	4,361	15.8	660	12.9	5,021	15.4
Mtwara DC	3,206	11.6	791	15.4	3,997	12.2
Newala DC	2,096	7.6	401	7.8	2,497	7.6
Masasi TC	1,992	7.2	439	8.6	2,431	7.4
Mtwara MMC	1,226	4.4	1,840	35.9	3,066	9.4
Total	27,553	100	5,131	100	32,684	100
Percent	84.3		15.7		100.0	

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Figure 3. 3: Distribution of Cattle by Type and Council, Mtwara Region; 2015

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

(ii) Goats

Table 3.30 shows that indigenous goats were the dominant type of goats (96.6 percent) in Mtwara Region while dairy goats are not common in the region as they are accounted for only 3.3 percent in 2015. At council level, Table 3.30 shows that Newala District Council had the largest proportion (50.2 percent) of goats' population in the region followed by Tandahimba (20.0 percent), Mtwara (17.8 percent), Masasi (8.0 percent), Nanyumbu (3.5 percent) and Masasi Town Council (0.5 percent).

Table 3. 30: Distribution of Goats by Type and Council, Mtwara Region; 2015

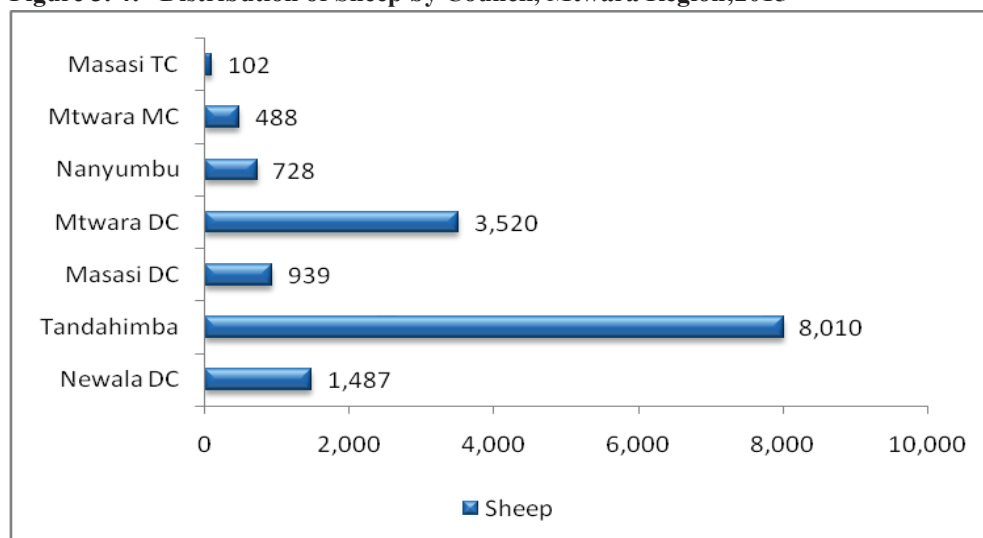
Council	Indigenous Goats	Percent	Dairy Goats	Percent	Total	Percent
Newala DC	120,117	50.2	-	0.0	120167	48.5
Tandahimba	47,862	20.0	30	0.4	47912	19.3
Mtwara DC	42,505	17.8	8,046	97.7	50666	20.4
Masasi DC	19,146	8.0	-	0.0	19154	7.7
Nanyumbu	8,597	3.6	156	1.9	8758	3.5
Masasi TC	1,171	0.5	-	0.0	1171	0.5
Mtwara MMC	-	-	-	0.0	0	0.0
Total	239,398	100	8,232	100	247830	100.0
Percent	96.6		3.3		100	

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Sheep

Sheep are not commonly kept in Mtwara Region as compared to cattle and goats. In 2015, the region had a total number of 15,274 herds of sheep. In Tandahimba district there were 8,010, followed by Mtwara (3,520), Newala (1,487), Masasi (939), Nanyumbu (728), Mtwara Municipal (488), while the smallest number of sheep was in Masasi Town Council (102) Figure 3.4.

Figure 3. 4: Distribution of Sheep by Council, Mtwara Region;2015

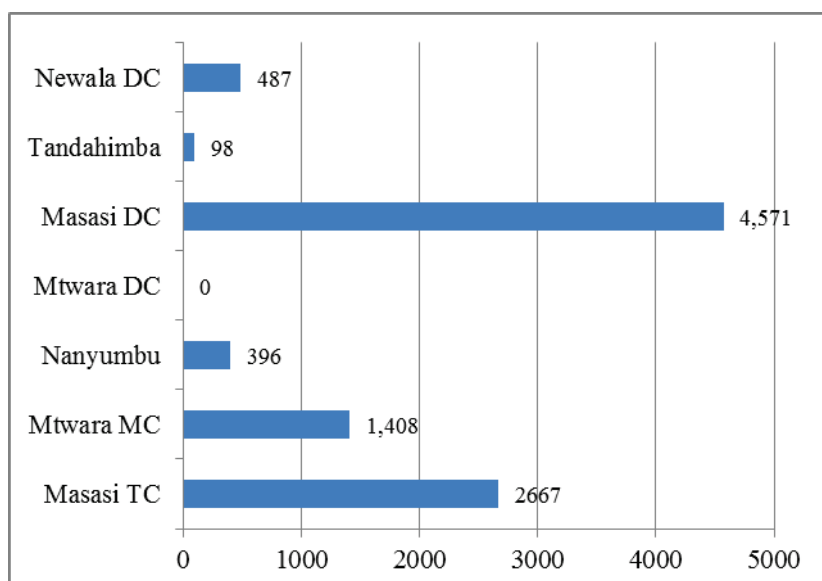


Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Pigs

The total estimated number of pigs in Mtwara Region was 9,627. The largest number of pigs was found in Masasi District Council (4,571), followed by Masasi Town (2,667) and the smallest number of pigs was recorded in Tandahimba (98).(Figure 3.5).

Figure 3. 5: Distribution of Pig Population by Council, Mtwara Region; 2015

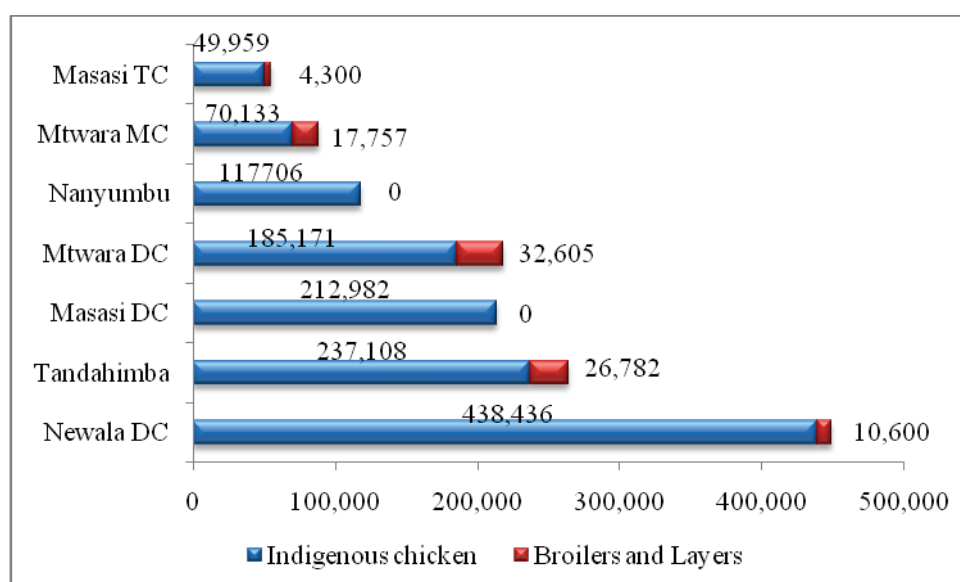


Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Poultry

Poultry keeping plays a significant role in rural and urban people's lives and contributes significantly to poverty alleviation and improvement of food security. The chicken population in the region was 1,311,495 indigenous chicken and 92,044 broiler and layers chicken (Table 3.28). Newala District Council had the largest number (438,436 indigenous, 10,600 broilers) followed by Tandahimba (237,108 indigenous, 26,782 broilers), Masasi (212,982 indigenous), Mtwara (185,171 indigenous, 32,605 broilers), Nanyumbu (117,706 indigenous), Mtwara Municipal (70,133 indigenous, 17,757 broilers) and Masasi Town recorded a small number of chickens (49,959 indigenous, 4,300 broilers) (Figure 3.6).

Figure 3. 6: Distribution of Chicken population by Council, MtwaraRegion ; 2015



Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

3.5.2 Grazing Area

Grazing land is defined as that land that is available for the grazing needs of livestock. It excludes all tsetse fly areas, all wildlife and forest reserves including tree plantations, but it includes game controlled areas. Table 3.31 shows that in 2015 estimated land fit for grazing area in the region was 6,188 hectares. The land used for grazing was 1,188.8 hectares (19.2 percent) which implies that there was no shortage of grazing area in the region.

Table 3. 31: Estimated Area for Grazing by Council, Mtwara Region; 2015

Council	Land fit for Grazing (Ha)	Land used for Grazing (Ha)	Percent of Land Used
Mtwara DC	1187.8	1187.8	100
Newala DC	5,000	5,000	100
Masasi DC	0	0	0
Tandahimba	0	0	0
Mtwara MMC	0	0	0
Nanyumbu	0	0	0
Masasi TC	0	0	0
Total	6,188	1,188.8	100

3.5.3 Livestock Infrastructure

Livestock quality improvement is limited by access to preventive and curative facilities capable of controlling or preventing their morbidities and mortalities. Diseases affect animal health and reduce both meat and milk production in terms of quality and quantity. Availability of livestock infrastructure is limited. On the other hand, crushes, abattoirs, hides and skin sheds, slaughter slabs, livestock market or auctions and accessibility of water usually improve the quality of livestock products. Table 3.32 indicates that out of 26 dips available in the region, 15 dips (57.7 percent) and only 2 out of 7 veterinary centres were working as of 2015. At council level, Tandahimba and Mtwara Municipal were the most affected councils because none of the seven dips working and no veterinary centre was operating. Newala, Masasi and Nanyumbu had serious shortages of dips while Masasi District Council, Tandahimba District Council, Mtwara Municipal and Masasi Town Council had no veterinary centres.

Table 3. 32: Distribution of Livestock Infrastructure by Council, Mtwara Region; 2015

Council	Dips				Veterinary Centres			
	Working	Not Working	Total	Percent	Working	Not Working	Total	Percent
Mtwara DC	5	2	7	71.4	1	3	4	25.0
Newala DC	1	0	1	100.0	0	2	2	0.0
Masasi DC	5	0	5	100.0	0	0	0	0.0
Tandahimba	0	2	2	0.0	0	0	0	0.0
Mtwara MMC	0	5	5	0.0	0	0	0	0.0
Nanyumbu	2	0	2	100.0	1	0	1	100.0
Masasi TC	2	2	4	50.0	0	0	0	0.0
Total	15	11	26	57.7	2	5	7	28.6

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

The quality of livestock products such as meat, milk, hides and skins and other related products mostly depend on availability, status and quality of infrastructure such as crushes, abattoirs, hides and skin sheds, slaughter slabs, livestock market or auctions and accessibility of water. Table 3.33 shows that Mtwara Region is not yet well equipped with these facilities since most of infrastructures were concentrated in Newala and Nanyumbu District Councils. Councils such as Mtwara, Masasi, Tandahimba and Masasi Town Council had limited numbers of facilities which also raise concern on the quality of their livestock products.

Table 3.33: Distribution of Livestock Infrastructure by Council, Mtwara Region; 2015

Council	Crushes	Hides/Skin Sheds	Abattoirs	Slaughter Slab	Livestock Market/Auction	Charco Dams
Mtwara DC	4	0	0	0	0	0
Newala DC	0	0	4	3	0	0
Masasi DC	0	0	1	0	0	0
Tandahimba	0	0	0	2	0	0
Mtwara MMC	0	0	0	0	0	0
Nanyumbu	3	1	1	1	0	2
Masasi TC	2	0	0	1	0	0
Total	9	1	6	7	0	2

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

(i) Causes of Livestock Morbidity and Mortality

Diseases, among other reasons, were the main causes of livestock morbidity and mortality in Mtwara Region. Data provided by local authorities of Mtwara Region show different types of diseases for big, medium and small animals. The most common diseases in Mtwara Region are east coast fever, anaplasmosis, heart water, trypanosomiasis, helminthiasis, worms, CCPP, Mange, Pneumonia and Foot Mouth Disease. Others are new castle, coccidiosis, fowl coryza, fowl typhoid, fowl pox and gumboro.

(ii) Causes of Cattle Morbidity and Mortality

Table 3.34 shows a list of common diseases which caused cattle morbidity in Mtwara Region between 2013 and 2015. In 2013, Trypanosomiasis was the most common disease which accounted for 23.0 percent of reported 3,731 cases in the region. Other diseases which affected cattle were contagious bovine pleuro pneumonia (16.9 percent) and Anaplasmosis (14.9 percent) diseases, heart water (13.4 percent) and East Coast Fever (11.8 percent).

Similar observation was also experienced in 2015, of which trypanosomiasis and contagious bovine pleuro pneumonia remained as the first and second common cattle diseases in the region. One general observation from these data is that there was an increase of cattle morbidity cases caused by heart water disease in 2015 than in 2013.

Table 334: Ten Common Cattle Diseases that Cause Morbidity, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Trypanosomiasis	856	23	Trypanosomiasis	1076	26.3
Contagious bovine pleuro pneumonia	631	16.9	Contagious bovine pleuro pneumonia	658	16.1
Anaplasmosis	558	14.9	Anaplasmosis	724	17.7
Heart water	500	13.4	Headwater	501	12.3
East Coast Fever	439	11.8	East Coast Fever	512	12.5
Helminthiasis	325	8.7	Helminthiasis	322	7.9
Foot and mouth disease	138	3.7	Foot and mouth disease	37	0.9
Pneumonia	126	3.4	Pneumonia	156	3.8
Worms	99	2.7	Worms	64	1.6
Mastitis	59	1.6	Mastitis	39	1
Total	3,731	100	Total	4,089	100.0

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Table 3.35 shows death toll of cattle caused by different types of diseases in 2013 and 2015. In 2013, 617 cattle deaths were caused by Trypanosomiasis (28.2 percent), contagious bovine pleuro pneumonia (26.1 percent), Anaplasmosis (15.9 percent), East Coast Fever (14.1 percent) and helminthiasis (4.5 percent). Similar observations were experienced in 2015 with Contagious bovine pleuro pneumonia being the number one killer disease (29.1 percent) followed by trypanosomiasis (29.0 percent). Foot and mouth disease which was the least disease in 2013 also the least with 1.1 percent of mortality occurred in 2015.

Table 3.35: Ten Common Cattle Diseases Causes Mortality, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Trypanosomiasis	174	28.2	Contagious bovine pleuro pneumonia	245	29.1
Contagious bovine pleuro pneumonia	161	26.1	Trypanosomiasis	244	29.0
Anaplasmosis	98	15.9	Anaplasmosis	126	15.0
East Coast Fever	87	14.1	East Coast Fever	86	10.2
Helminthiasis	28	4.5	Pneumonia	48	5.7
Pneumonia	24	3.9	Headwater	34	4.0
Headwater	19	3.1	Helminthiasis	20	2.4
Brucellosis	9	1.5	Brucellosis	17	2.0
Dermatophytosis	9	1.5	Dermatophytosis	12	1.4
Foot and mouth disease	8	1.3	Foot and mouth disease	9	1.1
Total	617	100.0	Total	841	100.0

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

(iii) Causes of Goat Morbidity and Mortality

Table 3.36 presents nine common diseases that contributed to poor health of goats in Mtwara Region between 2013 and 2015. The table also shows that, among all ten diseases, contagious caprine pleuro pneumonia which caused much illness to goats than any other diseases in both years, accounted for 44.8 percent of 10,902 morbidity cases in 2013 and 29.2 percent of 5,433 morbidity cases in 2015. It was followed by Pestedespetits ruminants 35.1 percent of reported morbidity cases in 2013 and 0.9 percent in 2015. However, Babesiosis has not yet been controlled as result became the least disease that causes morbidity in the region.

Table 3.36: Ten Common Goat Diseases that Cause Morbidity, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Contagious caprine pleuro pneumonia	4,889	44.8	Helminthiasis	2,029	37.3
Pestedespetits ruminants	3,832	35.1	Contagious caprine pleuro pneumonia	1,585	29.2
Pneumonia	754	6.9	Pneumonia	697	12.8
Worms	413	3.8	footrot	376	6.9
footrot	363	3.3	Worms	271	5.0
Orf	245	2.2	Orf	248	4.6
Helminthiasis	173	1.6	Heart water	133	2.4
Heart water	135	1.2	Pestedespetits ruminants	48	0.9
Mange	85	0.8	Mange	32	0.6
Babesiosis	13	0.1	Babesiosis	14	0.3
Total	10,902	100	Total	5,433	100

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Among the ten common diseases that caused deaths of goats, 93.3 percent of goat deaths were caused by the first three diseases. In 2013, Table 3.37 shows that 49.3 percent of 2,617 goat deaths were caused by contagious caprine pleuro pneumonia followed by Pestedespetits ruminants (35.6 percent), Pneumonia (8.7 percent) and foot rot and Orf diseases with 1.8 percent each. Out of 664 goat deaths recorded in 2015, about 98 percent of goat deaths were also caused by the first six illnesses. Contagious caprine pleuro pneumonia had the highest death rate (31.6 percent) followed by Pneumonia (25.5 percent), Orf (14.5 percent) and Helminthiasis (12.2 percent).

Table 3.37: Ten Common Goat Diseases that cause Mortality, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Contagious caprine pleuro pneumonia	1290	49.3	Contagious caprine pleuro pneumonia	210	31.6
Pestedespetits ruminants	931	35.6	Pneumonia	169	25.5
Pneumonia	227	8.7	Orf	96	14.5
footrot	46	1.8	Helminthiasis	81	12.2
Orf	46	1.8	footrot	51	7.7
Heart water	33	1.3	Heart water	44	6.6
Helminthiasis	32	1.2	Worms	8	1.2
Mange	5	0.2	Mange	3	0.5
Worms	5	0.2	Babesiosis	2	0.3
Babesiosis	2	0.1	Pestedespetits ruminants	0	0.0
Total	2,617	100	Total	664	100

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

(iv) Causes of Sheep Morbidity and Mortality

With reference to Table 3.38, similar diseases were also observed as contributing factors to poor health of sheep in Mtwara Region between 2013 and 2015. The leading cause of morbidity to sheep in 2013 was Pneumonia which caused much illness (54.3 percent) than any other diseases, followed by Mange (9.3 percent) and foot rot (8.3 percent). Again, Pneumonia, Mange and Foot rot were the main causes of sheep morbidity in 2015 which accounted for 62.4 percent, 10.8 percent and 7.4 percent, respectively.

Table 3.38: Ten Common Sheep Diseases that Cause Morbidity, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Pneumonia	1,108	54.3	Pneumonia	1377	62.4
Mange	189	9.3	Mange	238	10.8
Foot rot	170	8.3	Foot rot	164	7.4
East Coast Fever	126	6.2	East Coast Fever	106	4.8
Heartwater	110	5.4	Worms	64	2.9
Worms	99	4.9	Helminthiasis	61	2.8
Helminthiasis	78	3.8	Trypanosomiasis	55	2.5
Mastitis	59	2.9	Heartwater	53	2.4
Trypanosomiasis	55	2.7	Contagious pastular dermatitis	50	2.3
Contagious pastular dermatitis	45	2.2	Mastitis	39	1.8
Total	2,039	100	Total	2207	100.0

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Similar observation was also experienced on causes of sheep deaths in the region, though there was a difference in magnitude and ranking of diseases (Table 3.29). Pneumonia disease ranked

first for deaths of sheep in both years 2013 and 2015. Mange, helminthiasis and foot rot were other leading causes of sheep deaths in 2013 and in 2015.

Table 3.39: Ten Common Sheep Diseases that Cause Mortality, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Pneumonia	379	71.2	Pneumonia	568	77.4
Mange	62	11.7	Mange	121	16.5
Helminthiasis	23	4.3	Foot rot	15	2.0
Heartwater	20	3.8	Heartwater	12	1.6
East Coast Fever	18	3.4	Helminthiasis	10	1.4
Foot rot	15	2.8	East Coast Fever	4	0.5
Trypanosomiasis	7	1.3	Worms	4	0.5
Contagious pastular dermatitis	3	0.6	Trypanosomiasis	0	0.0
Worms	3	0.6	Contagious pastular dermatitis	0	0.0
Mastitis	2	0.4	Mastitis	0	0.0
Total	532	100.0		568	77.4

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

(v) Causes of Poultry Morbidity and Mortality

Apart from big and medium sizes livestock keeping, poultry keeping is another main economic activity done by the residents of Mtwara Region. Diseases are among factors which have been affecting poultry industry development in the region. Table 3.40 shows that out of 131,266 reported cases of poultry illnesses, new castle was the leading disease for both years accounting for 48.4 percent in 2013 and 51.7 percent in 2015. One general observation from these data is that ranking of diseases has remained the same for both years.

Table 3. 40: Ten Common Poultry Diseases that Cause Morbidity, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Newcastle	63,587	48.4	Newcastle	65,355	51.7
Coryza	24,569	18.7	Coryza	19,889	15.7
Fowl typhoid	14,516	11.1	Fowl typhoid	19,473	15.4
Salmonellosis	10,965	8.4	Salmonellosis	9,190	7.3
Helminthisis	6,195	4.7	Helminthisis	5,652	4.5
Contagious pastular dermatitis	4,479	3.4	Worms	3,196	2.5
Worms	4,172	3.2	Avian leucosis	2,860	2.3
Avian leucosis	2,472	1.9	Contagious pastular dermatitis	610	0.5
Coccidiosis	190	0.1	Gumboro	178	0.1
Gumboro	121	0.1	Coccidiosis	86	0.1
Total	131,266	100	Total	126,489	100

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Newcastle, besides being the first cause of mortality for poultry in the region, it was also the leading disease for poultry deaths in both years. It lost 72.2 percent of poultry lives in 2013 and 77.1 percent in 2015 (Table 3.41). Other leading diseases were salmonellosis and Fowl typhoid with death rate of 8.7 percent and 7.1 percent in 2013. One general observation from these data is that fowl typhoid which was one poultry killer disease in the last three decades has been prevented significantly in recent years.

Table 3. 41: Ten Common Poultry Diseases that Cause Mortality, Mtwara Region; 2013 and 2015

Disease	2013		Disease	2015	
	No. of Cases	Percent		No. of Cases	Percent
Newcastle	45,230	72.2	Newcastle	39,835	77.1
Salmonellosis	5,432	8.7	Fowl typhoid	4,084	7.9
Fowl typhoid	4,444	7.1	Coryza	2,547	4.9
Coryza	3,007	4.8	Avian leucosis	2,019	3.9
Helminthisis	1,621	2.6	Helminthisis	1,816	3.5
Avian leucosis	1,615	2.6	Salmonellosis	1,188	2.3
Contagious pastular dermatitis	1,174	1.9	Contagious pastular dermatitis	77	0.1
Coccidiosis	102	0.2	Gumboro	65	0.1
Gumboro	31	0.0	Worms	43	0.1
Worms	7	0.0	Coccidiosis	20	0.0
Total	62,663	100.0	Total	51,694	100.0

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

3.5.4 Marketing Livestock and Their Products

Lack of proper procedure of marketing livestock has created a problem of getting actual number of livestock marketed and the amount of revenue collected from each type of livestock in the region. However, Table 3.42 shows indicative number and value of livestock marketed in Mtwara Region between 2013 and 2015. In 2013, a total of 44,142 livestock valued at about Tshs. 15.8 billion were marketed in the region. Although the number of livestock increased in 2014 to 60,793 and 84,777 in 2015, their market value dropped to TZS. 5.5 billion in 2014 and TZS. 9.0 billion in 2015. Indigenous cattle, goat and poultry were the main contributors to the region's total revenue obtained from marketing of livestock in all three years. One general observation from these data is that contribution of improved cattle was negligible because of their insignificant number in the region.

Table 3.42: Marketing of Major Livestock (Number and Revenue), Mtwara Region; 2013, 2014 and 2015

Livestock	2013		2014		2015	
	Number	Amount (000)	Number	Amount (000)	Number	Amount (000)
Indigenous Cattle	5,773	13,779,750	5,462	3,918,050	6,740	5,732,000
Goats	2,205	1,181,250	2,773	277,300	20,340	1,629,000
Poultry	34,250	513,750	49,949	849,133	54,749	1,094,980
Pig	1,870	280,500	2,500	450,000	2,880	518,400
Sheep	44	2,240	109	10,900	68	6,800
Total	44,142	15,757,490	60,793	5,505,383	84,777	8,981,180

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Milk Production

Table 3.43 shows that although milk production in Mtwara Region increased from 2,818,137 litres in 2013/2014 to 3,386,895 litres in 2014/2015, revenue collected decreased from TZS 5.7 billion in 2013/2014 to Tshs. 5.1 billion in 2014/2015. Among other things, the decrease of revenue was affected by low average prices in 2014/15 than those offered before. However, more than half of revenue earned in both years was due to selling of dairy cattle milk than indigenous cattle milk.

Table 3. 43: Number of Litres of Milk Marketed by Type of Livestock; Mtwara Region, 2013/2014 and 2014/2015

Livestock	2013/2014			2014/2015		
	Number of Litres	Revenue (TShs.)	Average price per litre	Number	Revenue (TShs.)	Average Price per Litre
Indigenous Cattle	1,219,691	2,193,343,000	1500	1,708,244	1,333,668,000	1,500
Dairy Cattle	1,591,262	3,547,715,500	1,500	1,663,596	3,780,095,300	1,500
Dairy Goats	7,184	7,184,000	1,000	15,055	7,184,000	500
Total	2,818,137	5,748,242,500		3,386,895	5,120,947,300	

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

3.5.5 Establishment and Personnel

Table 3.44 presents availability of livestock personnel by Council in Mtwara Region. Nanyumbu had a critical shortage of staff than any other council. In 2015, the council had only two livestock field officers with no veterinary officer, livestock officer and pests and tsetse field officer in 2015. It was followed by Mtwara Municipal and Masasi Town Council with only 3.9 percent and 9.2 percent of 76 livestock personnel in the region. Mtwara, Masasi, Newala and Tandahimba District Councils had enough livestock personnel who accounted for 15.8 percent, 19.7 percent, 22.4 percent and 26.3 percent respectively.

It is obvious that poor performance of this sub sector to the large extent has been caused by shortage of livestock personnel in all councils of Mtwara Region.

Table 3. 44: Availability of Livestock Personnel by Council, Mtwara Region; 2015

Council	Veterinary Officers	Livestock Officers	Livestock Field Officers	Pests and Tsetse Field Officers	Livestock Auxiliary	Total	
						Number	Percent
Tandahimba	0	2	18	0	0	20	26.3
Newala DC	0	0	8	1	8	17	22.4
Masasi DC	0	0	15	0	0	15	19.7
Mtwara DC	0	0	12	0	0	12	15.8
Masasi TC	0	2	5	0	0	7	9.2
Mtwara MMC	0	0	3	0	0	3	3.9
Nanyumbu	0	0	2	0	0	2	2.6
Total	0	4	63	1	8	76	100.0
Percent	0.0	5.3	82.9	1.3	10.5	100	

Source: Mtwara Region, Compiled Data from Councils (Livestock Departments), 2015

Policy Implication

Mtwara Region, like other regions in Tanzania Mainland has large livestock population, including cattle, goats, sheep and poultry. Livestock keeping is considered the second economic activity that is engaging a significant number of people and contributes to the GDP of the region. Unfortunately, its contribution to the regional GDP is very low and so far employed only 3.3 percent of people in the region. Main reason for poor performance of this sector has been influenced by poor or traditional practice of livestock keeping with no regular treatment, absence of livestock infrastructure and medicine.

Investment Opportunities in Livestock Subsector

Mtwara Region has inadequate livestock infrastructure that is working such as dips, veterinary centres, water points and abattoirs. Therefore, construction of livestock infrastructure should be a priority area that will attract investments in livestock sub sector including dairy farming.

3.5.6 Natural Resources

Natural resources sector is comprised of various sub-sectors including forestry, bee-keeping, fishery and wildlife. The sector plays an important role in promoting climate stability, conservation of water sources, soil fertility, controlling land erosion, and providing source of wood fuel, and industrial materials.

Forestry

Table 3.45 presents forest reserves by councils in Mtwara Region in 2015. Seven councils in the region comprising of Nanyumbu, Newala, Masasi, Tandahimba, Mtwara DC, Mtwara Municipal and Masasi Town had a total of 43,227 hectares of natural forest reserves which is equivalent to 8.0 percent of the regional land area of 543,510 hectares. Nanyumbu District Council had the

largest area, (29,623 hectares) of natural forest reserves followed by Masasi District Council (7,211 hectares). Nevertheless, Newala DC possesses the smallest area (3,183 hectares) under forest reserves.

Table 3. 45: Status of Forest Cover by Council, Mtwara Region; 2015

Council	Total Land Area (ha)	Natural Forest Reserve Area (ha)	Percent Foresty	Forest Plantation area (ha)	Percent Foresty Plantation
Nanyumbu	188,364	29,623	15.7	57.5	0.7
Masasi DC	106,197	7,211	6.8	8,036	99.3
Tandahimba	228,585	3,210	1.4	0	0
Newala DC	20,365	3,183	15.6	0	0
Mtwara DC	0	0	0.0	0	0
Mtwara MMC	0	0	0.0	0	0
Masasi TC	0	0	0.0	0	0
Total	543,510	43,227	8.0	8,093	100

Source: Mtwara Region, Compiled Data from Councils (Natural Resource Departments), 2015

Although the region is endowed with adequate forestry resources, increasing human activities such as cutting trees for fire wood, charcoal, timber poles and agriculture activities, have reduced the areas under forest reserves. In this regards, the region has taken necessary initiatives of tree planting in order to prevent critical deforestation that may happen in the near future. Table 3.46 indicates that in the five years period from 2010/11 to 2014/15 the region raised 6,649,735 tree seedlings. Nanyumbu District Council planted 4,537,500 seedlings was closely followed by Newala District Council (2,106,850 seedlings, 31.7 percent). Other councils which had seedlings during the period are Masasi Town Council (733,000 seedlings), Masasi District Council (5,013 seedlings, 0.1 percent) and Tandahimba District Council (372 seedlings). Mtwara District Council and Mtwara Municipal had no tree seedlings raised during the five years period (2010/11 to 2014/15).

Table 3.46: Number of Tree Seedlings Raised by Council, Mtwara Region; 2010/11 – 2014/15

Council	Number of Tree Seedlings Raised					Total	
	2011	2012	2013	2014	2015	Number	Percent
Nanyumbu	875,000	965,000	765,000	965,500	967,000	4,537,500	61.5
Newala DC	429,200	424,000	415,900	415,750	422,000	2,106,850	28.5
Masasi DC	0	0	0	2,933	2,080	5,013	0.1
Tandahimba	160	112	100	0	0	372	0.0
Mtwara DC	0	0	0	0	0	0	0.0
Mtwara MMC	0	0		0	0	0	0.0
Masasi TC	108,700	120,200	122,100	170,000	212,000	733,000	9.9
Total	1,413,060	1,509,312	1,303,100	1,554,183	1,603,080	7,382,735	100.0
Percent	19.1	20.4	17.7	21.1	21.7	100	

Source: Mtwara Region, Compiled Data from Councils (Natural Resource Departments), 2015

Public awareness on environmental issues and the importance of tree planting are key to sustainability of various afforestation programmes. Planted forests have been established in the region in order to offset deforestation from indiscriminatory tree cutting for various reasons including farm expansion and fuel wood utilization.

Table 3.47 presents figures for five years, 2011 to 2015. Various institutions were involved in both raising and planting trees in adversely affected areas. A total of 175,839 tree seedlings (36,586 seedlings per annum on average) were planted in Mtwara Region. Mchauru Personal by planted 28.5 percent of all tree seedlings was the leading institution. Other institutions were Mahamood Kasambo Personal (24.6 percent), Old boma ward planted (23.0 percent), General office (15.3 percent) and Primary and Secondary schools (6.2 percent).

Table 3.47: Number of Tree Seedlings Raised by Institution Mtwara Region; 2011 - 2015

Council	Institution	Cumulative Total	Annual Average	Percent
Newala DC	Mchauru Personal	52,070	10,414	28.5
Newala DC	Mahamood Kasambo Personal	45,000	9,000	24.6
Mtwara MMC	Old boma	42,117	8,423.4	23.0
Mtwara MMC	General office	27,967	5,593.4	15.3
Masasi DC	Primary and Secondary schools	4,563	2,282	6.2
Newala DC	Issa Lamani Namangaya personal	3,750	750	2.0
Tandahimba	Ardhi	372	124	0.3
Mtwara DC	0	0	0	0
Nanyumbu	0	0	0	0
Masasi TC	0	0	0	0
Total		175,839	36,586	100

Source: Mtwara Region, Compiled Data from Councils (Natural Resource Departments), 2015

Environmental Conservation

Table 3.48 shows the number of NGOs and Development Partners who have been involved in environmental conservation through different initiatives. To alleviate the shortage of clean and safe water as well as inadequate number of health facilities in the region, majority of the NGO's have been involved in the construction of water infrastructures as well as construction of health facilities, provision of agricultural inputs and implements.

Table 3.48: NGOs and Development Partners Involved in Environmental Conservation by Council, Mtwara Region; 2015

Council	Number of NGOs	Number of Development Partners	Percent NGOs
Nanyumbu	3	3	50
Newala DC	2	1	33.3
Tandahimba	1	1	16.7
Mtwara DC	0	0	0.0
Masasi DC	0	0	0.0
Mtwara MMC	0	0	0.0
Masasi TC	0	0	0.0
Total	6	5	100.0

Source: Mtwara Region, Compiled Data from Councils (Natural Resource Departments), 2015

Forest Products – Logs and Chacoal

Mtwara is one of the regions in Tanzania where only a small portion of their forest resources have been used to support the regional economic development. Data from councils (Masasi and Nanyumbu) show that for the recent five years (2010/11 to 2014/15) the councils collected only a total sum of TZS 517,611,539 (Volume of logs 3,047 cubic metres) being an average of TZS 103,522,308 per year.

The use of charcoal and firewood as the source of energy for cooking is very common to rural areas in Mtwara Region. Protection of forests to be harvested has resulted into illegal business of harvesting logs and production of charcoal in the region. However, it is estimated that charcoal worth Tshs 15,518,000 (1,495 bags) was collected in the whole period of five years.

Beekeeping

Production of honey and wax is another sector which has not been fully utilised by residents of Mtwara Region. Besides having conducive environment for modern bee keeping the region had only 16,819 cumulative traditional beehives in the last five years period, 2011/12 to 2014/15 (Table 3.49). Table 3.49 also shows that Nanyumbu District Council had the highest (63.3 percent) proportion of traditional beehives followed by Tandahimba (18.7 percent) and Newala (18.0 percent). There is a need for the council management to raise awareness of this opportunity for Mtwara residents in order to alleviate poverty levels among residents.

Table 3.49: Number of Traditional Beehives by Council, Mtwara Region; 2011 -2015

Council	2010/11	2011/12	2012/13	2013/14	2014/15	Total	Percent
Nanyumbu	1,316	1,418	2,116	2,774	3,025	10,649	63.3
Tandahimba	698	888	225	568	769	3,148	18.7
Newala DC	429	607	617	630	739	3,022	18.0
Mtwara DC	0	0	0	0	0	0	0.0
Masasi DC	0	0	0	0	0	0	0.0
Mtwara MMC	0	0	0	0	0	0	0.0
Masasi TC	0	0	0	0	0	0	0.0
Total	2,443	2,913	2,958	3,972	4,533	16,819	100.0

Source: Mtwara Region, Compiled Data from Councils (Natural Resource Departments), 2015

Implementation of modern bee keeping is yet to be achieved in Mtwara Region due to the shortages of modern beehives. This is evidenced by the number of modern beehives found in the last five years. Table 3.50 shows that Mtwara Region had cumulative total of 8,417 beehives for the specified years. In 2011, the region had only 1,371 modern beehives; it was increased to 1,808 in 2013 and reached 1,731 in 2015. Newala had the largest percentage (64.6 percent) of beehives in the region followed by Mtwara Municipal (19.1 percent) and Tandahimba (8.7 percent). Again, Nanyumbu District Council though has good environment for bee keeping was the least with only 7.6 percent of modern beehives in the region. One general observation from these data is that there is a high expectation on the improvement of bee keeping in future due to a significant increase on the use of modern beehives in recent years.

Table 3. 50: Number of Modern Beehives by Council, Mtwara Region; 2011 -2015

Council	2010/11	2011/12	2012/13	2013/14	2014/15	Total	Percent
Newala DC	856	1,024	1,118	1,171	1,267	5,436	64.6
Mtwara MMC	265	388	398	288	269	1,608	19.1
Tandahimba	208	169	122	136	95	730	8.7
Nanyumbu	42	111	170	220	100	643	7.6
Masasi DC	0	0	0	0	0	0	0.0
Masasi TC	0	0	0	0	0	0	0.0
Mtwara DC	0	0	0	0	0	0	0.0
Total	1,371	1,692	1,808	1,815	1,731	8,417	100.0

Source: Mtwara Region, Compiled Data from Councils (Natural Resource Departments), 2015

Fishery

Tanzania is one of the largest fishing countries in Africa. According to FAO; it is ranked among the top ten countries in terms of total capture of fish. Indian Ocean is the major source for fishing in Mtwara Region. Table 3.51 shows fishery resource facilities and production in 2015. The region had 857 fishing licences, 6,429 fishermen and 456 registered fishing vessels. It also shows that a total of 20.6 million tons of fish were caught in 2015 valued at TZS 765.7 million. Mtwara

MMC and Mtwara DC were the two councils whose performance of the sector was significantly observed.

Table 3.51: Fishery Resources and Production by Council, Mtwara Region; 2015

Council	No. of Fishing licenses	No. of Fishermen	No. of Registered Fishing Vessels	No. of Unregistered Fishing Vessels	Fish Production	
					Weight (Tons)	Value (TSHS "000")
Mtwara DC	350	5,606	315	781	1,904	5,490,778.72
Newala DC	0	0	0	0	0	0
Masasi DC	0	0	0	0	0	0
Tandahimba	0	0	0	0	0	0
Mtwara MMC	460	759	141	193	20,607,972	760,206,724.98
Nanyumbu	47	64	0	40	0	0.0
Masasi TC	0	0	0	0	0	0
Total	857	6,429	456	1014	20,609,876	765,697,503.70

Source: Mtwara Region, Compiled Data from Councils (Fishery Departments), 2015

Table 3.52 shows estimated amount of revenue collected from selling fish products in Mtwara Region for 2011, 2013 and 2015. There is improvement of revenue earned by fishermen in the region when comparing 2011 and 2015 seasons. The revenue earned by fishermen increased by 98.2 percent between 2011 and 2015, though there were some variations among councils. Mtwara Municipal council had the highest revenue change (98.9 percent) between 2011 and 2015 followed by Mtwara District Council (52.5 percent).

Table 3.51: Revenue Collection from Fishermen (Tshs "000") by Council, Mtwara Region; 2011, 2013 and 2015

Council	2010/2011	2012/13	2014/15	Revenue Change between 2011 and 2015	
				Number	Percent
Mtwara MMC	4,164,917	8,605,307	380,110,336	375,945,419	98.9
Mtwara DC	2,606,728	4,819,722	5,490,748	2,884,020	52.5
Nanyumbu	0	0	470,000	470,000	100.0
Newala DC	0	0	0	0	0.0
Masasi DC	0	0	0	0	0.0
Tandahimba	0	0	0	0	0.0
Masasi TC	0	0	0	0	0.0
Total	6,771,645	13,425,029	386,071,084	379,299,439	98.2

Source: Mtwara Region, Compiled Data from Councils (Fishery Departments), 2015

Historical Site Viewing Tourism

According to the national industry's mission statement that forms the basis of the tourism policy is "To develop sustainable quality tourism that is ecologically friendly to the conservation and restoration of the environment and its people's culture". Mtwara is one of the unique destinations in the Tanzania that has not yet been discovered by many. It is a land of much wonder holding an

unparalleled diversity of fauna, flora and many natural features. The wonders of the scenery, topography and very friendly people, harbour, the growth of excellent cultural tourism beach holidays, game hunting, infrastructure ventures, historical and archaeological ventures and certainly the best wildlife photographic safaris on the continent. Table 3.53 shows the historical sites potential for tourism in Mtwara Region.

Table 3.52: Historical Sites Potential/Attractive for Tourism, Mtwara Region; 2015

Council	Type of historical site available	Village/Mitaa	Ward	District
Masasi DC	Msanjesi Game Reserve	Namatutwe	Namatutwe, Msikisi and Chiwale	Masasi
Mtwara MMC	Mikindani	Magengeni	Magengeni	Mtwara
Nanyumbu	Majeja Hills	Nakopi	Napacho	Nanyumbu
	Mahinyo Hills	Chivirikiti	Nandete	Nanyumbu
	Lukwika/LumesuleGR	Mpombe, Masuguru	Napacho	Nanyumbu
	Ruvuma River 45km	Masuguru, Lukula	Masuguru, Nanyumbu,	Nanyumbu
	Unity Bridge	Lukula/ Mtambaswala	Masuguru	Nanyumbu
Newala DC	Shimo la Mungu	Nangwala	Nangwala	Newala
	Old Boma House	Mtonya	Mtonya	Newala
Mtwara DC	0	0	0	0
Tandahimba	0	0	0	0
Masasi TC	0	0	0	0

Source: Mtwara Region, Compiled Data from Councils (Trade Departments), 2015

Eco Tourism

Availability of good infrastructure such as accommodation facilities, telecommunication services, roads, banking/bureau de change services and tour operators are essential tools in the development of competitive tourism industry. Dar es Saalam to Mtwara road plays a key role in the eco-tourism development of the region. The road provides easy communication between the region and other big commercial cities in Tanzania like Dar es Salaam which encourage more people to come in search of business opportunities, mining activities as well as those who come for tourism purposes.

The available accommodation facilities which range from hotels to guest houses are to a large extent located at the centre of the region (Mtwara Municipal Council). In this regard, construction of new accommodation facilities becomes a pressing issue. There is also a need of increasing the number of financial services such as banks and bureau de change so as to meet the higher demand of these services in the near future. Table 3.54 shows accommodation facilities by council in Mtwara Region for the year 2015. According to Table 3.54, the region had 319 guest houses and 44 hotels by the end of 2015. Most of the guest houses (36.1 percent) and hotels (100 percent)

were concentrated in Mtwara Municipal which is the headquarters of the region. Masasi Town council had 96 guest houses but no hotels. Other councils had guest houses but no hotels.

Table 3. 53: Accommodation facilities by Council, Mtwara Region; 2015

Council	No. of Guest houses	Percent	Number of Hotels	Percent
Mtwara MMC	115	36.1	44	100.0
Masasi TC	96	30.1	0	0.0
Nanyumbu	37	11.6	0	0.0
Newala DC	27	8.5	0	0.0
Masasi DC	19	6.0	0	0.0
Tandahimba	19	6.0	0	0.0
Mtwara DC	6	1.9	0	0.0
Total	319	100	44	100.0

Source: Mtwara Region, Compiled Data from Councils (Trade Departments), 2015

3.5.7 Mining Sector

Although mining is an economic activity it is not well implemented in the region. Currently, many surveys and research activities are going on in search of mineral deposits in terms of quantity and quality. These surveys and research activities are done heavily by foreign companies while local companies are invested in small scales. However, there are small scale extractions of minerals in Mtwara, Newala and Masasi councils which are mostly extracting minerals, quarrying and sand.

3.5.8 Industrial Production

Industries all over Tanzania are known to play a major role in socio-economic development. This is also the case in Mtwara Region where industries, mostly small scale industries contribute significantly to jobs creation and stimulation of economic growth in both urban and rural areas of the region.

3.5.9 Commerce and Manufacturing Industries

Mtwara Region is well endowed with small and medium scale industries ranging from agro-processing industries, fishing and manufacturing of different products. Table 3.55 gives a number of small scale industries which were available in the region in 2015. It shows among 2,844 industries which were available in the region in 2015, 1,194 industries (42.0 percent of the total industries) were maize milling, 1,122 industries (39.5 percent) were carpentry, 275 industries (9.7 percent) were service industries, 195 industries (6.9 percent) were welding, 20 industries (0.7 percent) were timber processing, 16 industries (0.6 percent) were food processing, 6 industries were cashew nut and cassava processing, 5 industries were sunflower oil processing industries, 4 industries were carving and the remaining one industry was fresh water industries.

Table 3.54: Type of Small Scale Industries by Council, Mtwara Region; 2015

Type of Industry	Number of Industries	Percent	Total no. of staff	Percent
Maize milling	1,194	42.0	1,693	31.2
Carpentry	1,122	39.5	2,162	39.9
Service industry – garage	275	9.7	837	15.4
Welding	195	6.9	512	9.4
Timber processing	20	0.7	31	0.6
Food processing	16	0.6	43	0.8
Cashew nut Processing industries	6	0.2	79	1.5
Cassava processing industries	6	0.2	39	0.7
Sunflower oil processing mill	5	0.2	10	0.2
Carving Industry	4	0.1	12	0.2
Fresh water industry	1	0.0	6	0.1
Total	2,844	100.0	5,424	100.0

Source: Mtwara Region, Compiled Data from Councils (Trade Departments), 2015

Table 3.56 gives a number of medium scale industries which were available in the region in 2015. The distribution of medium scale industries by council were as follows: Newala District Council (One industry) and Masasi District Council (three industries) which were available in the region in 2015.

Table 3. 55: Type of Medium Scale Industries by Council, Mtwara Region; 2015

Council	Type of Industry	Number of industries
Newala DC	Cashewnut processing	1
Masasi DC	Food processing industry (Cassava)	1
	Fresh water industry (Abbey)	1
	Sunflower processing industry	1
Total		4

Source: Mtwara Region, Compiled Data from Councils (Trade Departments), 2015

Table 3.57 gives a number of large scale industries which were available in the region in 2015. The distribution of large scale industries by council were as follows: Mtwara District Council (2 industries), Newala District Council (1 industry) and Masasi District Council (1 industry) which were available in the region in 2015.

Table 3.56: Number of Large Scale Industries by Council, Mtwara Region; 2015

Council	Type of Industry	Number of industries
Mtwara DC	Manufacture of Cement	1
	Gas Processing Plant	1
Newala DC	Cash nut processing	1
Masasi DC	Fresh water industry (Ndanda Springs)	1
Total		4

Source: Mtwara Region, Compiled Data from Councils (Trade Departments), 2015

CHAPTER FOUR

Economic Infrastructure

4.1 Introduction

This chapter describes the existing economic infrastructure in Mtwara Region. It covers the road network in terms of road classification, type of road surface condition and how passable they are. Others include telecommunication covering postal services, internet, mobile phones, radio stations and television facilities. In the development of energy sector, services of industrial gas, biogas, solar panels, hydro- electricity, fuel wood and fossil fuels are also examined.

4.2 Road network



4.2.1 Road network- Umoja Bridge, (Tanzania-Msumbiji boundary)

In Mtwara Region, roads are a major means of transportation for people and goods within and outside the region. They are responsible for sustainable development and poverty reduction ingenuities in the region. Roads are contributory in stimulating social and economic development of a region. A high quality road network is essential not only for connecting key urban centers, but also for improving connectivity of more isolated local communities for whom many public transport options are limited or not available. Roads connect remote communities with the areas where there are more employment opportunities and services and facilities more readily available.

The roads that are maintained by the central government are classified as trunk or regional roads, while those that are maintained by the district council are called district or feeder roads; the rest of the roads are called peripheral roads or feeder roads and are mostly maintained by Village/Mitaa communities.

Table 4.1 shows that about 295.1 kms (4.3 percent of total road network) were trunk roads which are supervised by TANROADS and passable throughout the year. Regional roads were 898.7 kms (13 percent), district roads were 2741.8 kms (39.6 percent) which are supervised by the councils. Feeder roads constituted 2995.9 kms (43.2 percent of total length of all roads in the council).

Table 4.1: Road Networks by Type of Road (in Km) and Council, Mtwara Region; 2015

Council	Type of Road (in km)				Total
	Trunk	Regional	District/Urban	Feeder	
Mtwara	52.3	238.5	571.35	216.5	1079
Newala	0	165	620.84	587	1372.8
Masasi	62	113.5	267.5	1169.5	1612.5
Tandahimba	72.5	225	495	449	1241.5
Mtwara MMC	15	13	167	104.67	299.7
Nanyumbu	93.3	97	459	356.5	1006
Masasi TC	0	46.7	161.1	112.69	320.5
Total	295.1	898.7	2,741.8	2,995.9	6,932.0
Percent	4.3	13	39.6	43.2	100

Source: District Works Office

4.2.2 Road Passability

Effectiveness of roads and their worthiness are normally assessed during rainy season. Table



4.2 shows that 91.9 percent (6,367.6 kms) of the total road network in Mtwara Region were passable of which 61.5 percent (4,262.5 kms) were passable throughout the year while 30.4 percent (2105.1 kms) were passable during a certain period of the year. Moreover, 563.8 kms (8.1 percent) of the total road network of Mtwara Region are not passable most of the time in the year. Newala District Council (18.5 percent) had the largest proportion of road network passable in the year while Masasi Town Council had the

smallest (3.6 percent). One general observation from these data is that rural part of the region has a problem of communication due to poor condition of road surface as 81 percent are earth roads.

Table 4. 2: Passability of Road Network by Council, Mtwara Region; 2015

Council	Condition of Network Throughout the Year in km			Total Road Network	Total passable in km (Column 2 and 3)	Percentage Passable
	Passable Throughout the Year	Passable a Greater Part of the Year	Not Passable Most of the Year			
Mtwara	854.7	155.3	68.6	1079	1010	93.6
Newala	1041.41	134	197.43	1372.8	1175.41	85.6
Masasi	443	1034.5	135	1612.5	1477.5	91.6
Tandahimba	878.9	289.1	73.5	1241.5	1168	94.1
Mtwara MMC	299.7	0	0	299.7	299.7	100.0
Nanyumbu	717.8	288	0	1006	1005.8	100.0
Masasi TC	27	204.2	89.3	320.5	231.2	72.1
Total	4,262.5	2,105.1	563.8	6,932	6,367.6	91.9
Percent	61.5	30.4	8.1	100		

Source: District Works Office

4.2.3 Road Network Classification

The grade of the road surface to a large extent reflects the quality of the road with regard to robustness and pass-ability in different seasons. Under this aspect, further analysis has been made on surface condition of roads in terms of the relative strength of tarmac, gravel and earth as construction materials.



Table 4.3 shows that 6 percent of the surface road network is covered by tarmac, 13.3 percent is made up of gravel and the remaining parts (80.9 percent) were earth roads. The greater part of the roads is in Masasi District Council which covers 1,612.5 kilometers (23.3 percent), followed by Newala District Council 1,372.8 kilometers (19.8 percent), Tandahimba (1,242.0 kms, 17.9 percent) and Nanyumbu DC (1006 kilometers, 14.5 percent). Mtwara Municipal had the shortest road network of 299.7kms (4.3 percent) of the total regional road network.

Table 4. 3: Road Network Surface Condition (Kms) by Council, Mtwara Region; 2015

Council	Tarmac	Gravel	Earth	Total	Percent covered
Mtwara	30.6	311.5	736.5	1,079	15.6
Newala	38.2	233.9	1,100.80	1372.8	19.8
Masasi	75	101.3	1,436	1612.5	23.3
Tandahimba	2.5	115	1,124	1242	17.9
Mtwara MMC	42.3	53.4	204	299.7	4.3
Nanyumbu	175.7	70.9	759	1,006	14.5
Masasi TC	49.1	33	238	320.49	4.6
Total	413.3	919	5,598.60	6,932	100
Percent	6	13.3	80.8	100.0	

Source: District Works Office

4.2.4 Air Transport

The airport of Mtwara is situated 8 kilometres (5.0 miles), by road, in Naliendele ward southern part of Mtwara Municipal. The capacity of Mtwara Airport is at present well utilized and there is a high demand for air transport particularly among business community. The demand sometimes exceeds the supply. Air Tanzania; a public airline has currently started its routes again to meet the demand of the customers at an affordable price.

The main scheduled airline is operating daily between Mtwara and Dar es Salaam. In addition to Air Tanzania domestic flights, private sector companies also operate regularly from Mtwara to Dar es Salaam. Information received from Airport Authority declared that a total of 9,444 passengers and 22.6 tons of cargo were handled by the Mtwara airport in 2015.

4.2.5 Railway Services

Mtwara Region does not have a railway line. Plans are underway to construct a standard gauge from Mtwara to Mchuchuma and Liganga coal mines.

4.3 Telecommunications Services

Telecommunications, also known as telecom, is the exchange of information over significant distances by electronic means and refers to all types of voice, data and video transmission. Telecommunication occurs when the exchange of information between communication participants includes the use of technology. In Mtwara Region, Information and Telecommunication Technology (ICT) is not fully utilized.

Table 4.4 indicates that in 2015 Mtwara Region had 1,629 telephone lines or land lines. However, it had 6 radio stations situated each at Newala, Masasi DC and 4 of them in Mtwara Municipal Council. The region is fortunate of having one television cable (Mtwara Cable TV) at Mtwara Mikindani Municipal. Also, it had 9 internet centers, mostly at Mtwara MMC (5), Tandahimba (2) and Masasi Town Council (2) while Mtwara, Newala and Masasi DC had no

internet services. Four post offices are located in four councils each with one office (Newala DC, Tandahimba, Masasi Town Council and Mtwara MMC). To that extent, there is a need to promote effective application and use of ICT in business and in enhancing community participation in development activities.

Table 4. 4: Telecommunications Services by Council, Mtwara Region, 2015

Council	No. of Tel. Lines (land lines)	No. of Television Stations	No. of Radio Stations	No. of Internet Centers	No. of Post Offices	No. of Sub-Post Offices
Mtwara	0	0	0	0	0	0
Newala	150	0	1	0	1	1
Masasi	15	0	0	0	0	1
Tandahimba	92	0	0	2	1	0
Mtwara MMC	1150	1	4	5	1	0
Nanyumbu	0	0	0	0	0	0
Masasi TC	222	0	1	2	1	0
Total	1,629	1	6	9	4	2

Source: District Works Office

4.3.1 Energy Sector

Several sources of energy are being used in the region for domestic and commercial purposes. These include electricity, solar, firewood and charcoal. Electricity is available in almost every council that has urban and semi-urban characteristics.

4.3.2 Electricity



Mtwara Thermal Power Plant Station

Electricity as energy is more important in the development of the region especially in industrial sector. The region hinges on the electricity from Mtwara Thermal Power Plant Station which is owned by TANESCO. The station has a capacity of 18 megawatts

(24,000 hp) and uses natural gas from the Mnazi Bay gas wells in Mtwara. The station is not connected to the national grid but is instead connected to the Mtwara mini-grid.

Table 4.5 shows an increasing trend in the number of domestic customers of electricity. In 2011, the number of domestic customers was 10,795 then it increased to 25,301 (57 percent) in 2015. The number of commercial customers increased from 264 customers in 2011 to 580 customers (54 percent) in 2015. Likewise, the number of institutions also increased from 112 customers in 2011 to 433 customers (74 percent) in 2015.

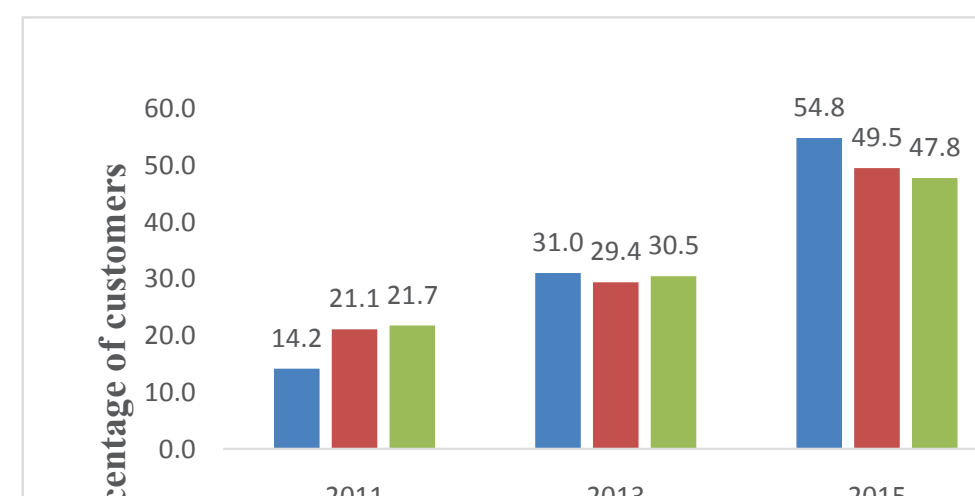
Table 4.5: Number of Customers Connected to Electricity by Council, Mtwara Region, 2011, 2013 and 2015

Council	Institution			Domestic			Commercial		
	2011	2013	2015	2011	2013	2015	2011	2013	2015
Mtwara	59	119	216	5,326	7,370	12,894	93	116	154
Newala	18	31	46	1,819	2,429	3,721	33	65	113
Masasi	29	73	133	2,770	3,551	5,932	126	154	264
Tandahimba	6	17	29	880	1,219	1,799	12	31	42
Nanyumbu	0	5	9	0	462	955	0	4	7
Total	112	245	433	10,795	15,031	25,301	264	370	580

Source: TANESCO, Mtwara Region, 2015.

Figure 4.1 presents the percentage of customers for the year 2011, 2013 and 2015 in three groups namely, Institution, Domestic and Commercial. Conversely, the findings show that there is high increase of Institution customers from 2011 (14.2 percent) to 54.8 percent in 2015. Commercial customers also upturn from 21.1 percent in 2011 to 49.5 percent in 2015, an increase of customers in both three groups for the three years in the region. However, TANESCO should vitalize on the distribution of electricity especially in rural areas. This will help to simplify the cost of life to individuals as well as accelerate regional economy.

Figure 4.1: Number of Customers Connected to Electricity, Mtwara Region, 2011, 2013 and 2015



Source: TANESCO, Mtwara Region.

4.3.3 Source of Energy for Cooking

The 2012 Population and Housing census collected information on households' main source of energy for cooking. Results show that most of the private households used firewood as source of energy for cooking (86.7 percent), followed by charcoal (11.2 percent). Paraffin accounted for about 1.1 percent while other sources like electricity, solar, gas and other sources accounted for less than one percent each. (Table 4.6)

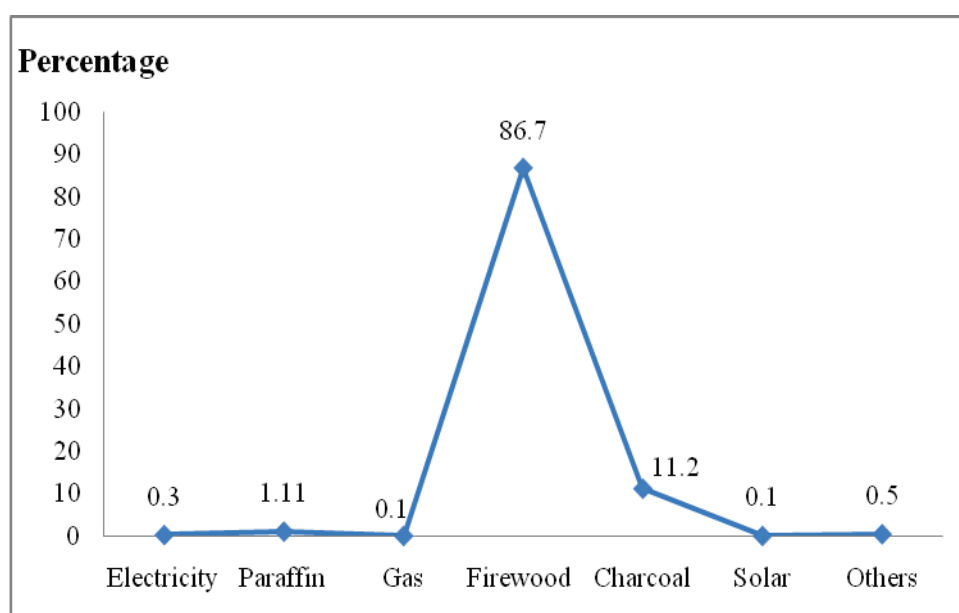
Table 4. 6: Number of Private Households by Main Sources of Energy for cooking, Mtwara Region, 2012

Council	Electricity	Paraffin	Gas	Firewood	Charcoal	Solar	Others	Total
Mtwara	-	469	-	56,024	1,875	59	176	58,602
Newala	116	580	-	53,856	3,250	58	174	58,035
Masasi	68	677	-	63,385	3,251	-	339	67,720
Tandahimba	61	1,339	-	57,341	1,887	61	183	60,872
Mtwara MMC	615	503	308	8,922	17,312	28	280	27,968
Nanyumbu	-	81	41	38,423	1,956	-	244	40,746
Masasi TC	310	198	56	18,768	8,636	28	226	28,222
Total	1,170	3,848	405	296,720	38,167	234	1,621	342,165
Percent	0.3	1.11	0.1	86.7	11.2	0.1	0.5	100

Source: Population and Housing Census (PHC), 2012.

In essence, large population of Mtwara is still using firewood as its main source of energy for cooking (86.7 percent). However, there is high consumption of firewood for cooking in the region. This consumption level threatens the existence of forests since it exceeds the regenerative capacity of the existing forests (Figure 4.2).

Figure 4. 2: Percentage of Household by main source of energy for cooking, Mtwara Region, 2012



Source: Population and Housing Census (PHC), 2012.

4.3.4 Agricultural Productivity Road Network

Agricultural productivity road network gives indication of intensity of road network into



agriculture development by establishing tonnage of crops per kilometre. Mtwara Region had agricultural production of 18,175,340 tonnes of both food and cash crops in the crop season of 2014/15. The road network in the region facilitated transportation of 2,621.0 tonnes/km. At council level,

Masasi Town Council had the highest tonnage of crops transported through road network available in the council (26,435.2 tonnes/km). This was followed by Newala District Council (6,467.2 tonnes/km), Masasi Town Council (2,643.6 tonnes/km) and Masasi District Council (238.8 tonnes/km).

Table 4. 7: Agricultural Productivity of the Road Network, Mtwara Region; 2014/15

Council	Total Road Length (kms)	Agricultural Production (tonnes)			Tonnes/km
		Food crops	Cash Crops	Total	
Mtwara DC	1079	50,205.40	17,046.50	67,251.90	62.3
NewalaDC	1372.8	169,291	8,708,916	8,878,207	6467.2
Masasi DC	1612.5	207,574	177,504	385,077	238.8
Tandahimba DC	1241.5	167,131	61,214	228,345	183.9
Mtwara MMC	299.7	7,070	1,064	8,134	27.1
Nanyumbu DC	1006	88,076	42,682	130,758	130.0
Masasi TC	320.5	11,640.59	8,460,849	8,472,489.59	26,435.2
Total	6,932	700,987.30	17,469,275.50	18,170,262	2,621

Source: District Works Office

4.3.5 Policy Implication on Economic Infrastructure

Improvement of road infrastructure is highly recommended. Improved roads will have multiplier effect such as increase in transportation of goods and services. Moreover, as the majority of Mtwara population use firewood and charcoal for cooking (0.3 percent) and with about 8 percent of households using electricity for lighting, initiatives are needed to use alternative sources of energy for cooking and lighting such as thermal gas so as to reduce destruction of forest cover.

CHAPTER FIVE

Social Services

5.1 Introduction

This chapter discusses the status of social services available in Mtwara Region and covers health and education sectors development in terms of the existing facilities and improvements made in the provision of services.

5.2 Health Sector

5.2.1 Health Facilities

The status of public health services in any region can easily be accessed through health facilities in place, availability and commitment of health personnel, implementation of preventive and curative measures and availability of medicines. This part of social services covers health facilities available in the Region, current levels of morbidity, mortality, prenatal, neonatal and reportable communicable diseases. It also covers HIV and AIDS prevalence, tuberculosis and mother and child health.

According to the national health policy, Mtwara Region has implemented the policy of having a health centre in each ward but not a dispensary in each “mtaa”. The region still has shortage of health centres and dispensaries which are likely to cause unnecessary loss of peoples’ lives. Table 5.1 indicates that in 2015, the region had 223 health facilities (190 wards) and 189 villages/Mitaa resulting into a ratio of 1.2 health centre per ward and an average of 1 dispensary per village/mtaa. However, two councils namely Mtwara Municipal Council and Masasi Town Council had no dispensary in each mtaa. In addition, Mtwara District Council had the largest number of health facilities (50) followed by Masasi District Council (45), Newla District Council (37) and Tandahimba District Council (35 health facilities). The region also had 6 hospitals, 20 health centres and 201 dispensaries. On the other hand, each ward in the region had an average of one health centre (1.2).

Table 5. 1: Distribution of Health Facilities by Council and Type of Facility, Mtwara Region, 2015

Council	Number of Wards	Number of /Villages Mitaa	Type of Facility						Total	Health Centre Per Ward	Dispensaries per Mtaa
			Hospitals		Health Centres		Dispensaries				
			Public	Private	Public	Private	Public	Private			
Mtwara DC	38	9	0	0	3	1	50	0	50	1.3	6
Newala DC	38	11	1	0	3	1	32	0	37	1.0	3
Masasi DC	34	0	0	1	2	1	34	7	45	1.3	0
Tandahimba DC	31	0	1	0	2	1	29	2	35	1.0	0
Mtwara MMC	18	111	1	0	2	1	9	9	22	1.0	0
Nanyumbu DC	17	0	1	0	2	0	16	1	20	1.2	0
Masasi TC	14	58	1	0	0	1	7	5	14	1.0	0
Total	190	189	5	1	14	6	177	24	223	1.2	1

Source: District Offices (DMOs), 2015

5.1.2 Complementary Service Providers

Complementary service providers and primary health facilities have a significant contribution to the general service delivery system particularly in rural areas. Generally, the available health providers are not enough to serve the ever growing population, hence, the Government is compelled to allow the establishment of primary rural health centres in villages and Mitaa. These centres are operated by Village Health Workers (VHWs) assisted by Traditional Birth Attendants (TBAs) under the supervision of Village Health Committees (VHCs). Table 5.2 shows that in 2015, the region had 408 trained Tradition Birth Attendants, 1,592 Village Health Workers and 59 Village Health Personnel. Masasi District Council had the largest number of trained TBAs (306) with an average of 9 TBAs per ward followed by Mtwara District Council (86 TBAs), 4 per ward and Mtwara Municipal Council had 10 TBAs (1 TBAs per ward).

Table 5.2: Distribution of Complementary Rural Health Facilities, Mtwara Region, 2015

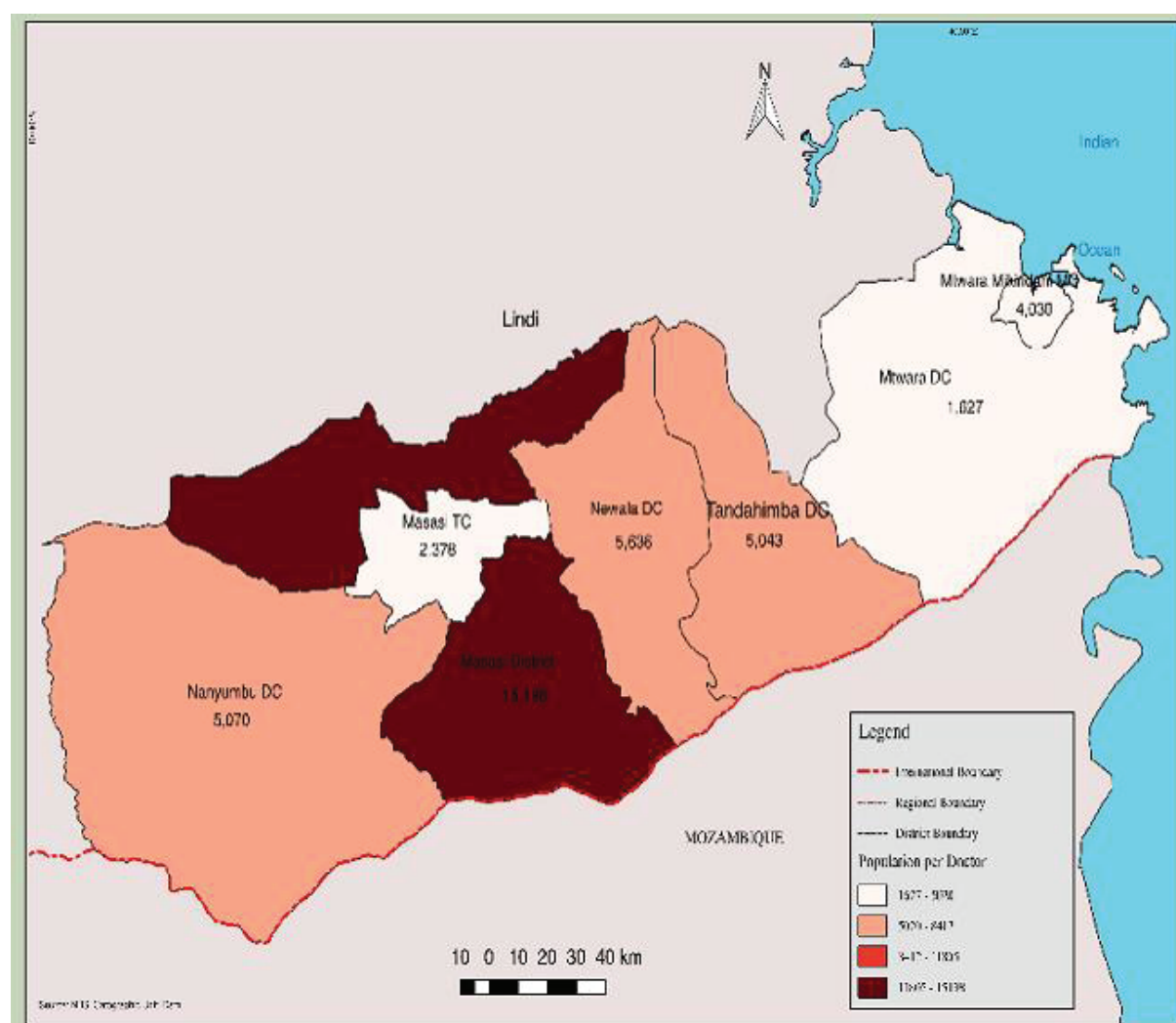
Ward	Number of Wards	TBAs Per Ward		No. of VHWs	No. of VHP	No. of TMP (Registered)
		No. of TBAs (Trained)				
Mtwara DC	20	86	4	323	0	240
Newala DC	15	0	0	310	5	38
Masasi DC	34	306	7	306	0	394
Tandahimba DC	25	0	0	326	0	54
Mtwara MMC	14	10	1	61	0	4
Nanyumbu DC	17	6	1	182	0	24
Masasi TC	14	0	0	84	54	112
Total	139	408	13	1,592	59	866

Source: District Offices (DMOs), 2016

5.1.3 Population per Health Facility

Table 5.3 shows the average population per doctor in 2002, 2012 and 2015. In 2015, the region had 363 doctors to serve the region's population of 1,386,103. On average, the doctor population ratio was estimated at 1:8,717 in 2002, 1:4,778 in 2012 but decreased to 1:3,818 in 2015. Councils wise, in 2015, Masasi District Council was more affected with highly affected with a high population per doctor ratio (1:15,198) followed by Newala District Council (1:5,636) and Nanyumbu District Council had a ratio of 5,070 people per doctor. Mtwara District Council had the lowest ratio of 1,627 people per doctor.

Map 4: Map of Mtwara Region Showing Distribution of Population per Doctor by Council, 2015



Source: NBS, Cartographic Unit, Dsm

Table 5.3: Number of Doctors and Population per Doctor, Mtwara Region, 2002, 2012 and 2015

Ward	2002			2012			2015		
	Total Population (Census)	No. of Doctors	Population Per Doctor	Total Population (Census)	No. of Doctors	Population Per Doctor	Total Population (Projected)	No. of Doctors	Population Per Doctor
Mtwara DC	204,157	60	3,403	228,003	120	1900	237,538	146	1,627
Newala DC	183,344	27	6,791	205,492	35	5871	276,188	49	5,636
Masasi DC	220,852	0	0	247,993	16	15500	258,364	17	15,198
Tandahimba DC	203,837	34	5,995	227,514	48	4740	237,028	47	5,043
Mtwara MMC	92,156	8	11,520	108,299	18	6017	112,828	28	4,030
Nanyumbu DC	131,612	0	0	150,857	29	5202	157,166	31	5,070
Masasi TC	88,523	0	0	102,696	0	0	106,991	45	2,378
Total	1,124,481	129	8,717	1,270,854	266	4,778	1,386,103	363	3,818

Source: District Offices (DMOs), 2016.

5.1.4 Morbidity

The findings in Mtwara Region reveal that malaria is the major course of health problems to the people. Table 5.4 shows that, out of 472,131 out patients recorded in 2011 and 750,662 in 2015, 87.9 percent and 90.4 percent were suffering from one of the first five illnesses. It is observed that, 45.9 percent of out-patients in Mtwara Region in 2011 and more than half of the regions' population (55.5 percent in 2015) suffered from malaria. The artificial respiratory infection (ARI) is the second cause of illness of out patients (18.7 percent) in 2011 and 14.2 percent in 2015. However, the proportion of out-patients who suffered from the first five illnesses decreased while malaria increased by 9.6 percent during the same period.

Table 5.4: The Ten Most Commonly Reported Causes of Morbidity (Out Patients Only), Mtwara Region, 2011 and 2015

Number	2011			Percent	2015		
	Disease	Number of Occurrences			Disease	Number of Occurrences	Percent
1	Malaria	216,725	45.9		Malaria	416,282	55.5
2	ARI	88,392	18.7		ARI	106,384	14.2
3	Pneumonia	53,313	11.3		Pneumonia	69,285	9.2
4	Diarrhea disease	31,876	6.8		Diarrhea diseases	55,500	7.4
5	Skin diseases	24,404	5.2		Skin diseases	31,111	4.1
6	Eye diseases	23,945	5.1		Anemia	7,000	0.9
7	Intestinal worms	13,228	2.8		Intestinal worms	28,978	3.9
8	Ear infection	7,957	1.7		Acute Respiratory Infection	17,292	2.3
9	UTI	7564	1.6		UTI	14,694	2.0
10	Minor surgical	4,727	1.0		Sexually transmitted diseases	4,136	0.6
Total		472,131	100.0			750,662	100.0

Source: District Offices (DMOs), 2016

As observed for out-patients, Table 5.5 indicates that in 2011 and 2015, malaria was the first cause of illness for in - patients in Mtwara Region. It accounted for 90.0 percent in 2011 and 77.9 percent in 2015, was followed by pneumonia (3.5 percent in 2011 and 8.7 percent in 2015), while HIV/AIDS accounted for 1.5 percent in 2011 and 0.6 percent in 2015.

Table 5.5: List of the Ten Most Commonly Reported Causes of Morbidity (In - Patients Only), Mtwara Region, 2011 and 2015

Number	2011		%	2015		%
	Disease	Number of Occurrences		Disease	Number of Occurrences	
1	Malaria	160,502	90.0	Malaria	107,101	77.9
2	Pneumonia	6,233	3.5	Pneumonia	11,902	8.7
3	Anemia	1,674	0.9	Anemia	5,240	3.8
4	Diarrhea diseases	1712	1.0	Diarrhea diseases	2,893	2.1
5	Bacterial infection	280	0.2	Acute ear infection	1,098	0.8
6	Other diagnosis	1,710	1.0	Bronchial Asthma	2,013	1.5
7	Clinical AIDS	2,589	1.5	Carries	1,278	0.9
8	ARI	1,461	0.8	Normal Deliveries	4,190	3.0
9	Emergency surgical conditions	1,945	1.1	Epilepsy	1,016	0.7
10	Normal Deliveries	236	0.1	HIV/AIDS	816	0.6
Total		178,342	100.0		137,547	100.0

Source: District Offices (DMOs), 2016.

5.1.5 Mortality

Mortality rate or death rate is a measure of the number of deaths in general or due to a specific cause in a particular population. It can be traced by observing the death records of in-patients at hospital health facility and those who die at home. Generally, as a result of poor management of village or mtaa registers, the region has been depending on only death records of in-patients.

Table 5.6 shows the prevailing causes of mortality for in-patients in Mtwara Region. It is revealed that in 2015, 27.3 percent (323) of in-patient deaths were caused by malaria. The proportion of people who died from malaria decreased from 35.4 percent in 2011 to 27.3 percent in 2015. The second cause of death in 2011 was HIV/AIDS (10.9 percent) while, in 2015, the second cause of death was diarrhea (13.4 percent). However, the proportion of people who died due to HIV/AIDS in 2015 was 11.0 percent of the total deaths in the region.

Table 5.6: The Ten Most Commonly Reported Causes of Mortality by Number of Deaths in Mtwara Region, (In Patients Only), 2011 and 2015

Number	2011			2015		
	Disease	Number of Occurrences	Percent	Disease	Number of Occurrences	Percent
1	Malaria	290	35.4	Malaria	323	27.3
2	Emergency surgical conditions	89	10.9	HIV/AIDS	130	11.0
3	Pneumonia	75	9.1	Pneumonia	119	10.1
4	ARI	39	4.8	Anemia	138	11.7
5	HIV/AIDS	84	10.2	hypertension	130	11
6	Cardiac failure	28	3.4	Diarrhea	158	13.4
7	Prematurity/Low Birth weight	23	2.8	Burns	131	11.1
8	Anemia	79	9.6	Cardiac failure	22	1.9
9	Diarrhea	20	2.4	Prematurity/Low Birth weight	15	1.3
10	Other diagnosis	93	11.3	Neonatal sepsis	15	1.3
Total		820	100.0		1181	100.0

Source: District Offices (DMOs), 2016.

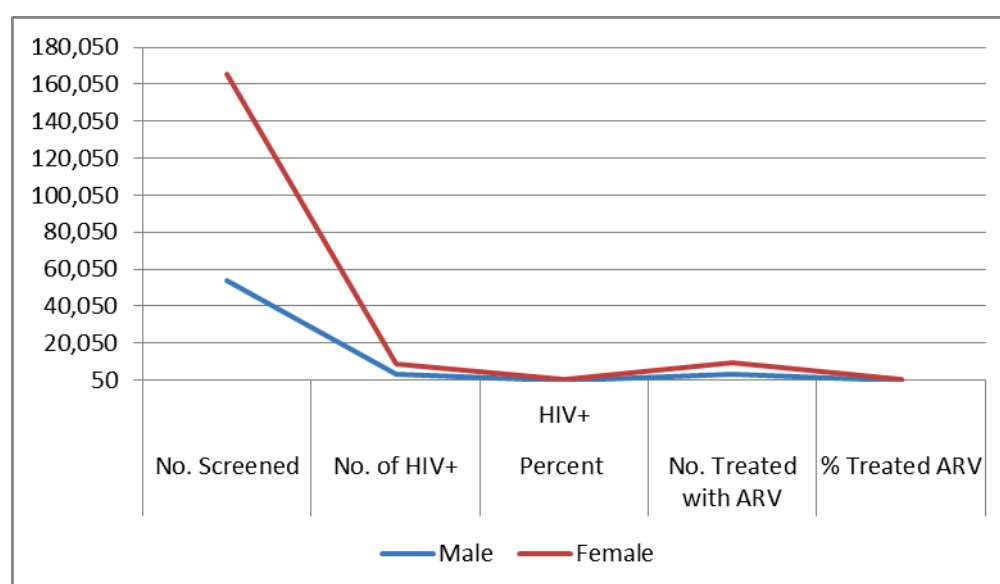
5.1.6 HIV/AIDS Infections

Table 5.7 shows that the number of VCT volunteers who were screened for HIV and those who are HIV+ decreased from 2,746 (5.8 percent) in 2011 to 2,743 (3.8 percent) in 2015. On the other hand, the proportion of females who are HIV+ is larger in 2015 (72.8 percent) than that of males (27.2 percent). The results also reveal that the proportion of VCT volunteers who were screened for HIV is larger for females (68.9 percent in 2011 and 72.8 percent in 2015) compared to males (31.1 percent in 2011 while 27.2 in 2015). Female volunteers who were screened and found to be HIV+ were 44.8 percent in 2011 and 140.3 in 2015. Among male volunteers, while 28.9 percent were treated with ARVs in 2011 and 61.8 percent were treated in 2015

Table 5.7: Group of VCT Volunteers who were screened for HIV and Those Subsequently Treated with ARV by Sex, Mtwara Region, 2011, 2013 and 2015

Year	Sex	No. Screened	No. of HIV+	Percent HIV+	No. Treated with ARV	% Treated ARV
2011	Male	13,922	855	31.1	794	28.9
	Female	33,374	1,891	68.9	1,231	44.8
	Total	47,296	2,746	100.0	2,025	73.7
2013	Male	15,230	1,276	38.3	961	28.9
	Female	30,749	2,054	61.7	910	27.3
	Total	45,979	3,330	100.0	1,871	56.2
2015	Male	24,757	746	27.2	1,696	61.8
	Female	47,507	1,997	72.8	3,849	140.3
	Total	72,264	2,743	100.0	5,545	202.2
Total	Male	53,909	2,877	32.6	3,451	39.1
	Female	111,630	5,942	67.4	5,990	67.9
TOTAL		165,539	8,819	100.0	9,441	107.1

Source: District Offices (DMOs), 2016.

Figure 5. 1: HIV Prevalence among VCT Volunteers, Mtwara Region, 2011, 2012 and 2015.

Source: District Offices (DMOs), 2016.

5.17 Basic Health Indicators

Infant Mortality Rate (IMR), Under Five Mortality Rate (U5MR), Maternal Mortality Rate (MMR), Prenatal Mortality Rate and Neonatal Mortality Rate

Health information undoubtedly has great social, political and economic importance. To have relevant information, it means to have basis for timely reporting, basis for action, and prerequisites for success. The purpose is to produce and use adequately appropriate information about health status, health risks and health outcomes in order to establish priorities. Basic set of relevant and measurable indicators such as IMR, U5MR, MMR, Prenatal Mortality and Neonatal Mortality should be founded on different aspects of health

and health care (health promotion, diseases prevention, clinical treatment and rehabilitation, monitoring and evaluation) as part of every day's routine in health sector across the region.

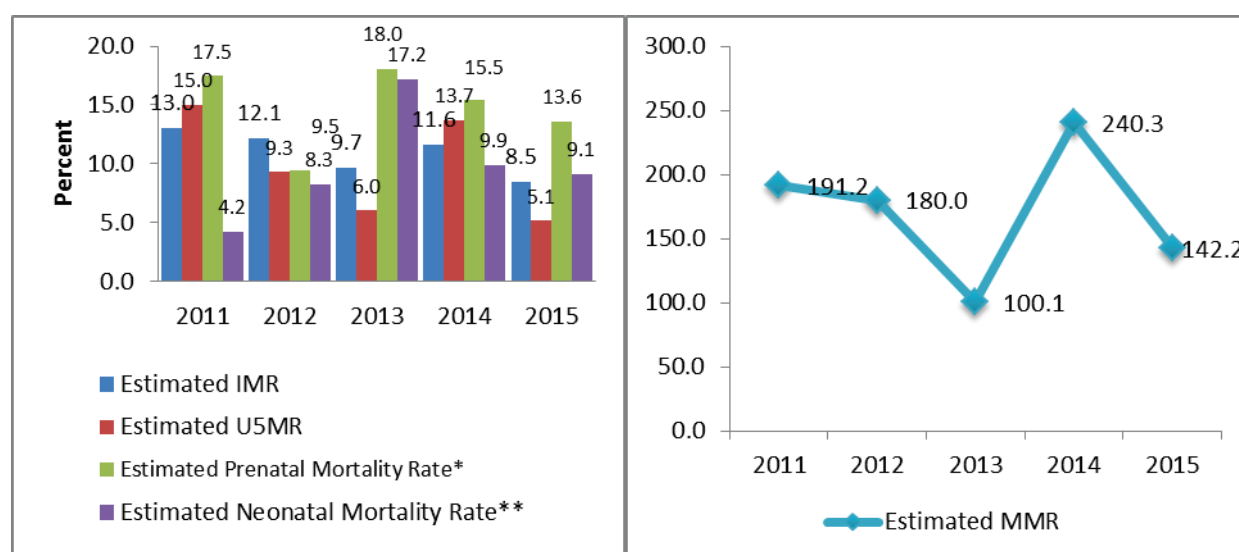
Table 5.8 reveals that basic health indicators in Mtwara Region had decreasing trend between 2011 and 2015. The available data show that the proportion of under one year deaths per 1000 live births (IMR) decreased from 13 deaths per 1000 live births in 2011 to 9 deaths per 1000 births in 2015. Likewise, the under-five mortality deaths per 1000 live births (U5MR) in the region follows the same pattern as that observed for IMR whereby U5MR decreased from 15 deaths per 1000 births in 2011 to 5.1 deaths per 1000 births in 2015.

Conversely, maternal deaths increased from 191 deaths per 100,000 births in 2011 to 240 deaths per 100,000 births in 2014. However, in 2015, MMR declined slightly to 142 deaths per 100,000 births. Prenatal deaths which is a fetal death or still birth or an early neonatal death ranged from 10 deaths per 1000 births in 2012 to 18 deaths per 1000 births in 2013. However, deaths during the first 28 days of life (0-27 days) known as the number of neonatal deaths was largest in 2013 (17 deaths per 1000 births) and least in 2011 (4 deaths per 1000 births).

Table 5.8: Estimates of Basic Health Indicators, Mtwara Region, 2011, 2012, 2013 2014 and 2015

Year	Estimated IMR	Estimated U5MR	Estimated MMR	Estimated Prenatal Mortality Rate*	Estimated Neonatal Mortality Rate**
2011	13.0	15.0	191.2	17.5	4.2
2012	12.1	9.3	180.0	9.5	8.3
2013	9.7	6.0	100.1	18.0	17.2
2014	11.6	13.7	240.3	15.5	9.9
2015	8.5	5.1	142.2	13.6	9.1

Source: District Offices (DMOs), 2016.

Figure 5.2: Estimates of Basic Health Indicators, Mtwara Region, 2011, 2012, 2013 2014 and 2015

Source: District Offices (DMOs), 2016.

5.1.8 Tuberculosis Prevalence

The effort by the Government and Mtwara Region to fight tuberculosis (TB) has not shown much success since the available data indicate that the number of new tuberculosis cases has increased in the last five years. TB, like other related diseases, has been increasing as a result of the increased cases of newly infected HIV/AIDS patients. Medical records show that TB cases in the region decreased from 1,633 in 2010 to 1,602 cases in 2015. The magnitude of tuberculosis prevalence between sexes slightly differ from year to year, but males were more affected than females (from 1,034 in 2010 to 1,047 in 2015) and affected females decreased from 599 in 2010 to 555 cases in 2015 (Table 5.9).

At the council's level, TB cases have decreased steadily from 409 in 2010 to 245 in 2015 in Mtwara Municipal Council followed by Nanyumbu District Council which recorded a decline from 124 in 2010 to 85 in 2015. However, Mtwara District Council and Tandahimba District Council recorded increase of new TB cases between 2010 and 2015 as shown in Table 5.9.

Table 5.9: Distribution of Number of New Tuberculosis Cases by Council and Sex, Mtwara Region, 2010-2015

Council	Sex	2010	2011	2012	2013	2014	2015
Mtwara DC	Male	72	90	96	96	77	89
	Female	52	70	63	85	68	64
	Total	124	160	159	181	145	153
Newala DC	Male	60	53	62	73	82	156
	Female	44	40	51	78	77	83
	Total	104	93	113	151	159	239
Masasi DC	Male	218	203	324	190	162	237
	Female	200	295	226	253	265	125
	Total	418	498	550	443	427	362
Tandahimba	Male	178	149	162	179	184	241
	Female	88	101	92	93	130	127
	Total	266	250	254	272	314	368
Mtwara MC	Male	309	200	145	142	100	170
	Female	100	193	100	100	161	75
	Total	409	393	245	242	261	245
Nanyumbu DC	Male	68	76	74	64	61	59
	Female	56	47	37	40	48	26
	Total	124	123	111	104	109	85
Masasi TC	Male	129	130	106	124	95	95
	Female	59	67	47	68	57	55
	Total	188	197	153	192	152	150
TOTAL	Male	1034	901	969	868	761	1047
	Female	599	813	616	717	806	555
	Total	1,633	1,714	1,585	1,585	1,567	1,602

Source: District Offices (DMOs), 2016

Table 5.10 shows HIV prevalence among pregnant mothers (PMTCT) in Mtwara Region. It is indicated that, out of 36,323 expectant mothers screened for PMTCT service in 2015, 880 of them (2.4 percent) were found to be HIV positive. The HIV prevalence among pregnant mothers is significantly larger in Masasi Town Council (5.7 percent) followed by Mtwara Municipal Council (5.2 percent) and Masasi District Council had 1.9 percent. However, Tandahimba District Council had the lowest proportion of HIV prevalence among pregnant mothers (1.2 percent).

Furthermore, majority of HIV+ pregnant mothers in Newala Masasi, Tandahimba and Nanyumbu District Councils use antiretroviral treatment to HIV to stop their infants from acquiring the virus (100.0 percent). Other councils recorded somehow high proportions of achievements ranging between 98.9 percent observed in Mtwara District Council but Masasi Town Council had no indication of using the services.

Table 5. 10: Expectant Mothers who Participated in the PMTCT Services, Mtwara Region, 2015

Council	No. of AN Attendants	No. Screened	No. HIV+	Percent of HIV+	No. Of Given Niverapine	Percent of Given Niverapine
Mtwara DC	6,610	5,990	94	1.6	93	98.9
Newala DC	6,048	5,795	138	2.4	140	101.4
Masasi DC	7,571	6,981	132	1.9	263	199.2
Tandahimba DC	7,241	6,422	80	1.2	80	100.0
Mtwara MMC	3,952	3,689	193	5.2	13	6.7
Nanyumbu DC	5,328	4,511	77	1.7	77	100.0
Masasi TC	3,077	2,935	166	5.7	0	0.0
Total	39,827	36,323	880	2.4	666	75.7

Source: District Offices (DMOs), 2016.

5.1.9 Mother and Child Health Care

(i) Tetanus Toxoid2 Vaccination

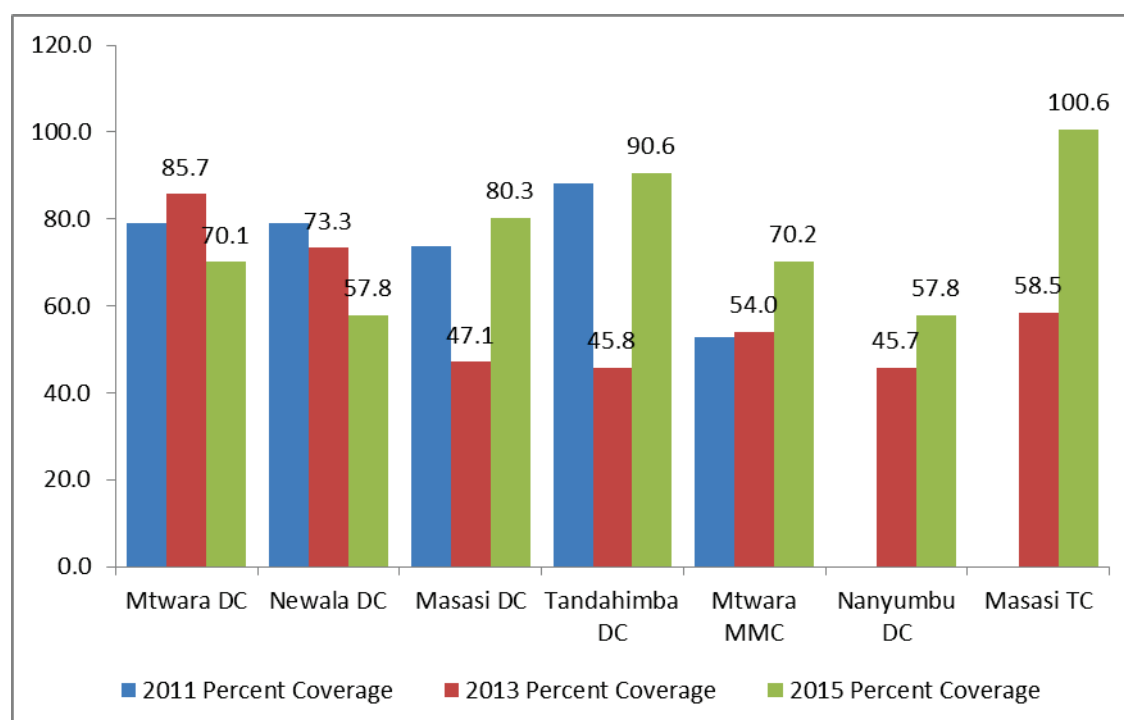
The Tetanus Toxoid (TT2) vaccine is given to women during pregnancy to prevent the risk of tetanus to them as well as their unborn babies. Reduction of deaths among children and their mothers as a result of TT2 in Mtwara is attributed to the considerable coverage of immunization campaign in the region. Table 5.11 reveals that about 79 percent of the targeted expectant mothers were vaccinated with TT2 in 2011 and then decreased to 57.7 percent in 2013 but increased in 2015 to 76.2 percent of the targeted expectant mothers.

At the council level, in 2015, Masasi Town Council reported the best vaccination coverage of 100.6 percent of the targeted mothers followed by Tandahimba District Council (90.6 percent), Masasi District Council (80.3 percent), Mtwara Municipal Council (70.2 percent) and Mtwara District Council (70.1 percent). (Table 5.11).

Table 5.11: Distribution of Expectant Mothers Vaccinated TT2, Mtwara Region, 2011, 2013 and 2015

Council	2011			2013			2015		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Mtwara DC	6,314	4,991	79.0	7,293	6,249	85.7	8,408	5,893	70.1
Newala DC	4,247	3,351	78.9	4,543	3,330	73.3	5,866	3,388	57.8
Masasi DC	11,633	8,567	73.6	8,783	4,135	47.1	9,510	7,639	80.3
Tandahimba DC	8,662	7,635	88.1	8,568	3,928	45.8	9,592	8,686	90.6
Mtwara MMC	717	378	52.7	3,962	2,140	54.0	3,852	2,706	70.2
Nanyumbu DC	0	0	0	5,602	2,561	45.7	5,326	3,076	57.8
Masasi TC	0	0	0	3,596	2,102	58.5	4,258	4,282	100.6
Total	31,573	24,922	78.9	42,347	24,445	57.7	46,812	35,670	76.2

Source: District Offices (DMOs), 2016.

Figure 5.3: Percentage Coverage of Expectant Mothers Vaccinated TT2, Mtwara Region, 2011, 2013 and 2015

Source: District Offices (DMOs), 2016.

(ii) BCG vaccination

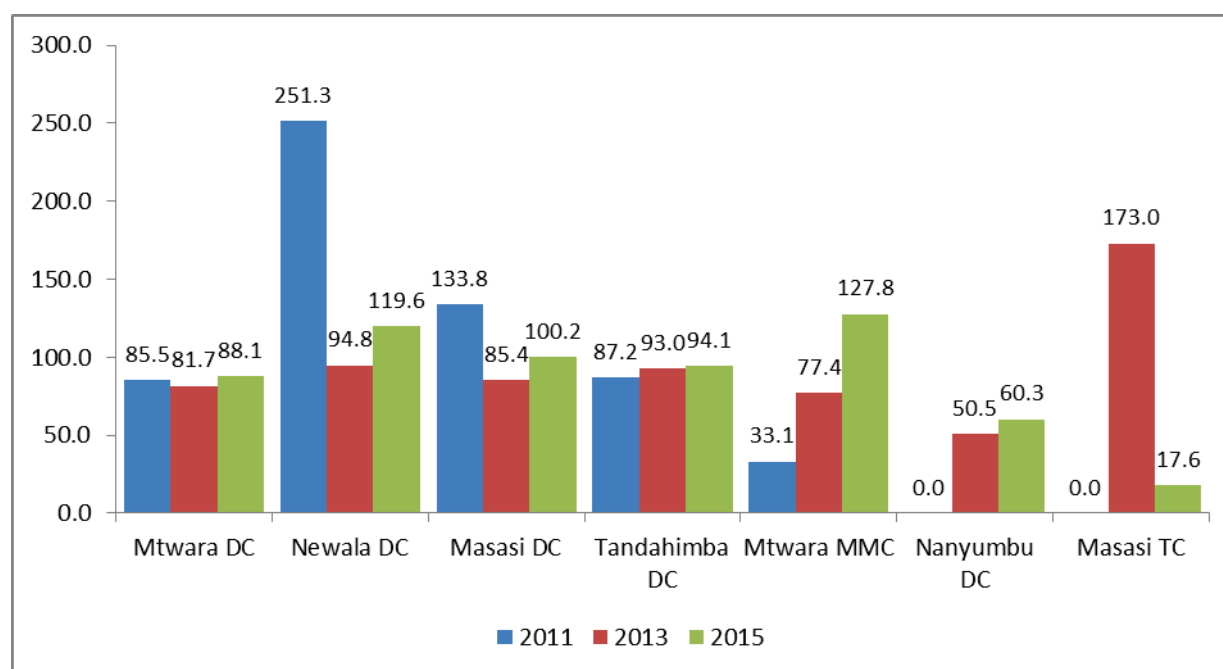
The (Bacillus Calmette-Guérin) BCG vaccine protects babies against tuberculosis (TB). It is usually offered to babies at birth who are more likely to come into contact with someone with TB. There has been an increase on the number of children under one year who were vaccinated with BCG in the region. Table 5.12 shows that the number of children under one year vaccinated with BCG increased from 36,639 in 2011 to 41,637 in 2015, representing a 13.6 percent increase. However, the proportion of the targeted children vaccinated decreased in 2015 from 116.4 percent in 2011 to 86.6 percent.

In addition, in 2011 and 2015, the number of children under one year who were vaccinated with BCG was more than the targets set in Newala and Masasi District Councils, although, the number of children vaccinated with TT2 was extremely large in Masasi Town Council where it decreased from 6,221 (173.0 percent) in 2013 to 1,031 (17.6 percent) in 2015.

Table 5.12: Children under One Year Vaccinated BCG, Mtwara Region; 2011, 2013 and 2015

Council	2011			2013			2015		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Mtwara DC	5,478	4,683	85.5	6,471	5,287	81.7	7,813	6,881	88.1
Newala DC	3,262	8,197	251.3	2,601	2,466	94.8	5,541	6,629	119.6
Masasi DC	11,633	15,560	133.8	8,898	7,598	85.4	9,512	9,528	100.2
Tandahimba DC	8,366	7,294	87.2	8,664	8,058	93.0	9,277	8,731	94.1
Mtwara MMC	2,732	905	33.1	3,517	2,722	77.4	4,090	5,225	127.8
Nanyumbu DC	0	0	0.0	6,274	3,171	50.5	5,988	3,612	60.3
Masasi TC	0	0	0.0	3,596	6,221	173.0	5,848	1,031	17.6
Total	31,471	36,639	116.4	40,021	35,523	88.8	48,069	41,637	86.6

Source: District Offices (DMOs), 2016.

Figure 5.4: Proportion of Children under One Year Vaccinated BCG, Mtwara Region; 2011, 2013 and 2015


Source: District Offices (DMOs), 2016.

Measles Vaccination



Child Vaccinated Measles

The quality of health of the society can also be assessed by the levels of infant and child mortality. Similar to other regions in the country, vaccination of measles was done to protect them against three potential serious illnesses, measles, mumps and rubella. Table 5.13 shows that, in 2011, 92.7 percent of the targeted children in the region were vaccinated, but later decreased to 81.6 percent and slightly increased to 92.0 percent in 2015. At the council level, Masasi District Council had the largest proportion of measles vaccination coverage increasing from 101.7 percent in 2011 to 130.4 percent in 2015.

Table 5.13: Children under One Year Vaccinated Measles, Mtwara Region, 2011, 2013 and 2015

Council	2011			2013			2015		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent
Mtwara DC	5,951	4,965	83.4	6,838	5,181	75.8	8,143	7,197	88.4
Newala DC	3,016	2,853	94.6	3,696	2,182	59.0	5,012	4,686	93.5
Masasi DC	11,633	11,834	101.7	8,876	7,417	83.6	6,034	7,866	130.4
Tandahimba DC	8,366	7,873	94.1	8,568	8,092	94.4	9,277	6,970	75.1
Mtwara MMC	2,840	1,959	69.0	3,406	2,947	86.5	4,273	3,730	87.3
Nanyumbu DC	0	0	0.0	6,176	4,831	78.2	6,176	5,344	86.5
Masasi TC	0	0	0.0	3,427	2,776	81.0	3,938	3,647	92.6
Total	31,806	29,484	92.7	40,987	33,426	81.6	42,853	39,440	92.0

Source: District Offices (DMOs), 2016.

5.1.10 Communicable Diseases

A communicable disease is one that is spread from one person to another through a variety of ways that include: contact with blood and bodily fluids; breathing of airborne virus or by being bitten by an insect. The epidemic of reportable communicable diseases in Mtwara Region occurs occasionally in particular during rainy seasons.

Table 5.14 shows that in 2015, the rate of the first ten reported communicable diseases in Mtwara Region increased by 157.5 percent. Malaria had the biggest number of increase of cases (217,551), from 135,485 in 2013 to 353,036 in 2015, followed by acute respiratory infection which increased from 0 in 2013 to 17,292 in 2015. The treatment of fungal infection sexually transmitted infections (STIs) and intestinal worms in Mtwara Region has shown good improvement. The available data indicate that the number of fungal infections decreased by more than half (51.4 percent) followed by STI which decreased by 44.8 percent.

Table 5.14: Number of Reported Cases of Reportable Communicable Diseases in Mtwara Region, 2013 and 2015

Number	Disease	Number of cases	Number of cases	Change (2013 to 2015)	
		2013	2015	Number	% Change
1	Malaria	135,485	353,036	217,551	160.6
2	Acute Respiratory Infection	0	17,292	17,292	0.0
3	Diarrhea	5,125	5,125	0	0.0
4	Anemia	0	5,380	5,380	0.0
5	Dysentery	4,442	5,792	1,350	30.4
6	Fungal Infection	7,560	3,674	-3,886	-51.4
7	STI	3,297	1,821	-1,476	-44.8
8	Intestinal Worms	2,416	1,613	-803	-33.2
9	Eye diseases	847	1,144	297	35.1
10	Typhoid	222	655	433	195.0
Total		154,539	397,889	243,350	157.5

Source: District Offices (DMOs), 2016.

Status of Health Personnel

The effort to extend health care services depends much on the provision of quality health facility, availability of qualified medical personnel, equipment and medicines. Table 5.15 shows the availability of medical personnel in 2015. It appears that there was uneven distribution of health personnel in Mtwara Region. Out of 1,148 health staff, 70.1 percent were females and most of them were medical attendants and trained nurses. On the other hand, the region had no Specialist Doctors and had shortage of Dental Surgeons, Radiographers and Pharmacists.

Table 5.15: Number of Medical Personnel by Type of Profession and Sex, Mtwara Region, 2015

Medical Personnel	Male	Female	Total	Percent
Specialist Doctors	0	0	0	0.0
Medical doctors	11	1	12	1.0
Ass. Medical Officers	33	8	41	3.6
Clinical Officers	66	36	102	8.9
Ass. Clinical Officers	27	25	52	4.5
Dental Surgeon	1	0	1	0.1
Ass. Dental Officer	3	0	3	0.3
Dental Therapist	4	1	5	0.4
Pharmacists	4	2	6	0.5
Pharmaceutical Technicians	5	0	5	0.4
Pharmaceutical Assistant	3	0	3	0.3
Laboratory Technicians	11	2	13	1.1
Laboratory Ass.	21	17	38	3.3
Radiographer	3	0	3	0.3
Nursing Officers	2	9	11	1.0
Assist nursing officer	25	99	124	10.8
Trained Nurses/PHN	40	201	241	21.0
Nurses	9	34	43	3.7
Nursing Officers	2	34	36	3.1
MCHA	8	10	18	1.6
Medical Attendants	35	287	322	28.0
Health Officers	9	4	13	1.1
Health Assistants (health orderly)	8	6	14	1.2
Health Secretaries	5	5	10	0.9
Other Medical Carders	8	24	32	2.8
Total	343	805	1,148	100.0
Percent	29.9	70.1	100.0	

Source: District Offices (DMOs), 2016.

5.1.11 Policy Implication on Health sector

WHO/UNAIDS Global Standards for quality health care services aim to assist policy-makers and health service planners to assess whether the standards have been achieved in improving the quality of health-care services provided by the government. By so doing, it becomes easier to obtain the health services that are needed to promote, protect and improve health of the people and well-being. The quality in the delivery of services that is required should also meet

the needs of the intended beneficiaries. A standard defines the performance expectations, structures or processes needed for an organization to provide safe, equitable, acceptable, accessible, effective and appropriate services.

Accessibility of health services in Mtwara Region is still below the WHO standards. The region has been experiencing insufficient number of health facilities and personnel, implementation of preventive and curative measures and availability of medicines. All these tend to hinder the provision of operational services such as advice as well as the provision of mother and child health care. Shortage or lack of health personnel and equipment complicates the smooth diagnosis of illnesses. To overcome these shortcoming, the region is drawing up favorable conditions that will improve working environment of all health personnel. In the same spirit, efforts are being made to increase the number of dispensaries in every village/mtaa and a health centre in every ward. These initiatives will definitely increase accessibility of health services to the people.

5.2 Education Sector

5.2.1 An Overview

Quality education contributes to the development of a strong and competitive economy of a county because education provides the nation with skilled manpower to serve in various sectors in the country's economy. Therefore, the government is creating necessary conditions to provide children with high-quality education.

The Formal Education and Training System in Tanzania comprises two years of pre-primary education, seven years of primary education, four years of secondary education, two years of advance secondary education and three or more years of Tertiary Education. On the whole, the education system can be divided into three levels: Basic, Secondary and Tertiary Levels. Basic level of education consists of pre-primary, primary and non-formal adult education.

5.2.2 Pre-Primary Education

The pre-primary cycle in Tanzania is of two years for children. Although it is neither free nor compulsory, it is well emphasized in the Education and Training Policy (ETP). Each primary school is supposed to have two pre-school streams, but so far, not all have one, hence the small enrolment volumes. Poor pre-primary background tends to establish a poor foundation of pupils at primary school level. This necessitates the need to have some screening of pupils at that level so that weaknesses can be detected early.

Table 5.16 shows that, in Mtwara Region, each public primary school is required to have at least one pre-primary school class in each council. The growth of public pre-primary schools has been slow, moving from a total of 559 classes in 2011 to 563 in 2012, 601 in 2013, 609 in 2014 but decreased to 595 in 2015. The trend is almost the same across the councils; however,

the increase is quite significant in Mtwara District Council where the number of such school classes increased from 118 in 2011 to 130 in 2015.

Table 5.16: Number of Pre-Primary School classes by Ownership, Mtwara Region, 2011 - 2015

Council	Public Primary School	2011		2012		2013		2014		2015	
		Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Mtwara DC	130	118	0	122	0	124	0	126	0	130	0
Newala DC	119	118	0	119	0	119	0	119	0	119	0
Masasi DC	124	116	0	116	0	114	0	114	0	115	0
Tandahimba DC	124	105	1	104	1	105	1	108	1	112	1
Mtwara MMC	30	26	5	26	4	26	6	27	9	30	9
Nanyumbu DC	94	76	0	76	0	80	0	80	0	87	0
Masasi TC	33	0	0	0	0	33	2	35	33	2	35
Total	654	559	6	563	5	601	9	609	43	595	45

Source: District Primary Education Offices, 2016

5.2.3 Pre-primary Enrolment

In 2015, Mtwara Region enrolled 26,857 pupils in pre-primary schools. Table 5.17 shows that majority of pre-primary schools are owned by the government. The enrollment of pupils in these schools increased from 23,487 in 2011 to 26,857 in 2015 (14.3 percent increase). This increase was caused by a number of motives, such as campaign to promote pre-primary education which is done by the council's authorities. In this way, parents are motivated to take their children to pre - primary schools.

Between 2011 and 2015, Mtwara Municipal Council had the largest number of government pre-primary school enrolment ranging between 1,633 in 2011 and 2,477 in 2015 (51.7 percent increase), followed by Mtwara District Council (3,145 in 2011 to 3,696 in 2015). The pre-primary school enrolment decreased in Newala District Council from 5,427 in 2011 to 4,949 in 2015 (8.8 percent decrease). In addition, Masasi District Council and Nanyumbu District Council recorded the lowest enrolment increase during the period.

Table 5.17: Total Enrolment in Pre-primary Schools by Council and Ownership, Mtwara Region, 2011 - 2015

Council	2011		2012		2013		2014		2015	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Mtwara DC	3,145	61	3,198	83	3,586	98	3,324	64	3,696	97
Newala DC	5,427	0	4,854	0	5,176	0	4,545	0	4,949	0
Masasi DC	5,906	0	7,274	0	6,401	0	0	0	6,044	0
Tandahimba DC	4,704	171	3,609	120	3,560	123	3,874	61	4,832	180
Mtwara MMC	1,633	242	1,656	200	2,232	465	2,161	288	2,477	326
Nanyumbu DC	2,672	0	2,328	0	2,368	0	2,228	0	2,719	0
Masasi TC	0	0	0	0	2,011	60	2,153	58	2,140	42
Total	23,487	474	22,919	403	25,334	746	18,285	471	26,857	645

Source: District Primary Education Offices, 2016

5.2.4 Primary Education

The Tanzania Primary Education Development Programme (PEDP 2001-2006) started in 2001 and now is in Phase II and aims to attain Universal Primary Education. The Government has also set a policy that every child of age 7-13 has the right to achieve primary education. Community participation through MEMM and MEMKWA is motivating parents in the councils to enroll their children and thus improve the enrolment rate of primary schools in the region.

Comparatively, visual improvement of primary schools can be accessed through changes of a number of schools, net enrolment rates and gross enrolment rates, reduction of drop outs, availability of education facilities and performance of pupils in general. Table 5.18 shows that in Mtwara Region, there was a small increase of the number of public primary schools in the region. In 2015, the council had 665 primary schools (654 public primary schools and 11 private primary schools). Total schools increased from 596 in 2011 to 665 in 2015, (11.6 percent increase).

Across the councils, Mtwara District Council had the largest number of primary schools which increased from 122 in 2011 to 130 in 2015 followed by Masasi District Council and Tandahimba District Council. Newala and Masasi District Councils had no improvements in the number of primary schools between 2011 and 2015.

Table 5.18: Number of Primary Schools by Council and Ownership, Mtwara Region, 2011 - 2015

Council	2011		2012		2013		2014		2015	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Mtwara DC	122	0	122	127	0	127	130	0	130	0
Newala DC	119	0	119	0	119	0	119	0	119	0
Masasi DC	123	0	123	0	123	0	123	0	124	0
Tandahimba DC	117	0	117	0	117	0	117	0	124	0
Mtwara MMC	26	5	24	4	26	6	27	9	30	9
Nanyumbu DC	88	0	88	0	89	0	90	0	94	0
Masasi TC	0	0	0	0	33	2	33	2	33	2
Total	591	5	593	131	507	135	639	11	654	11

Source: District Primary Education Offices, 2016

5.2.5 Standard I Enrollment

Mtwara Region has implemented successfully the Tanzania education policy for children aged seven years by increasing the enrolment of pupils in public primary schools. Table 5.19 shows that enrolment of standard I pupils in public primary schools increased from 36,420 in 2011 to 42,339 in 2015 (16.3 percent increase). The larger number of enrolment increase was observed in Nanyumbu District Council from 5,131 in 2011 to 6,314 in 2015 (23.1 percent increase) followed Mtwara Municipal Council (from 2,776 in 2011 to 3,371 in 2015 (21.4

percent increase). Tandahimba DC recorded the lowest enrolment increase from 7,474 in 2011 to 7,638 in 2015 (2.2 percent increase). However, Mtwara DC had a decreased primary school enrollment from 8,059 in 2011 to 7,720 in 2015.

Table 5.19: Standard I Enrolment by School Ownership, Mtwara Region, 2011 - 2015

Council	2011		2012		2013		2014		2015	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Mtwara DC	8059	0	7923	0	11905	0	7681	0	7720	0
Newala DC	5,437	0	5,971	0	6,071	0	5,836	0	6,042	0
Masasi DC	7,543	0	7,526	0	7,204	0	7,677	0	8,255	0
Tandahimba DC	7,474	0	7,154	0	7,127	0	6,924	0	7,638	0
Mtwara MMC	2,776	379	2,871	389	3,071	419	3,144	439	3,371	389
Nanyumbu DC	5,131	0	5,377	0	5,574	0	6,478	0	6,314	0
Masasi TC	0	0	0	0	2,674	61	2,898	59	2,999	65
Total	36,420	379	36,822	389	43,626	480	40,638	498	42,339	454

Source: District Primary Education Offices, 2016

Tanzania Government set a policy that every child of age 7-13 has the right to attain primary education. Table 5.20 reveals that the larger number of children of age 7 was registered in public primary schools in Mtwara Region. The available data indicate that, out of the total children registered in 2011 to 2015, 135,652 or 85.5 percent were in age 7 years and 22,831 or 14.4 percent were in age 8-10 years.

The proportion of children registered from 2011 to 2015 decreased by 35.2 percent. On the other hand, more boys (80,261) than girls (78,351) were registered. Furthermore, net enrolment which is the proportion of age seven children registered to the total age seven expected to be registered indicates that about 98 percent of age seven children were enrolled in Mtwara Region. This is above the 2012 population census net enrolment rate of 81.2 percent.

Table 5.20: Standard I Registered by Age Group in Public Primary Schools, Mtwara Region, 2011-2015

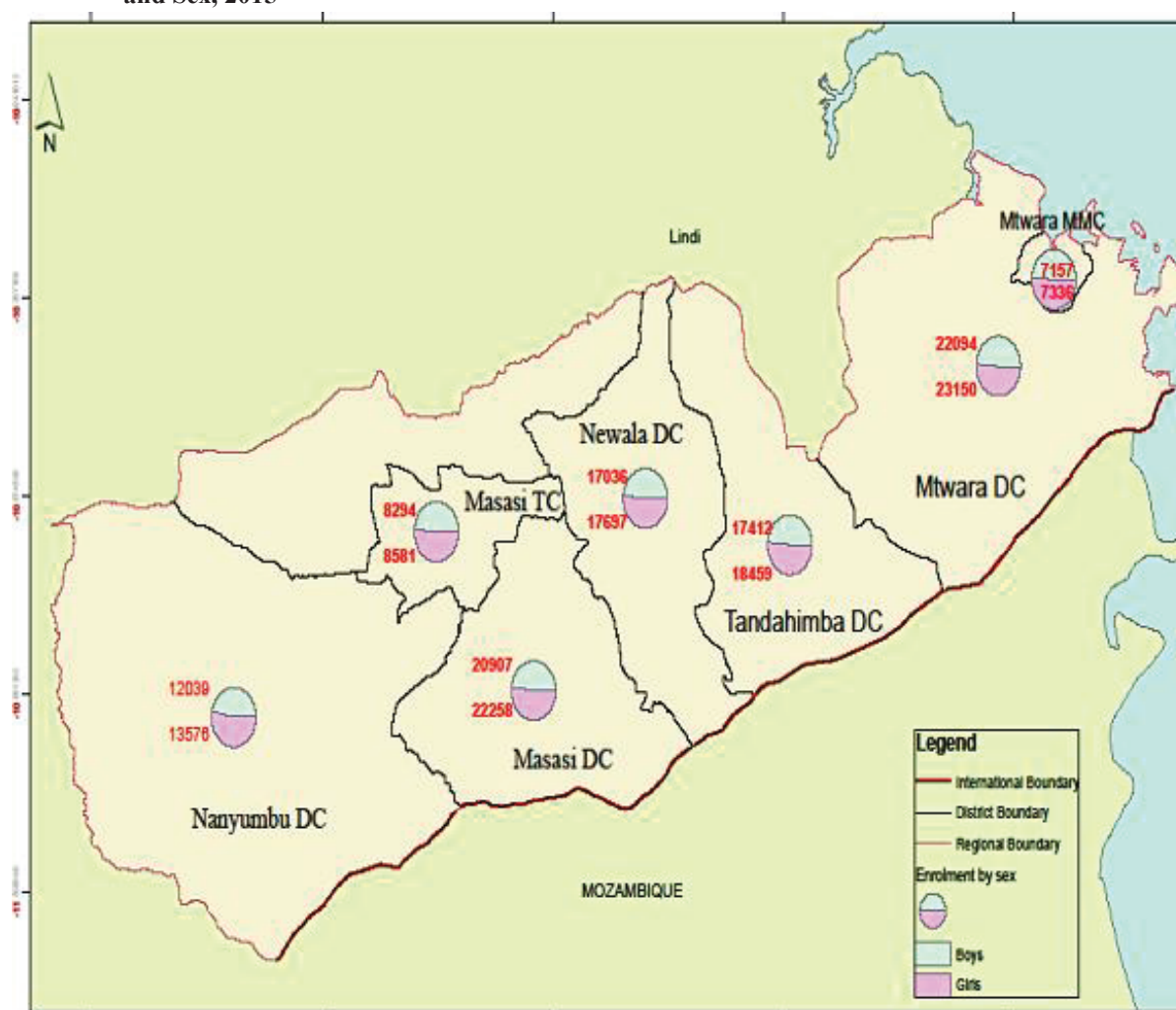
Year	Age Seven expected Population			Age Seven Registered children			Age 8-10 Registered children			Total Registered			Gross Enrolment Ratio (%)	Net Enrolment Ratio (%)
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2011	20,248	20,134	40,382	19,345	19,291	38,636	5,463	4,712	10,175	24,783	24,023	48,806	120.9	95.7
2012	11,449	11,621	23,070	11,352	11,145	22,497	1,055	950	2,005	12,389	12,282	24,671	106.9	97.5
2013	11,895	11,605	23,500	11,713	11,562	23,275	1,506	1,280	2,786	13,269	12,926	26,195	110.9	99.0
2014	12,772	12,091	24,863	12,337	12,288	24,625	1,294	1,246	2,540	13,622	13,555	27,177	109.3	99.0
2015	13,481	13,566	27,047	13,361	13,258	26,619	2,950	2,375	5,325	16,198	15,565	31,763	118.1	98.4
Total	69,845	69,017	138,862	68,108	67,544	135,652	12,268	10,563	22,831	80,261	78,351	158,612	114.1	97.7

Source: District Primary Education Offices, 2016

5.2.6 Total Standard (I-VII) Enrolment

The government of Tanzania is recommending an equal opportunity in provision of primary school education for boys and girls. Mtwara Region has proved to align with this objective as revealed in Table 5.21 and Map 5. In 2015, more girls (111,057) than boys (104,939) were enrolled in STD (I to VII). Mtwara District Council had the largest number of enrolled girls (23,150) than boys (22,094) followed by Tandahimba District Council (18,459 girls compared to 17,412 boys). Masasi Town Council had a relatively small number of enrolments of boys and girls.

Map 5: Map of Mtwara Region Showing (STD i - VII) Enrolment in Public Primary Schools by Council and Sex, 2015



Source: NBS, Cartographic Unit, Dsm

Table 5.21: Total (STD I - VII) Enrolment in Public Primary Schools by Council and Sex, Mtwara Region, 2011 – 2015

Council	2011		2012		2013		2014		2015	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mtwara DC	22,759	23,430	22,709	23,618	22,683	23,362	22,292	23,607	22,094	23,150
Newala DC	16,906	16,564	15,697	16,594	16,484	16,996	15,635	16,571	17,036	17,697
Masasi DC	24,336	24,542	23,501	23,907	21,852	22,887	21,888	22,851	20,907	22,258
Tandahimba DC	18,538	18,941	18,615	18,473	18,022	18,941	17,786	18,609	17,412	18,459
Mtwara MMC	6,290	6,331	6,180	6,465	6,489	7,273	6,897	6,860	7,157	7,336
Nanyumbu DC	12,442	13,191	11,573	12,020	11,628	12,291	10,345	10,914	12,039	13,576
Masasi TC	-	-	-	-	9,120	9,567	8,016	8,454	8,294	8,581
Total	101,271	102,999	98,275	101,077	106,278	111,317	102,859	107,866	104,939	111,057

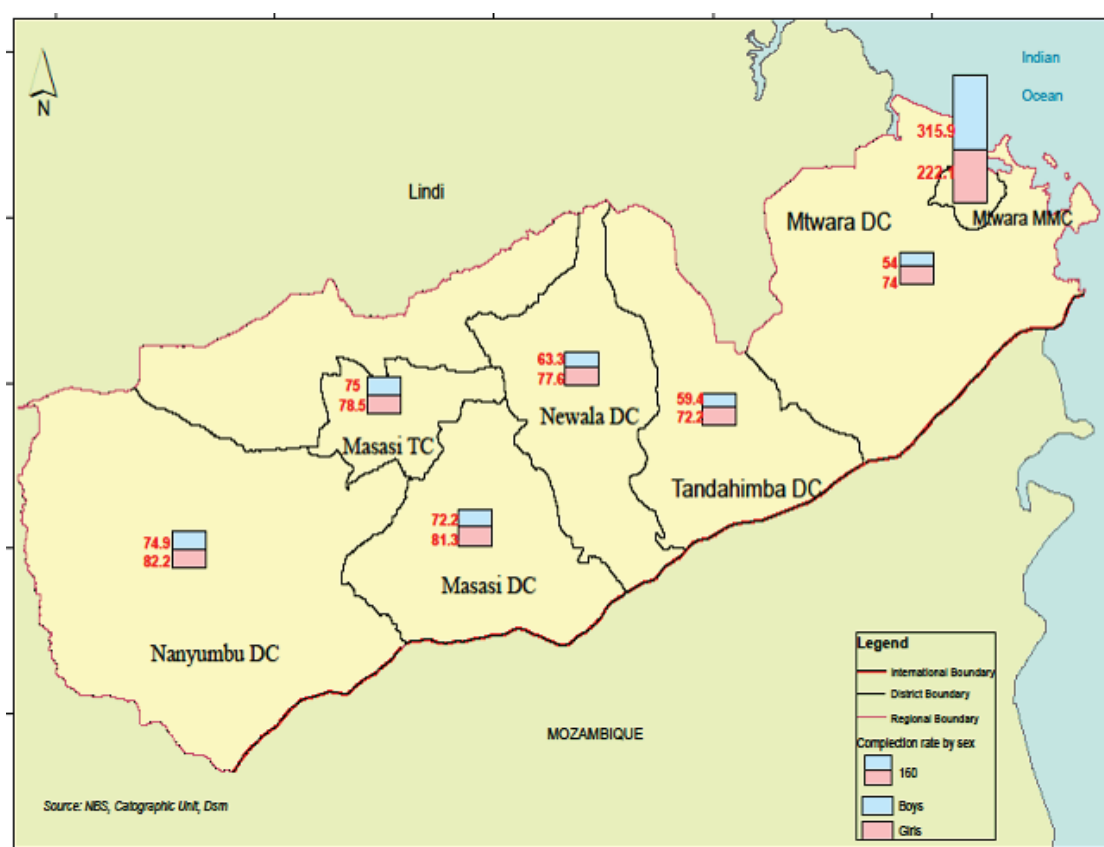
Source: District Primary Education Offices, 2016

5.2.7 Completion Rate in Primary School

This indicator measures government's commitment to basic education for girls in terms of access, enrollment, and retention. Empirical research consistently shows a strong positive correlation between girls' primary education and accelerated economic growth, slower population growth, higher wages, increased agricultural yields, labour productivity and greater returns to schooling as compared to men. The social benefits of female education are also demonstrated through lower fertility rates, higher immunization rates, decreased child and maternal mortality, reduced transmission of HIV, fewer cases of domestic violence, greater educational achievement by children and increased female participation in government.

Table 5.22 reveals the region's vow to the basic education for girls. It is observed that primary school completion rate in 2014 was higher for girls (115.8 percent) than boys (102.1 percent). The same trend is observed in 2015 as school completion rate is also higher for girls (106.6 percent) than that of boys (104.8 percent). Mtwara Municipal Council had the largest completion rate for girls than boys compared to other councils. However, the completion rate was higher for boys (315.9 percent) than girls (222.1 percent) in 2015. The completion rates were also lower in Mtwara District Council compared to other councils.

Map 6: Map of Mtwara Region Showing Primary School Completion Rate by Sex and Council, 2009-2015



Source: NBS, Cartographic Unit, Dsm

Table 5.22: Primary School Completion Rate, Mtwara Region, 2008-2014 and 2009-2015

Council	2008 to 2014						2009 to 2015					
	Enrolled 2008		Completed 2014		Completion Rate (Percent)		Enrolled 2009		Completed 2015		Completion Rate (Percent)	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mtwara DC	2,050	1,970	1,074	1,329	52.4	67.5	2,032	2,080	1,097	1,539	54.0	74.0
Newala DC	2,771	2,774	1,980	2,167	71.5	78.1	2,470	2,352	1,563	1,824	63.3	77.6
Masasi DC	3,274	3,324	2,601	2,949	79.4	88.7	3,375	3,472	2,436	2,821	72.2	81.3
Tandahimba DC	2,967	2,926	1,886	2,246	63.6	76.8	2,954	3,116	1,756	2,249	59.4	72.2
Mtwara MMC	3,175	3,260	7,984	9,186	251.5	281.8	2,575	3,640	8,134	8,084	315.9	222.1
Nanyumbu DC	1,803	1,933	1,124	1,304	62.3	67.5	1910	2056	1430	1690	74.9	82.2
Masasi TC	1,256	1,323	1,002	1,094	79.8	82.7	1,236	1,362	927	1,069	75.0	78.5
Total	17,296	17,510	17,651	20,275	102.1	115.8	16,552	18,078	17,343	19,276	104.8	106.6

Source: District Primary Education Offices, 2016

5.2.8 Primary School Dropout Rate

The magnitude and reasons for school drop outs in Mtwara Region vary between 2012 and 2015. Table 5.23 shows that the main reason for drop outs was truancy. In 2012, the total drop outs were 2,067 and the major reason was truancy (0.7 percent). In this period, boys had the largest number of drop outs 760 (0.7 percent) than girls 624 (0.6 percent). In 2015, the number of drop outs in the region as a result of truancy increased to 2,337 (0.8 percent) comprising 1,330 boys (1.0 percent) compared to 1,007 girls (0.7 percent). The second drop outs in the region were death with almost the same proportions from 2012 to 2015. However, pregnancy had the lowest proportion of drop outs for girls during the same period.

Table 5.23: Dropouts by Year, Sex and Reason for Dropouts, Mtwara Region, 2012, 2013, 2014 and 2015

Year	Reason	Truancy		Pregnancy		Death		Other		Total dropouts		Total Enrolment	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
2012	Boys	760	0.7	-	0.0	32	0.03	297	0.3	1,090	1.0	104,465	1.0
	Girls	624	0.6	23	0.02	21	0.02	309	0.3	978	0.9	108,436	0.9
	Total	1,384	0.7	23	0.01	53	0.02	606	0.3	2,067	1.0	212,901	1.0
2013	Boys	673	0.6	-	0.0	21	0.02	277	0.3	972	0.9	108,542	0.9
	Girls	522	0.5	8	0.01	21	0.02	238	0.2	789	0.7	113,159	0.7
	Total	1,195	0.5	8	0.0	42	0.02	515	0.2	1,761	0.8	221,701	0.8
2014	Boys	796	0.7	-	0.0	32	0.03	223	0.2	1,052	1.0	106,136	1.0
	Girls	635	0.6	11	0.01	19	0.02	189	0.2	855	0.8	110,384	0.8
	Total	1,431	0.7	11	0.01	51	0.02	412	0.2	1,906	0.9	216,520	0.9
2015	Boys	1,330	1.0	-	0.0	41	0.03	1,192	0.9	2,564	1.9	137,813	1.9
	Girls	1,007	0.7	16	0.01	25	0.02	965	0.7	2,014	1.4	142,551	1.4
	Total	2,337	0.8	16	0.01	66	0.02	2,157	0.8	4,577	1.6	280,364	1.6

Source: District Primary Education Offices, 2016

5.2.9 Pass Rate and Selection for Form I

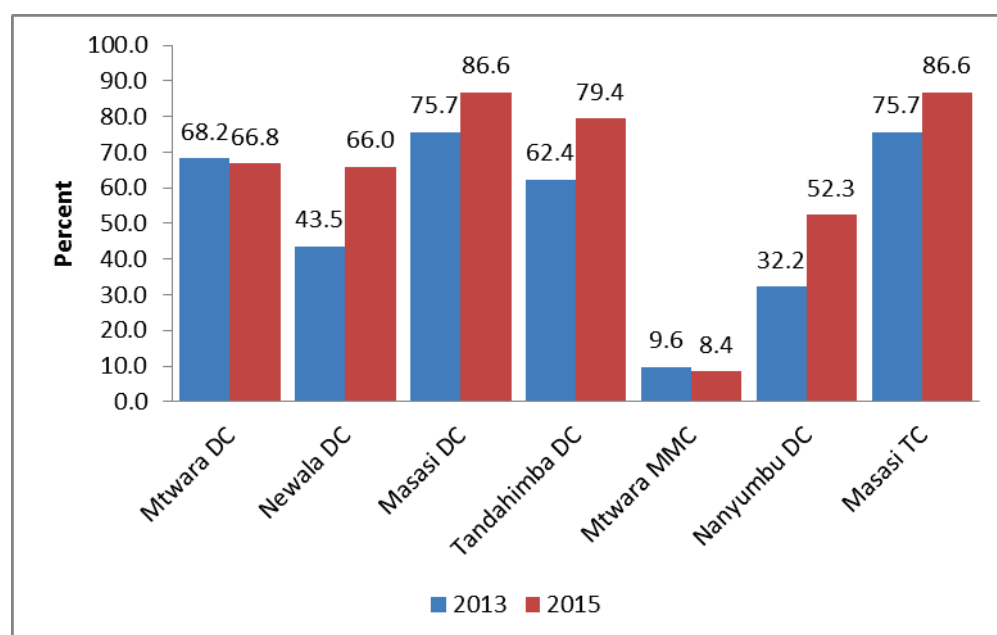
Generally, the quality of primary education provided by the region is always reflected by the pass rate. That is, pupils who passed Standard VII examinations were selected to join Form I. Table 5.24 shows that, out of 37,027 pupils set for STD VII examinations in 2015, 13,925 (37.6 percent) of them passed the examination most of whom were girls (38.2 percent) compared to boys (37.6 percent). In 2013, 35,172 pupils set for STD VII examinations and 11,721 (33.3 percent) of them passed the examinations. The examinations pass rate was highest for boys in 2011 and 2013, but, in 2015, the pass rate was higher for girls than that of boys. Across the councils, the pass rate was highest in Masasi District Council and Masasi Town Council in 2015 (86.6 percent each) and was followed by Tandahimba District Council (79.4 percent), but Mtwara Municipal Council had the lowest pass rate of 8.4 percent in 2015 (Figure 5.5).

Table 5.24: Proportion of Pupils who Sat and Passed Standard Seven Examinations in Public Primary Schools, Mtwara Region, 2011, 2013 and 2015

Council	Pupils sat for STD VII Examinations									Pupils Passed STD VII Examinations (Percent)								
	2011			2013			2015			2011			2013			2015		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Mtwara DC	2,060	2,441	4,501	1,840	2,028	3,868	1,893	3,327	5,220	1,276	1,235	2,511	1,407	1,230	2,637	1,504	1,983	3,487
Newala DC	2,152	2,292	4,444	1,852	2,083	3,935	1,500	1,691	3,191	1,225	1,147	2,372	889	824	1,713	1,018	1,088	2,106
Masasi DC	769	792	1,561	551	579	1,130	557	602	1,159	721	685	1,406	415	440	855	488	516	1,004
Tandahimba DC	2,489	2,891	5,380	2,227	2,622	4,849	1,943	2,337	4,280	1,492	1,622	3,114	1,482	1,543	3,025	1,562	1,837	3,399
Mtwara MMC	5,662	5,816	11,478	8,098	9,120	17,218	9,859	9,719	19,578	365	354	719	798	859	1,657	768	880	1,648
Nanyumbu DC	1,727	1,864	3,591	1,456	1,586	3,042	1,061	1,379	2,440	723	696	1,419	483	496	979	594	683	1,277
Masasi TC	769	792	1,561	551	579	1,130	557	602	1,159	721	685	1,406	415	440	855	488	516	1,004
Total	15,628	16,888	32,516	16,575	18,597	35,172	17,370	19,657	37,027	6,523	6,424	12,947	5,889	5,832	11,721	6,422	7,503	13,925

Source: District Primary Education Offices, 2016

Figure 5.5: Distribution of Pupils who Passed Standard Seven Examinations in Public Primary Schools, Mtwara Region, 2013 and 2015



Source: District Primary Education Offices, 2016

5.2.10 Primary School Facilities

(i) Classrooms

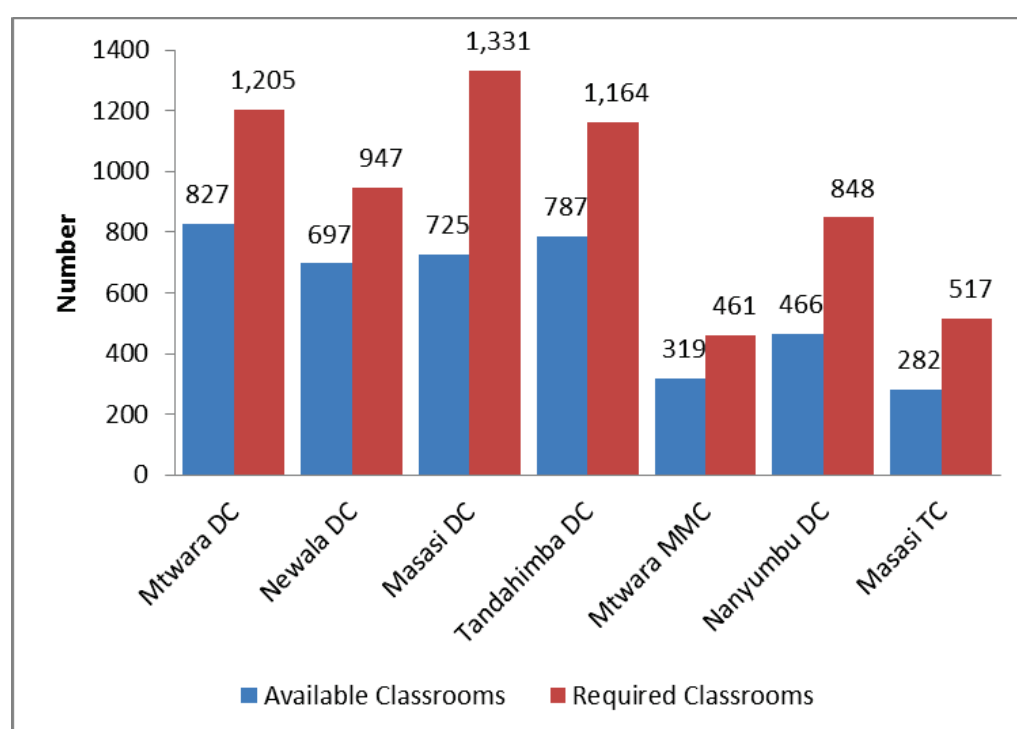
In Tanzania, the Ministry of Education, in collaboration with beneficiaries or the community, has a mandate to ensure that buildings and physical facilities, namely classrooms, desks, tables, offices, toilets, tutors, houses, libraries, books and staff houses are available.

Table 5.25 shows that, in 2015, Mtwara Region had a total of 4,103 classrooms which accommodated an average of 56 pupils each (CRP 1:56). This is beyond the Tanzania education system which requires each classroom in primary and secondary schools to follow the national standard of accommodating 45 pupils/students only. The region also experienced 36.6 percent shortage of classrooms in primary schools, which varied across the councils. Nanyumbu District Council had the largest primary school classrooms ratio (1:61) with deficit of 45.0 percent, followed by Masasi District Council and Masasi Town Council. However, Newala District Council had the lowest primary school classroom ratio (1:50) with deficit of 26.4 percent of classrooms.

Table 5.25: Availability of Classrooms in Public Primary Schools, Mtwara Region, 2015

Council	Number of Schools	Total Pupils	Available Classrooms	Classroom Pupils Ratio (CPR)	Required Classrooms	Deficit of Classrooms	
						Number	Percent
Mtwara DC	130	44,976	827	1:54	1,205	378	31.4
Newala DC	119	35,116	697	1:50	947	250	26.4
Masasi DC	124	43,165	725	1:60	1,331	606	45.5
Tandahimba DC	124	44,199	787	1:56	1,164	377	32.4
Mtwara MMC	30	16,791	319	1:53	461	142	30.8
Nanyumbu DC	94	28,349	466	1:61	848	382	45.0
Masasi TC	33	16,875	282	1:60	517	235	45.5
Total	654	229,471	4,103	1:56	6,473	2,370	36.6

Source: District Primary Education Offices, 2016

Figure 5.6: Availability of Classrooms in Public Primary Schools, Mtwara Region, 2015

Source: District Primary Education Offices, 2016

(ii) Pit-Latrines

All primary schools in Mtwara Region had a total of 5,050 pit-latrine in 2015 (Table 5.26). The standard set by the Government is one pit-latrine per 20 girls (1:20) and one pit-latrine per 25 boys (1:25).



In 2015, Mtwara Region had 2,126 available pit latrines accommodating 99,730 boys and 2,924 used by 104,428 girls, representing a ratio of 1:47 boys and 1:36 girls. This does not coincide with the standard set by the Government of one pit-latrine per 20 girls (1:20) and one pit-latrine per 25 boys (1:25). Mtwara Municipal Council had the biggest ratio per latrine for girls (1:57 boys versus 1:85 girls), followed by Mtwara District Council (1:84 boys VS

1:16 girls). Masasi Town Council had the lowest ratio of pit latrines for boys and girls (1:37 each), which is still above the government standards.

Table 5.26: Availability of Pit Latrines in Public Primary Schools; Mtwara Region, 2015

Council	Total Pupils		Available Pit Latrine		Pit Latrine Pupils Ratio		Required Pit Latrine		Deficit of Pit Latrine for	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Mtwara DC	13,307	14,058	159	856	1:84	1:16	1,092	11,853	933	10,997
Newala DC	17,492	18,057	384	421	1:46	1:43	682	877	298	456
Masasi DC	20,907	22,258	552	571	1:38	1:39	837	1,114	285	543
Tandahimba DC	21,867	22,581	416	467	1:53	1:48	845	1,090	429	623
Mtwara MMC	4,641	4,268	81	50	1:57	1:85	225	237	144	187
Nanyumbu DC	13,222	14,625	310	326	1:43	1:45	555	729	245	403
Masasi TC	8,294	8,581	224	233	1:37	1:37	332	429	108	196
Total	99,730	104,428	2,126	2,924	1:47	1:36	4,568	16,329	2,442	13,405

Source: District Primary Education Offices, 2016

(iii) Staff Quarters

Table 5.27 shows that Mtwara Region had 1,622 available teachers' houses compared to actual requirement of 6,299 houses, indicating that 1 house accommodates 3 teachers (1:3). Generally, the standard House Teacher Ratio (HTR) is 1:1. On the other hand, Mtwara Municipal Council had the notable deficit of primary school staff houses (95.0 percent) or 1:21 (HTR), followed by Masasi Town Council (83.3 percent) or a ratio of 1:5 and Tandahimba District Council (80.8 percent or a ratio of 1:4).

Table 5.27: Availability of Primary School Teachers' Houses, Mtwara Region, 2015

Council	Required Teachers	Number of Available Teachers	Actual Requirement of Houses	Available Houses	Deficit of Houses		House Teacher Ratio (HTR)	Percent of Deficit Based on HTR
					No.	Percent		
Mtwara DC	699	541	1,212	252	960	79.2	1:2	137.3
Newala DC	1,022	741	903	239	667	73.9	1:3	65.3
Masasi DC	1,331	1,095	1,331	443	888	66.7	1:2	66.7
Tandahimba DC	1,456	1,112	1,320	254	1,066	80.8	1:4	73.2
Mtwara MMC	239	232	221	11	210	95.0	1:21	87.9
Nanyumbu DC	865	619	838	344	494	58.9	1:2	57.1
Masasi TC	474	392	474	79	395	83.3	1:5	83.3
Total	6,086	4,732	6,299	1,622	4,677	74.2	1:3	76.8

Source: District Primary Education Offices, 2016

(iv) Furniture (Desks)

Shortage of desks in schools has been a long time problem in Tanzania. It has even created an impression among some circles that this would be an impossible issue to solve. This is not the case in Mtwara Region where on average 1 desk is used by 3 pupils (1:3). This is not only indicative of good learning environment but it also aligns with the official Desk Pupil Ratio of 1:3.

However, the region had a shortage of 19.4 percent of the required desks (Table 5.28). Mtwara District Council had the biggest proportion of shortages of desks (36.2 percent), followed by Masasi Town Council (24.0 percent) and Mtwara-Mikindani Municipal Council had the lowest shortage of desks.

Table 5.28: Availability of Desks in Public Primary Schools, Mtwara Region, 2015

Council	Total Pupils	Available Desks	Desk Pupils Ratio (DPR)	Required Desks	Deficit of Desks No.	Percent
Mtwara DC	45,920	13,853	1:3	21,726	7,873	36.2
Newala DC	35,058	12,859	1:3	12,852	-7	-0.1
Masasi DC	43,165	14,782	1:3	18,657	3,875	20.8
Tandahimba DC	44,306	14,449	1:3	16,146	1,697	10.5
Mtwara MMC	5,889	3,007	1:2	3,183	176	5.5
Nanyumbu DC	28,206	8,549	1:3	10,833	2,284	21.1
Masasi TC	16,875	5,223	1:3	6,874	1,651	24.0
Total	219,419	72,722	1:3	90,271	17,549	19.4

Source: District Primary Education Offices, 2016

5.2.11 Special Education

Table 5.29 reveals that in Mtwara Region, the number of pupils enrolled in special education increased from 686 in 2013 to 832 in 2015, with a larger number of boys than girls. In 2013, the largest share of enrolled pupils (30.9 percent) had physical disability, followed by those with intellectual impairment (33.5 percent) while in 2015, the largest proportion of enrolled pupils with disability had Intellectual impairment (38.0 percent) followed by those with physical disability (22.0 percent) and hearing impairment (16.3 percent). Mental retardation had the lowest proportion of enrolled pupils with disability in 2013. However, in 2015 the lowest share of pupils with disability had hearing problems.

Table 5.29: Number of Pupils enrolled with their Type of impairment, Mtwara Region, 2013 and 2015

Type of Impairment	2013			Percent	2015			
	Male	Female	Total		Male	Female	Total	Percent
Physical disability	137	75	212	30.9	108	75	183	22.0
Mental retardation	3	0	3	0.4	10	6	16	1.9
Hearing impairment	73	53	126	18.4	74	62	136	16.3
Blind or Low vision	8	7	15	2.2	32	33	65	7.8
Deaf	4	1	5	0.7	6	1	7	0.8
Mental	25	34	59	8.6	45	33	78	9.4
Otism	4	1	5	0.7	7	6	13	1.6
Intellectual impairment	155	75	230	33.5	202	114	316	38.0
Albinism	16	15	31	4.5	9	9	18	2.2
Total	425	261	686	100.0	493	339	832	100.0

Source: District Primary Education Offices, 2016

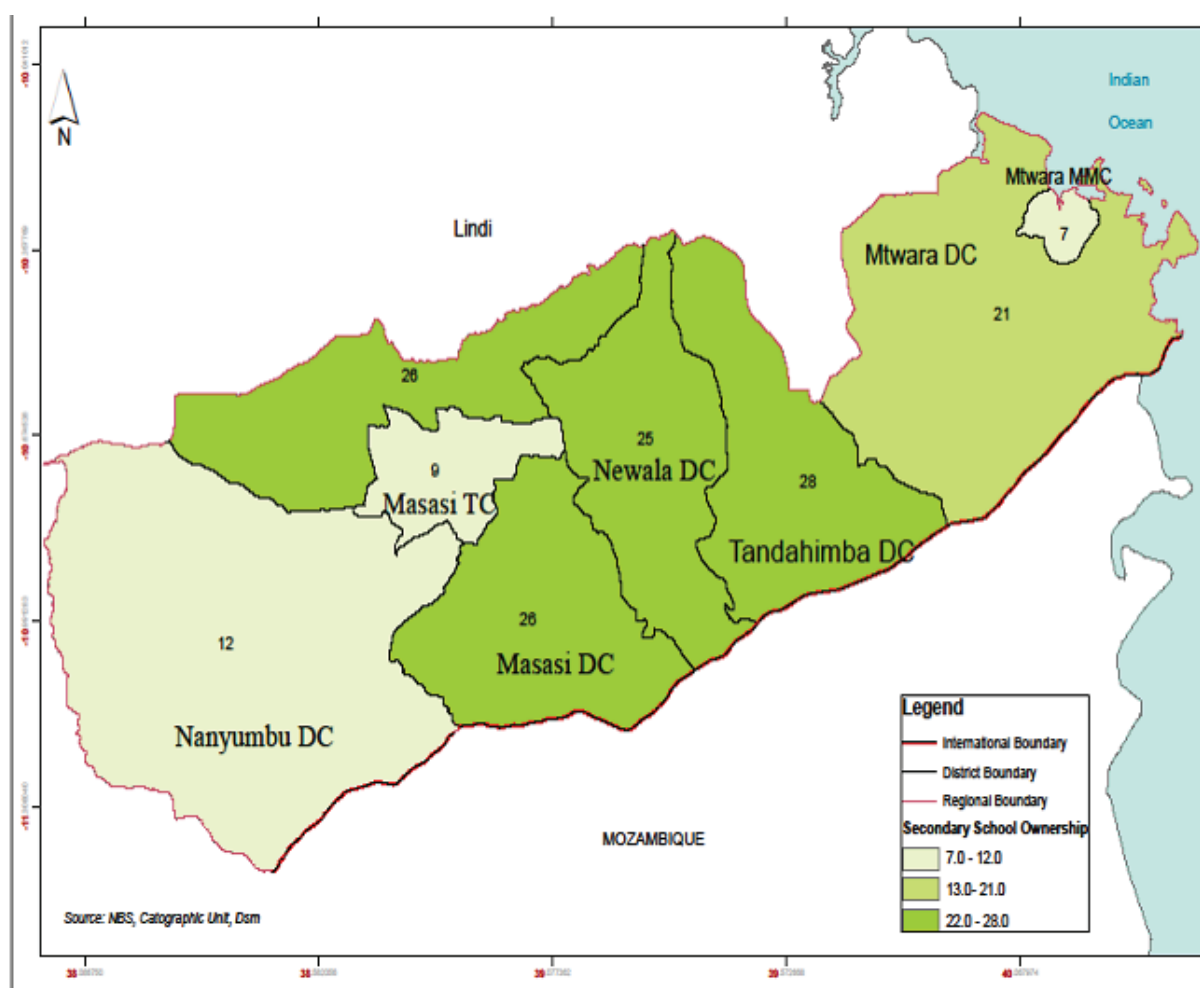
5.2.12 Secondary Education

Secondary education in Tanzania is termed to be the third level of education given to a student after passing final primary education examinations. It is grouped in two parts; Ordinary level Education (O-Level) and Advanced Level Education (A-Level). However, the

government is underway to motivate each student to join secondary education by building a secondary school in each ward and consider to lower school fees. In 2011, the region had 129 secondary schools (124 public schools and 5 private schools). As a result, in 2012, the number of schools increased to 130 schools (125 public schools and 5 private schools). Again, the number of schools increased to 134 in 2015 where there were 128 public schools and 6 private schools.

At council level, Tandahimba was the leading council with the highest number of schools (28 schools), it was followed by Masasi District Council (27 schools), Newala District Council (26 schools), Mtwara District Council (22 schools) and Nanyumbu District Council (12 schools). Mtwara Municipal Council was the least council with only 9 schools (Table 5.30).

Map 7: Map of Mtwara Region Showing Number Of Public Secondary School by Council, 2015



Source: NBS, Cartographic Unit, Dsm

Table 5.30: Number of Secondary Schools by Ownership and Council, Mtwara Region, 2011-2015

Council	2011		2012		2013		2014		2015	
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private
Mtwara DC	21	0	21	0	21	0	21	1	21	1
Newala DC	25	1	25	1	25	1	25	1	25	1
Masasi DC	25	1	26	1	26	1	26	1	26	1
Tandahimba DC	26	0	26	0	26	0	26	0	28	0
Mtwara MMC	6	2	6	2	6	2	7	2	7	2
Nanyumbu DC	12	0	12	0	12	0	12	0	12	0
Masasi TC	9	1	9	1	9	1	9	1	9	1
Total	124	5	125	5	125	5	126	6	128	6

Source: District Secondary Education Office

5.2.13 Transition for Public Secondary Schools

Transition rate refers to the rate at which pupils that pass Standard VII examinations are admitted into secondary education. It also reflects the capacity of secondary education provided in the region or council. Table 5.31 shows that, in 2011, 10,032 pupils were selected to join Form I in Mtwara Region, but only 9,587 (95.6 percent) were admitted in secondary schools. In 2013, 10,893 pupils were selected to join Form I in the region, but 9,531 (87.5 percent) were admitted in Form I. Furthermore, in 2015, 13,522 pupils were selected to join Form I but 14,290 (105.7 percent) were admitted into Form I.

Table 5.31: Number of Pupils Selected and Those Who Joined Form I in Public Secondary Schools by Council; Mtwara Region, 2011, 2013 and 2015

Council	No. of Allocated students									Number of Enrolled students								
	2011			2013			2015			2011			2013			2015		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Mtwara DC	562	482	1,044	542	566	1,108	681	924	1,605	541	361	902	412	375	787	1,285	1,438	2,723
Newala DC	923	819	1,742	1,086	1,212	2,298	1,048	1,207	2,255	1,065	927	1,992	1,032	1,027	2,059	1,024	1,187	2,211
Masasi DC	948	796	1,744	896	899	1,795	1,290	1,469	2,759	985	824	1,809	697	765	1,462	1,351	1,241	2,592
Tandahimba DC	1,241	1,167	2,408	1,143	1,132	2,275	1,518	1,951	3,469	1,044	965	2,009	1,122	1,019	2,141	1,353	1,665	3,018
Mtwara MMC	481	422	903	496	493	989	430	480	910	389	310	699	459	443	902	358	997	1,355
Nanyumbu DC	661	507	1,168	664	665	1,329	693	722	1,415	640	515	1,155	664	664	1,328	689	720	1,409
Masasi TC	534	489	1,023	453	646	1,099	511	598	1,109	459	562	1,021	338	514	852	436	546	982
Total	5,350	4,682	10,032	5,280	5,613	10,893	6,171	7,351	13,522	5,123	4,464	9,587	4,724	4,807	9,531	6,496	7,794	14,290

Source: District Primary Education Office

In essence, a total number of 4,682 girls were selected to join Form I in 2011 but only 4,464 (95.3 percent) were admitted, while 5350 boys were selected out of whom only 5,123(95.8 percent) were admitted. In 2013, 5,613 girls were selected and only 4,807(85.6 percent) were admitted. Likewise, 4,724(89.5 percent) boys were admitted out of 5,280 who were selected. Whereas, in 2015, the number of admitted students rose abruptly as 6,496 boys(105.4 percent) and 7,794 girls (106.1 percent) were admitted into secondary schools (Table 5.31 and Figure 5.7).

Figure 5.7: Percentage of Enrolled Students in 2011,2013 and 2015; Mtwara Region



Source: District Primary Education Office

5.2.14 Completion of Form Four in Public Secondary Schools

Table 5.32 shows that students registered in public secondary schools increased from 7,604 in 2011 to 9,093 in 2015. On the other hand, the number of students who completed Form IV, increased from 6,033 in 2011 to 6,951 in 2015.

Table 5.32: Number of Students Registered and Completed Form IV by Sex and Council in Public Secondary Schools, Mtwara Region; 2011, 2013 and 2015

Council	Registered students									Students Completed Form IV								
	2011			2013			2015			2011			2013			2015		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Mtwara DC	1,192	991	2,183	1,022	940	1,962	1,402	1,446	2,848	734	410	1,144	581	450	1,031	620	535	1,155
Newala DC	910	699	1,609	787	760	1,547	802	950	1,539	867	780	1,320	567	522	1,016	640	653	15,968
Masasi DC	723	484	1,207	693	582	1,275	753	764	1,517	663	416	1,079	661	530	1,191	699	719	1,418
Tandahimba DC	683	342	1,025	708	499	1,207	593	600	1,193	627	320	947	624	434	1,058	581	568	1,149
Mtwara MMC	415	310	725	476	434	910	400	474	854	409	309	718	476	434	910	400	474	844
Nanyumbu DC	173	33	206	241	190	431	256	216	472	164	32	196	220	173	393	250	216	466
Masasi TC	362	287	649	332	364	696	361	309	670	287	342	629	335	279	614	292	304	596
Total	4,458	3,146	7,604	4,259	3,769	8,028	4,567	4,759	9,093	3,751	2,609	6,033	3,464	2,822	6,213	3,482	3,469	6,951

Source: District Secondary Education Office

Table 5.33 shows that in 2011 students enrolled in public secondary schools were 8,779. Among them, 3,710 students (42.3 percent) completed school and more than half (5,059 students, 57.6 percent) did not complete the school in 2014. Furthermore, in 2012, 11,911 students were enrolled out of whom 6,951 (57.6 percent) completed school in 2015 and 5,119 (42.4 percent) did not complete school in 2015.

Table 5.33: Dropouts of students in Public Secondary Schools by Council and Sex, Mtwara Region; 2011-2014 and 2012 – 2015

Council	Enrolled in 2011			Completed in 2014			Not completed/Drop outs/ in 2014			Enrolled in 2012			Completed in 2015			Not completed/Drop outs in 2015		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Mtwara DC	481	310	791	183	93	276	298	217	515	727	610	1,337	620	535	1,155	107	75	182
Newala DC	802	712	1,514	632	591	1,223	170	121	291	980	927	1,907	640	653	1,293	340	274	614
Masasi DC	1,000	853	1,853	508	342	850	492	511	1,003	1,190	1,135	2,325	699	719	1,418	491	416	907
Tandahimba DC	961	911	1,872	251	176	427	710	735	1,445	1,402	1,377	2,779	581	568	1,149	821	809	1,630
Mtwara MMC	379	310	689	196	152	348	183	158	341	529	486	1,015	400	474	874	129	12	141
Nanyumbu DC	640	515	1,155	103	43	146	537	472	1,009	845	793	1,638	250	216	466	595	577	1,172
Masasi TC	460	435	905	246	194	440	214	241	455	533	536	1,069	292	304	596	241	232	473
Total	4,723	4,046	8,779	2,119	1,591	3,710	2,604	2,455	5,059	6,206	5,864	12,070	3,482	3,469	6,951	2,724	2,395	5,119

Source: District Secondary Education Office

5.2.15 Performance of Form IV Examinations in Public Secondary Schools

The pass rate of the Certificate of Secondary Education Examinations (CSEE) or Form IV Examinations and the number of students selected to join Form V reflect the quality of secondary education in the region. Pass-in the CSEE is divided into divisions with Division I being the highest. Table 5.34 shows that Form IV examination performance in 2011, 2013 and 2015 in Mtwara Region was not good especially among girls. In 2011, out of 4,468 students, only 1,122 students (42.0 percent) scored division I-IV. Among them, girls were 540 or 32.5 percent of the total students (1,662) who sat for national examinations and scored division I-IV.

In 2013, out of 4,100 students who sat for the national examination, only 1,536 students (37.5 percent) passed by attaining division I-IV. Among them, 528 students (34.4 percent) were girls. However, number of students who sat for Form four examinations in 2015 reached 6,192 students which were the highest than the previous years. Girls who attained division I-IV accounted for 38.7 percent of all students (2,950) who attained division I-IV in 2015.

Table 5.34: Students Performance in Form IV Examinations in Public Secondary Schools by Sex and Council; Mtwara Region, 2011, 2013 and 2015

Division	2011				2013				2015			
	Boys	Girls	Girls Percent	Total	Boys	Girls	Girls Percent	Total	Boys	Girls	Girls Percent	Total
I	2	1	33.3	3	8	5	38.5	13	12	4	25	16
II	28	20	41.7	48	64	12	15.8	76	145	47	24.5	192
III	100	51	33.8	151	215	80	27.1	295	347	152	30.5	499
IV	992	468	32.1	1460	721	431	37.4	1152	1303	940	41.9	2243
0	1549	1257	44.8	2806	1258	1306	50.9	2564	1665	1577	48.6	3242
Total	2671	1797	40.2	4468	2266	1834	44.7	4100	3472	2720	43.9	6192
Percent	59.8	40.2		100	55.3	44.7		100	56.1	43.9		100

Source: District Secondary Education Office

Table 5.35 shows the number of enrolled students and completed high school education for year 2011, 2013 and 2015. In essence, 184 students were enrolled to enter form five in 2011 and all were girls. In 2013, out of 727 enrolled students, 460 (63.3 percent) were boys and 267 (36.7 percent) were girls. The enrollment of students increased to 1,090 students in 2015 and 40.5 percent were girls.

In 2011, 678 students completed high school education whereby 30.7 percent of these students were girls and 69.3 percent were boys. Conversely, in 2013, the number of students who completed high school education decreased to 635 students (30.6 percent girls and 69.7 percent boys). Furthermore, in 2015, 737 students completed form six education, out of whom 294 were girls and 443 were boys.

Table 5.35: Number of Students Enrolled and Completed High School Education by Sex and Council, Mtwara Region; 2011, 2013 and 2015

Council	Enrolled students									Students Completed Form VI								
	2011			2013			2015			2011			2013			2015		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Mtwara DC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Newala DC	0	20	20	0	22	22	0	91	91	0	0	0	0	20	20	0	22	22
Masasi DC	0	0	0	431	0	431	573	0	573	470	0	470	441	0	441	421	0	421
Tandahimba DC	0	0	0	29	0	29	76	0	76	0	0	0	0	0	0	22	0	22
Mtwara MMC	0	82	82	0	112	112	0	176	176	0	82	82	0	96	96	0	168	168
Nanyumbu DC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Masasi TC	0	82	82	0	133	133	0	174	174	0	126	126	0	78	78	0	104	104
Total	0	184	184	460	267	727	649	441	1090	470	208	678	441	194	635	443	294	737

Source: District Secondary Education Office

5.2.16 Form VI Pass Rate in Public Secondary Schools

Table 5.36 shows student's performance in the Advanced Certificate of Secondary Education Examinations (ACSEE). Pass in ACSEE is divided into divisions with Division I being the highest pass. The performance of Form VI examinations during the year 2011 to 2015 period in Mtwara Region was not encouraging much especially among girls. In 2011, out of 39 students who attained division I, only 10.3 percent were girls. While those who attained division zero (23.5 percent) were girls and (76.5 percent) were boys. Furthermore, majority of students attained division III (76.5 percent boys; 26.3 percent girls).

The performance of Form VI students improved in 2015, whereby 28.6 percent of girls attained division I. Moreover, the number of students who attained division II increased from 140 in 2011 to 185 students in 2015. The number of students who attained division zero decreased from 34 students in 2011 to 4 students in 2015 accounting for about 89 percent decrease. However, more efforts are required to be taken by the Regional Authority in order to increase A Level enrolment and improvement of pass rates at higher divisions.

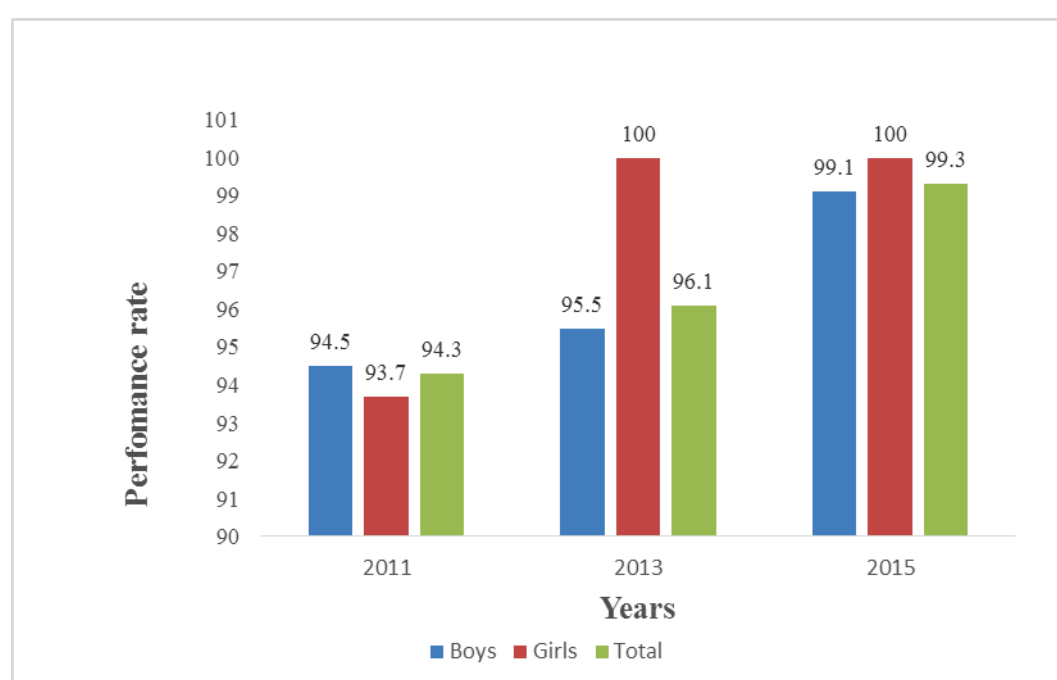
Table 5.36: Students Performance in Form VI Examinations in Public Secondary Schools by Sex, Mtwara Region; 2011- 2015

Division	2011			2012			2013			2014			2015		
	Boys	Girls Percent	Total	Boys	Girls Percent	Total	Boys	Girls Percent	Total	Boys	Girls Percent	Total	Boys	Girls Percent	Total
I	35	10.3	39	14	33.3	21	0	0	0	4	60	10	45	28.6	63
II	123	12.1	140	67	44.6	121	29	42	50	51	32	75	135	27.0	185
III	232	26.3	315	218	30.8	315	335	14.3	391	259	7.2	279	216	11.1	243
IV	54	20.6	68	87	17.1	105	57	1.7	58	61	6.2	65	43	17.3	52
0	26	23.5	34	68	2.9	70	20	0	20	5	0	5	4	0	4
Total	470	126	596	454	178	632	441	78	519	380	54.0	434	443	104	547
Percent	79	21	100	71.8	28.2	100	85.0	15.0	100	87.6	12.4	100	81	19	100

Source: District Secondary Education Office

Figure 5.8 below demonstrate performance rates of students for three years 2011, 2013 and 2015. It shows that in 2011 94.3 percent of all candidates sat for the final examination, out of whom 93.7 percent of girls passed the exams by attaining division I-IV, 94.3 percent of boys performed in the same grades. Pass rate increased to 96.1 percent in 2013 where all girls performed well (100 percent) and 95.5 percent of boys also passed. In 2015, the performance continued to improve whereby 99.3 percent of all students passed (100 percent were girls and 99.1 percent were boys). However, more efforts are required to be taken to improve the pass rates to higher divisions so to ease the gap of students attaining division IV and zero.

Figure 5.8: Students pass rate in Form VI Examination in Public Secondary Schools, 2011, 2013 and 2015; Mtwara Region



Source: District Secondary Education Office

5.2.17 Secondary School Facilities

In order to operate any public school, availability of facilities is essential. In Mtwara Region, availability of secondary school facilities is below the standard set by the education authorities. This section discusses availability of secondary school resources/facilities such as teachers, classrooms, desks, dormitories, staff quarters, toilets, libraries and laboratories.

(i) Availability of Teachers

Table 5.37 shows that out of 128 public secondary schools in Mtwara Region, 2420 teachers were available against the required 3,019 teachers making a deficit of 678 teachers. Mtwara Municipal was the only council which seems to have no deficit of teachers. Newala District

Council had a deficit of 370 teachers followed by Masasi District Council (138 teachers) and Masasi Town Council (95 teachers).

Table 5.37: Availability of Teachers in Public Secondary Schools by Council, Mtwara Region, 2015

Council	No. of Schools	Requirement of teachers	Available Teachers	Deficit of Teachers
Mtwara DC	21	457	421	36
Newala DC	25	766	396	370
Masasi DC	26	514	376	138
Tandahimba DC	28	474	443	31
Mtwara MMC	7	169	231	0
Nanyumbu DC	12	345	337	8
Masasi TC	9	294	216	95
Total	128	3019	2420	678

Source: District Secondary Education Office

Table 5.38 indicates that, in Mtwara Region, 1,296 teachers had degrees (52.1 percent). They are followed by 1,163 teachers with diploma (46.7 percent) while 5 teachers had masters' degrees (1 percent). In terms of sex, there were 867 males (66.9 percent) and 442 female teachers (34.1 percent) with degrees. Teachers who had diploma constituted 828 male teachers (71.2 percent) and 335 female teachers (28.8 percent). However, for those with masters, there were 7 female teachers (28 percent) and 18 male teachers (78 percent).

Table 5.38: Available of Public Secondary School's Teachers by Qualification and Council; Mtwara Region, 2015

Council	Number of Teachers with											
	Diploma			Degree			Masters			Others		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mtwara DC	168	59	227	191	77	268	2	0	2	0	0	0
Newala DC	163	69	232	107	51	158	4	2	6	0	0	0
Masasi DC	132	34	166	138	39	177	7	1	8	0	0	0
Tandahimba DC	140	44	184	163	91	254	1	1	2	0	1	1
Mtwara MMC	43	40	83	100	71	171	3	2	5	2	2	4
Nanyumbu DC	147	56	203	81	51	132	1	1	2	0	0	0
Masasi TC	35	33	68	87	62	136	0	0	0	0	0	0
Total	828	335	1163	867	442	1296	18	7	25	2	3	5

Source: District Secondary Education Office

Table 5.39 shows that Mtwara Region had 2,471 teachers teaching Science and Arts subjects. Teachers who were teaching Science subjects were 397, majority (87 teachers) were in Masasi District Council. Out of the science teachers, 341 were males and 56 were female teachers. However, the region still requires about 1,076 science teachers.

With concern to arts subjects, the region had a total of 2,062 teachers. Mtwara District Council had the biggest number (446 teachers) followed by Tandahimba District Council (368 teachers). The number of available male teachers (1,360) was higher than that of female teachers (702). Apparently, the region requires about 1,564 arts subject teachers, whereby Newala District Council requires the largest number (448 teachers) followed by Mtwara District Council (265 teachers), Tandahimba District Council (253 teachers), Nanyumbu District Council (202 teachers). Masasi Town Council is in need of 49 teachers only.

Table 5.39: Number of Science and Arts Teachers in Public Secondary Schools by Council; Mtwara Region, 2015

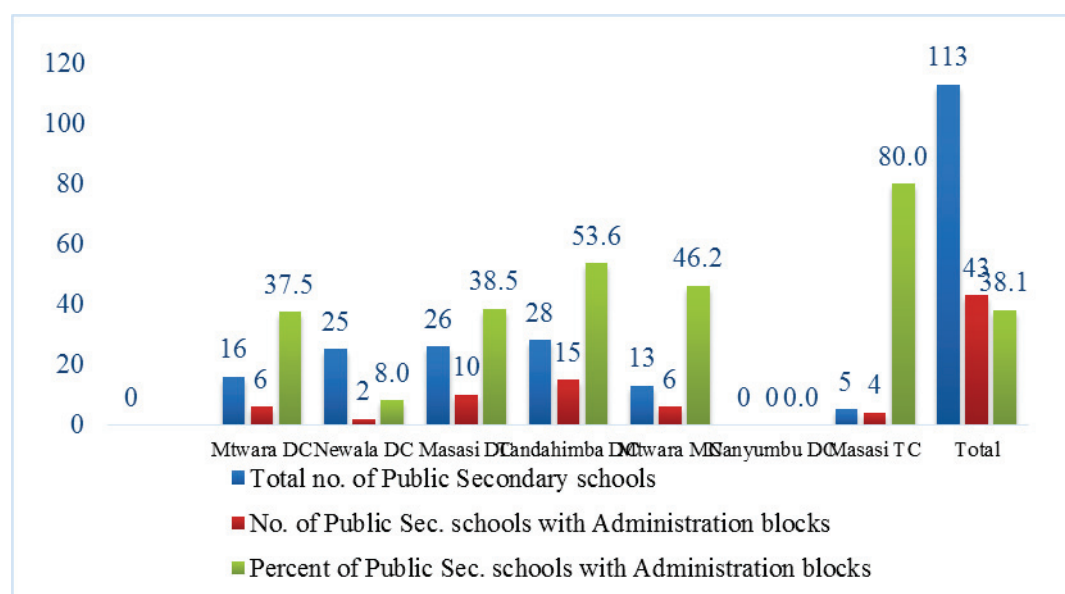
Council	Number of Teachers							
	Available Teachers Teaching science subjects			Required Science Teachers	Available Teachers Teaching Arts subjects			Required Arts Teachers
	Male	Female	Total		Male	Female	Total	
Mtwara DC	57	6	63	140	316	130	446	265
Newala DC	58	13	71	271	203	113	316	448
Masasi DC	81	6	87	143	196	68	264	188
Tandahimba DC	66	8	74	224	240	128	368	253
Mtwara MMC	32	11	43	74	124	111	235	159
Nanyumbu DC	31	10	41	143	198	86	284	202
Masasi TC	16	2	18	81	83	66	149	49
Total	341	56	397	1,076	1,360	702	2,062	1,564

Source: District Secondary Education Office

ii) Administration Blocks

Figure 5.9 shows that, in 2015, Mtwara Region had 113 public secondary schools with or without administration blocks. As the table shows, 43 schools (38.1 percent) had administration blocks. Across the councils, Masasi District Council is leading with about 80 percent of its schools having administration blocks. It is followed by Tandahimba District Council whose 15 schools had administration blocks (53.6 percent), Masasi District Council had 10 schools with administration blocks (37.5 percent) and Mtwara Municipal Council had 6 schools with administration blocks (46.2 percent). However, Nanyumbu District Council is noted to be a council without a public secondary school. (Figure 5.9)

Figure 5.9: Availability of Administration Blocks in Public Secondary Schools by Council; Mtwara Region, 2015



Source: District Secondary Education Office

iii) Staff Quarters

Besides shortage of teachers in Mtwara Region, the region also experienced shortage of secondary school staff quarters. Table 5.40 reveals that the region required 2,423 staff quarters and only 484 quarters were available. On the other hand, Mtwara Region was facing a huge deficit of 1,939 staff quarters. Tandahimba District Council recorded a deficit (365), Nanyumbu Council recorded a deficit (300), Mtwara District Council (320), Newala District Council (285) and Masasi District Council (260). Mtwara Municipal Council recorded a deficit of 252 staff quarters and Masasi Town Council also recorded a deficit of 157 houses.

The region should also take into consideration the fact that provision of staff houses is among the basic incentives for teacher's retention and can increase the teaching morale. Hence, more resources should be allocated to build more staff houses.

Table 5.40: Availability of Teachers' Houses in Public Secondary Schools by Council; Mtwara Region, 2015

Council	No. of Schools	Number of Houses				
		Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwara DC	21	409	89	320	78	5
Newala DC	25	374	89	285	76	6
Masasi DC	26	388	128	260	67	7
Tandahimba DC	28	446	81	365	82	3
Mtwara MMC	7	267	15	252	94	1
Nanyumbu DC	12	341	41	300	88	2
Masasi TC	9	198	41	157	79	4
Total	128	2423	484	1939	80	

Source: District Secondary Education Office

iv) Classrooms

Table 5.41 shows that Mtwara Region had a total of 1,074 public secondary schools classrooms. Tandahimba Council had the largest number of classrooms (204) followed by Mtwara District Council with 194 classrooms, Masasi District Council (193) and Newala District Council (188). However, Nanyumbu District Council had the smallest number of classrooms (88). On the other hand, a total of 1,512 classrooms were required in the region. Masasi District Council required the largest number of classrooms (311), followed by Tandahimba (304), Newala (262), and Mtwara District Council (226).

Table 5.41: Availability of Classrooms in Public Secondary Schools by Council, Mtwara Region, 2015

Council	No. of Schools	Number of Classrooms				
		Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwara DC	21	226	194	32	14.2	7
Newala DC	25	262	188	74	28.2	4
Masasi DC	26	311	193	118	37.9	2
Tandahimba DC	28	304	204	100	32.9	3
Mtwara MMC	7	146	116	30	20.5	6
Nanyumbu DC	12	145	88	57	39.3	1
Masasi TC	9	118	91	27	22.9	5
Total	128	1512	1074	438	29	

Source: District Secondary Education Office

v) Pit-Latrines

Table 5.42 shows that Mtwara Region had 128 public secondary schools with 1,552 pit latrines which were used by 37,029 students. There was a 30.9 percent deficit of pit latrines as Mtwara District Council had the largest number of pit latrines (337), followed by Masasi District Council (316) and Newala District Council (278). Overall, about 2,246 pit latrines were required in these secondary schools in the region. Nanyumbu District Council had 118 pit latrines which were used by 4,111 students even though it had the biggest proportion of the required pit latrines (46.1). Tandahimba had only 243 pit latrines which were used by 7,103 students, hence a 42.8 percent deficit. Mtwara Municipal Council had the lowest deficit of pit latrines (0.6 percent) as many of them were needed for boys than girls.

Table 5.42: Availability of Pit Latrine in Public Secondary Schools by Council and Sex; Mtwara Region, 2015

Council	No. of Schools	Total students			Number of Pit Latrine									Ranking by Deficit
					Required			Available			Percent Deficit			
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
Mtwara DC	21	3,013	3,204	6,217	213	228	441	171	166	337	19.7	27.2	23.6	5
Newala DC	25	2,987	2,990	5,977	191	221	417	111	151	278	41.9	31.7	33.3	4
Masasi DC	26	3,952	3,437	7,389	206	205	411	198	118	316	3.9	42.4	23.1	6
Tandahimba DC	28	3,491	3,612	7,103	190	235	425	122	121	243	35.8	48.5	42.8	2
Mtwara MMC	7	1,419	2,262	3,681	66	115	181	55	125	180	16.7	-8.7	0.6	7
Nanyumbu DC	12	2,048	2,063	4,111	100	119	219	53	65	118	47	45.4	46.1	1
Masasi TC	9	943	1,608	2,551	56	101	157	42	54	96	25	46.5	38.9	3
Total	128	17,853	19,176	37,029	1022	1224	2246	752	800	1552	26.4	34.6	30.9	

Source: District Secondary Education Office

vi) Dormitories

Construction of dormitories is very essential especially in rural areas, it helps students to solve the problem of walking long distances and reduce the rates of dropouts due to pregnancies and truancy. Table 5.43 reveals that there was a shortage of 268 (72.2 percent) dormitories in the region in 2015. The region requirement of dormitories for the year 2015 was 371 but only 103 (28 percent) were available. At council level, Tandahimba experienced the biggest shortage of dormitories of about 87.9 percent followed by Nanyumbu (87.5 percent) and Newala (79.2 percent). This implies that most students were day students or rented premises near their school compound (Table 5.43).

Table 5.43: Availability of Dormitories/Hostels in Public Secondary Schools by Council; Mtwara Region, 2015

Council	Number of Dormitories/hostels				Ranking Deficit
	Required	Available	Deficit	Percent Deficit	
Mtwara DC	40	12	28	70	4
Newala DC	53	11	42	79.2	3
Masasi DC	82	32	50	61	5
Tandahimba DC	124	15	109	87.9	1
Mtwara MMC	24	18	6	25	7
Nanyumbu DC	24	3	21	87.5	2
Masasi TC	24	12	12	50	6
Total	371	103	268	72.2	

Source: District Secondary Education Office

vii) Libraries

Library facility is one of the important facilities for the development of knowledge and skills of pupils, students and the general public. Adhering to the standards set by the Ministry of Education and Vocational Training, every secondary school needs to have a library to enable students to borrow and use supplementary books and textbooks.

Table 5.44 presents the availability of libraries in public secondary schools by council in Mtwara Region in 2015, whereby only 15 libraries were available. The required number of libraries was 136 and the deficit was for 121 libraries (equivalent to 89 percent). A deficit of libraries was observed in all councils. The deficit was high in Tandahimba (28), followed by Newala (24), Masasi (23), Mtwara (18), Nanyumbu (11), Masasi Town Council (9) and Mtwara Municipal Council (8).

Table 5.44: Availability of Libraries in Public Secondary Schools by Council; Mtwara Region, 2015

Council	No. of Schools	Number of Libraries				Ranking Deficit
		Required	Available	Deficit	Percent Deficit	
Mtwara DC	21	20	2	18	90	4
Newala DC	25	25	1	24	96	2
Masasi DC	26	28	5	23	82.1	6
Tandahimba DC	28	28	0	28	100	1
Mtwara MMC	7	13	5	8	61.5	7
Nanyumbu DC	12	12	1	11	91.7	3
Masasi TC	9	10	1	9	90	4
Total	128	136	15	121	89	

Source: District Secondary Education Office

viii) Furniture in Schools

Availability of tables and chairs in public secondary schools is an important indicator of ensuring a proper teaching and learning environment for teachers and pupils. Table 5.45 shows that, in 2015, the region had 34,414 chairs and 35,541 desks/tables. However, the required number of desks/tables was 38,430 and that of chairs was 38,430. This means that there was a deficit of 2,889 desks/tables (7.5 percent) and 4,016 chairs (10.5 percent).

At council level, Nanyumbu District Council had a deficit of 2,106 chairs (48.7 percent) and 2180 desks/tables (50.4 percent), followed by Mtwara District Council which had a deficit of 1,077 desks/tables (16.4percent) and 1129 chairs (17.2 percent), Newala Council had a deficit of 887 desks/tables (13.6 percent) and 892 chairs (13.6 percent). However, Mtwara Municipal Council seems to have a deficit of 239 desks/chairs only (7 percent) while Masasi Town Council had a deficit of 6 desks/tables (0.2 percent) and 386 chairs (12.7 percent).The remaining council had no deficit of tables and chairs (Table 5.45).

Table 5.45: Availability of Desks/Tables and Chairs in Public Secondary Schools by Council; Mtwara Region, 2015

Council	Number of Tables and chairs								Ranking Deficit
	Required		Available		Deficit		Percent Deficit		
	Tables	Chairs	Tables	Chairs	Tables	Chairs	Tables	Chairs	
Mtwara DC	6,574	6,580	5,497	5,451	1,077	1129	16.4	17.2	2
Newala DC	6,545	6,545	5,658	5,653	887	892	13.6	13.6	3
Masasi DC	7,222	7,222	7,487	7,411	-265	-189	-3.7	-2.6	6
Tandahimba DC	7,328	7,328	8,047	7,949	-719	-621	-9.8	-8.5	7
Mtwara MMC	3,393	3,393	3,596	3,154	-203	239	-6.0	7.0	5
Nanyumbu DC	4,322	4,322	2,216	2,142	2,106	2180	48.7	50.4	1
Masasi TC	3,046	3,040	3,040	2,654	6	386	0.2	12.7	4
Total	38,430	38,430	35,541	34,414	2,889	4,016	7.5	10.5	

Source: District Secondary Education Office

ix) Laboratories

A laboratory is one of the essential education facilities especially to students taking science subjects. The Government set some standards that each school should have at least three laboratories for Physics, Chemistry and Biology. Table 5.46 shows that Mtwara Region had 197 laboratories in 2015 while 427 were still required.

Tandahimba District Council had the biggest deficit as it did not have a single laboratory (100 percent). This was followed by Newala District Council had a deficit of 59 laboratories (78.7 percent), Mtwara District Council had a deficit of 35 laboratories (59.3 percent) and Nanyumbu District Council with a deficit of 21 laboratories (58.3 percent) deficit. Likewise, Mtwara Municipal Council had a deficit of 12 laboratories (30.8 percent), Masasi Town

Council with a deficit of 10 laboratories (20 percent) while Masasi District Council had the smallest deficit of eight laboratories (9.6 percent).

Table 5.46: Availability of Laboratories in Public Secondary Schools by Council; Mtwara Region, 2015

Council	Number of Laboratories				
	Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwara DC	59	24	35	59.3	3
Newala DC	75	16	59	78.7	2
Masasi DC	83	75	8	9.6	7
Tandahimba DC	85	0	85	100.0	1
Mtwara MMC	39	27	12	30.8	5
Nanyumbu DC	36	15	21	58.3	4
Masasi TC	50	40	10	20.0	6
Total	427	197	230	53.9	

Source: District Secondary Education Office

x) Electricity

Electric power is necessary for accelerating socio-economic development in any community. Thus, the government has been working hard to ensure that most households, offices, schools and other institutions in both rural and urban areas use electricity as the main source of energy for lighting as well as other purposes. Table 5.47 shows the availability of electricity in secondary schools by council in 2015. Out of 128 schools in Mtwara Region, 35 schools obtain electricity from national grid and 41 uses solar power. However, 76 schools (62 percent) do not have electricity.

Table 5.47: Availability of Electricity Power in Public Secondary Schools by Council, Mtwara Region, 2015

Council	Total No. of Schools	Number of Secondary school using					
		National Grid electricity	Biogas	Solar Power	Generator	Other Sources	Total
Mtwara DC	21	4	0	10	0	0	14
Newala DC	25	10	0	4	0	0	14
Masasi DC	26	6	0	8	0	0	14
Tandahimba DC	28	1	0	5	0	0	6
Mtwara MMC	7	13	0	0	0	0	13
Nanyumbu DC	12	1	0	11	0	0	12
Masasi TC	9	0	0	3	0	0	3
Total	128	35	0	41	0	0	76

Source: District Secondary Education Office

(xi) Water

Mtwara Region has managed to supply water to most secondary schools through water tanks, water wells and tap water. Table 5.48 shows that, in 2013, 53 public secondary schools had 52

water tanks, 7 water wells and 35 tap water. In 2015, 53 schools had access to water through 63 water tanks, 10 water wells and 35 tap water.

Table 5.48: Accessibility of Water in Public Secondary Schools by Council, Mtwara Region; 2013 and 2015

Council	2013				2015		
	No. of Sec. Schools with working			Total No. of Schools	No. of Sec. Schools with working		
	Water Tanks	Water wells	Tape water		Water Tanks	Water wells	Tape water
Mtwara DC	2	1	3	5	11	1	3
Newala DC	31	0	16	12	32	4	16
Masasi DC	9	4	11	26	9	3	10
Tandahimba DC	3	0	0	3	3	0	0
Mtwara MMC	4	1	5	5	5	1	6
Nanyumbu DC	0	1	0	1	0	1	0
Masasi TC	3	0	0	1	3	0	0
Total	52	7	35	53	63	10	35

Source: District Secondary Education Office

5.2.18 Water Supply and Sanitation

Overview

Tanzania is a big country with almost one out of every two persons has no access to clean and safe water. Due to the big geographical dispersion, rural Tanzanians often have to travel long distances and spend many hours to fetch water. This has hindered economic development especially to women; hence, good performance of girls in schools is usually affected and sometimes and sometimes leads to their school dropout. Improving supply of clean and safe water will, therefore, reduce the number of girls dropping out of schools, help women to get time of engaging themselves in economic activities and raise their standards of living. However, for Mtwara Region, the Water Supply and Sanitation Sector covers rural and urban water supply in terms of water sources, schemes and technology used to supply water.

Water Supply

Table 5.49 reveals that, in 2015, one of the major water sources in Mtwara Region was 27,900 rain water harvest tanks, out of which 17,990 were located in Newala District Council. (17,585 are working and 405 are not working). The other major source was 466 shallow wells, out of which 230 were located in Masasi District Council (109 are working and 121 are not working). Bore hole, was the third major source of water in the region, whereby 120 were working and 195 were not working-.

The region also had 125 piped water schemes mostly situated in Mtwara District Council, out of which 19 were working and 37 were not. Regarding river water, the region had 62 sources trapping water from different river distributaries. Whereas, Masasi District Council had 50

distributary sources of river water on which 9 were permanent and 53 were seasonal (Table 5.49).

The government is striving to implement (2006-2025) National Rural Water Supply and Sanitation Program (NRWSSP). This programme aims to achieve a long term plan development of the rural water supply and sanitation so as to meet the Millenium Development Goals targets and beyond.

Table 5.49: Number and Type of Rural Water Sources by Council, Mtwara Region; 2015

Council	Charcoal dams		Spring		Shallow Well		Rain water Harvest Tanks		Bore holes		River water		Lake water	Dam		Piped Scheme	
	W	NW	W	NW	W	NW	W	NW	W	NW	Permanent	Seasonal		Permanent	Seasonal	W	NW
Mtwara	2	2	1	0	32	57	1,869	62	26	62	0	4	2	3	2	19	37
Newala	-	-	2	1	6	4	17,585	405	5	3	0	0	0	0	0	0	0
Masasi	12	1	28	21	109	121	81	32	27	71	8	42	0	3	16	11	5
Tandahimba	0	0	1	0	27	10	7,794	20	6	2	0	0	0	5	10	11	18
Mtwara MMC	0	0	0	0	11	14	20	0	0	0	0	0	0	0	0	10	0
Nanyumbu	4	-	-	-	39	30	28	2	48	36	1	7	-	1	-	9	3
Masasi TC	4	0	0	0	0	6	2		8	21	0	0	0	0	0	2	0
Total	22	3	32	22	224	242	27,379	521	120	195	9	53	2	12	28	62	63

Source: District Water Department

W= Working

NW=Not Working



One among water delivery technologies used- Mtwara Region

In order to make sure that there is a fairly sufficient supply of water to the rural residents of Mtwara Region, the findings show that Mtwara Region had a total of 528 number of water delivery technologies, out of which, 335 (65.6 percent) were working and 193 (34.4

percent) were not working. Nanyumbu District Council had the biggest number of water delivery technologies (162) whereas 160 (98 percent) were working and 2 (2 percent) were not working. Mtwara District Council had 167 water delivery technologies (65 are working and 102 not working). It is also observed that the largest part of Nanyumbu District Council was using water pump (147) and all were found to be working. (Table 5.50).

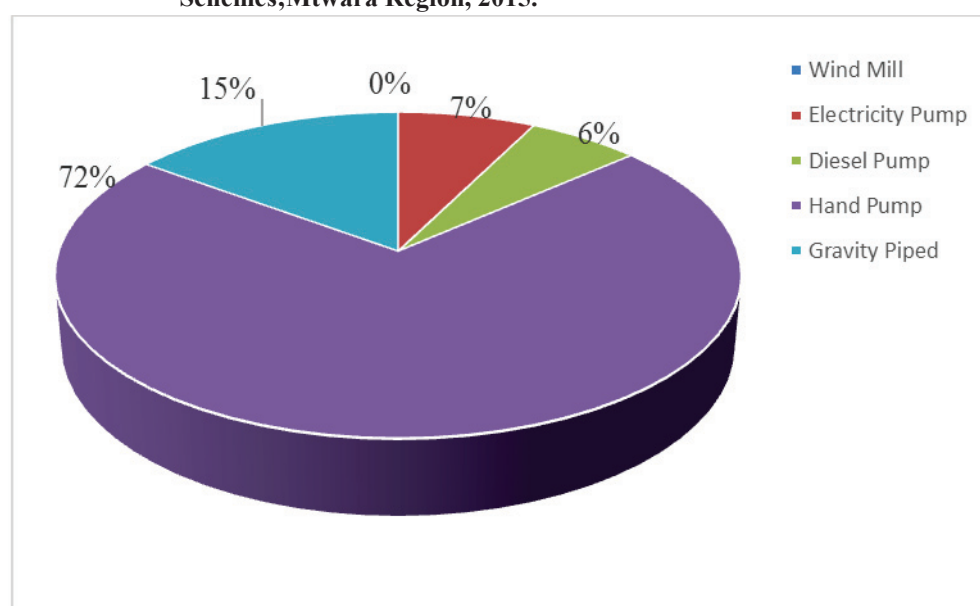
Table 5.50: Number and Type of Water Delivery Technology Used in Rural Water Schemes by Council, Mtwara Region; 2015

Council	Type of Technology											
	Wind Mill		Electricity Pump		Diesel Pump		Hand Pump		Gravity Piped		Total	
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW
Mtwara	0	0	9	7	6	3	39	72	1	0	65	102
Newala	0	0	0	1	4	0	0	0	0	0	4	1
Masasi	0	0	5	2	2	1	12	12	16	19	34	32
Tandahimba	0	0	1	2	4	0	27	10	10	19	34	31
Mtwara MMC	0	0	6	0	0	0	11	14	10	0	27	14
Nanyumbu	0	0	4	0	9	2	147	0	0	0	160	2
Masasi TC	0	0	1	0	0	0	9	11	1	0	11	11
Total	0	0	26	12	25	6	245	119	38	38	335	193

Source: District Water Department

According to the type of technology used for water delivery in Mtwara Region (Figure 5.10), hand pump technology seem to lead among all types (72 percent), followed by gravity piped which accounted for 15 percent. Diesel pump and electricity pump accounted for 6 percent and 7 percent respectively. In line with the findings, the government is striving modify the technologies which are being used for water deliverance.

Figure 5.10: Percentage and Type of Technology Used in Rural Water Schemes; Mtwara Region, 2015.



Source: District Water Department

People depend on clean water for maintaining their health. Table 5.51 shows that, in 2015, out of 1,318,684 rural population in Mtwara Region, 40.7 percent were served with clean water. Regarding each council, the majority of rural population in Mtwara Municipal Council (84 percent) were served with clean water while in Masasi, 48.2 percent of the district's population were served with clean water. Moreover, the population of Newala District Council (46.8 percent), Mtwara District Council (45.6 percent), Tandahimba District Council (38.6 percent) were being served with clean and safe water. However, Nanyumbu District Council had a very small proportion of its population which had access to clean and safe water (14 percent).

Table 5.51: Percentage Distribution of Rural Population Served with Clean Water by Council; Mtwara Region, 2015

Council	Total Rural Population	Population Served with Clean Water	Percent Population Served with Clean Water
Mtwara	243,296	110,876	45.6
Newala	194,084	90,893	46.8
Masasi	385,272	185,750	48.2
Tandahimba	237,139	91,500	38.6
Mtwara MMC	22,707	19,072	84.0
Nanyumbu	176,699	24,750	14.0
Masasi TC	59,487	14,292	24.0
Total	1,318,684	537,133	40.7

Source: District Water Department

In rural areas, it is a policy that once water supply schemes have been established, their running and maintenance is to the responsibility of the rural people themselves who in turn manage them through their village water committees (VWCs) and village water funds (VWFs). However, the region managed to establish 244 WUGs in 2015 whereby 112 groups were active and 132 were inactive. Funds of TZS 104,672,069 were collected from these groups apparently Tandahimba District Council had 37 groups and was able to collect TZS 31,111,831 for water project. Masasi Town Council had only five groups and were not able to collect any funds for the water scheme. (Table 5.52).

Table 5.52: Number of Water User Groups (WUGs) and Operation and Maintenance Accounts (O&M) by Council, Mtwara Region; 2015.

Ward	Number of Groups	WUGs		O&M		Total Funds (TZS) as per 31/12/2015
		Active	Inactive	Operate	Dormant	
Mtwara	68	39	29	39	29	21,167,140
Newala	14	14	0	14	0	16,604,000
Masasi	23	17	6	14	9	16,331,000
Tandahimba	37	10	27	10	27	31,111,831
Mtwara MMC	6	6	0	5	1	2,703,716
Nanyumbu	91	21	70	21	70	16,754,382
Masasi TC	5	5	0	5	0	0
Total	244	112	132	108	136	104,672,069

Source: District Water Department

Table 5.53 shows that rural councils in Mtwara Region had managed to establish water committees and water user groups in 2015. A total number of 156 WUG or VWF were formed in 281 villages, with 1,722 members (901 males and 824 females). In 2015, a total of TZS 96,321,525 was collected from different water user groups. Tandahimba collected the highest water fund (TZS 31,111,831) which accounted for 32.3 percent. Masasi Town Council was the noted council with no water user groups.

Table 5.53: Number of Rural Village Water Committees, Village Water Funds and Funds in the VWCs Council as at 31.12 2015, Mtwara Region.

Council	Village	Village Water Committees Members			Village Water Fund (VWF)/Water Users Group (WUG)	Total funds in Tshs
		Male	Female	Total members		
Mtwara	96	333	328	661	32	11,096,013
Newala	16	22	15	37	9	16,604,000
Masasi	23	17	0	14	9	16,331,000
Tandahimba	14	70	50	120	9	31,111,831
Mtwara MMC	6	45	31	76	6	4,424,300
Nanyumbu	91	364	364	728	91	16,754,382
Masasi TC	35	50	36	86	0	0
Total	281	901	824	1,722	156	96,321,525

Source: District Water Department

Urban Water Supply

Urban water supply in Mtwara Region is still under construction. District councils develop and maintain rural water supply even at their headquarters. In 2015, the region had 18,534 water sources. While rain water tanks accounted for 99.7 percent of all water sources, shallow wells, another water source, accounted for 0.17 percent of all water sources with 21 of them working and 11 not working

sources. The region was noted to have only one spring in Newala District Council which supplies its water in two councils, Newala Town Council and Newala District Council (Table 5.54).

Table 5.54: Number and Type of Urban Water Sources by Council; Mtwara Region, 2015.

Water Sources	Working Facilities	Not Working Facilities
Spring	1	0
Shallow Well	21	11
Rain water Tanks	18,075	398
Bore holes	7	6
Piped Scheme	14	1
Total	18,118	416

Source: District Water Department

Looking at the technology used to ensure efficient water supply, the existing water sources in the region mostly used hand pump machines which accounted for 56.1 percent, followed by electricity pump (19.7 percent), while gravity piped accounted for 19.7 percent with 13 working facilities. However, there was only one diesel pump which was not working. More efforts are needed to improve water delivery technologies in the region (Table 5.55).

Table 5.55: Number of Water Schemes by Type of Technology and by Council, Mtwara Region; 2015

Type of Technology	Working	Not working
Electricity Pump	15	0
Diesel Pump	0	1
Hand Pump	25	12
Gravity Piped	13	0
Total	53	13

Source: District Water Department

Table 5.56 shows the proportion of urban population that is served with clean water. It is estimated that Mtwara Region requires 94900.84 cubic meters of clean water per day. Newala District Council had a higher requirement of clean water (48,417 cubic meters), followed by Masasi District Council (29,968 cubic meters). On average, Mtwara Region receives (60.6 percent or 57,489.38 cubic meters) of the required clean water. However, Mtwara Mikindani Municipal Council receives its entire requirement (100 percent) of the supplied clean water. Newala District Council received 64.7 percent of the clean water, followed by Nanyumbu (64.4 percent). The remaining Council, Masasi Town Council got only 32.6 percent of clean water supplied to the council.

Table 5.56: Percentage of Urban Population Served with Clean Water by Council; Mtwara Region, 2015

Council	Estimated Demand in cubic Meters per day	Actual Supply in cubic Meters per day	% Population Served
Newala	48,417	31,347.38	64.7
Mtwara MMC	15,120	16,320	100
Nanyumbu	1395.84	48	64.4
Masasi TC	29,968	9,774	32.6
Total	94,900.84	57,489.38	60.6

Source: District Water Department

Sanitation

Mtwara Region does not have good waste disposal system; therefore, there are no proper ways of disposing solid and water wastes. Yet, there are no sewage systems as the common way of disposing human waste apart from that which is through pit latrines. Table 5.57 shows the number of households with toilets and without toilets by council. Whereas 89.2 percent (314,359) of the houses in the region own toilets and 11.1 percent out of 352,482 houses live without toilets. Nanyumbu District Council was leading with 16.4 percent of houses which did not have toilets, followed by Mtwara District Council (14 percent). On contrary, the region through health department is motivating the remaining population on having toilets in order to avoid the outbreak of water borne diseases and diarrhea.

Table 5.57: Availability of Toilet facilities by council; Mtwara Region, 2015.

Council	Estimated Total Number of Households	Total Number of Households with Toilets	% of Households with Toilets	Total Number of Households without Toilets	% of Households without Toilets
Mtwara	74,529	64,091	86	10,492	14
Newala	61,490	59,928	97.5	1,562	2.5
Masasi	22,529	20,655	91.7	1,874	8.3
Tandahimba	69,654	63,165	90.7	6,489	9.3
Mtwara MMC	28,764	28,727	99.9	37	0.1
Nanyumbu	60,702	50,753	83.6	9,949	16.4
Masasi TC	34,814	27,040	77.7	8,774	25.2
Total	352,482	314,359	89.2	39,177	11.1

Source: District Water Department

Water Supply Personnel

In Tanzania, with new water supply set up, water supply personnel are located at councils. Table 5.58 shows that Mtwara Region had a total of 65 water supply personnel. Among them, 11 are engineers, 26 technicians, 12 plumbers, 12 pump attendants and 4 pump mechanics. Masasi District Council had the highest proportion of water supply personnel (24.6 percent), followed by Newala District Council (23.1 percent) and Mtwara District Council (18.5

percent). Nanyumbu District Council had the smallest proportion of water supply personnel (3.1 percent).

Table 5.58: Type and Number of Water Supply Personnel by Council; Mtwara Region, 2015.

Council	Engineers	Technicians	Plumber	Pump attendant	Pump mechanics	Total	Percent
Mtwara	4	7	1	0	0	12	18.5
Newala	1	4	4	3	3	15	23.1
Masasi	2	1	3	9	1	16	24.6
Tandahimba	1	5	2	0	0	8	12.3
Mtwara MMC	1	2	1	0	0	4	6.2
Nanyumbu	0	1	1	0	0	2	3.1
Masasi TC	2	6	0	0	0	8	12.3
Total	11	26	12	12	4	65	100

Source: District Water Department

CHAPTER SIX

Other Development Issues

6.1 Introduction

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

6.2 Women Protection and Development

Women in Mtwara Region still fights against the widespread of poverty and burden of heavy domestic works. However, this makes them suffer from a high degree of social inferiority influenced by customs and low status in the family circles. Thus, the majority of women in the region are restricted to their traditional roles of child minders, family cooks and housekeepers, firewood and water collectors. This demonstrates how men have gone to the moon and back, yet women are still lagging behind. Therefore, they are trying to sensitize the world to the unwarranted and unacceptable marginalization which deprives them of their human rights.

The response of the government and civil society has been to try to mainstream women protection and development in the council's development agenda. This has called for the emancipation and empowerment of women through the legal window and the alternatives of public education and the broaching gender issues in forum at all levels of society. The goal is for Mtwara Region to catch up with the rest of the country concerning women equity and equality with men.

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 centers, establishment of women economic groups, participation in SACCOS, CBOs and other cooperative activities. These initiatives among others are also being implemented in Mtwara Region.

6.3 Day Care Centres

Day care centers reduce the burden of women to take care of their children. This gives them more time to participate in income generating activities. These centers are mainly aimed for the children mostly ranged between age 3 to 4 years who are not yet qualified to pre- primary schools.

Table 6.1 shows the number of day care centers as well as the number of children in these centres for the year 2013 and 2015. There were 63 centers in Mtwara Region in 2013. Mtwara MMC (39 centres) was the leading followed by Masasi DC (16 centers), Newala DC (3 centers) and Tandahimba DC (2 centers). The remaining councils had one day care centre each. In addition, the number of day care centers increased from 63 centres in 2013 to 126 in 2015. Also, number of pupils increased from 2,559 in 2013 to 4,613 pupils in 2015.

Table 6. 1: Distribution of Day Care Centers and Number of Pupils by Council; Mtwara Region, 2013 and 2015

Council	2013		2015		Difference in Numbers of Pupils	Percent Difference of Pupils
	Number of Centres	Number of pupils	Number of Centres	Number of pupils		
Mtwara	1	153	1	170	17	10
Newala	3	270	3	323	53	19.6
Masasi	16	824	25	1,669	845	50.6
Tandahimba	2	120	3	182	62	34.1
Mtwara MMC	39	1,059	84	1,752	693	39.6
Nanyumbu	1	55	5	254	199	69.4
Masasi TC	1	78	5	263	164	62.4
Total	63	2,559	126	4,613	2,054	44.5

Source: District Community Development Office

6.4 Vulnerability

Vulnerability refers to being exposed to the risk of adverse outcome, such as impoverishment, ill health and social exclusion. It reflects not only the likelihood that an unpleasant event may happen, but also capacity to cope with it and social conditions which follow from systematic differences in the flows of resources and opportunities which influence capabilities.

While most children in Tanzania are cared for and protected by their families and communities, many are not so fortunate. Aspects of child vulnerability include; child mortality and malnutrition, orphan hood and HIV/AIDS, children in household headed by children or household with elderly adults only, lack of education, child labor and gendered abuse. However, the concept of vulnerability is not only restricted to individuals, such as children, but is often used to households as well.

Table 6.2 shows that out of 94,035 children aged (0-17), Mtwara Region had 14,858 orphans (15.8 percent) and non orphans (51,207, 54.5 percent) who leave in vulnerable condition. Across the councils, more than half of the children who are vulnerable are in Nanyumbu DC (57.6 percent), followed by Newala DC (13.8 percent), Tandahimba DC (12.3 percent) of the vulnerable children in the region. Masasi DC had the least number of vulnerable children 1,487 (2.3 percent). However, HIV/AIDS is the main source of orphanhood in the region.

Table 6.2: Number of Vulnerable Children by Council, Mtwara Region, 2015

Council	Total Children Aged 0-17	Most Vulnerable Children										Total Ophans and Non-Ophans	Percent
		Orphans					Non Orphans						
		No. of Girls	Girls Percent	No. of Boys	Boys Percent	Total Ophans	No. of Girls	Girls Percent	No. of Boys	Boys Percent	Total Non-Ophans		
Mtwara	4,877	782	54	667	46	1449	1,836	53.4	1,603	46.6	3,439	4,888	7.4
Newala	7,361	1,849	25.1	1,095	14.9	2,944	2,699	36.7	3,449	47	6,148	9,092	13.8
Masasi	1,534	60	50.8	58	49.2	118	732	53.5	637	46.5	1,369	1,487	2.3
Tandahima	5,425	2,507	47.2	2,799	52.8	5,306	100	5,425	2,507	47.2	2,799	8,105	12.3
Mtwara MMC	2,650	715	54	612	46.1	1,327	522	60.6	340	39.4	862	2,189	3.3
Nanyumbu	69,916	1,095	55.8	2,107	44.2	3,202	850		33,971		34,821	38,023	57.6
Masasi TC	2,272	269	52.5	243	47.5	512	905	51.2	864	48.8	1769	2,281	3.5
Total	94,035	7,277	49	7,581	51	14,858	7,644	14.9	43,371	84.7	51,207	66,065	100.0

Source: District Community Development Office

6.5 Women and Youth

Women Participation in decision making

Among the goals and targets of National Vision 2030 and Strategic Development Goals (SDGs) is to empower women by involving them in decision making at various levels. Table 6.3 gives by type, the number of decision making posts held by men and women.

In 2015, a total number of 10,628 posts were held by government employees in the following categories; managerial positions, professional/technicians and politicians (MPs, DC councillors, etc.). Three quota of the posts were held by professional/technicians (74.5 percent), politicians (19.6 percent) and managerial (5.9 percent). Furthermore, the results shows that more than half of the posts were held by males (64.6 percent) compared to females (35.4 percent). At council level, Newala was the leading council with the largest number of posts held by women (964 or 47.7 percent), followed by Mtwara DC (794, 27.7 percent), Tandahimba (773, 20.6 percent) and Masasi DC (692, 18.1 percent). Mtwara MMC had the least posts held by women (27, 0.7 percent).

Table 6.3: Participation in Managerial, Political, Professional and Technical Personnel by Gender and by

Council	Managerial			Professionals/ Technicians			Politicians (MPs, DC, Councillors)			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mtwara	250	40	290	662	38	700	1,156	716	1,872	2,068	794	2,862
Newala	46	13	59	975	944	1,919	37	7	44	1,058	964	2,022
Masasi	0	0	0	1,287	677	1,964	32	15	47	1,319	692	2,011
Tandahimba	17	0	17	1,516	759	2,275	31	14	45	1,564	773	2,337
Mtwara MMC	23	14	37	10	4	14	18	9	27	51	27	78
Nanyumbu	131	26	157	549	428	977	13	7	20	693	461	1,154
Masasi TC	54	15	69	46	18	64	14	17	31	114	50	164
Total	521	108	629	5,045	2,868	7,913	1,301	785	2,086	6,867	3,761	10,628
Percent by sex	82.8	17.2	100.0	63.8	36.2	100.0	62.4	37.6	100.0	64.6	35.4	100.0
Percent by category			5.9			74.5			19.6			100.0

Source: District Administrative Offices

6.6 Youth Economic Groups

A youth is referred as a person who is in transition from childhood to adulthood. According to the definition given by Tanzania, youth is a person ranges from the age of 14 to 35. However, this group is being lit up as part of development source, thus a lot of youth in Mtwara region observed to involve themselves in some economic activities such as cultivation of cashew nut



and shelling activities, plumbing activities, bodaboda business, carpentry, masonic works etc.

Employment of youth in these activities has helped to overcome the problem of youth unemployment. However, self-employment even in these sectors needs some

preparation and some capital input. Mtwara Region has paid much attention to this group by encouraging them to form economic groups and providing them with

some capital input. However, accesses to entrepreneurship skills as well as credit are essential for youth in development of their potential and contribute to the regional economy and poverty eradication.

Table 6.4 shows the number of youth economic groups and total money loaned to the groups. The number of youth economic groups increased from 360 in 2013 to 1,084 in 2015, an increase of 201.1 percent. In addition, number of youth economic group members had also increased from 3,813 members in 2013 to 16,093 members in 2015 with higher proportion of males (51.9 percent) than females (48.1 percent) in 2013. In 2015, proportion of females (51.1 percent) was higher than males (48.9 percent).

Out of Tzs. 307,732,000/= which was given as as loan to youths in their economic groups in Mtwara Region, Tandahimba District Council received the largest amount (Tzs. 113,120,000). Newala District Council ranked second (Tzs. 57,000,000) while Masasi Town Council was the least council receiving the lowest loan worth of Tzs. 600,000.

Table 6.4: Number of Youth Economic Groups (Registered and Assisted) by Council, Sex and Funds Loaned; Mtwara Region, 2013 and 2015

Council	2013						2015					
	Total no. of Registered Groups	Total Members			No. of Groups Assisted	Total Amount of Funds Loaned	Total no. of Groups	Total Members			No. of Groups Assisted	Total Amount of Funds Loaned
		Male	Female	Total				Male	Female	Total		
Mtwara	48	225	310	535	15	23,950,000	119	1,410	2,180	3,590	29	55,012,000
Newala	58	21	17	38	9	10,000,000	135	668	356	1,024	32	57,000,000
Masasi	109	948	968	1916	1	1,000,000	423	3,455	3,862	7,317	8	7,500,000
Tandahimba	73	235	155	390	6	14,300,000	223	1,111	481	1,592	40	113,120,000
Mtwara MMC	20	171	218	389	15	24,000,000	53	387	431	818	26	35,000,000
Nanyumbu	49	338	167	505	7	8,500,000	115	702	785	1,487	25	39,500,000
Masasi TC	3	40	0	40	0	0	16	136	129	265	1	600,000
Total	360	1,978	1,835	3,813	53	81,750,000	1,084	7,869	8,224	16,093	161	307,732,000

Source: District Community Development Office

6.7 SACCOS, VICOBA, CBOs and FBOs

Government and other stakeholders in Mtwara Region encourage people to engage themselves into Savings and Credit Cooperative Societies (SACCOS) to alleviate poverty. SACCOS are considered to be appropriate micro financing outlets for both rural and urban people because they are simple form of financial institutions suitable for low income earners communities.

In Mtwara Region, 139 SACCOS were registered whereby 46 were active and 93 were dormant. The total number of members was 10,155 (6,602 males and 3,553 females). Moreover, a total sum of Tzs. 7,099,244,220 was lent to members and TZS. 4,747,479,270 (66.9 percent of loans) were recovered by the end of the year 2015 (Table 6.5). On the councils' level, Mtwara MMC recovered more than the loans given to members (192.1 percent) compared to Nanyumbu District Council which recovered only 39.3 percent of the given loan.

Table 6.5: Active SACCOS by Council; Mtwara Region, 2015

Council	No. of SACCOS (Registered)		Total Members		Total Value of Shares (Tshs) as at 31.12.2015	Total Money loaned to members Jan –Dec 2015 (Tshs)	Total loans recovered from members Jan –Dec 2015 (Tshs)	Percent of loans recovered
	Active	Dormant	Male	Female				
Mtwara	8	15	839	536	70,463,263	2,734,036,595	2,483,804,061	90.8
Newala	0	0	843	481	283,610,847	546,500,847	283,610,847	51.9
Masasi	7	0	560	296	29,609,430	1,850,692,228	1,025,364,008	55.4
Tandahima	8	28	2,702	1,436	47,558,003	1,675,912,550	666,706,031	39.8
Mtwara MMC	15	45	131	169	82,000,000	69,500,000	133,500,000	192.1
Nanyumbu	3	2	355	172	10,656,000	175,616,000	69,013,855	39.3
Masasi TC	5	3	1,172	463	405,219,761	46,986,000	85,480,468	181.9
Total	46	93	6,602	3,553	929,117,304	7,099,244,220	4,747,479,270	66.9

Source: District Community Development Offices

VICOBA, like any other micro-finance is suitable and effective in catalyzing developmental initiatives and that quite often they have proved to be sustainable when introduced into communities, towards improving the well-being of low income earners. In Mtwara Region, VICOBA has been formed in all councils in 2015 (Table 6.6). The region had 1,621 groups with higher female participation (66.9 percent) compared to males (33.1 percent).

Mtwara Municipal Council was leading with the largest number of VICOBA (370), followed by Tandahimba DC (333) while Masasi Town Council was recorded to have the least number of VICOBA in the region. On the other hand, VICOBA has helped people in the region to secure loans for different economic activities and projects. It can also be said that VICOBA has helped majority of individuals to be economically independent.

Table 6.6: Village Community Bank (VICOBA) by Council, Mtwara Region, 2015

Council	Number of VICOBA	Members		Total members	Percent	
		Male	Female		Male	Female
Mtwara	176	999	1,932	2,931	34.1	65.9
Newala	137	520	4,645	5,165	10.1	89.9
Masasi	268	2,198	3,343	5,541	39.7	60.3
Tandahimba	333	2,241	4,153	6,394	35.0	65.0
Mtwara MMC	370	5,057	7,434	12,491	40.5	59.5
Nanyumbu	270	1,786	3,683	5,469	32.7	67.3
Masasi TC	64	241	1,076	1,317	18.3	81.7
Total	1,621	13,032	26,325	39,357	33.1	66.9

Source: District Community Development Office

Women Economic Groups

Table 6.7 reveals that, number of women economic groups increased by 58.1 percent from 1,267 groups in 2013 to 2,003 groups in 2015. The number of members also increased by 126.1 percent from 11,124 members in 2013 to 25,154 members in 2015. In 2015, Newala DC had the largest number of women economic groups (967), followed by Mtwara Municipal (489). Masasi Town Council was recorded to have the least number of women economic groups (14).

Moreover, a total sum of Tzs. 318,562,000 was loaned to economic groups in the region. Mtwara Municipal received 43.1 percent of the total loans issued to the economic groups (Tzs. 140,000,000), followed by Tandahimba Council which received Tzs. 44,650,000 (14 percent). Masasi Town was the least council which received Tzs 10,500,000.

Table 6.7: Number of Women Economic Groups by Council Mtwara Region; 2013 and 2015

Council	2013				2015			
	Total no. of Registered Groups	Total Members	No. of Groups Assisted	Total Loaned Tshs	Total no. of Groups	Total Members	No. of Groups Assisted	Total Loaned Tshs.
Mtwara	97	1,158	19	27,400,000	146	1,827	31	40,512,000
Newala	526	3,867	51	51,535,500	967	13,924	27	42,000,000
Masasi	70	1,124	22	18,890,000	79	1,414	19	15,400,000
Tandahimba	103	811	4	8,900,000	126	1,022	12	44,650,000
Mtwara MMC	369	3,081	38	60,550,000	489	4,521	86	140,000,000
Nanyumbu	83	823	9	9,500,000	182	2,186	19	25,500,000
Masasi TC	19	260	123	1,972	14	260	19	10,500,000
Total	1,267	11,124	266	176,777,472	2,003	25,154	213	318,562,000

Source: District Community Development Office

6.8 Financial Institutions



Regional economic growth is being attributed by the growth of social and economic activities parallel to conducive business environment for both financial and non-financial institutions. Several financial institutions have expanded their services in response to the growing population. Some of the financial institutions which provide financial

services include CRDB, National Microfinance Bank (NMB), Tandahimba Community Bank (TACOBAB), DTB (Diamond Trust Bank), Tanzania Postal Bank (TPB), Bank of Africa (BOA) and National Bank of Commerce (NBC).

6.9 Crime Statistics

6.9.1 Introduction

The growth of towns, population increase, development of science and technology and the increase of crimes are the sources and catalyst to the erosion of morals in the country. The statistics on the rate of crimes and the type of offences committed reveal that the erosion of morals within the society has been increasing day after day. Crime as a type of offence is usually grouped into three categories, namely crime against person or persons, crime against public serenity and crime related to property.

6.9.2 Crimes Reported in Police Stations

Table 6.9 shows that 4,689 crime cases were reported in Mtwara Region at the end of 2015. The most common was violence crime accounting for 43.6 percent of reported cases, followed by property crime cases (33.6 percent) and drug crimes accounted for 22.8 percent of the reported cases. A total of 469 persons were prosecuted and jailed, 190 (40.5 percent) persons were jailed due to drug crimes, 145 (30.9 percent) persons were jailed due to violence crimes and 134 (28.6 percent) persons due to property crimes.

Statistics show that Mtwara Region had 1,157 police officers in 2015. Meanwhile, international standards recommend that one police officer should serve about 350 people. More police officers are required to cope up with the increasing number of crimes.

Table 6.8: Total number of Crimes Reported in Police Stations and Number of People Jailed from January to December 2015, Mtwara Region

Council	Total no. of Police in the Council	Total number of					Total Number of People Jailed due to				
		Violent Crimes Reported	Property Crimes Reported	Drug Crimes Reported	Total Crimes	Percent	Violent Crimes	Property Crimes	Drug Crimes	Total Persons	Percent
Mtwara	636	135	58	0	193	4.1	22	8	0	30	6.4
Newala	103	166	179	172	517	11.0	36	34	55	125	26.7
Masasi	191	1,131	792	520	2443	52.1	70	79	117	266	56.7
Tandahima	109	350	306	193	849	18.1	7	3	5	15	3.2
Nanyumbu	118	264	240	183	687	14.7	10	10	13	33	7.0
Total	1,157	2,046	1,575	1,068	4,689	100	145	134	190	469	100

Source: Officer Commanding District Offices, Mtwara Region, 2016

6.9.3 Accidents

Table 6.9 indicates that 74 accidents were reported in Mtwara Region up to the end of 2015. Most of the reported accidents were caused by motorcycles only (34) accidents. Motor vehicles versus motor cycle's accidents were 15. Motor vehicles and motor cycles versus pedestrians were 13.

Moreover, from the reported accidents, 194 persons were considered as victims whereby more than half of the victims (67 percent) got injured and more than a quarter of the victims (33 percent) died. Across the councils, Mtwara District Council was reported to have a big number of victims (64) whereby 20 died and 44 injured. This was followed by Masasi District Council with 59 victims (23 died and 36 injured). Nanyumbu District Council reported only 17 victims (4 died and 13 injured).

Table 6.9: Number of Reported Accidents by Council, Mtwara Region; 2015

Council	Total number of Accidents involving				Total Number of People Died/Injured from Accidents involving							
	Motor vehicles only	Motor vehicle Versus Motor Cycles	Motor cycles only	Motor vehicles and Motor cycles versus Pedestrians	Motor vehicles only		Motor vehicle Versus Motor Cycles		Motor cycles only		Motor vehicles and Motor cycles Versus Pedestrians	
					D	I	D	I	D	I	D	I
Mtwara	2	3	18	8	5	9	8	23	5	7	2	5
Newala	1	2	3	1	1	3	2	7	3	4	1	1
Masasi	6	6	8	3	6	11	6	9	8	12	3	4
Tandahima	2	3	3	1	3	6	3	9	3	5	1	2
Nanyumbu	1	1	2	0	1	4	1	6	2	3	0	0
Total	12	15	34	13	16	33	20	54	21	31	7	12

Source: Officer Commanding District Offices, Mtwara Region, 2016

6.9.4 Theft

In Mtwara Region, 410 theft cases were reported in the police stations and 111 persons were jailed. Out of 410 theft cases, 204 were on stealing of bicycles. Other cases were on motor cycles (105), motor vehicles (51) and stealing of livestock (50) (Table 6.10).

Table 6.10 shows that 35 thieves were jailed for stealing motor vehicles where majority of them were found in Masasi District Council. Thirty four persons were jailed for stealing bicycles and others were motor cycles and livestock (21 persons each).

Table 6.10: Number of Police Posts, Reported Theft Cases and Persons Jailed by Council; Mtwara Region, January to December 2015

Council	Total no. of Police Posts in the Council	Total number of				Total Number of People Jailed due to stealing of			
		Motor vehicles stolen	Motor cycles stolen	Bicycles stole	Livestock stolen	Motor vehicles	Motor cycles	Bicycles	Livestock
Mtwara	8	19	75	67	7	3	3	2	5
Newala	4	7	0	34	16	7	0	5	10
Masasi	4	23	9	52	10	23	9	11	0
Tandahima	6	2	4	31	4	2	4	7	4
Nanyumbu	3	0	17	20	13	0	5	9	2
Total	25	51	105	204	50	35	21	34	21

Source: Officer Commanding District Offices, Mtwara Region, 2016

6.9.5 Motorcycle Operators



Table 6.11 indicates the number of motorcycle (bodaboda) operators in Mtwara Region and their estimated income earned per month. A total number of 6,789 motorcycle (bodaboda) operators were operating in Mtwara Region. Similarly, it is indicated that motorcycle (bodaboda) operators earned an average estimate of Tzs. 224,514 per month.

Mtwara MMC was noted to be the leading council with the highest number of motorcycles operators (3,878 bodaboda operators) was followed by Masasi DC (943 bodaboda operators). Mtwara District Council was the least with few motor cycle operators (180).

Table 6.11: Number of Motorcycle Operators (BodaBoda) by Council; Mtwara Region, 2015

Council	Number of Bodaboda operators	Estimated Income earned per Bodaboda operator in a month (Tshs)
Mtwara	180	294,000
Newala	413	197,000
Masasi	943	172,000
Tandahima	536	157,600
Mtwara MMC	3,878	400,000
Nanyumbu	590	191,000
Masasi TC	249	160,000
Total	6,789	Average: 224,514

Source: District Offices (Trade Departments)

6.9.6 Potential Areas for Investment

Mtwara Region has identified potential areas for investment; these include agriculture, livestock development, industrial development, tree nurseries and education.

Agriculture

Mtwara Region has great potential of suitable land for agriculture. Appropriate extension services to farmers as well as provision of education on the proper methods of land utilization that will lead to increased food and cash crop production is of great importance. Potential food crops calling for strategic investment include maize, sorghum, sweet potatoes, cassava and legumes; whereas cash crops include cashew nuts, sesame, pigeon peas, paddy, groundnuts, sunflower and green grams. Irrigation schemes in the production of horticulture crops such as tomato are also of vital importance.

Livestock Development

Livestock sector needs to be developed as the analysis shows that livestock keeping in Mtwara Region is very small. Investment could be on livestock multiplication with a view of improving the indigenous herd, improvement of breeds of cattle and introduction of dairy farming. Establishment of viable commercial ranches facilities such as dips is also a feasible project in the region.

Industrial Development

Industrial development in Mtwara Region is low. This, therefore, calls for the establishment of small, medium and large scale industries. The establishment of cashewnut factories and cereal milling industries in the region is another potential area for investment.

Tree Nurseries

Private individuals are invited to establish tree nurseries to meet the requirement of seedling for agro-forest programmes.

Education

Education policy states clearly on the need for the private sector participation. Consequently, individuals, NGOs and religious institutions are invited to invest in primary and secondary education in Mtwara Region.

Mtwara Regional Secretariat

Vision

Be a centre of excellence, integrity and diligence to duty in offering development and administrative support services to Local Government Authorities and other stakeholders.

Mission

To develop human resource to deliver efficient and effective technical advice to Local Government Authorities and other stakeholders on socio-economic development and ensure good governance in the region.