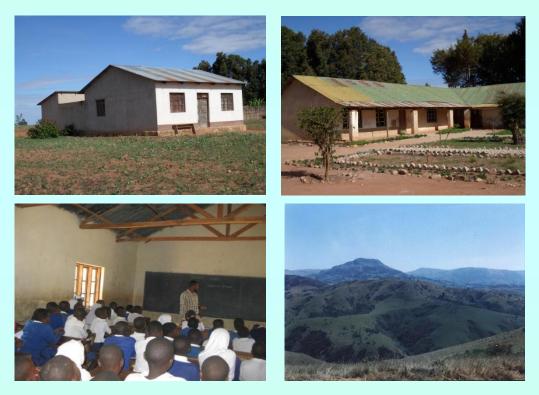


The United Republic of Tanzania

# NJOMBE DISTRICT COUNCIL SOCIO-ECONOMIC PROFILE 2016



Jointly Prepared by: National Bureau of Statistics and Njombe District Council





NBS Dar es Salaam Njombe District Council December, 2016

# Vision

The vision of Njombe District Council is to have a community with better and sustainable livelihood by 2025

# **Mission**

The mission of Njombe District Council is to provide high quality and sustainable services through efficiency and effective use of available resources and opportunities for improved community's livelihood.

#### **FOREWORD**

The Tanzania Second Five Year Development Plan (FYDP II) 2016/17 – 2020/21 takes into account the integration of the Five Year Development Plan (FYDP) and the National Strategy for Growth and Reduction of Poverty (NSGRP/*MKUKUTA*) planning frameworks. The theme of FYDP II "Nurturing Industrialization for Economic Transformation and Human Development" incorporates the main focus of the two frameworks, namely growth and transformation (FYDP) and poverty reduction (MKUKUTA). The FYDP II outlines new interventions to enable Tanzania industrialize in a way that will transform its economy and its society. It also outlines interventions carried over from predecessor plans, - FYDP I and MKUKUTA that are deemed critical for the aspiration of FYDP II goals. More importantly, and in tandem with the two predecessor Plans, FYDP II also implements Tanzania's Development Vision (TDV) 2025 which aspires to have Tanzania transformed into a middle income, semi industrialized nation by 2025. The Vision also outlines five attributes to characterize Tanzania in 2025: (i) high quality livelihoods; (ii) peace, stability and unity; (iii) good governance and the rule of law; (iv) an educated and learning society; (v) a strong and competitive economy.

As for other district councils in Tanzania, Njombe district council faces multiple social and economic problems that require sustainable improvement. Among the socio-economic issues that need special attention in this council are: - Primary school enrolment rates, food security and HIV/AIDS.

The high primary school enrolment rates recently attained have to be maintained and so is the policy of making sure that all pupils who pass standard seven examinations join Form One. The food situation is still precarious; infant and maternal mortality rates continue to be high and unemployment triggers mass migration of youths from rural areas to the already overcrowded urban centers.

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

Our efforts to meet both the new and old challenges are hampered by many factors including ill prepared rural development programmes followed by weak implementation, monitoring and supervision of these programmes. The shortcomings in policy formulation, project identification,

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design and implementation due to the lack of reliable and adequate data and information on the rural development process have to be addressed to. The availability of reliable, adequate and relevant qualitative and quantitative data and information at council level is a prerequisite for the success of formulating, planning, implementation, monitoring and evaluation of councils' development programmes.

Njombe District Council is the twenty second council to prepare its Socio-Economic Profile in the country by using its own funds. The publication of the Njombe District Council Socio-Economic Profile series by the Ministry of Finance in collaboration with the National Bureau of Statistics and the District Council Management Team should be viewed as a modest attempt towards finding solutions to the existing problem of data and information gaps at the council level.

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

This is the Second Edition of the Njombe District Council Socio Economic Profile and has taken advantage of the experience gained in the production of the First Edition in 2013. They are providing even more valuable information to clients. Constructive views and criticisms are invited from readers to enable a profile like this become a better tool in the implementation of the country's policies.

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

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## Monica P.Z. Kwiluhya

#### Njombe District Council Executive Director

December, 2016

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# Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
BCG	Bacillus Calmest Guerin (TB Vaccine)
СВО	Community Based Organization
CBPP	Contagious Bovine Plural Pneumonia
CFR	Crude Fertility Rate
CPR	Classroom Pupil Ratio
CRDB	Community and Rural Development Bank
DPR	Desk Pupil Ratio
DC	District Council, District Commissioner
DPT3/HB3	Diphtheria Pertusis Tetanus 3 <sup>rd</sup> doze/ Hemoglobin Level
ECF	East Cost Fiver
RVF	Rift Valley Fever
Govt.	Government
HIV	Human Immune Virus
IGAs	Income Generating Activities
IMR	Infant Mortality Rate
NMB	National Microfinance Bank
MUCOBA	Mufindi Community Bank
MP	Member of Parliament
MMR	Maternal Mortality Rate
NCD	New Castle Disease
OPV3	Oral Polio Vaccine 3 <sup>rd</sup> Doze
PITC	Provider Initiative Testing and Counseling
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PLHA	People Living with HIV/AIDS
PMTCT	Prevention Mother to Child Transmission
PR	Pass Rate
SACCOS	Savings and Credit Cooperative Societies
Sq. Km.	Square Kilometer
STD VII	Standard Seven
TPB	Tanzania Postal Bank
TB	Tuberculosis
TBAs	Traditional Birth Attendants
TPR	Toilet Pupil Ratio /Teacher Pupil Ratio
TT2	Tetanus Toxoid 2 <sup>nd</sup> doze
U5MR	Under Five Mortality Rate
VCT	Voluntary Counseling and Testing
VHC	Village Health Committee
VHWs	Village Health Workers
VWC	Village Water Committee
VWF	Village Water Fund
WWF	World Wildlife Foundation
WUG	Water User Group

# **CHAPTER ONE**

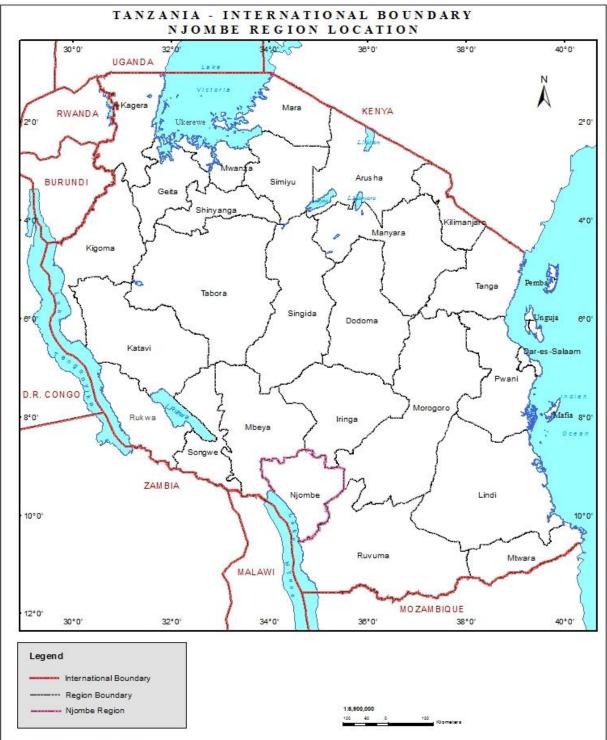
# LAND, CLIMATE, AGRO-ECOLOGICAL ZONES AND PEOPLE

#### 1.0 An Overview

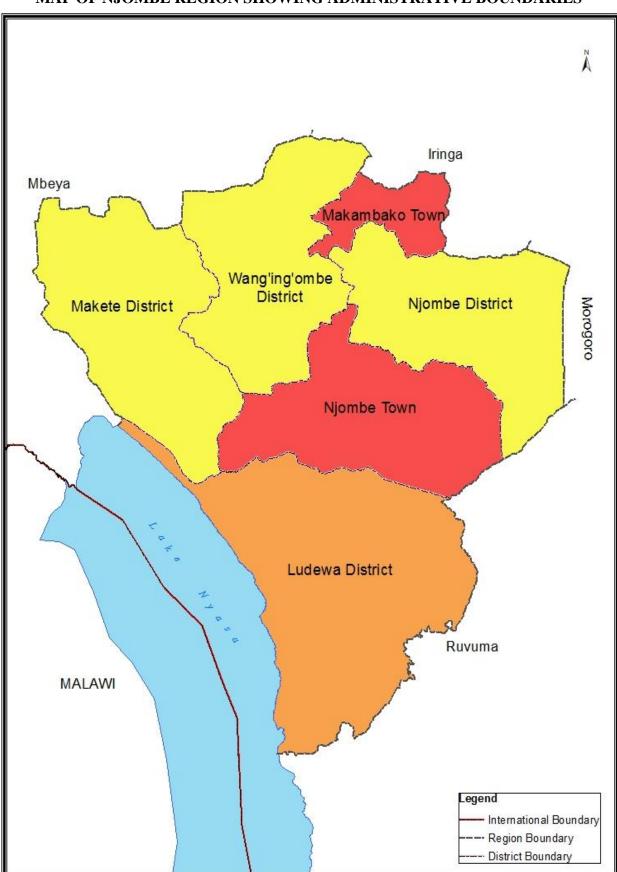
Chapter one elastrates Njombe District Councils geographical location, land area, administrative units, climate and agro-ecological zones. It also provide indicative information on ethinic groups, population distribution and growth rates.

## **1.1 Geographical Location**

Geographically, Njombe District Council is originated from Iringa Region situated in Southern Highlands. The District council shares borders with Makambako Town Council and Mufindi District Council in the North, Morogoro region in the East, Njombe Town Council on the South, Ruvuma region on the South west and Wangingómbe District Council to the west. The headquarters is positioned in Njombe township along the Njombe-Songea road and its location lies between latitudes 8°.8' and 9°.8' south of the Equator and between longitudes 33°.5' and 35°.8' east of Greenwich.



Source: 2012 Population and Housing Census National Bureau of Statistics



#### MAP OF NJOMBE REGION SHOWING ADMINISTRATIVE BOUNDARIES

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#### **1.2 Land, Water Area and Administrative Units**

#### **1.2.1** Administrative Units

Ward	Land Area	Water Area	Total Area	Percent Area
Mtwango	300	0	300	9.5
Igongolo	297	0	297	9.4
Kichiwa	294	0	294	9.3
Ninga	303	0	303	9.6
Ikuna	315	0	315	10.0
Kidegembye	234	0	234	7.4
Matembwe	305	0	305	9.7
Lupembe	294	0	294	9.3
Ikondo	160	0	160	5.1
Ukalawa	85	0	85	2.7
Mfriga	261	0	261	8.3
Idamba	306	0	306	9.7
Total	3,154	0	3,154	100

 Table 1.1: Land and Water Area by ward in Sq. km, in Njombe District Council, 2015

Source: Njombe DC Executive Director's Officer- District Planning Office, 2016

Table 1.1 shows that Njombe DC has a total land area of 3,154 sq. kms with no or little water areas. Ikuna ward had the largest proportion of land 10.0 percent of the total land in the council, followed by Matembwe and Idamba wards with 9.7 percent each and Ninga ward (9.6 percent). Little variations in land areas are observed at Mtwango ward (9.5 percent), Igongolo ward (9.4 percent), Kichiwa and Lupembe have the same proportion of land areas (9.3 percent each). However, Ukalawa had the smallest land area in the council (2.7 percent).

# 1.3 Climate, Agro-Ecological Zones and People

#### 1.3.1 Climate

Njombe district is dominated by the presence of an extended plateau which forms the common land form of the area. It is further characterized by the Kipengere mountains range in the north-western parts, Lukumburu Mountains in the southern parts and Lupembe mountains range in the eastern parts.

Njombe's climate is classified as warm and temperate. When compared with winter, the summers have much more rainfall. The least amount of rainfall occurs in August. The average in this month is 1 mm. In March, the rainfall reaches its peak, with an average of 258 mm. The temperatures are highest in November, at an average of 18.0 °C. At 12.8 °C, July is the coldest month of the year.

The variation in the rainfall between the driest and wettest months is 257 mm. The annual temperature is around 5.2  $^{\circ}$ C.

Njombe DC has a climate that is influenced by several factors including high altitude, hilly landscape and vegetation which have strong influence on the climate resulting into micro climate in specific localities and macro climate in larger areas. This causes the formation of two climatic zones, the Highlands zone and Lowlands zones.

**The Highlands:** Is the continuation of the Southern Highlands that form the rising and falling hills and plateaus. This zone covers areas of Lupembe, Imalinyi, and Mdandu Divisions. The soils are volcanic and the area forms the upper catchments for Rufiji and Lake Nyasa basins. The temperature in this zone is humid with temperatures averaging 15° C. These areas receive sufficient rainfall ranging between 1,000 and 1 600 mm per year. The highlands zone supports bountiful natural forests, plantation trees, tea plantations, fruit trees, scattered shrubs as well as grasslands.

**The Lowlands:** The lowland areas cover Makambako division of the council which includes Mtwango, Igongolo, Ninga, Ikuna and Kichiwa wards. These areas are within and form part of the Great Rift Valley. The soils in these wards are characterized by sandy gravels, a feature that renders them infertility. The vegetation in these areas is characterized by thorny bushes, thickets and grasslands. The areas experience hot and dry weather conditions for long durations in the year, with temperatures ranging from 150 to 200 C. These areas receive rainfall ranging between 600 and 1 000 mm per year.

#### 1.3.2 Agro-Ecological Zones and People

The dominant Ecological features such as highlands and lowlands form the two major agroeconomic zones of the council. The two zones are equally determined by the prevailing characteristics with regard to topography, altitudes, climate and vegetations.

#### Highlands

- (a) Food crops: Maize, Irish potatoes, bananas, variety of peas, vegetables and fruits.
- (b) Cash crops: Tea, coffee, tree farming, wheat, Irish potatoes, pyrethrum, vegetables and fruits.
- (c) Livestock: Dairy cattle, pigs, chickens, goats & sheep.

#### Lowlands

(a) Crop farming: maize, beans, sweet potatoes, cowpeas and fruits.

(b) *Livestock keeping:* Beef cattle, dairy farming, pigs, chickens, sheep and goats.

Ward	Number of Ethnicity Group	List of Five Major Ethnic Groups
Mtwango	1	Bena
Igongolo	1	Bena
Kichiwa	1	Bena
Ninga	1	Bena
Ikuna	1	Bena
Kidegembye	1	Bena
Matembwe	1	Bena
Lupembe	1	Bena
Mfriga	1	Bena
Idamba	1	Bena
Ikondo	1	Bena
Ukalawa	1	Bena

Table 1.2: Ethnicity of Indigenous people by Ward in Njombe District Council; 2015

Source: Njombe DC Executive Director's Officer- District Planning Office, 2016

Currently, Njombe District Council has a total population of 85,747 with 40,047 males and 45,700 females. The main indigenous ethnic group is Bena, constituting more than 95 percent of the entire population (Table 1.2). Their major occupation is farming, particularly growing of maize, Irish potatoes, sweet potatoes, beans, cowpeas, and bananas. A variety of peas, vegetables and fruits are grown as their food crops. Livestock keeping such as beef cattle, dairy farming, pigs, chickens, sheep and goats is practiced on a small scale.

# **1.4 Population size and Growth**

The population of Njombe DC has experienced declining of growth rate as indicated in Table 1.3. Growth rate of the council declined from 27.4 percent during the 1988 - 2002 intercensal periods to -4.1 percent in 2002 -2012 intercensal period. According to the 2012 Population and Housing Census the Council had a population of 85,747 in 2012 compared to 89,433 inhabitants counted in 2002 Population Census. The decline of the council population, among other factors, was due to the establishment of Wanging'ombe DC from Njombe DC. The 2012 population census results put the Njombe DC population at 85,747 persons out of which, females account for 53.3 percent of the population or 45,700 persons. Table 1.3 shows the population sizes and growth rates for Njombe region and its councils for the 1988, 2002 and 2012 censuses.

Compared to other councils of Njombe Region, Njombe DC was the least populous council in the region after Makambako TC, contributing 12.21 percent of the regional population. Between 1988

and 2002 the Council had a population increase of 27.4 percent compared to the regional population increase of 23.1 percent

	Land	1988 Pop. Census		2002 Pop. Census 2012		2012 Pop	2012 Pop. Census		Population increase (%)	
District/ Council	Area (Sq.kms.)	Number	Percent	Number	Percent	Number	Percent	2002 – 1988	2012 - 2002	
Njombe TC	3,212	79,789	15.44	113,969	17.91	130,223	18.55	42.8	14.3	
Wanging'ombe DC	3,217	127,125	24.6	133,351	20.96	161,816	23.05	4.9	21.3	
Makete DC	4,850	102,614	19.85	106,061	16.67	97,266	13.85	3.4	-8.2	
Njombe DC	3,154	70,210	13.58	89,433	14.05	85,747	12.21	27.4	-4.1	
Ludewa DC	6,325	100,216	19.39	128,520	20.2	133,218	18.97	28.2	3.7	
Makambako TC	414	36,867	7.13	65,008	10.22	93,827	13.36	76.3	44.3	
Total	21,172	516,821	100	636,342	100	702,097	100	23.1	10.3	

Table 1.3: 2002 and 2012 Population Distribution by Ward in Njombe District Council

Source: NBS Data from 1988, 2002 and 2012 Population Censuses Reports

#### **1.5 Population Density**

Njombe District council is a moderately density populated council with an average population density of 27 persons per sq. kms. The Population density of Njombe DC has slightly decreased from 28 persons per sq. km in 2002 to 27 in 2012. Njombe DC is the fourth least densely populated council in Njombe region and is below the regional average population density of 33 persons per sq. km. The decrease in population density in Njombe DC has been caused by its relatively large land area being used for forests and tea plantations (Table 1.4).

District	Land Area	a Population		Population Density (Person per Sq.km)			
	( <b>Sq.km.</b> )	2002	2012	2002	2012		
Njombe TC	3,212	113,969	130,223	35	41		
Wanging'ombe DC	3,217	133,351	161,816	41	50		
Makete DC	4,850	106,061	97,266	22	20		
Njombe DC	3,154	89,433	85,747	28	27		
Ludewa DC	6,325	128,520	133,218	20	21		
Makambako TC	414	65,008	93,827	157	227		
Total	21,172	638,344	704,109	30	33		

Table 1.4: Population Density by Council, Njombe Region; 2002 and 2012

Source: NBS Data from 1988, 2002 and 2012 Population Censuses Reports

Table 1.5 gives the population density at ward level for the census years of 2002 and 2012. In 2002, Mtwango ward with a population density of 68 persons per sq. km was the most densely populated ward in the council, followed by Igongolo ward with 58 persons per sq. km. Idamba ward was the least densely populated division as it had only 10 persons per sq. km. In 2012, Mtwango ward continued to be the most densely populated division with a population density of 43, followed by Kichiwa and Kidegembye (34 each). Idamba ward remained the least populated ward with only 10 persons per sq. km.

<b>TT</b> 7 1	Land Area	Populatio	n	Population De	nsity
Ward	(Sq. km.)	2002	2012	2002	2012
Mtwango	300	20,530	12,948	68	43
Igongolo	297	17,374	8,447	58	28
Kichiwa	294	9,901	9,961	34	34
Ninga	303	8,186	5,751	27	19
Ikuna	315	5,034	9,178	16	29
Kidegembye	234	7,031	8,068	30	34
Matembwe	304.5	8,498	8,653	28	28
Lupembe	294	7,916	7,709	27	26
Ikondo	245	7,519	7,635	31	31
Ukalawa	na	na	2,962	na	na
Mfriga	261	4,290	4,249	16	16
Idamba	306	2,961	3,148	10	10
Total	3154	99,240	85,747	31	27

Source: NBS Data from 2002 and 2012 Population Censuses Reports

## **1.6 Population Trend**

Table 1.6 shows that the population of Njombe District Council decreased slightly from 99,240 in 2002 to 85,747 in 2012. However, at ward level, high increase in population was recorded at Ikuna ward with 82 percent increase, followed by Kidegembye 15 percent. There was a decrease of 51 percent in Igongolo ward, followed by Mtwango ward with a decrease of 37 percent and Ninga ward with a decrease of 30 percent. The decrease in population in Njombe DC was due to the formation of two more councils, Wanging'ombe DC and Makambako TC

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Ward	Land Area (Sq.			Population Increa 2012)	se (2002 to
	km.) —	2002	2012	Number	Percent
Mtwango	300	20,530	12,948	-7,582	-37
Igongolo	297	17,374	8,447	-8,927	-51
Kichiwa	294	9,901	9,961	60	1
Ninga	303	8,186	5,751	-2,435	-30
Ikuna	315	5,034	9,178	4,144	82
Kidegembye	234	7,031	8,068	1,037	15
Matembwe	304.5	8,498	8,653	155	2
Lupembe	294	7,916	7,709	-207	-3
Ikondo	245	7,519	7,635	116	2
Ukalawa	na	na	na	na	na
Mfriga	261	4,290	4,249	-41	-1
Idamba	306	2,961	3,148	187	6
Total	3154	99,240	85,747	-13,493	27

Table 1.6: Population Trend by ward, Njombe DC; 2002 and 2012

Source: NBS Data from 2002 and 2012 Population Censuses Reports

#### 1.7 Age Dependency Ratio

The Age Dependency Ratio gives the number of persons aged 0 - 14 years and those aged 65 years and above for every 100 persons aged 15 - 64 years. Table 1.8 shows that in Njombe DC the number of dependents for every 100 persons of the active age group increased significantly from 90 in 2002 to 112 in 2012. This means that while there were 100 people in age 15-64 to support 90 people in age groups 0-14 and 65 years and above in 2002, in 2012 such 100 people supported 112 people. This means that the burden for the economically active population had increased from 90 persons to 112 persons. As far as development is concerned, one indicator of progress is the reduction of the dependence ratio as indicated in table 1.7.

		2002 Popul	lation		2012 Population				
District	Total Population	Number of Dependents	Number of Economical ly Active	Depende ncy Ratio	Total Population	Number of Dependents	Number of Economically Active	Dependen cy Ratio	
Njombe TC	126,219	61,911	64,308	96	130,223	55,979	74,244	75	
Wanging'ombe DC	163,211	84,332	78,879	107	161,816	77,451	84,365	92	
Makete DC	105,775	51,672	54,103	96	97,266	45,155	52,111	87	
Njombe DC	83,806	39,592	44,214	90	85,747	45,275	40,472	112	
Ludewa DC	128,155	64,453	63,702	101	133,218	64,549	68,669	94	
Makambako TC	76,284	37,716	38,568	98	93,827	41,701	52,126	80	
Total Region	683,450	339,676	343,774	99	702,097	330,110	371,987	89	

Table 1.7: Dependency Ratio by Council, Njombe Region; 2002 and 2012

Source: NBS, 2002 and 2012 Population Censuses Reports.

#### **1.8 Population Distribution by Five Year Age Groups**

Sex ratios by age groups provide important indices 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 begin to exceed the number of males and the difference grows larger with advancing ages.

The overall sex ratio for Njombe District Council was 88 males for every 100 females. Table 1.8 shows that, Mfriga ward had the highest sex ratio of 100 males for every 100 females indicating that the number of males is the same as that of females. It was followed by Ninga with a sex ratio of 92. The sex ratios for other wards are as shown in the table (Table 1.8).

Ward			Population	n			Average Household	Sex
	Total	Percentage	Male	Percentage	Female	Percentage	Size	Ratio
Mtwango	12,948	15.1	5,999	15	6,949	15	4.0	86
Igongolo	8,447	9.9	3,944	10	4,503	10	4.5	88
Kichiwa	9,961	11.6	4,543	11	5,418	12	4.1	84
Ninga	5,751	6.7	2,751	7	3,000	7	4.4	92
Ikuna	9,178	10.7	4,189	10	4,989	11	4.0	84
Kidegembye	8,068	9.4	3,756	9	4,312	9	4.0	87
Matembwe	8,653	10.1	4,083	10	4,570	10	4.3	89
Lupembe	7,709	9.0	3,584	9	4,125	9	4.1	87
Ikondo	4,673	5.4	2,228	6	2,445	5	4.7	91
Ukalawa	2,962	3.5	1,409	4	1,553	3	4.5	91
Mfriga	4,249	5.0	2,122	5	2,127	5	4.4	100
Idamba	3,148	3.7	1,439	4	1,709	4	4.1	84
Total	85,747	100.0	40,047	100	45,700	100	4.2	88

Table 1.8: Population of Njombe District Council by Sex, Average Household Size and Sex Ratio

Source: National Bureau of Statistics, 2012 Population Census Reports

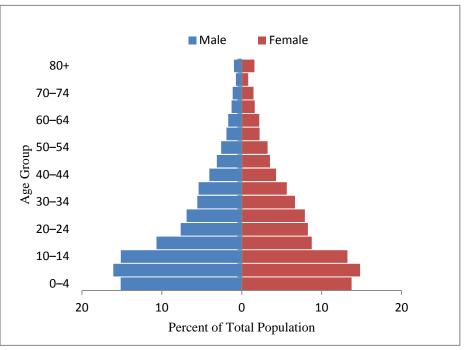
#### **1.9 Population Pyramid**

The 2012 population of Njombe DC as depicted by its pyramid below, is considered as young population, made up of children under 19 years who were 45,939 (22,834 males and 23,105 females) or 53.6 percent of the total population, followed by the young population aged between 20 – 34 years estimated to be 18,493 persons (8,055 males and 10,438 females) or 21.6 percent of the total population. Persons aged 60 years and above were 5,832 (2,324 males and 3,508 females) or 6.8 percent of the total population (Table 1.9).

Age	Both	Sexes	s Male		Fema	ale
Group	Number	Percentage	Number	Percentage	Number	Percentage
0–4	12,347	14.4	6,065	15.1	6,282	13.7
5–9	13,206	15.4	6,436	16.1	6,770	14.8
10-14	12,106	14.1	6,058	15.1	6,048	13.2
15-19	8,280	9.7	4,275	10.7	4,005	8.8
20-24	6,844	8.0	3,063	7.6	3,781	8.3
25-29	6,373	7.4	2,763	6.9	3,610	7.9
30-34	5,276	6.2	2,229	5.6	3,047	6.7
35–39	4,739	5.5	2,165	5.4	2,574	5.6
40–44	3,585	4.2	1,624	4.1	1,961	4.3
45–49	2,864	3.3	1,248	3.1	1,616	3.5
50-54	2,511	2.9	1,031	2.6	1,480	3.2
55–59	1,784	2.1	766	1.9	1,018	2.2
60–64	1,677	2.0	677	1.7	1,000	2.2
65–69	1,250	1.5	506	1.3	744	1.6
70–74	1,129	1.3	457	1.1	672	1.5
75–79	663	0.8	296	0.7	367	0.8
80+	1,113	1.3	388	1.0	725	1.6
Total	85,747	100.0	40,047	100.0	45,700	100.0

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

Figure 1.1: Population Pyramid for Five Year Age Groups, Njombe District Council, 2012 Census



Source: National Bureau of Statistics, 2012 Population Census Reports

#### 1.10 Population Distribution by ward, Njombe District Council; 2012 census

The 2012 population and housing census shows that, Njombe DC had a total population of 85,747, comparing with 2002 population and housing census, the population has decreased by 14 percent, the decrease is due to the fact that some of the wards which were in Njombe DC have been moved to other councils.

Table 1.10 shows that, at ward level, the 2012 population of Njombe DC indicated that Mtwango was the most populous ward in the council, by having 12,948 persons (15.1 percent of the total council population) followed by Kichiwa ward 11.6 percent and Ikuna ward with 10.7 percent of the council population. The least populous ward was Idamba with a total population of 3,148 or 3.7 percent. Uneven distribution of Njombe DC residents is mostly influenced by the availability of natural resources including arable land that is suitable for cultivation as well as the accessibility of infrastructure. Table 1.12 gives the population distribution by ward according to the 2002 and 2012 Population Censuses.

	2002 Population			2	012 Population	
Ward	Total	Percent Share of Population		Number	Percent Share of Population	
Mtwango	20,530		20.7	12,948		15.1
Igongolo	17,374		17.5	8,447		9.9
Kichiwa	9,901		10.0	9,961		11.6
Ninga	8,186		8.2	5,751		6.7
Ikuna	5,034		5.1	9,178		10.7
Kidegembye	7,031		7.1	8,068		9.4
Matembwe	8,498		8.6	8,653		10.1
Lupembe	7,916		8.0	7,709		9.0
Ikondo	7,519		7.6	7,635		8.9
*Ukalawa	na		na	na		na
Mfriga	4,290		4.3	4,249		5.0
Idamba	2,961		3.0	3,148		3.7
Total	99,240		100	85,747		100

Table 1.10: The 2002 and 2012 Population Distribution by Ward, Njombe DC

Source: NBS, 2002 and 2012 Population Censuses Reports

#### 1.11 Household and Household Size

Njombe District Council had a total population of 85,747 and 20,341 private households according to 2012 population and housing census equivalent to 11.9 percent of the total 171,536 private households in the region.

Table 1.11 shows the distribution of households and average household size by ward for Njombe DC based on the 2012 census data. At ward level, Ikondo ward with 1,660 households was the leading ward in the council having an average household size of 4.6 persons. In total, five wards had their average household size above the council value of 4.2. These include Igongolo, Ninga, Matembwe, Ikondo and Mfriga wards. Idamba ward with 4.1 persons per household had the smallest number of households (768).

Ward	<b>Total Population</b>	Total Households	Average Household Size
Mtwango	12,948	3,237	4.0
Igongolo	8,447	1,877	4.5
Kichiwa	9,961	2,430	4.1
Ninga	5,751	1,307	4.4
Ikuna	9,178	2,295	4.0
Kidegembye	8,068	2,017	4.0
Matembwe	8,653	2,012	4.3
Lupembe	7,709	1,880	4.1
Ikondo	7,635	1,660	4.6
Ukalawa	na	na	na
Mfriga	4,249	966	4.4
Idamba	3,148	768	4.1
Total	85,747	20,416	4.2

Table 1.11: Population, Households and Average Household Size by Ward, Njombe DC; 2012

Source: National Bureau of Statistics, 2012 Population Census Reports

# CHAPTER TWO THE COUNCIL ECONOMY

#### 2.1 Introduction

The Council's economy in this chapter focuses on the production, distribution or trade, consumption of goods and services and its poverty status by different agents in a given geographical location. The economic indicators used to evaluate the Council economy include the Gross Domestic Product (GDP), Per Capita Gross Domestic Product and the main sources of income for the inhabitants of the Council. Poverty indicators which are monitored using Human Development Index and Human Poverty Index cover income and non-income groups. Basically, they access the percentage of people living below poverty line, the spread of poverty, consumption pattern, health and education status as well as proportion of the population using improved water sources and housing conditions.

#### 2.2 GDP and Per Capita GDP

The Gross Domestic Product (GDP) and Per Capita Income are among the economic indicators used to access the council's economic performance. Njombe DC, like other Councils are in the process of calculating the current GDP and Per Capita Income, in line with Human Development Index and Human Poverty Index. However, its economy is still dominated by agricultural sector, employing more than 80 percent of the working population.

Table 2.1 shows the number of Government Employees in key sectors of the Economy in Njombe DC from 2011 to 2015. Overall, it is revealed that, the proportion of government employees in key sectors had been decreasing. The largest number of employees in this sector decreased from 2,634 in 2013 to 1,090 (63.0 percent) in 2014 and tend to pick up in 2015 at 9.8 percent.

More decrease of government employees is observed in secondary education with 628 in 2013 to 235 (63.0 percent) in 2014. Natural resources had the second largest number of decrease of government employees from 28 in 2013 to 11 (60.7 percent) in 2014. In 2015, the number of government employees increases in two sectors of secondary school teachers and health sectors, increasing from 235 in 2013 to 358 (52.3 percent) and 234 in 2013 to 296 (26.5 percent) in 2015. Natural Resource sector had the lowest number of employees ranging from 78 employees in 2011 to 9 employees in 2015.

Sector/Year	2011		2012		2013		2014		2015	
	Primary	Secondary								
Education sector (Primary and Secondary school teachers)	1,462	670	1,448	720	1,356	628	538	235	468	358
Health sector		528		578		488		234		296
Agriculture and Livestock sector		239		221		134		72		66
Natural Resource sector		78		63		28		11		9
Road services		80		68		46		28		26
Administration Rural Water		668		425		233		137		93
supply		83		76		35		19		22
Total		3,808		3,599		2,948		1,274		1,338
Percentage										
change		-		-5.5		-18.1		-56.8		5.0

Table 2.2 shows that Njombe DC's revenue has been declining over the periods. It is indicated that, in 2014 more than a half (50.9 percent) of the revenue were not collected. However, revenue collection slightly picked up in 2015 (34.5 percent). Apparently, in 2014 and 2015, Njombe DC's income depended on revenue collected from timber (TZS 344,735,450 or 40.9 percent and TZS 344,735,450; 43.5 percent) respectively, followed by donors' general purpose grants (GPG) with TZS 264,951,120 or 45.0 percent in 2014 and TZS 286,560,000 or 36.2 percent in 2015. Agricultural product fees also have indicated good trends in revenue collection though it lacks recent information.

Table 2.2: Revenue in TZS	5 Collected in Njombe D	District Council; 2011 - 2015
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	2011	2012	2013	2014	2015
Building permit fee	1,513,500	1,513,500	214,000	0	0
Posters permit fee	56,547,050	46,094,030	35,611,400	7,916,100	2,207,800
Market stalls/slabs dues	10,057,300	8,213,300	16,396,400	4,317,800	4,558,700
Meat inspection charges	4,056,000	9,306,200	11,714,000	7,340,000	3,244,400
Intoxicating liquor license fee	3,418,500	2,882,000	4,395,800	1,840,500	4,654,000
Service Levy	34,591,546	45,383,531	15,552,088.76	5,801,102	17,616,678.55
Slaughter house fees	19,299,050	6,910,750	1,505,250	779,600	790,000
General purpose grant (GPG)	298,827,284.01	233,398,847.28	309,050,000	264,951,120	286,560,000
Industrial product fees	38,100,837	38,449,732.64	30,906,730.53	10,074,708	10,341,448
Revenue from timber	143,138,102	255,694,900	256,620,680.23	240,703,191	344,735,450
Market fees& charges	94,085,600	125,547,000	12,931,400	0	0
Agricultural product fees	354,558,610	234,852,920	472,628,924	0	0
Revenue from maize	0	0	0	28,652,100	15,189,900
Forest produce license fees	3,532,000	14,098,564	1,985,600	3,252,200	8,653,300
Hotel/Guest houses fees	38,100,837	39,954,200	15,377,648.29	1,677,200	9,000
Revenue from renting of houses	21,270,704.69	25,743,114.93	12,962,198.80	10,017,991	13,716,738.90
Fines, Penalties and Forfeitures					
Other fines and penalties	14,368,500	1,567,000	398,045.00		4,087,500
Property rates	28,187,250	10,183,200	1,641,500	1,442,200	1,047,000
Land rent	10,000	27,068,228	0	0	403,000
Beans crop fess	0	0	0	0	8,000,000
Other food crop fess	0	0	0	0	31,213,533
Tea crop fess	0	0	0	0	24,552,772
Other produce fess	0	0	0	0	10,341,448
Total	1,163,662,671	1,126,861,018	1,199,891,666	588,765,812	791,922,668
Percent Change		-3.2	6.5	-50.9	34.5

#### 2.3 **Poverty Indicators**

Poverty is multidimensional; it considers different categories in life. Poverty is measured using The Multidimensional Poverty Index (MPI). The index identifies deprivations across the same three dimensions as the Human Development Index (HDI) and shows the number of people who are multi-dimensionally poor and the number of deprivations with which poor households typically contend with. The MPI can help the effective allocation of resources by making possible the targeting of those with the greatest intensity of poverty i.e. live in multidimensional poverty with at least 33 percent of the indicators reflecting acute deprivation in **health**, **education** and **standard of living**.

Besides GDP and Per Capital Income, this section focuses on Gini coefficient, a measure of statistical dispersion intended to represent the income distribution of regional/council residents, and is the most commonly used measure of inequality. A value of 0 represents absolute equality and a value of 100 represents absolute inequalities. **Human Development Index (HDI)** is a composite

index measuring average achievement in three basic dimensions of human development, an indicator that describes poverty level in the District Council. The indicators include Health (Nutrition or food consumption patterns and Child mortality), Education (net enrolment ratio, adult literacy rate) and Standard of living (Cooking fuel, Toilets, Water, source of lighting energy and cooking energy, floor, roofing materials and assets).

#### 2.3.1 Income Poverty Rate, Poverty Gap and Gini Coefficient

According to the 2015/16 Tanzania Demographic Health and Malaria Indicator Survey (TDHS-MIS) Report, with regards to Gini Coefficient, Njombe Region stood at 0.47 indicating income inequality. The distribution of income among people is un-evenly distributed. However, with respect to Human Development Index (HDI) for women aged 15-49 years; the literacy rate is 88.5 percent among 203 women compared to men with 84.7 percent among 50 men.

Njombe District Council was not among the best 20 districts on the Mainland with least people living below poverty line, but at regional level, it is considered to be the worst district according to the 2005 Poverty and Human Development Report (Poverty and Human Development Reports, 2005). The Report indicates that 25 percent of Njombe people were living below the poverty line (Table 11). With respect to rate of poverty gap, Njombe and Ludewa are the best district councils by having only 6 percent each after Makete DC (7 percent).

The situation is different in regard to the Gini Coefficient. At 32 percent, Njombe DC had the best uneven distribution of wealth in Njombe region. The worst council in terms of the distribution of income among people was Makete whose rate was 43 percent followed by Ludewa (36 percent) as indicated in Table 2.2.

District/Council	Percent of people living below poverty line	Poverty Gap	Gini Coefficient Rate	Number of poor per sq. km.
Makete	24	7	43	6
Njombe	25	6	32	9
Ludewa	24	6	36	5

Table 2.3: Selected Poverty Indicators by District, Njombe Region; 2005

Source: Poverty and Human Development Report, 2005

#### 2.3.2 Main Source of Cash Income



The National Agriculture Sample Survey (2007/08) report entail that, Agriculture sector ranked first with the selling of food crops as the main source of cash income in Njombe DC. The report shows that 61 percent of cash income comes from selling food crops, about 11 percent from sales of cash crops, selling live livestock had three percent, sales of livestock products (3 percent), sales of

forest products (three percent) followed by casual cash earnings (9 percent), businesses income (five percent), and three percent comes from wages and salaries. However, significant cash earnings (three percent) come from outside the Council as cash remittances (Figure 2.1).

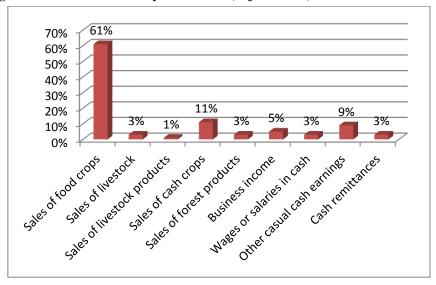


Figure 2.1: Percentage distribution of Income by main source, Njombe DC, 2007/08

Source: National Agriculture Sample Survey Report, 2010

#### 2.3.3 Access to Clean and Safe Water



The topography and existence of permanent drainage system are the main reasons for the reliable sources of water in Njombe District Council. As there are no more current and reliable data on the source of water for Njombe District Council, we are obliged to use the old data available. Figure 6 show that there is insignificant variation in the sources of water during wet and dry

seasons. For example, the 2007/08 National Agriculture Sample Survey entails that unprotected wells and springs together with piped water are the main source of drinking water in Njombe DC,

followed by protected wells and surface water including dam, rivers and lakes. However, significant proportion of households use rain water catchments both covered and uncovered during the wet season (Figure 2.2).

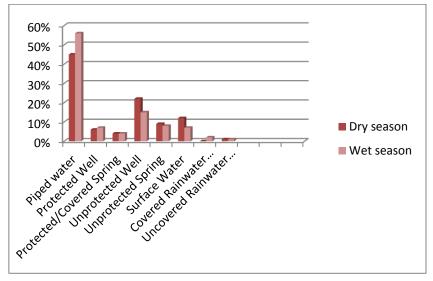


Figure 2.2: Percentage of households by type of water source during wet and dry seasons, Njombe DC, 2007/2008

Source: 2007/08, NBS, National Agriculture Sample Survey Report,

#### 2.3.4 Types of Toilets



Traditional pit latrines are the common type of toilets used by the majority of residents of Njombe DC

With respect to availability of toilets, the National Agriculture Sample Survey of 2007/08 indicates that 96 percent of all households in Njombe DC use traditional pit latrine followed by improved pit latrine (2 percent) and Flash Toilets (one percent) as shown in the Figure 2.3. However, the Council still has almost one percent of total number of households who

do not have any type of toilet i.e. use bush. In this respect the Council should make efforts to ensure that all households use toilets.

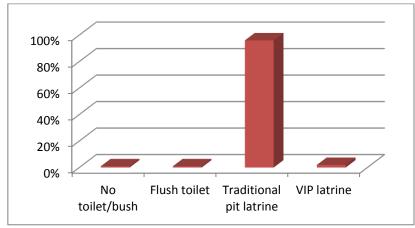


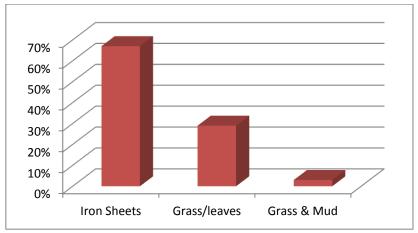
Figure 2.3: Percentage of households by type of toilet facility, Njombe DC, 2008

Source: 2007/08, NBS, National Agriculture Sample Survey Report,

## 2.3.5 Types of Roofing Materials

The National Sample Census of Agriculture 2007/08 indicated that grass and leaves are the most common roofing materials in rural areas in the country. The situation is different in Njombe DC where 67 percent of households have iron sheets as the main roofing material, followed by grass or leaves (29 percent) while only three percent goes for grass and mud as indicated in Figure 2.4.

Figure 2.4: Percentage of households by type of roofing material, Njombe DC; 2007/08



Source: 2007/08, NBS, National Agriculture Sample Survey Report,

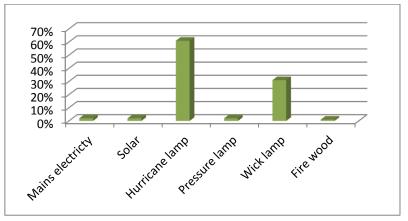


Over 60 percent of the households use iron sheets as the main roofing material

#### 2.3.6 Source of Lighting Energy

Because of the lack of electricity in rural areas, the 2007/08 National Sample Census of Agriculture reveals that only two percent of households use it. Hurricane lamp was found to be the main source of lighting energy; about 61 percent of total households use this source of energy, followed by wick lamp (31percent), pressure lamp (two percent each) while fire wood had one percent only. Very few households in Ikondo, Lupembe, Matembwe, Kidegembye, Ikuna and Mtwango wards use electricity as the main source of energy for lighting. In Ikondo and Matembwe wards there is a project of rural electrification manned by an NGO by the name of CEFA. This project is serving about seven villages in Njombe DC. These villages include: Ikondo, Ukalawa, Nyave, Isoliwaya, Kanikelele, Image and Matembwe.





Source: 2007/08, NBS, National Agriculture Sample Survey Report,

#### 2.3.7 Source of Energy for Cooking

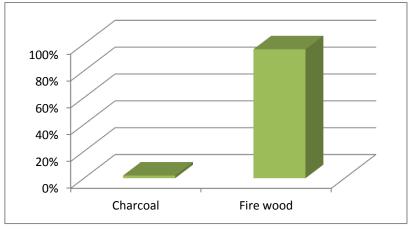


As reported in the 2007/08 National Sample Census of Agriculture, firewood remains the most prevalent source of energy for cooking in the country. This also applies to Njombe DC as reported in the National Sample Census of Agriculture 2007/08. About 96 percent of the households in the Council use it, followed by charcoal (two percent).

An insignificant number of the households were reported using paraffin/kerosene and crop residues.

However no household that was reported using modern and/or environmental friendly source of energy for cooking such as bio gas or bottled gas. Although most of the fire wood and charcoal used comes from the remains of the stem of the wattle tree after extracting the buck, if the current practice continues, deforestation and depletion of natural vegetation through using firewood and charcoal will destroy the nature and ecology of Njombe DC. Measures should be taken to ensure that natural vegetation and ecology of the council are restored.



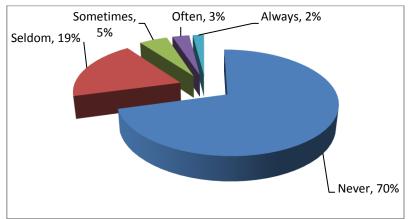


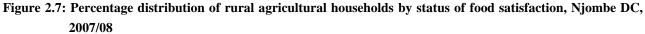
Source: 2007/08, NBS, National Agriculture Sample Survey Report,

#### 2.3.8 Food Security

Food security at Njombe DC is very significant. According to the 2007/2008 National Sample Census of Agriculture, Iringa Region (where Njombe DC used to be), at most two percent of households said they always experience food insufficiency, while 70 percent of the total households in the council said they have never experienced problems in satisfying the household food requirements and 19 percent seldom experienced problems in satisfying the household food requirements. The report also revealed that five percent and three percent said they sometimes or

often experienced problems in satisfying the household food requirements respectively (Figure 2.7).





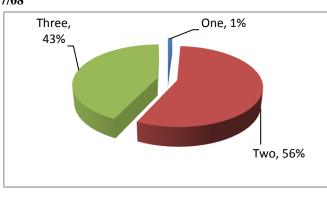
Source: 2007/08, NBS, National Agriculture Sample Survey Report,

#### 2.3.9 Food Consumption Patterns

The level of food consumption is also an indicator of the poverty level of the households. 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 poverty levels of the households.

#### **2.3.10** Number of Meals per Day

The National Sample Census of Agriculture 2007/08 reveals that the majority of rural agricultural households in Njombe DC normally have two meals per day (56 percent of total households), while 43 percent have three meals. Moreover, the results also indicate that one percent of the total households have one meal per day. These results indicate that food insufficiency affects a very small proportion of the rural households in the council as 99 percent have either two or three meals per day.



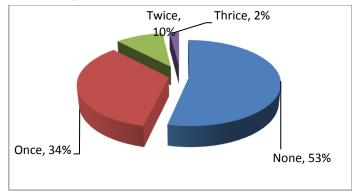
# Figure 2.8: Percentage distribution of rural agricultural households by meals taken per day, Njombe DC; 2007/08

22

#### 2.3.11 Protein (Meat and Fish) Consumption Frequencies

Njombe DC had a big percentage of households that did not eat meat compared to other councils (Agricultural Sample Census 2007/2008). Figure 2.9 shows that most of the households ate meat once per week (46 percent), followed by those that ate meat twice (18percent), then those that ate meat three times (three percent). However, a significant number of households (33 percent) did not eat meat during the week prior to the enumeration and only one percent ate four times.

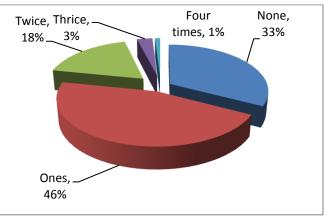
Figure 2.9: Percentage distribution of rural agricultural households by frequency of meat consumption per week by households, Njombe DC, 2007/08



Source: 2007/08, NBS, National Agriculture Sample Survey Report,

The observation was different regarding fish consumption. More than a half (about 53 percent) of the households did not eat fish during the week prior to the enumeration. However, as Figure 2.10 shows, about 34 percent of the households ate fish once and 10 percent at fish twice per week and those who ate fish three times per week were two percent.

Figure 2.10: Percentage Distribution of Rural Agricultural Households by Frequency of Fish Consumption per Week by Household, Njombe DC, 2007/08



Source: 2007/08, NBS, National Agriculture Sample Survey Report

#### 2.3.12 Land Development

Land use planning and surveying are key aspects for development of both urban and rural areas in the Council. The land needs in urban areas are dominated by the demand for building plots for residential, commercial, institutional and industrial purposes. In rural areas agricultural and other production activities are the major needs for land for instance forestation and grazing.

Since Njombe DC has no urban are, we are not going to look at this factor, instead we will concentrate on rural Village land use plan in the rural areas.

In the planning of farms, grazing areas and human settlements in rural areas, the village is the first step. By the end of 2015, Njombe DC had managed to survey as many as 39 villages out of which all villages (100 percent) were offered their village land certificates. More efforts should be directed at finishing the surveying of the remaining few villages and issue certificates to the already surveyed villages so that the villagers can organize themselves in the use of land efficiently and obtain loans from financial institutions.

Ward	Number of Villages	Number of Surveyed Village	Percent of Surveyed Village	Number of Village Offered Certificates	Percent of Village Offered Certificates	
Mtwango	5	3	60	3	100	
Igongolo	5	5	100	5	100	
Kichiwa	6	5	83	5	100	
Ninga	3	3	100	3	100	
Ikuna	4	4	100	4	100	
Kidegembye	3	3	100	3	100	
Matembwe	5	3	60	3	100	
Lupembe	4	4	100	4	100	
Ikondo	2	2	100	2	100	
Ukalawa	2	1	50	1	50	
Mfriga	4	4	100	4	100	
Idamba	2	2	100	2	100	
Total	45	39	87	39	100	

Table 2.4: Village Land Use Planning in Rural Areas by Ward, Njombe DC; 2015

Source: Njombe DC Executive Director's Office, 2016

# **CHAPTER THREE**

# **PRODUCTIVE SECTORS**

## 3.0 Overview

This Chapter explains the performance of productive sectors in the Njombe district council. The sectors include agriculture, livestock, natural resources, industrial development and the land sector development.

## 3.1 Agriculture

## 3.1.1 Introduction

Agriculture continued to be the main source of livelihood for the residents of Njombe district council, in the 2012 population and housing census, the sector employed more than 72 percent of adult population.

Despite agriculture being the leading sub-sector in the economy of the council, its performance has been declining due to several factors such as frequent use of inferior agriculture tools such as hand hoes, inadequate knowledge of new agricultural products, pest problems, and sometimes, low purchasing power of the people which tends to discourage the use of modern agricultural inputs or implements. In addition, marketing arrangements for most crops are inadequate coupled with poor transport system and lack of credit facilities for peasant farmers.

Food crops mainly produced in the council are maize, beans and Irish potatoes while coffee, tea and pyrethrum are produced as cash crops. Also people in Njombe district council use food crops as cash crops in order to enhance their incomes and ensure food availability throughout the year.

# 3.1.2 Distribution of Arable Land

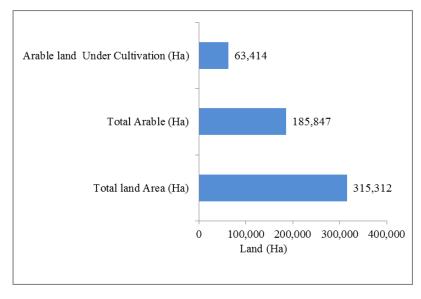
Arable land refers to land that can be used for growing crops or upon which agriculture is practiced. Table 3.1 and Figure 3.1 shows that 59 percent of the council's land area of 315,312 ha is arable land, of the total arable land under cultivation, Mtwango ward recorded high percent (61), followed by Matembwe 57 percent while the smallest arable land under cultivation was recorded in Mfriga ward (3.1 percent).

Ward	Total land Area (Ha)	Total Arable (Ha)	Arable land Under Cultivation (Ha)	% of Arable land under cultivation
Ikondo	20,018	8,595	4,096	48
Lupembe	29,400	16,464	3,771	23
Idamba	30,600	16,218	2,477	15
Mfriga	26,100	23,229	2,511	11
Matembwe	30,450	14,616	8,368	57
Ikuna	31,500	15,750	4,883	31
Ninga	30,300	23,331	6,739	29
Igongolo	29,700	21,087	10,189	48
Kichiwa	29,400	18,228	8,571	47
Kidegembye	23,400	14,040	3,766	27
Mtwango	30,000	11,100	6,788	61
Ukalawa	4,444	3,189	1,255	39
Total	315,312	185,847	63,414	34

 Table 3.1: Distribution of Arable Land (ha) by Ward, Njombe District Council; 2015

Source: District Executive Director's Office (Agriculture Department), Njombe District Council, 2016

Figure 3.1: Distribution of Arable Land (ha) in Njombe District Council; 2015



Source: District Executive Director's Office (Agriculture Department), Njombe District Council, 2016

# 3.2 Land under cultivation

# 3.2.1 Area under Major Food Crops Cultivation

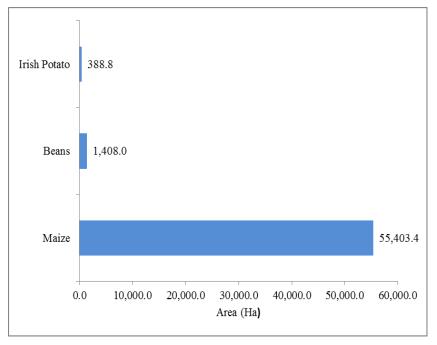
Maize, beans and Irish potato are the major food crops grown in the Njombe DC. Table 3.2 and figure 3.2 shows that maize was planted on the largest area than other food crops and was the leading food crop in the council. Over the period of 2011 - 2015, maize was planted on annual average area of 57, 200.2 ha (96.9 percent). Beans and Irish potato were planted in small area with the annual average of 1,408 ha (2.5 percent) and 388.8 ha (0.7 percent) respectively.

						Annual	
Crop	2011	2012	2013	2014	2015	Average	Percent
Maize	52,226.0	53,291.0	54,381.0	58,209.8	58,909.0	55,403.4	96.9
Beans	0.0	0.0	0.0	3,396.0	3,644.0	1,408.0	2.5
Irish Potato	58.0	68.0	76.0	841.0	901.0	388.8	0.7
Total	52,284.0	53,359.0	54,457.0	62,446.8	63,454.0	57,200.2	100.0
	C M	1 DC 4 '	1, 11,	10010			

Table 3.2: Estimated Land Area (Ha) under Major Food Crops, Njombe district Council; 2011 – 2015

Source: Njombe DC Agricultural department 2016

Figure 3.2: Annual average Area (ha) planted with Major Food crops, Njombe district Council; 2011-2015.



Source: Njombe DC Agricultural department 2016

## Maize

Maize is a staple food and the most important marketed crop in Njombe district council in terms of volume. According to Table 3.2 and Figure 3.2, area planted with maize was on the average of 55,403.4 hectares per year. This was equivalent to 96.9 percent of the average area planted with major food crops per years. Area planted with maize has been increasing from 52,226.0 ha in 2011 to 58,909.0 ha in 2015. Maize is grown in all wards in Njombe district council but with small variations in the cultivated area.

#### Beans

In terms of planted area, beans are the second food crop (Table 3.2). Over the period of 2011-2015 the average planted area per year was 1,408.0 hectares or 2.5 percent of the average area planted with major food crops in the council.

#### **Irish Potatoes**

This is another important crop in the council. The crop is also grown for food and cash earning. Table 3.2 and Figure 3.2 show that the average area planted with Irish potatoes per year is 388.8 hectares.

## 3.2.2 Area under Major Cash Crops Cultivation

The main cash crops grown in Njombe DC were tea, coffee and pyrethrum; however, tea was grown in a larger area as compared to other cash crops. The data available for cash cultivation was of the year 2015 only. The total area planted with cash crops in 2015 was 5,098.5 hectors with tea planted in an area of 4,942.8 hectors which is equivalent to 96.9 percent of the total area planted with cash crops. The rest of the cash crops were planted in an area of 155.7 hectors or 3.1 percent.

## 3.3 Crop Production

## 3.3.1 Production of Major Food Crops

Maize, beans and Irish potatoes are the major food crops grown in Njombe district council. Their total production during the period of 2011 to 2015 was tonnes 702,641 at an average of 140,528 tonnes per year (Table 3.3). Production increased from 133,005 tonnes in 2011 to 164,650 tonnes in 2015 (Figure 3.4). The highest production of 164,560 tonnes attained in 2015 was above the council average annual production of 140,528 tonnes by 24,032 tonnes or 17.1 percent. Maize was the dominant food crop grown in the council with a share of 94.2 percent (132,342 tonnes) of the total production. Beans and Irish potatoes accounted for 2.1 and 3.7 percent respectively.

Annual								
Сгор	2011	2012	2013	2014	2015	Average	Percent	
Maize	130,564	133,230	135,950	114,692	147,273	132,342	94.2	
Beans	2,441	2,571	2,691	3,327	3,772	2,960	2.1	
Irish Potato	0	0	0	12,615	13,515	5,226	3.7	

130,634

164,560

140,528

100.0

138.641

Table 3.3: Estimated Production in tons of Major Food Crops by Ward, Njombe district Council; 2011 – 2015

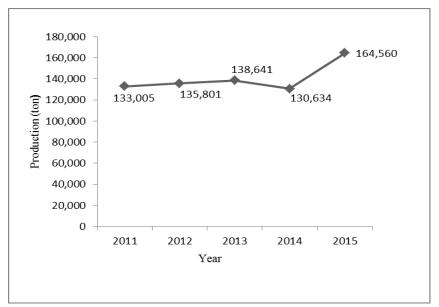
Source: Njombe DC Agricultural department 2016

133.005

135.801

Total

Figure 3.3: Production Trend (in Tonnes) of Major Food Crops, Njombe District Council; 2011 – 2015



Source: Njombe DC Agricultural department 2016

## Maize

Table 3.4, shows that maize is grown in all wards but at different production levels. Over the period of 2011-2015, the council produced a total of 661,709 tonnes of maize at an average of 132,342 tonnes per year.

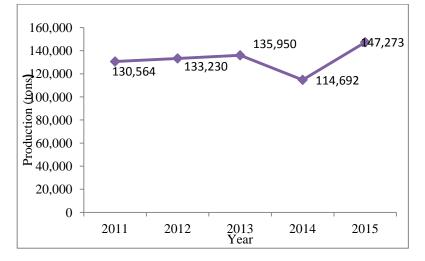
High maize production was realized in Igongolo ward at an average production of 19,125 tons, equivalent to 14.53 percent of all maize produced in the council for the period of five years (2011-2015), followed by Kichiwa ward (18,478 tons or 14.0 percent) and Mtwango ward (18,110 tons or 13.7 percent). Least production was observed in Ukalawa, Idamba and Mfriga wards (943 tons or 0.7 percent, 4,411 tons or 3.3 percent and 5,686 tons or 4.3 percent) respectively.

Ward	2011	2012	2013	2014	2015	Annual Average	Percent
Mtwango	14,710	15,010	15,316	22,076	23,437	18,110	13.7
Igongolo	22,558	23,019	23,489	12,883	13,677	19,125	14.5
Kichiwa	19,123	19,513	19,912	16,416	17,427	18,478	14.0
Ninga	13,869	14,152	14,441	229	9,543	10,447	7.9
Ikuna	10,667	10,885	11,107	399	16,638	9,939	7.5
Kidegembye	8,348	8,519	8,693	13,592	14,430	10,716	8.1
Matembwe	18,416	18,792	19,176	13,770	14,618	16,954	12.8
Lupembe	4,047	4,130	4,214	12,283	13,040	7,543	5.7
Ikondo	10,314	10,524	10,739	11,198	7,175	9,990	7.5
Ukalawa	0	0	0	0	4,713	943	0.7
Mfriga	4,831	4,930	5,031	6,615	7,023	5,686	4.3
Idamba	3,681	3,756	3,832	5,231	5,553	4,411	3.3
Total	130,564	133,230	135,950	114,692	147,273	132,342	100.0

Table 3.4: Estimated Production of maize ( tons ) by Ward, Njombe District Council; 2011 – 2015

Source: Njombe DC Agricultural department 2016

Figure 3.4: Estimated Production of Maize (tons) by Ward, Njombe District Council; 2011 – 2015



Source: Njombe DC Agricultural department 2016

#### Beans

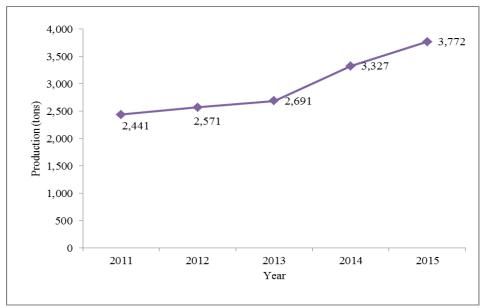
Table 3.5 shows that, high beans production was observed in Igongolo ward at an average production of 449 tons, equivalent to 15.2 percent of all beans produced in the council, followed by Kichiwa and Ninga wards both having an average annual production of 397, 398 tons or 13.4 percent respectively and Mtwango 391 tons or 13.2 percent. Least production was observed in Ukalawa ward (24 tons or 0.8 percent) followed by Mfriga ward (86 tons or 2.8 percent).

Ward	2011	2012	2013	2014	2015	Annual Average	Percent
Mtwango	246	269	274	562	603	391	13.2
Igongolo	507	523	533	328	352	449	15.2
Kichiwa	372	379	384	418	431	397	13.4
Ninga	496	520	573	154	246	398	13.4
Ikuna	122	156	168	269	428	229	7.7
Kidegembye	195	204	223	346	371	268	9.0
Matembwe	62	67	72	351	376	186	6.3
Lupembe	0	0	0	313	335	130	4.4
Ikondo	376	382	389	285	185	323	10.9
Ukalawa	0	0	0	0	121	24	0.8
Mfriga	17	19	22	168	181	81	2.8
Idamba	48	52	53	133	143	86	2.9
Total	2,441	2,571	2,691	3,327	3,772	2,960	100.0

Table 3.5: Estimated Production of beans (tons) by Ward, Njombe District Council; 2011 – 2015

Source: Njombe DC Agricultural department 2016

Figure 3.5: Production Trend (Tonnes) of Beans in Njombe District Council; 2011 – 2015



Source: Njombe DC Agricultural department 2016

# 3.3.2 Production of Major Cash Crops

The main major cash crop grown in the council was tea with a total production of 27,272 tonnes from the period of 2011- 2015 at an average production of 5,454.4 tonnes per year. Other cash crops grown in the council are coffee and pyrethrum but with a very small production. Table 3.6 shows that the production of tea was high in Lupembe ward with an average production of 2,269.2 tons (41.6 percent) per annum, followed by Idamba 918.0 tons (16.8 percent) and Ikondo 865.6 tons (15.9 percent). The least production was observed in Kidegembye with annual average of 10.6 tons (0.2 percent), followed by Ninga 19.4 tons (0.4) and Ukalawa 169.0 tons (3.1 percent).

Ward	2011	2012	2013	2014	2015	Annual Average	Percent
Ninga	14	17	23	21	22	19.4	0.4
Kidegembye	7	9	11	13	13	10.6	0.2
Matembwe	430	435	440	833	936	614.8	11.3
Lupembe	1,935	2,015	2,033	2,525	2,838	2,269.2	41.6
Ikondo	385	390	405	1,880	1,268	865.6	15.9
Ukalawa	0	0	0	0	845	169.0	3.1
Mfriga	60	60	65	1,297	1,457	587.8	10.8
Idamba	750	800	850	1,031	1,159	918.0	16.8
Total	3,581	3,726	3,827	7,600	8,538	5,454.4	100.0

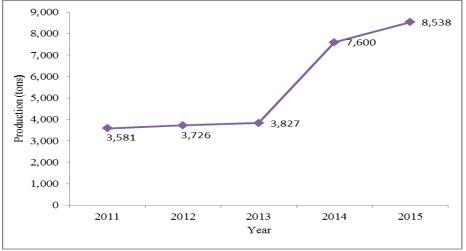
Table 3.6: Estimated Production of Tea (tons) by Ward, Njombe District Council; 2011 – 2015

Source: Njombe DC Agricultural department 2016



Production of tea had an increasing trend. It increased by 4,957 tons from 3,581 tons in 2011 to 8,538 tons in 2015 which was equivalent to 58.1 percent; making an average production of 5,454 tons per annum in the period of five years as shown in figure 3.6.

Figure 3.6: Production Trend (Tonnes) of Tea in Njombe District Council; 2011 – 2015



Source: Njombe DC Agricultural department 2016

# **3.4 Irrigation Prospects**

Njombe District Council experiences two types of rainy seasons, the short and long rainy season. The short rain season begins in the month of October through January of following year while the long rain season begins in the month of February through May, same year.

Irrigation farming in Njombe District Council is not very common although there are many rivers which flow through the council as well as the abundant springs. Farming activities for the residents of Njombe DC depend much on the availability of rainfall.

Table 3.7 shows that Njombe District Council had 1,594 hectares potential for irrigation in 2015. The area under irrigation was 938.5 hectares (58.88 percent of total potential area) under irrigation. Irrigation is implemented for horticultural crops especially tomatoes, onions and vegetables as well as cereal crops (maize and beans).

Ward	Estimated Potential Area (Ha) for irrigation	Area under irrigation	Major crops	
Ikondo	300	80	Maize	
	-	60	Beans	
Mfriga	40	5	Vegetables	
	-	3	Onions	
	-	4	Cabbage	
Matembwe	120	80	Vegetables-	
Ikuna	215	105	Tomatoes-	
Ninga	150	57	Irish potatoes	
	-	2	Tomatoes	
	-	0.25	Carrot	
	-	0.25	Vegetable	
	-	1	Onions	
lgongolo	286	114	Maize	
	-	29	Tomatoes	
	-	23	Beans	
Kichiwa	187	58	Maize	
	-	7	Tomatoes	
	-	10	Beans	
	-	70	Irish Potatoes	
Kidegembye	140	55	Maize	
Mtwango	156	145	Tomatoes	
-	-	30	Vegetables	
Total	1,594	938.5		

Table 3.7: Irrigation Prospects by Ward, Njombe District Council; 2015

Source: Njombe DC Agricultural department 2016

# **Agricultural Inputs**

# **3.4.1 Introduction**

Agriculture First Policy has purposely been introduced to improve agriculture production and hence reduce poverty in rural areas. Improving usage of modern farming implements and inputs, accessibility of extension services and credits as well as markets for agriculture products are among the strategies of Agriculture First Policy for attaining its objective of alleviating poverty. The farming input which are most used in Njombe district council are described below;

# 3.4.2 Types of Chemical Fertilizers

Soil infertility, plant pests and diseases are among the factors which limit agricultural production in Njombe DC. Over the past five years, the council's soils have depended on application of chemical fertilizers for optimum crop harvests. UREA, CAN, DAP; NPK, MINJINGU, SA and TSP were the most used chemical fertilizers in the council.

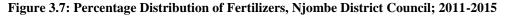
A total of 48,039 tons of different types of chemical fertilizers were used in the council from 2011 to 2015, DAP being the leading chemical fertilizer which accounted for 35.8 percent of the total kilograms of chemical fertilizers, followed by UREA (25.3 percent), TSP (15.7 percent) and CAN (10.9 percent) and NPK (10.2 percent) while the least used chemical fertilizers in the council were MINJINGU and SA with 0.1 and 2.0 percent respectively (Table 3.8).

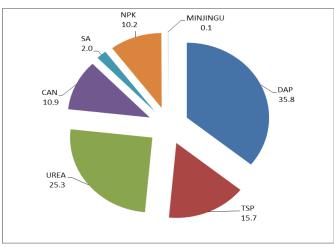
Total	11,667	6,222	10,282	15,413	4,455	48,039	100.0
MINJINGU	0	0	0	33	0	33	0.1
NPK	2,044	1,932	375	565	0	4,916	10.2
SA	80	64	225	234	350	953	2.0
CAN	615	922	1,275	2,340	105	5,257	10.9
UREA	719	1,840	3,299	5,011	1,300	12,169	25.3
TSP	648	688	1,733	1,760	2,700	7,529	15.7
DAP	7,561	776	3,375	5,470	1980	17,182	35.8
Type of Fertilizers	2011	2012	2013	2014	2015	Total	Percent
2011 2010							

 Table 3.8: Type and Quantity of Chemical Fertilizers (Tons) Distributed to Farmers; Njombe district Council;

 2011-2015

Source: Njombe DC Agricultural department 2016





Source: Njombe DC Agricultural department 2016

# **Fungicides:**

Diseases are a common occurrence on plants, often having a significant economic impact on yield and quality, thus managing diseases is an essential component of production for most crops. Fungicides, herbicides and insecticides are all pesticides used in plant protection. A fungicide is a specific type of pesticide that controls fungal disease by specifically inhibiting or killing the fungus causing the disease.

Crops such as coffee and horticulture crops demand the use of fungicides for control of fungus infestation and plant diseases for optimum crop harvests. Table 3.9 highlights the distribution of various fungicides used for controlling plant pests in the council.

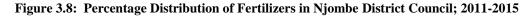
The most common fungicides used in the council were Mancozeb, Farmerzeb, and Ivory WP Dithery M72. A total of 30,632 litres of different types of fungicides were distributed in the council from 2011- 2015. Table 3.9 shows that Mancozeb was the most common used fungicides in the

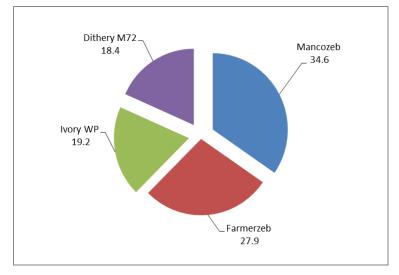
council accounted for 34.6 percent of all litres of fungicides distributed in the council from year 2011- 2015, followed by Farmerzeb 27.9 percent, Ivory WP 19.2 percent and Dithery M72 18.4 percent (Figure 3.8).

Table 3.9: Type and Quantity of Fungicides (in Litres) Distributed to Farmers; Njombe District Council; 2011-2015

Type of Fungicides	2011	2012	2013	2014	2015	Total	Percent
Mancozeb	0	2,980	4,500	3,120	2,350	10,600	34.6
Farmerzeb	0	2,510	3,375	2,653	1,870	8,538	27.9
Ivory WP	0	1,840	2,250	1,780	1,305	5,870	19.2
Dithery M72	0	2,200	2,100	1,324	750	5,624	18.4
Total	0	9,530	12,225	8,877	6,275	30,632	100.0

Source: Njombe DC Agricultural department 2016





Source: Njombe DC Agricultural department 2016

#### Insecticides

Insecticides are chemicals used to control insects by killing them or preventing them from engaging in behaviors deemed undesirable or destructive. Insecticides are commonly used in agricultural, public health, and industrial applications, as well as household and commercial uses. The most commonly used insecticides in Njombe district council were Acteric 50 EC, Sumithon, MO karate which are in form of liquid and Acteric super Dust which is measured in kilogram.

Table 3.10 shows that farmers in Njombe DC preferred the use of Acteric super dust which accounted for 39.5 percent of all types of insecticides distributed in the council from 2011- 2015 with an average distribution of 1,194 kilogram per year. Sumithon was the second in terms of use, 29 percent of litres were distributed with an annual average distribution of 877 litres followed by

Acteric 50 EC 27.6 percent with an average of 836 litres per year. The least distributed insecticide was MO karate 3.9 percent with the annual average of 119 litters.

2011-2015							
Type of Insecticides	2011	2012	2013	2014	2015	Total	Percent
Acteric 50 EC (Litres)	0	200	225	276	135	836	27.6
Acteric Super Dust (kg)	0	200	375	314	305	1,194	39.5
Sumithon (Lts)	0	400	287	175	15	877	29.0
MO Karate 5% EC (Litres)	0	20	45	37	17	119	3.9
Total	0	820	932	802	472	3,026	100.0

Table 3.10: Type and Quantity of Insecticides (in Litres) Distributedto Farmers, Njombe District Council;2011-2015

Source: Njombe DC Agricultural department 2016

#### **Improved Seeds**

Seeds are the primary basis for human sustenance. They are the repository of the genetic potential of crop species and their varieties resulting from the continuous improvement and selection over time. Crop improvement and the delivery of the high quality seeds and planting materials of selected to growers is necessary for ensuring improved crop production and meeting growing environmental challenges. Food security therefore is dependent on the seed security of the farming community.

Maize, beans and Irish potatoes were the only improved seeds supplied in the council. Table 3.11 shows that, a total of 26,577 kilogram of improved seeds were supplied in the council with 77 percent of improved seeds for Irish potatoes, followed by beans 13 percent and maize 10 percent of all improved seeds supplied in the council. However, the supply of improved seeds for Irish potatoes and beans has recently being introduced, the use of improved seeds was not common, and most farmers used local seeds.

Type of Improved seed	2011	2012	2013	2014	2015	Total	Percent
Maize	0	645	584	733	632	2,594	10
Beans	0	0	0	3,463	0	3,463	13
Irish Potato	0	0	0	20,520	0	20,520	77
Total	0	645	584	24,716	632	26,577	100

 Table 3.11: Type and Quantity of Improved seeds (kgs) Distributed to Farmers Njombe District Council;

 2011-2015

Source: Njombe DC Agricultural department 2016

#### **3.4.3** Agriculture Implements

Agricultural implements are necessary for efficient production. Table 3.12 shows the demand and supplied agriculture implements in Njombe district council in 2015. The most common demanded farm implements in the council were Ox plough, Ox harrow, Ox cultivator, power tillers and tractors. The table also shows that, tractors and power tillers were demanded but the supply were very small or no supply at all. High prices together with the low purchasing power of small scale farmers have made the use of modern faming implements minimal (Table 3.12).

True o	Impleme	ents	Chartfell/Europa
Туре	Demand	Supplied	Shortfall/Excess
Ox plough	20,526	1,131	19,395
Ox harrow	114	22	92
Ox cultivator	114	4	110
Tractors	48	0	48
Power tillers	120	49	71
Total	20,922	1,206	19,716

Table 3.12: Availability of Agriculture Implements, Njombe district Council; 2015

Source: Njombe DC Agricultural department 2016

# 3.4.4 Investment Opportunities in Agriculture sector

The climate and topography of Njombe district council are suitable for growing a variety of crops. Investment should therefore focus on large scale farming of crops like maize, Irish and sweet potatoes, fruits, tomatoes, tea, pyrethrum and coffee. Oil seeds production and processing (sunflower) is also potential. Increase number of storage facilities, agro-processing especially oil processing industries, Supply of farm inputs at affordable prices such as fertilizers, insecticides, improved seeds and farm implements (i.e. tractors and power tillers) are other areas for investment

# 3.5 Livestock

# 3.5.1 Introduction

The livestock sector makes significant contribution to food security and poverty eradication at household level. Besides, the subsector is an important source of protein through meat, milk and poultry products.

Njombe DC social economic profile, 2013 shows that, a total of 10,615 household kept livestock which is equivalent to 52.5 percent of the total household in the council.

# 3.5.2 Livestock Population



Livestock is the second important economic activity for the residents of Njombe district council. To large extent livestock keeping is predominantly traditional and involves mostly indigenous cattle. Other livestock kept are goats, sheep, donkeys, pigs and chicken.

Table 3.13 displays estimated livestock population by ward in Njombe District Council in 2015. Chicken with 200,490 populations was the dominant livestock which accounted for 78.4 percent of the total livestock population. Cattle was the second popular livestock (30,569 cattle or 11.9 percent), pigs ranks third (16,842 pigs or 6.6 percent), followed by goats (5,981 goats or 2.3

percent). The least populated livestock populations were donkeys and sheep each with a share of 0.1 and 0.7 percent of total livestock in the council respectively.

Ward	Cattle	Goats	Sheep	Donkeys Pigs I		Indigenous Chicken	Chicken (Broilers& Layers)	Total
Mtwango	4,587	850	288	79	2,820	16,454	10,180	35,258
Igongolo	4,258	674	57	6	1,009	10,291	1,050	17,345
Kichiwa	5,723	635	493	39	724	13,081	3,658	24,353
Ninga	3,130	959	171	0	922	16,124	900	22,206
Ikuna	5,533	1042	618	15	3,857	23,348	31,100	65,513
Kidegembye	3,213	407	34	2	990	13,466	78	18,190
Matembwe	3,345	387	53	0	1,322	14,095	6,992	26,194
Lupembe	243	288	86	0	2,578	24,012	1,257	28,464
Mfriga	101	26	0	0	561	3,824	290	4,802
Ukalawa	135	295	0	0	852	2,606	100	3,988
Ikondo	220	320	11	0	627	2,316	360	3,854
Idamba	81	98	6	0	580	4,588	320	5,673
Total	30,569	5,981	1,817	141	16,842	144,205	56,285	255,840
Percent	11.9	<b>2.3</b>	0.7	<b>0.1</b>	6.6	56.4	22.0	100

 Table 3.13: Estimated Livestock Population by ward, Njombe District Council; 2015

Source: Njombe DC Livestock department 2016

#### **3.5.2.1 Cattle Population**



Table 3.14 shows that indigenous and improved dairy cattle were the only cattle type in the council in 2015. Indigenous cattle were dominant in Njombe District Council accounting for 94.9 percent of the total cattle in the council; while improved dairy cattle were only 5.1 percent of the total cattle. Kichiwa and Ikuna wards recorded high number of cattle in the council each having a share of 18.7 and 18.1 percent (5,400

and 5,2000 cattle) respectively, Ikuna and Kichiwa dominated in terms of improved dairy cattle having the percentage share of 20.9 and 21.5 percent respectively. The least recorded improved dairy cattle were in Ninga and Ikondo wards each recording 2.0 percent share of the total improved dairy cattle in the council.

	Pop	Population of Cattle by Type							
Ward	Indigenous Cattle	Improved Dairy Cattle	Improved Beef Cattle	Total	Percent				
Mtwango	4,413	174	0	4,587	15.0				
Igongolo	4,166	92	0	4,258	13.9				
Kichiwa	5,435	323	0	5,758	18.7				
Ninga	4,136	31	0	4,167	10.2				
Ikuna	5,265	333	0	5,598	18.1				
Kidegembye	3,112	101	0	3,213	10.5				
Matembwe	3,176	169	0	3,345	10.9				
Lupembe	89	154	0	243	0.8				
Mfriga	0	36	0	36	0.3				
Ukalawa	0	63	0	63	0.4				
Ikondo	189	31	0	220	0.7				
Idamba	43	38	0	81	0.3				
Total	30,024	1,545	0	31,569	100.0				

 Table 3.14: Population Distribution of Cattle by Type and by Ward, Njombe District Council; 2015

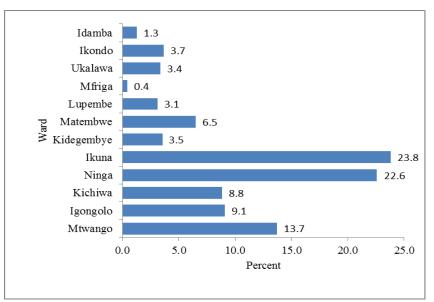
## **3.5.2.2 Goat Population**

In Njombe district council goat rearing is not common, they are kept in a small amount dominated by the indigenous breeds. Table 3.15 shows that, the ward with the largest number of goats was Ikuna which had about 23.8 percent of the total goats in the council. This was followed by Ninga ward (22.6 percent) and Mtwango ward (13.7 percent). Mfriga ward was the last with only 0.4 percent (figure 3.9).

	Population of	goats by Type		
Ward	Indigenous Goats	Improved Dairy Goats	Total	percent
Mtwango	3,400	115	3,515	13.7
Igongolo	3,050	49	3,099	9.1
Kichiwa	1,610	43	1,653	8.8
Ninga	4,005	0	4,005	22.6
Ikuna	3,850	0	3,850	23.8
Kidegembye	1,959	14	1,973	3.5
Matembwe	1,502	10	1,512	6.5
Lupembe	953	0	953	3.1
Mfriga	680	6	686	0.4
Ukalawa	858	0	858	3.4
Ikondo	810	0	810	3.7
Idamba	632	0	632	1.3
Total	23,309	237	23,546	100.0
Source: Njombe DC	Livestock department 2016			

 Table 3.15: Population Distribution of Goats by Type and by Ward ,Njombe District ouncil;2015





Source: Njombe DC Livestock department 2016

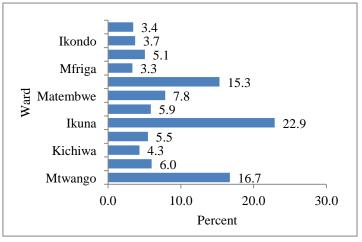
# **3.5.2.3 Pig Population**



Pigs were the third most important livestock in Njombe district council after cattle and chicken. Ikuna ward recorded the largest number of pigs with 22.9 percent of the total pigs population in the council, followed by Mtwango 16.7 percent and Lupembe 15.3 percent while other wards recorded small percentages of pigs ranging from 3.3 to 7.8 percent of the total

pigs in the council (Figure 3.10).





Source: Njombe DC Livestock department 2016

## **3.5.2.4 Chicken Population**



Chicken farming plays a significant role in rural and urban people's life and contributes significantly to poverty alleviation and improvement of food security with high nutrition. Njombe district council had a total of 200,490 chickens of which 71.9 percent are indigenous and 28. 1 percent are non-indigenous.

The ward with the largest number of chicken was Ikuna with 54,448 chickens (27.2 percent of the total chicken in the council) followed by Mtwango ward (26,634 chicken, or 13.3 percent), Lupembe ward (25,269 chickens, or 12.6 percent) and Matembwe ward (21, 087 chicken, or 10.5 percent). The least number of chickens was recorded in Ukalawa and Ikondo wards each having a share of 1.3 percent of the council total chickens as shown (Table 3.16).

		Chicken (Broilers&		
Ward	Indigenous Chicken	Layers)	Total	Percent
Mtwango	20,454	10,180	30,634	12.1
Igongolo	15,291	1,050	16,341	6.4
Kichiwa	17,081	3,658	20,739	8.2
Ninga	20,124	900	21,024	8.3
Ikuna	28,348	31,100	59,448	23.4
Kidegembye	19,466	78	19,544	7.7
Matembwe	18,095	6,992	25,087	9.9
Lupembe	27,650	1,257	28,907	11.4
Mfriga	7,950	290	8,240	3.2
Ukalawa	6,960	100	7,060	2.8
Ikondo	6,970	360	7,330	2.9
Idamba	8,980	320	9,300	3.7
Total	197,369	56,285	253,654	100

#### Table 3.16: Estimated Chicken Population by ward, Njombe District Council; 2015

Source: Njombe DC Livestock department 2016

## **3.6 Grazing Land**

Grazing land is the land that is available for rearing livestock. It excludes all tsetse fly infected areas, wildlife and forest reserves as well as tree plantations but includes game controlled areas and overlap arable land. Njombe district council with its respective wards have established areas that can be used for feeding animals. Specifying grazing land through land use planning is important as it reduces conflicts among livestock keepers and farmers.

Table 3.17 shows that, Njombe District Councils had a total of 1,556 hectares of land fit for grazing where by 56 percent was used for grazing and none was infected by tsetse flies. However, due to

increase in the number of livestock in the council, more grazing land should be established. Awareness campaign to livestock keepers on the use of modern methods of grazing is important to rescue the existing natural forests encroachment.

Ward	Total Land (Ha)	Land fit for Grazing (Ha)	Land used for Grazing (Ha)	Proportion of Grazing Land Used (Percent)	Tsetse Fly infected Area (Ha)
Mtwango	29,400	0	0	NA	0
Igongolo	29,700	41	41	100	0
Kichiwa	29,400	0	0	NA	0
Ninga	30,300	650	650	100	0
Ikuna	31,500	63	63	100	0
Kidegembye	23,400	43	31	73	0
Matembwe	30,450	75	75	100	0
Lupembe	30,000	3	3	100	0
Ukalawa	4,444	0	0	NA	0
Ikondo	20,018	0	0	NA	0
Mfriga	26,100	678	0	0	0
Idamba	30,600	3	3	100	0
Total	315,312	1,556	866	56	0

Table 3.17: Estimated Area Under-Grazing by ward, Njombe District Council; 2015

Source: Njombe DC Livestock department 2016

## 3.6.1 Livestock Services

Improvement of livestock quality is limited due to difficulties in accessing facilities capable of controlling or preventing animal diseases. Diseases affect animal health and reduce both meat and milk production in terms of quality and quantity and in some cases cause deaths to the animals affected. Delivery of livestock health services depend on facilities such as dips, veterinary health centres, slaughter slab, abattoirs and water sources.

Table 3.18 shows that, the number of livestock health facilities in 2015 was inadequate for the population of livestock (255,840) in the council. In addition, those available, some were either in poor condition or were non-operative. In 2015 there were eight working dips, one veterinary centre, two hides/skin sheds, two slaughter slabs and two abattoirs in the council.

Lack of equipments, drugs, chemical reagents as well as adequately trained staff has been the main cause for failure to functioning properly of the available veterinary centre. The council has only one working veterinary centre located in Matembwe ward. Tin that respect, the Njombe District Council needs to take an extra effort to increase the number of veterinary centres as well as other livestock infrastructure to reduce livestock diseases.

Ward	Total Dips	Working Dips	Veterinary Centres	Hides/skin sheds	Abattoirs	Slaughter slab	Livestock market/Auction	
Mtwango	2	1	0	1	1	1	1	
Igongolo	1	1	0	0	0	0	0	
Kichiwa	2	2	0	0	0	0	0	
Ninga	1	1	0	0	0	0	0	
Ikuna	1	1	0	0	0	0	0	
Kidegembye	1	1	0	1	1	0	0	
Matembwe	1	1	0	0	0	1	0	
Lupembe	0	0	0	0	0	0	0	
Ikondo	0	0	0	0	0	0	0	
Ukalawa	0	0	0	0	0	0	0	
Ikondo	0	0	0	0	0	0	0	
Mfriga	0	0	0	0	0	0	0	
Idamba	0	0	0	0	0	0	0	
Total	9	8	0	2	2	2	1	

Table 3.18: Distribution of Livestock Infrastructure by Ward; Njombe District Council, 2015

## **3.6.2** Marketing Livestock and their Products

Increased private sector participation in marketing of livestock and their products in recent years have increased marketing channels for the livestock sub-sector. Due to high demand and good transportation infrastructure, urban areas provide reliable marketing place for livestock and their products than rural areas. Njombe district council has no market for livestock, most of livestock found in the council are sold locally as a results the council loses revenue.

#### (i) Hides and Skin

Hides and skins have been used for making clothes, vessels, bedding, and possibly structurally in ancient dwelling places. Their production is dependent on the rearing, management and disposal of livestock. The availability of hides and skins is of particular importance to the leather industry.

Marketed hides and skins create alternative source of income for livestock keepers. From the year 2013 to 2015, a total of 2,887 hides and skins were sold and earned a total of TZs 14,697,100. Table 3.19 reflects that marketed hides and skins contribute significantly to the economy of Njombe District Council residents, particularly livestock keepers. Absence of enough modern abattoirs limits the quality of hides and skins and hence price per unit. Therefore, construction of modern abattoirs is of great importance for providing better environment which in turn would improve the quality of the processed hides and skins.

Category	Total Numb	er of Units M	arketed	Total Value in TZs			
	2013	2014	2015	2013	2014	2015	
Cattle Hides	577	719	842	461,600	5,752,000	6,736,000	
Goat/Sheep Skins	185	367	197	55,500	1,101,000	591,000	
Total	762	1,086	1,039	517,100	6,853,000	7,327,000	

Table 3.19: Marketing of Livestock Hides and Skins, Njombe District Council; 2013, 2014 and 2015

## (ii) Milk Production and Marketing

Milk is an important livestock product which contributes significantly to the income of both urban and rural population. It is by knowing the contribution of milk to health improvement and reduction of poverty, the Government always stresses to keep dairy cattle in order to increase milk production and hence increase income.

Table 3.20 shows that a total of 2,204,240 litres of milk worth TZS. 1,591,447,813 were marketed in Njombe district council from 2013 to 2015. The Quantity of milk marketed showed an increasing trend. It increased by 424,820 litres from 523,092 litres in 2013 to 947,912 litres in 2015. Most milk was produced by dairy cattle at 99 percent and indigenous cattle produced only 1 percent of all produced milk in the council in the period of three years (2013-2015).

Table 3.20: Production of Milk, Njombe District Council; 2013, 2014 and 2015

Milk from —	Tota	I Number of I	Litres	Total Value in TZs				
	2013	2014	2015	2013	2014	2015		
Indigenous Cattle	5,025	7,044	9,106	5,025,000	7,044,000	9,106,413		
Dairy Cattle	518,067	726,192	938,805.50	310,893,600	508,334,400	751,044,400		
Total	523,092	733,236	947,912	315,918,600	515,378,400	760,150,813		

Source: Njombe DC Livestock department 2016

# 3.6.3 The Status of Livestock Personnel

Livestock extension services aim at equipping the livestock keepers with necessary knowledge on animal health. Controlling animal diseases is one of the targets of livestock extension services. The quality of livestock services provided largely depends on the status of Livestock/veterinary/field/Auxiliary officers.

Table 3.21 highlights that for the period of January to December 2015, the Njombe district council had a total of 17 staff in livestock sub-sector; most of the staff are livestock field officers. The council has only one veterinary officer stationed at the council headquarters. Therefore livestock quality in the council is in danger due to the minimal number of veterinary officers capable of controlling or preventing animal diseases.

	Veterinary	Livestock	Livestock	Pests and Tsetse Field	Livestock	
Ward	Officers	Officers	Field Officers	Officers	Auxiliary	Total
Mtwango	0	0	2	0	0	2
Igongolo	0	0	1	0	0	1
Kichiwa	0	0	2	0	0	2
Ninga	0	0	1	0	0	1
Ikuna	0	0	1	0	0	1
Kidegembye	0	0	2	0	0	2
Matembwe	0	0	1	0	0	1
Lupembe	0	0	0	0	0	0
Ikondo	0	0	0	0	0	0
Ukalawa	0	0	0	0	0	0
Mfriga	0	0	0	0	0	0
Idamba	0	0	1	0	0	1
Head Quarter	1	2	3	0	0	6
Total	1	2	14	0	0	17

Table 3.21: Availability of Livestock Personnel by Ward, Njombe district Council; 2015

#### 3.6.4 Major Livestock Diseases

Livestock diseases are amongst the factors which adversely affect livestock production and productivity in Njombe district council and hence need a control. Livestock disease control plays an important role in improving the livelihood not only to livestock keeping community but also indirectly boosting council economy through widening the extent of market for livestock products. Animal diseases control provides an assurance to the public on their health.

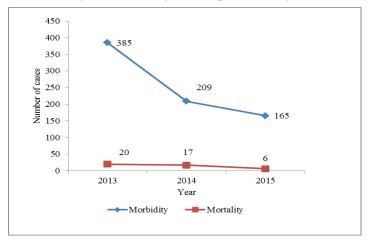
#### (i) Cattle Diseases

The most common reported diseases for cattle in Njombe district council were East Coast Fever and Anaplasmosis. East Coast Fever was the most cause of morbidity and mortality in the council. Table 3.22 shows that, from the year 2013 to 2015, a total of 759 morbidity cases were reported out of which 456 equivalent to 60 percent cases were caused by ECF and 303 (40 percent) cases were due to Anaplasmosis. Further analysis shows that of the reported cases of morbidity in the council, only few mortality cases were reported. The data shows that, of the reported morbidity cases, only 43 deaths of cattle occurred from 2013 to 2015 most of which occurred due to ECF (70 percent) and 30 percent deaths of cattle were caused by Anaplasmosis. The number of morbidity cases reported decreased from 385 in 2013 to 165 in 2015 likewise the situation was the same for mortality cases which decreased from 20 cases in 2013 to 6 cases in 2015 (Figure 3.11).

	Number	of Morb	oidity c	ases rep	oorted			Nun	ber of I	Morta	ality cas	ses rep	ported	
		2013		2014		2015			2013		2014		2015	
Ward	ECF	Anaplasmosis	ECF	Anaplasmosis	ECF	Anaplasmosis	Total	ECF	Anaplasmosis	ECF	Anaplasmosis	ECF	Anaplasmosis	Total
Mtwango	29	15	10	12	20	9	95	0	2	1	0	0	0	3
Igongolo	38	22	9	21	35	11	136	5	4	4	1	2	1	17
Kichiwa	37	17	15	15	10	8	102	1	0	2	0	0	0	3
Ninga	19	15	12	22	20	15	103	3	2	4	1	2	0	12
Ikuna	40	20	22	19	19	12	132	2	1	3	1	1	0	8
Kidegembye	8	18	9	0	1	0	36	0	0	0	0	0	0	0
Matembwe	17	15	7	1	2	1	43	0	0	0	0	0	0	0
Lupembe	10	9	10	0	0	1	30	0	0	0	0	0	0	0
Ukalawa	9	5	8	0	0	0	22	0	0	0	0	0	0	0
Ikondo	8	6	5	0	0	1	20	0	0	0	0	0	0	0
Mfriga	10	8	7	0	0	0	25	0	0	0	0	0	0	0
Idamba	5	5	5	0	0	0	15	0	0	0	0	0	0	0
Total	230	155	119	90	107	58	759	11	9	14	3	5	1	43

Table 3.22: Major Cattle Diseases Reported by Ward, Njombe District Council, 2013, 2014 and 2015

Figure 3.11: Trend for Morbidity and Mortality cases reported in, Njombe district council, 2013, 2014 and 2015



#### a) East Cost Fever

East Coast fever is a tick-borne protozoal infection of cattle in East and Central Africa. The disease is transmitted by infected ticks, Rhipicephalus appendiculatus. Because the ticks usually attach to the ear, it is often called the "brown ear ticks". East Coast fever is one of the major disease constraints to cattle development and is well known to local farmers and veterinarians. Control of the disease is feasible but requires careful planning and any tick control measures must consider other local tick-borne diseases. Table 3.23 shows the number of morbidity and mortality cases caused by ECF. For the period of 2013 to 2015, Igongolo ward reported high number of morbidity cases totaling to 82 (18 percent) of the total cases in the council which caused 11 cattle deaths equivalent to 36.7 percent of all mortality cases reported. This was followed by Ikuna 81 (17.8 percent) morbidity cases and 6 (20 percent) mortality cases. The least number of morbidity and mortality cases were reported in Idamba, Ikondo and Kidegembye.

Ward	Number of Morbidity cases reported				Number of Mortality cases reported					
	2013	2014	2015	Total	Percent	2013	2014	2015	Total	
Mtwango	29	10	20	59	12.9	0	1	0	1	3.3
Igongolo	38	9	35	82	18.0	5	4	2	11	36.7
Kichiwa	37	15	10	62	13.6	1	2	0	3	10.0
Ninga	19	12	20	51	11.2	3	4	2	9	30.0
Ikuna	40	22	19	81	17.8	2	3	1	6	20.0
Kidegembye	8	9	1	18	3.9	0	0	0	0	0.0
Matembwe	17	7	2	26	5.7	0	0	0	0	0.0
Lupembe	10	10	0	20	4.4	0	0	0	0	0.0
Ukalawa	9	8	0	17	3.7	0	0	0	0	0.0
Ikondo	8	5	0	13	2.9	0	0	0	0	0.0
Mfriga	10	7	0	17	3.7	0	0	0	0	0.0
Idamba	5	5	0	10	2.2	0	0	0	0	0.0
Total	230	119	107	456	100	11	14	5	30	100

Table 3.23: Morbidity and Mortality cases caused by East Cost Fever by wards, Njombe district council, 2013,2014 and 2015

Source: Njombe DC Livestock department 2016

#### b) Anaplasmosis

Anaplasmosis is a vector-borne, infectious blood disease in cattle caused by the rickesttsial parasites Anaplasma marginale and Anaplasma centrale. The disease is not contagious but is transmitted most commonly by ticks. It can also be transmitted via contaminated needles, dehorning equipment, castrating knives, tattoo instruments, biting flies and mosquitoes. The intracellular parasite destroys red blood cells. It causes anemia, fever, weight loss, breathlessness, uncoordinated movements, abortion and death.

Table 3.24 shows that a total of 303 morbidity cases where reported during the period of 2013 and 2015. Most cases were reported in Igongolo ward about 54 morbidity cases equivalent to 17.8 percent of the total cases followed by Ikuna 51 (16.8 percent) cases. Ukalawa and Idamba wards reported the least number of morbidity cases each having 5 (1.7 percent) cases. However the data shows that from 2013 to 2015 the numbers of morbidity cases have been decreasing. Mortality

cases were reported in Igongolo 46.2 percent, Ninga 23.1 percent, Mtwango 15.4 percent and Ikuna 15.4 percent while other wards had no mortality cases.

Ward	Numb	oer of Mo repoi	•	cases		Number of Mortality cases reported						
	2013	2014	2015	Total	Percent	2013	2014	2015	Total	Percent		
Mtwango	15	12	9	36	11.9	2	0	0	2	15.4		
Igongolo	22	21	11	54	17.8	4	1	1	6	46.2		
Kichiwa	17	15	8	40	13.2	0	0	0	0	0.0		
Ninga	15	22	15	52	17.2	2	1	0	3	23.1		
Ikuna	20	19	12	51	16.8	1	1	0	2	15.4		
Kidegembye	18	0	0	18	5.9	0	0	0	0	0.0		
Matembwe	15	1	1	17	5.6	0	0	0	0	0.0		
Lupembe	9	0	1	10	3.3	0	0	0	0	0.0		
Ukalawa	5	0	0	5	1.7	0	0	0	0	0.0		
Ikondo	6	0	1	7	2.3	0	0	0	0	0.0		
Mfriga	8	0	0	8	2.6	0	0	0	0	0.0		
Idamba	5	0	0	5	1.7	0	0	0	0	0.0		
Total	155	90	58	303	100	9	3	1	13	100		

Table 3.24: Morbidity and Mortality cases caused by Anaplasmosis by wards, Njombe district council, 2013,2014 and 2015

Source: Njombe DC Livestock department 2016

#### (ii) Goat Diseases

The most common reported diseases for goat in Njombe district council were Mange, Worms, Diarrhea and Pneumonia. Worms was the most cause of morbidity in the council. Table 3.25 shows that, from the year 2013 to 2015, a total of 1,271 morbidity cases were reported out of which 714 equivalent to 56 percent cases were caused by worms. Further analysis shows that of the reported cases of morbidity in the council, there was no mortality cases reported. High number of morbidity cases was reported in Mtwango ward 199 cases (15.7 percent), followed by Ikuna 168 (13.2 percent). The least number of morbidity cases were reported in Mfriga ward 29 (1.5 percent) of the all cases reported in the council. Few morbidity cases reported were due to Mange, Diarrhea and Pneumonia.

	Numbe	er of M	orbidit	ty cases	report	ted	Ν	lumber	of Mo	rtality	cases	repor	ted	
	201	3	20	14	20	15			20	13	20	14	20	15
Ward	Mange	Diarrhoea	Pneumonia	Worms	Pneumonia	Worms	Total	Percent	Mange	Diarrhoea	Pneumonia	Worms	Pneumonia	Worms
Mtwango	68	4	8	52	9	58	199	15.7	0	0	0	0	0	0
Igongolo	63	7	4	20	5	67	166	13.1	0	0	0	0	0	0
Kichiwa	52	9	6	40	0	51	158	12.4	0	0	0	0	0	0
Ninga	48	5	3	20	3	55	134	10.5	0	0	0	0	0	0
Ikuna	75	8	5	45	0	35	168	13.2	0	0	0	0	0	0
Kidegembye	41	0	0	30	0	38	109	8.6	0	0	0	0	0	0
Matembwe	39	1	0	25	0	51	116	9.1	0	0	0	0	0	0
Lupembe	44	0	0	19	0	30	93	7.3	0	0	0	0	0	0
Ukalawa	20	2	0	10	0	16	48	3.8	0	0	0	0	0	0
Ikondo	10	0	0	12	0	10	32	2.5	0	0	0	0	0	0
Mfriga	5	0	0	2	0	12	19	1.5	0	0	0	0	0	0
Idamba	10	3	0	8	0	8	29	2.3	0	0	0	0	0	0
Total	475	39	26	283	17	431	1,271	100	0	0	0	0	0	0

Table 3.25: The Major Goat Diseases Reported by ward, Njombe District Council; 2013, 2014 and 2015

#### (iii) Poultry Diseases

Table 3.26 shows that, for the period of three years, Coccidiosis disease emerged as the deadliest disease for poultry. It accounted for 66 percent of all morbidity cases in the council which resulted to 37.4 percent deaths. New castle seems to be the most dangerous disease once the outbreak occurs. In 2014 there was an outbreak of new castle disease which caused 656 morbidity cases which resulted to 608 (93 percent) deaths of all poultry in the council. The least outbreak disease in the council was Infectious Coryza caused only 3 percent and 0.3 percent of morbidity and mortality cases respectively.

Table 3.26: Major Poultry Diseases Reported in Njombe District Council; 2013, 2014 and 2015

Disease	Number of Morbidity cases reported					oer of M repo	lortality orted	Percentage of	Percentage of	
	2013	2014	2015	Total	2013	2014	2015	Total	Morbidity	Mortality
Coccidiosis	1,181	4,483	1,513	7,177	51	39	439	529	66	37.4
Infectious Coryza	0	0	339	339	0	0	4	4	3	0.3
Typhoid	2,622	0	0	2,622	274	0	0	274	24	19.4
New Castle	0	656	0	656	0	608	0	608	6	43.0
Total	3,803	5,139	1,852	10,794	325	647	443	1,415	100	100

Source: Njombe DC Livestock department 2016

Table 3.27 shows that, the most affected wards by Coccidiosis disease were Matembwe at 14.7 percent of all mortality cases reported in the council and Kichiwa at 13.8 percent. The mortality cases caused by Coccidiosis were high in Kichiwa ward at 17 percent followed by Mtwango 14.7 percent of all mortality cases due to the disease. Disease outbreak in other wards was as shown in table 3.28.

Ward	Num	ber of Mo repo	Number of Mortality cases reported				Percentage of	Percentage		
	2013	2014	2015	Total	2013	2014	2015	Total	Morbidity	of Mortality
Mtwango	88	688	177	953	18	12	48	78	13.3	14.7
Igongolo	90	403	152	645	2	5	54	61	9.0	11.5
Kichiwa	210	575	208	993	8	18	64	90	13.8	17.0
Ninga	80	473	180	733	0	0	37	37	10.2	7.0
Ikuna	172	403	158	733	0	4	56	60	10.2	11.3
Kidegembye	60	373	126	559	23	0	45	68	7.8	12.9
Matembwe	182	673	198	1,053	0	0	20	20	14.7	3.8
Lupembe	110	222	146	478	0	0	26	26	6.7	4.9
Ukalawa	40	94	40	174	0	0	23	23	2.4	4.3
Ikondo	32	373	98	503	0	0	31	31	7.0	5.9
Idamba	65	108	20	193	0	0	16	16	2.7	3.0
Mfriga	52	98	10	160	0	0	19	19	2.2	3.6
Total	1,181	4,483	1,513	7,177	51	39	439	529	100.0	100.0

Table 3.27: Coccidiosis Diseases Reported by ward, Njombe District Council; 2013, 2014 and 2015

Source: Njombe DC Livestock department 2016

## 3.6.5 Investment Opportunities in Livestock sub sector

Njombe District Council has inadequate livestock infrastructures which are operating such as dips, health centres, water points, slaughter houses etc. Therefore construction of livestock infrastructures might be a priority area of investing in livestock sub sector. Other areas which need investors are dairy farming and livestock processing industries such as milk processing, leather tanning and meat canning. The council needs to look at the following possibilities:

#### Meat processing:

Out of 12 wards, none had a modern abattoir. Hence, there is a need of building modern abattoirs in the council that can process and add value and serve as local market for livestock keepers,

**Tanneries**: For changing the hides and skins into fully processed or semi processed (wet blue) before export.

Ranching: Ecology of Njombe District Council attracts large scale dairy and beef cattle farming.

Animal services and pharmaceuticals: Animal pharmaceutical shops and veterinary centres where qualified veterinary and livestock officers can offer consultancy services especially in remote areas.

**Poultry farming**: There is need for the production of parent stock in the council that will serve for poultry keepers.

# 3.7 Natural Resource

## 3.7.1 Introduction

Natural resources sector is comprised of various sub-sectors including forestry, fisheries, beekeeping and wildlife. The sector is very important in contributing to social and economic development of the council. Apart from economic gains, the sector also plays an important role in the maintenance of climate stability, conservation of water sources, soil fertility, controlling land erosion, and providing source of wood fuel, industrial materials and non-wood products such as honey and bee-wax.

## 3.7.2 Forestry

Njombe District Council is also endowed with forestry potential. The woodlands are lightly exploited to fulfill demands on fuel wood, charcoal, timber and building materials. Efforts have been made to preserve certain forests with a view to prevent effect of over deforestation. So far, the council has a total of 968.88 hectares of natural forest reserve, and forest plantations covering 16,577.96 hectares, making a total forest cover of 17,546.84 hectares of forest in the council.

Table 3.28 shows the status of forest reserves in the district council. Forest reserves were owned by central government or village governments. Idamba ward had the largest forest reserve at 51.6 percent of the whole forest reserve cover in Njombe DC, followed by Ikondo ward at 20.4 percent and Matembwe 16 percent. Other wards had the forest reserve covers as shown in the table below.

Ward	Total Land Area (ha)	Natural forest reserve area (ha)	Percent
Mtwango	30,0	91.4	9.4
Kichiwa	29,4	0 00	0.0
Igongolo	29,7	0 00	0.0
Ikuna	31,5	0 00	0.0
Kidegembye	23,4	25.18	2.6
Matembwe	30,4	50 154.56	16.0
Lupembe	29,4	0 00	0.0
Mfriga	26,1	0 00	0.0
Ikondo	20,0	18 197.74	20.4
Idamba	30,6	00 500	51.6
Ukalawa	4,4	44 0	0.0
Ninga	30,3	0 00	0.0
TOTAL	315,3	12 968.88	100
Source: Di	strict Executive Director's Office (Natura	l resource Department), Njombe District Cou	ncil, 2016

<b>Table 3.28:</b>	<b>Status of Forest</b>	Cover by	Ward	Council: 2015
1 4010 0.201	Status of L of the	COVEL Dy	· ·	Councily 2010

The establishment of forest reserves has involved various Government agencies/institutions and individuals in rising tree seedlings and planting trees. Table 3.29 shows that from 2011 – 2015 a

total of 43,484,496 tree seedlings were raised. Ikondo ward led by raising 20.8 percent of the tree seedlings in the council; Mtwango and Kichiwa 11.3 and 11.0 percent respectively. The least number of seedlings was raised in Ninga ward 4.1 percent of the total seedling raised in the district council.

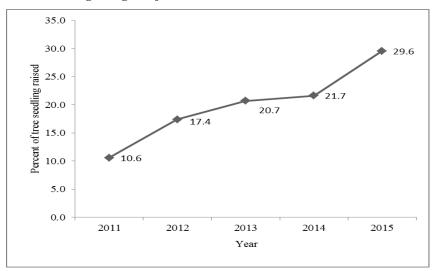
Furthermore, the increase in demands of timber for construction purposes in the council and in the country as a whole has resulted to an increase in number of seedlings raised every year. The number of tree seedling raised has increased significantly from 4,607,943 in 2011 to 12,866,257 in 2015. Figure 3.12 shows the trend of tree seedling raised.

Ward	2011	2012	2013	2014	2015	Total	Percent
Ninga	226,223	606,356	702,512	256,950	0	1,792,041	4.1
Mtwango	1,569,876	909,535	1,718,213	347,872	361,311	4,906,807	11.3
Kichiwa	218,674	985,329	986,725	305,400	2,286,640	4,782,768	11.0
Igongolo	493,305	454,767	571,420	242,000	845,930	2,607,422	6.0
Ikuna	643,600	682,151	712,011	2,180,900	0	4,218,662	9.7
Kidegembye	3,243	606,557	687,283	2,863,823	552,000	4,712,906	10.8
Matembwe	51,750	682,151	702,300	953,609	2,364,600	4,754,410	10.9
Lupembe	8,324	757,946	798,407	257,130	175,876	1,997,683	4.6
Mfriga	21,345	530,562	611,518	127,116	1,350,280	2,640,821	6.1
Ikondo	1,368,105	606,356	709,486	1,445,558	4,929,620	9,059,125	20.8
Idamba	3,498	757,946	811,207	439,200	0	2,011,851	4.6
Ukalawa	0	0	0	0	0	0	0.0
TOTAL	4,607,943	7,579,656	9,011,082	9,419,558	12,866,257	43,484,496	100.0

Table 3.29: Number of Tree Seedlings raised by ward Council; 2011 – 2015

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

Figure 3.12: Trend of Tree seedling rising in Njombe District Council from 2011- 2015



Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

Table 3.30 shows various institutions and agencies involved in rising tree seedlings in 2015. A total of 309,659 tree seedlings were raised by various institutions which is equivalent to 2 percent of the total tree seedling raised in Njombe DC in 2015. The largest number of tree seedlings was raised by UFUNDI Matembwe at 44.4 percent of all tree seedlings raised by various institutions in 2015, followed by UWAMIMA 9.7 percent. The least number of tree seedlings was raised by Religious institutions where only 0.1 percent of all seedlings were raised in the council.



Plate: *Tree nursery establishment / management and forestry products business including timber are potential economic activities among communities of Njombe district council* 

Institution	Number of Tree seedling raised	Percent
IDEA	13,200	4.3
RELIGIOUS INST	350	0.1
LWANZALI PRIMARY SCH	10,000	3.2
MUUNGANO GROUP	8,000	2.6
CEFA	9,000	2.9
UWAMI	30,000	9.7
WANGINYI PR.SCH	20,000	6.5
UWAMIMA	81,475	26.3
UFUNDI MATEMBWE	137,634	44.4
TOTAL	309,659	100

Table 3.30. Number of 7	Free Seedlings Raised b	v Institution, Niom	be District Council; 2015
Table 3.30. Number of 1	LICC Decumigs Maiseu D	y montunon, rejom	<i>C</i> District Council, 2013

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

#### **3.7.3 Natural Resources Products**

#### **3.7.3.1 Forest Products**

Forest products such as timber, poles and charcoal earn revenue to the government through permits and taxes. Experience has shown that the demand for timber and poles as well as revenue collection from those materials has been increasing due to significant increase in houses covered with iron sheets within and outside the council. Unfortunately, there is no data which shows the number of bags and amount of revenue collected from the sale of charcoal in the council.

Table 3.31 shows that, a total of 16,581 logs were harvested from 2011 to 2015 worth of TZs 3, 904, 905, 19. The number of logs and revenue collected was high in 2011, out of the total logs harvested , 11,923 were harvested in 2011 worth of 2,807,994,000 TZs at an average price of TZs 235,511 per log. The data also shows that, the price for logs has remained almost the same for the past five years. The number of logs harvested in 2011 was high because Njombe district council was still part of Iringa region.

Year	Volume of logs	Average Price (TZs)	<b>Revenue TZs</b>
2011*	11,923	235,511	2,807,994,000
2012	0	0	0
2013	1,022	235,522	240,703,191
2014	1,464	235,475	344,735,450
2015	2,172	235,485	511,472,550
Total	16,581	235,505	3,904,905,191

 Table 3.31: Revenue (TZs) collected from logs, Njombe District Council; 2011-2015

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

2011\* the number of logs collected was high because in 2011 Wanging'ombe and Makambako councils were part of Njombe DC.

## 3.7.3.2 Beekeeping



Beekeeping is one of the economic activities in Njombe District Council. It is among the councils in Tanzania that are known for honey and bee-wax production. Natural forests and plantation forests available in most parts of the district council have great potential for beekeeping. Beekeeping sub-sector has improved as a result of intensive campaign conducted by the Njombe DC under the sponsorship of Tanzania Social Action Fund (TASAF) and Participatory Forest Management (PFM) and Tanzania Forest Fund (TaFF).

Table 3.32 indicates that the residents of Njombe DC are still practicing the traditional way of beekeeping. The total number of traditional beehives from 2011- 2015 was 4,131 equivalents to 56 percent of all beehives in the council while the modern beehives were 3,277 (44 percent).

Bee keeping was mostly practiced in Mfriga, Mtwango, Kichiwa, Matembwe, and Lupembe wards. Mfriga ward was leading by having more beehives, traditional beehive were at 86.6 percent and modern beehive at 45 percent of all respective beehive types in the council. It was followed by Mtwango ward which had 4.6 percent of traditional beehive and 22.3 percent of modern beehives in the council in the same period.

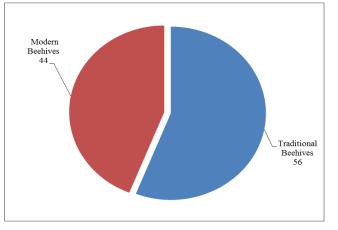
Figure 3.13 indicates that, traditional behives were most used whilst modern behives were less used. On top of that, if the available beekeeping potential is fully utilized, it would reduce unemployment/underemployment of rural population in the district council.

Ward	Т	raditior	nal Be	ehives	Modern Beehives							
,, uru	2011	2012	2013	2014	2015	Total	2011	2012	2013	2014	2015	Total
Ukalawa	0	0	0	0	0	0	0	0	0	0	0	0
Ninga	0	0	0	0	76	76	0	0	0	0	5	5
Mtwango	65	69	0	0	57	191	199	223	0	0	310	732
Kichiwa	0	0	0	0	68	68	73	92	0	0	4	169
Igongolo	0	0	0	0	0	0	0	0	0	0	0	0
Ikuna	0	0	0	0	165	165	0	0	0	0	0	0
Kidegembye	0	0	0	0	0	0	0	0	0	0	0	0
Matembwe	0	0	0	0	0	0	0	0	0	0	323	323
Lupembe	0	0	0	0	0	0	0	0	0	0	573	573
Mfriga	869	960	0	0	1,748	3,577	914	386	0	0	175	1,475
Ikondo	0	0	0	0	54	54	0	0	0	0	0	0
Idamba	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	934	1,029	0	0	2,168	4,131	1,186	701	0	0	1,390	3,277

Table 3.32: Number of Traditional and Modern Beehives by ward, Njombe District Council; 2011 -2015

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

#### Figure 3.13: Percentage of Beehives by Type in Njombe District Council 2011-2015



Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

## **3.7.3.3 Beekeeping Products**

Table 3.33 and figure 3.14 indicate that over a period of five years, the beekeeping sub sector produced a total of 47,712 litres of honey valued at TZs 245, 971, 000 which was 94 percent of all beekeeping products value in the district council. In the same period; 2,110 kg of bee-wax worth TZs 15,807,060 was also produced at 6 percent of beekeeping production in the council. The data also shows that, over the past five years, the production of honey has increased by 7,419 litres from 6,169 litres in 2011 to 13, 588 litres in 2015.

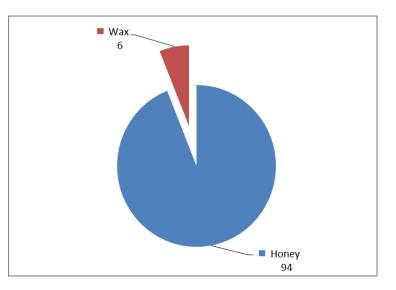
Veer	Honey		Bee wa	ax
Year ——	Litres	TZs	Kgs	TZs
2011	6,169	30,845,000	89	427,200
2012	7,408	44,448,000	74	593,000
2013	7,631	38,153,000	570	4,567,700
2014	12,917	64,583,000	973.5	7,801,160
2015	13,588	67,942,000	403	2,418,000
Total	47,712	245,971,000	2,110	15,807,060

Table 3.33: Revenue collected from beekeeping products in Njombe district Council, 2011-2015

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

Moreover, the councils' work-force living in areas which are favourable for bee-keeping, especially those living in close proximity to forest reserves could be encouraged to engage in this important off-farm economic activity. Bee-keeping has an advantage of being carried out alongside with other economic activities such as farming and livestock keeping without much loss of time and labour.

Figure 3.14: Percentage Beekeeping Products Value (TZs), Njombe DC; 2011 – 2015



Source: DED Njombe (Natural Resources Dpt.) 2016

# 3.7.3.4 Fisheries

Fishing is not a usual economic activity in Njombe DC due to the limited number of water bodies. Small scale fishing is carried out in only three wards by few individuals who were organized in a group and established fishing pond projects.

Table 3.34 indicates that, Njombe district council had a total of 114 fish ponds, 70 ponds equivalent to 61.4 percent are not working and 44 ponds or 38.6 percent are working. Of the working ponds, 368 kg of fish were harvested in 2015 valued at TZs 2,576,000 with an average price of TZs 7,000 per kilogram.

Fishing takes place mainly in Igongolo ward at 34.8 percent of total weight harvested in the district council. It was followed by Kichiwa ward at 26.1 percent, and Ikuna and Ikondo wards each at 16 percent, as shown in table 3.35. The volume of fish harvested does not meet the consumption demand, thus much are imported from other councils like Ludewa district council.

Ward	No. of Fish <sub>1</sub>	No. of Fish ponds			Price per	Total amount	
	W	NW	Total	Amount harvested (kg)	(kg)	(TZs)	
Mtwango	7	7	14	0	0	0	
Igongolo	7	11	18	128	7,000	896,000	
Kichiwa	6	6	12	96	7,000	672,000	
Ninga	0	0	0	0	0	0	
Ikuna	9	25	34	60	7,000	420,000	
Kidegembye	1	2	3	0	0	0	
Matembwe	0	0	0	0	0	0	
Lupembe	5	2	7	0	0	0	
Ikondo	8	10	18	60	7,000	420,000	
Ukalawa	0	4	4	0	0	0	
Idamba	1	2	3	24	7,000	168,000	
Mfriga	0	1	1	0	0	0	
Total	44	70	114	368	35,000	2,576,000	

Table 3.34: Fishery Resources and Production by ward from January to December, 2015; Njombe District Council

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

Key: W: Working NW: Not Working

## 3.7.3.5 Tourism

#### (i) Introduction

Tourism is termed an instrument for employment generation, poverty alleviation and sustainable human development. With its distinct advantages, tourism is considered to be another important industry for poverty alleviation. The advantages include; creation of job opportunities; boosting the sales of different goods and services such as agricultural products and handcrafts, as well as cultural entertainment provided by locals the majority of whom are poor. The industry is also an important earner of the much needed foreign exchange. As such Tourism as an industry can play a very important role in economic development of improvement livelihoods and socio-cultural development which are critical in poverty alleviation.

#### (ii) Historic Site Viewing Tourism



Njombe district council is endowed with enough cultural and historical attractions that are of great potential for cultural tourism. We have unbeatable culture set ups that can help us lead cultural tourism sector in the region. Sometimes the interest of a tourist to visit a particular place is to know its history and culture.

A historic site is an official location where pieces of political, military or social history have been preserved. Historic sites are usually

protected by law, and many have been accorded the official national historic site status. Unfortunately, most

of the historic sites in Njombe district council are only known to the local people in the council. Table 3.35 reveals attractive sites that add potential sites for tourism in Njombe District Council.

The presence of Iditima Natural Forest as well as Finga and Lyamgendela caves makes the council a potential area for photographic and viewing tourism. Since, tourist potentials available in the council are not well known, publicity initiatives need to be taken to bring the potentials into Tanzania tourist circuits.

Type of historical site available	Village/Mitaa	Ward	Type and Nature
Nyalumuli water falls	Kitole	Ukalawa	Natural attractions
Makengwe water falls	Kitole	Ukalawa	Natural attractions
Ninga water falls	Ninga	Ninga	Natural attraction
Mwandulami traditional dispensary	Itunduma	Mtwango	Cultural/man made
Lyamgendela historical cave	Itipingi	Igongolo	Historical attraction
Finga historical cave	Havanga	Kidegembye	Historical
Lupembe old Lutheran church	Lupembe	Lupembe	Historical
Madeke organic faming	Madeke	Mfriga	Man made
Iditima natural forest	Itambo	Mfriga	Natural attraction

Table 3.35: Historical sites potential for Tourism, Njombe District Council; 2015

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

## 3.7.3.6 Eco Tourism

To promote domestic and international tourism, thrust areas identified by Government of Tanzania are development of infrastructure, product development and diversification, development of ecoadventure sports, cultural presentations, providing inexpensive accommodation, streamlining facilitation procedures at airports, human resource development, creating awareness and public participation and facilitation of private sector participation.

Availability of good infrastructure such as accommodation facilities, telecommunication services, roads, banks/bureau de change services and tour operators is an important tool for the development of competitive tourism industry. Accommodation facilities are important in attracting tourists. Therefore, information about hotels, camp sites and lodges is vital for the tourists, as it helps them to choose the type of accommodation they like as well as compare the quality against prices charged.

Njombe DC has a few number of accommodation facilities and all of them are local. Table 3.36 shows that, the council has a total of 21 registered guest houses. Matembwe ward had the highest number of guest houses (6) equivalent to 28.6 percent of total guesthouses; followed by Mtwango

(4 guest houses) at 19.0 percent of all available guest houses in the council whilst, other guest houses were distributed as shown in the table.

Ward	Number of Guest Houses	Type of a	ccommodation
Idamba		1	Guest house
Ukalawa		1	Guest house
Ninga		1	Guest house
Mtwango		4	Guest house
Kichiwa		0	Guest house
Igongolo		0	Guest house
Ikuna		1	Guest house
Kidegembye		2	Guest house
Matembwe		6	Guest house
Lupembe		2	Guest house
Mfriga		1	Guest house
Ikondo		2	Guest house
Total		21	

 Table 3. 36: Accommodation facilities by ward, Njombe District Council; 2015

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

## 3.7.3.7 Mining Sector

Minerals are a principle source of income for many developing countries, including Tanzania. At first glance, mineral-rich economies have an advantage over those less well-endowed because minerals provide funds for rapid development and poverty reduction.

Mining in Njombe DC is not a known economic activity and therefore mining sector has insignificant contribution to the council's economy. The mineral deposits available in the district council are stones and sand which are small scale. Nevertheless, little is known about the actual potential of the minerals in these sites. As a result, its contribution to the council economy is still negligible compared to other productive sectors such as agriculture and livestock.

2015				
Ward	<b>Type of Mineral Deposit</b>	Small Scale	Medium Scale	Large scale
Idamba	Stones	1	0	0
Ukalawa	Stones	1	0	0
Ninga		0	0	0
Mtwango	Sand	1	0	0
Kichiwa		0	0	0
Igongolo	Sand, stones	2	0	0
Ikuna		0	0	0
Kidegembye	Stones	1	0	0
Matembwe		0	0	0
Lupembe		0	0	0
Mfriga	Stones	1	0	0
Ikondo		0	0	0
TOTAL		7	0	0

Table 3.37: Distribution of Existing Mineral Deposits and Scale of Mining by Ward, Njombe District Council;2015

Source: District Executive Director's Office (Natural resource Department), Njombe District Council, 2016

## 3.7.3. 8 Investment Opportunities in Natural Resources

## **Agro-forestry**

Sustainable agro-forestry is an area of which the council can take advantage of. This includes the promotion of commercial forestation programs.

## **Environmental conservation**

Njombe District Council faces depletion of its forest cover due to firewood, charcoal and overgrazing. The council has to embark upon afforestation which will counterbalance with the rate of deforestation. Investment therefore is needed in the supply and planting of tree seedlings, education in agro forestry and proper management of the forest resources.

## Beekeeping

Beekeeping, though largely considered to be a part-time activity, has shown commendable contribution to socio economic status of Njombe District Council residents. However, investments in this sub sector can be made:

- (a) Medium scale investors. These are private companies or individuals with adequate resources who can invest profitably in this sub sector by using modern technology. These kinds of investors should be encouraged so as to tape the full potential of this sector.
- (b) Small scale bee keepers. These include individual households in the council. They could be developed by being trained in modern bee-keeping a practice which involves the use of modern beehives instead of the traditional ones which are

currently predominant. Likewise, the Government and other development stakeholders in the council should think of introducing micro-credit schemes to beekeepers so as to enable them purchase modern beehives and other necessary gear for this important economic activity.

## **Fisheries**

Njombe DC is endowed with many permanent water springs which encourage fish farming. Therefore, a dynamic and well-funded fisheries program can transform the income and nutrition status of the council's residents.

## Tourism

The presence of historical and attractive sites can make the council an important tourist destination in future. Therefore, individuals should be encouraged to invest in construction of better accommodation facilities as well as restaurants. Banking services need also improvement to meet the increasing demand.

## 3.8 Industrial development



Njombe District Council, like the rest of the county, informal sector plays a major role in socio-economic development of the council. The small scale industries such as oil processing, and food processing, manufacturing industries, Carpentry and timber processing contributes to some extent in increasing employment opportunities and reducing income poverty in the council. Industry sector in Njombe DC has continued to create

employment opportunities, though at a small scale.

Unfortunately, unreliable electricity power supply, poor road infrastructure and lack of skills and technology of informal sector operators contribute slow growth of this sector in the district council.

Table 3.38 shows that, in 2015 Njombe DC had a total of 107 small scale industries which were operating. Mtwango, Matembwe and Lupembe wards had the highest number of industries. Mtwango ward had (29 or 27.1 percent), followed by Matembwe ward (15 or 14 percent) and Lupembe (11 or 10.3 percent) of all industries available in the council. The leading type of industry was maize milling at 53.3 percent, followed by carpentry at 42.1 percent.

Apart from small-scale industries, Njombe DC had two large scale industries (Processing Industries), Lupembe Tea Estate Company LTD and Ikanga Tea Company LTD both located at the Lupembe ward.

Ward	Sunflower oil processing mill	Service industry – garage	Carpentry	Food processing	Maize milling	Welding	Timber processing	Total	Percent
Ikondo	1	0	1	0	7	0	0	9	8.4
Ukalawa	0		0	0	4	0	0	4	3.7
Mfriga	0	0	0	1	5	0	0	6	5.6
Idamba	0	0	0	0	2	0	0	2	1.9
Lupembe	0	0	3	0	8	0	0	11	10.3
Matembwe	0	0	6	0	9	0	0	15	14.0
Kidegembye	0	0	3	0	2	0	0	5	4.7
Ikuna	0	0	3	0	1	0	0	4	3.7
Ninga	0	0	7	0	0	0	0	7	6.5
Kichiwa	0	0	6	0	4	0	0	10	9.3
Igongolo	0	0	0	0	5	0	0	5	4.7
Mtwango	0	0	16	0	10	0	3	29	27.1
Total	1	0	45	1	57	0	3	107	100.0

Table 3. 38: Number of Small Scale Establishments by ward and Type of Activity – Njombe District Council;2015

Source:

## **3.8.1 Investment in Industrial sector**

The basis for industrial development in Njombe District Council has been agriculture products. There is still room for establishment of small and medium scale agro-based industries such as milling, jiggery and sawmilling of forest timber and the establishment of carpentry and joinery workshops. Promotion of commercial honey production is another area of investment. Moreover, sustainable small and medium scale industrial development would be achieved in Njombe District Council through encouraging people to establish economic groups, empower them with entrepreneurial skills as well as provide them with good program of accessing credit.

## CHAPTER FOUR ECONOMIC INFRASTRUCTURES

## 4.0 Introduction

Chapter four describes the existing of economic infrastructures in Njombe DC. It covers the road network in terms of road classification, type of road surface condition and passability. Others include telecommunication; which covers postal services, internets, mobile phones, radio stations and television facilities. In the energy sector developments, the services of hydro-electricity, biogas, solar panels, fuel wood and fossil fuels are examined, economic infrastructures promote economic activities.

#### 4.1 Road Network by Type

In Njombe DC, road transportation is the major type of transportation for people and goods within



and outside the council. It is one of the key sub-sectors that are responsible for sustainable development and poverty reduction initiatives in the council

Roads like blood arteries in the body are very instrumental in stimulating social and economic development of any district council. Thus, for a successful council economic management, the District Council Authority and the Government in

particular, need to place more emphasis on roads improvement.

Njombe DC is served by regional roads, district roads and feeder roads. Table 4.1 shows the length of road network by ward and by type of which there was a total road network of 799.54 km in 2015.

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 20 kms (2.5 percent of total road network) were trunk roads. Regional roads we about 125kms (15.6 percent), district roads were 438 kms (54.8 percent). Feeder roads which are the true arteries of the economy constituted 211.54 kms or 26.5 percent of cumulative total length of all roads in the council.

Moreover it was revealed that Mfriga ward had the longest kilometers (114.6 km) of total roads length in the council while Igongoro ward had the shortest kilometers (76 km).

Ward	Trunk	Regional	District/Urban	Feeder	Total
Kidegembye	0	10	44	0	54
Igongolo	0	10	5	0	15
Mtwango	20	0	50	28	98
Kichiwa	0	0	66	6.34	72.34
Ikuna	0	20	41	0	61
Ninga	0	0	45	13	63
Matembwe	0	10	38	17	65
Lupembe	0	10	45	24	79
Mfriga	0	65	20	29.5	114.5
Idamba	0	0	35	5	40
Ukalawa	0	0	31	0	31
Ikondo	0	0	18	88.7	106.7
Total	20	125	438	211.54	799.54

Table 4.1: Length of Road Network by Ward (km), Njombe District Council, 2015

Source of data: Njombe DC (Works department), 2016

## 4.2 Road Network Classification

Table 4.2 shows that, 2.5 percent of the surface road network is tarmac, 13.7 percent is made up of gravel and the remaining parts 83.7 are earth roads. The greater parts of the roads are in Mfriga ward which covers 114.6 kilometers. Followed by Ikondo ward 106.7 and Kichiwa was 72.34

The grade of road surface to a large extent examines the improvement of the road to guarantee the durability and passability in all seasons. Under this aspect, further analysis has been made on surface condition of the roads in terms of tarmac, gravel and earth.

In Njombe DC most of the roads are not passable throughout the year especially during the rainy seasons. The responsible authority is therefore alerted to take immediate measures to improve road condition to enable reliable communication within the council and its neighbors.

	Type of Surface (in kms.)								
Ward	Tarmac	Gravel	E	arth	Total				
Kidegembye	0	1	0	44	54				
Igongolo	0		0	15	15				
Mtwango	20		7	71	98				
Kichiwa	0	9	.8	62.54	72.34				
Ikuna	0	1	2	49	61				
Ninga	0	1	1	52	63				
Matembwe	0	1	0	55	65				
Lupembe	0		80	49	79				
Mfriga	0		0	114.5	114.5				
Idamba	0		0	40	40				
Ukalawa	0	1	0	21	31				
Ikondo	0	1	0	96.7	106.7				
TOTAL	20	109	.8	669.74	799.54				

Source of data: Njombe DC (works department), 2016

## 4.3 Road Passability

Roadworthiness during the rainy season is the measure of the effectiveness of the road network. By having less than half of its road network not passable throughout the year, Njombe DC has a long way to go before it can achieve a near satisfactory improvement (Table 4.3).

However, based on the data in Table 4.3, improving condition of road network should focus first in the most disadvantaged wards (i.e. wards which have less than fifty percent of their road networks passable throughout the year). There are really very few wards of which their road networks are passable throughout the year.

Roads are very important for the development of any area as they stimulate different economic activities performed within a given area. From the table 4.3, Igongolo ward had only 15 km that are passable throughout the year; there are no roads that are at least passable a great part of the year. Ukalawa ward is also in a worse road condition for it has only 31 km of the total roads in Njombe DC.

	Cor	Condition of Road Network Throughout the Year in km								
Ward	Passable Throughout the Year(2)	Passable a Greater Part of the Year (3)	Not Passable Most of the Year (4)	Total Road Network(5)	Passable Columns (2 +3)/5 (%)					
Kidegembye	44	0	10	54	81%					
Igongolo	15	0	0	15	100%					
Mtwango	70	28	0	98	100%					
Kichiwa	66	6.34	0	72.34	100%					
Ikuna	61	0	0	61	100%					
Ninga	50	13	0	63	100%					
Matembwe	48	0	17	65	74%					
Lupembe	55	24	0	79	100%					
Mfriga	85	0	29.5	114.5	74%					
Idamba	35	5	0	40	100%					
Ukalawa	31	0	0	31	100%					
Ikondo	18	78.7	10	106.7	91%					
Total	578	155.04	66.5	799.54	92%					

Table 4.3: Length of Road Network by Type of Road Surface by ward; Njombe District Council; 2015

Source of data: Njombe DC (works department), 2016

### **4.3.1** Major Road Connections

Table 4.4 shows road connections and road links which connect the Njombe DC with the vicinity. As the table depicts most of the roads are in good condition which are easily passable in all seasons. In this respect, the roads maintained should be well observed so as to ease transportation of goods and services to the rural population in the council.

Table 4.4: Road Connections, Links, Quality of Road Surface and Type of Road by Council; Njombe DistrictCouncil; 2015

Major Inter - District Road Connections	Length of Road link in kms.	Quality of road surface	Type of Road
Njombe-Lupembe	105.0	Good	Regional - Gravel
Makambako-Songea	10	Good	Trunk - Tarmac

Source: Njombe DC Council (Works Department), 2016

#### **4.3.2** Agricultural productivity of the road network

The economy of Njombe DC is based mainly on agricultural production. The economic effectiveness of the road network is therefore best assessed against agricultural production. It is agricultural productivity of the network that justifies its existence. Njombe DC's road network covered agricultural production at 216.5 tons of food/cash crops per kilometer of road. This means that during the crop season of 2015 on average, one kilometer of overall road networks in the district facilitated transportation of 47.8 tons. Therefore, for improving the economy of rural population at significant level, construction of more roads is important to easy transportation of agricultural products and other goods/services within and outside the council.

## 4.4 Railway Service

Njombe DC is very unlucky since there is no railway line network that passes through it. Probably in the future when iron ore and coal mining start in Ludewa DC, a railway link to Makambako Railway Station might be in place.

## 4.5 Air Service

Just like the railway network, Njombe DC is also unlucky to have no air services so far.

## 4.6 Telecommunications Services

Telecommunication is the transmission of signs, signals, messages, writings, images and sound or intelligence of any nature by wire, radio, optical or other electromagnetic systems. Telecommunication occurs when the exchange of information between communication participants includes the use of technology.

The council does not enjoy internet services but telephone services and sub-postal services, even though peripheral areas access the cellular phone services with difficulties in network coverage. Unfortunately there isn't any radio station or internet centres operating in the district council and there are no television stations as well.

Table 4.5 indicates that, Njombe DC had only 6 telephone lines or land lines. However, it has no radio stations, no internet centres, in addition the council has only one sub-post office and five companies of mobile phone that provide services in Njombe DC. Vodacom has a percentage coverage of 60 percent followed by Tigo and Airtel 45 percent, Halotel 20 percent and Zantel 10 percent. 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.

No. of Tel. Lines (land	No. of Television Stations	No. of Radio Stations	No. of Internet Centres	Accessibility of Mobile Phone Services		No. of Post Offices	No. of Sub-Post Offices
lines)				Phone company name	Estimated Coverage (%)		
6	0	0	0	Tigo	45	0	1
				Voda	60		
				Airtel	45		
				Zantel	10		
				Halotel	20		
				TTCL(Mobile	0		

 Table 4.5: Telecommunications Services; Njombe District Council; 2015

Source of data: Njombe DC, (ICT department), 2016

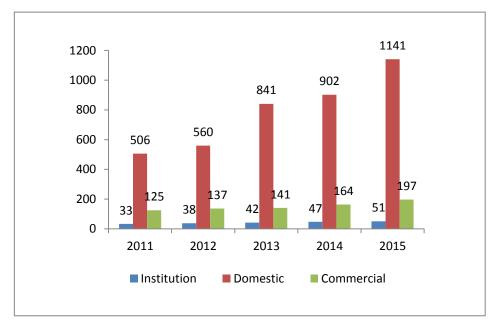
## 4.7 Energy Sector Development

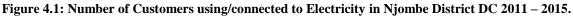
Various sources of energy are being used in the district council for domestic and commercial purposes. These include electricity, solar, firewood and charcoal. Electricity is available in very few wards that have semi-urban characteristics.

## 4.7.1 Electricity

Electricity as energy is very important and much needed for economic development and where it is lacking it becomes very difficult to engage in meaningful industrial development. TANESCO has not been the sole supplier of electricity in the district council. Other NGOs like CEFA have also embarked in the production and distribution of the much needed energy.

From figure 4.1, we can see electricity distribution of three different customers for the simultaneous five years. A large number of customers are domestic users who gave a total of 3,950 users for all five years, followed by commercial 764 users and lastly were institution that took about 211 users.





Source: DED Njombe (Ujenzi), 2016

## 4.7.2 Wood Fuel

Wood fuel is a dominant source of energy for domestic consumption. The main use of fuel wood has been for cooking and lighting, this makes wood consumption very high in the district council. The Agriculture Sample Census 2007/08, Iringa Region profile (where Njombe DC belonged) revealed that 96 per cent of households were using firewood as their main source of energy for cooking. However there are no data given by the Njombe DC to show the consumption of firewood

for cooking in the council. This consumption level threatens the existence of forests since it seems to exceed the regenerative capacity of existing forests. Alternatives to wood fuel should better be found soon, so that the council forests to be saved from depletion on a progressive scale.

## 4.7.3 Biogas and Solar Energy

Solar energy is now used as an alternative source of energy in some parts of Njombe DC. There are no users of biogas in the district council, but biogas can be used as an alternative source of energy in order to reduce the excessive use of wood fuel for cooking purposes. Likewise, to date there is no accurate data on the number of solar and generator users, however, it is estimated that there was at least a solar panel or a privately owned generator in a few villages in the wards in the district council in 2015. Nevertheless, the district council should continue encouraging people to use these sources of energy as alternatives to wood and charcoal fuel in order to reduce the pressure being exerted on forests by the local people.

## 4.7.4 Fossil Fuel

The 2007/08 Agriculture Sample Census Iringa Region report indicated that 0.54 percent of the households in Njombe used kerosene/paraffin for cooking in the district council. The results further revealed that the percentage of households that used the various sources of energy for lighting was categorized as follows: electricity (two percent), hurricane lamp (61 percent), wick lamp (31 percent), and pressure lamps (two percent), firewood (one percent) and solar (two percent).

## 4.7.5 Policy Implication on Economic Infrastructures

Improvement of road infrastructures is highly recommended. The improved road will have multiplier effect such as increase in transportation of goods and social services and improve social welfare of the Njombe DC people. Moreover, as the majority of Njombe DC population use firewood and charcoal for cooking and with only few percent using electricity for lighting, initiatives are needed to find alternative source of energy for cooking and lighting so as to reduce destruction rate of forest cover. In addition to that, CEFA should be supported in the distribution of electricity so as to reduce the cost of connection and sales especially in rural areas in order to increase the number of electricity users in Njombe DC.

## CHAPTER FIVE SOCIAL SERVICES

## 5.0 Introduction

This chapter covers three sectors, namely health, education and water supply and sanitation. The Health Sector discusses the status of social services that are available in Njombe District Council from 2011 to 2015 and covers the development of the health sector in terms of preventive and curative measures through morbidity, mortality and reportable communicable diseases. It also covers preventive measures on HIV/AIDS prevalence, tuberculosis, mother and child health as well as health facilities.

The Education sector is the second sector that is discussed in this chapter. It highlights education performance based on the increase of school facilities; pre-primary, primary and secondary education, enrolment performance, school infrastructure and quality of education.

Water supply and sanitation sector is also discussed in this chapter. Performances of water supply for the rural areas of Njombe District Council are highlighted in terms of sources, technology and capacity of water supply. However, sanitation level at the council is also briefly explained.

## 5.1 Health Sector

## 5.1.1 Health Facilities

The status of health services in any council can easily be visualized through health infrastructures, availability and commitments of health practitioners, implementation of preventive and curative measures and availability of medicines. The main objective of any local government authority and the nation as a whole is to ensure provision of quality and timely health services to the community. In terms of health infrastructure, until the end of 2015, the council had 27 health facilities.

According to the national health policy, Njombe District Council has a long way to go to implement fully the policy of having a health centre per ward and a dispensary per village. The council still has shortages of health centres and dispensaries which has caused unnecessary loss of peoples' lives through preventable diseases. Ninga and Kichiwa are the most affected wards with a ratio of 0.3 facilities per village followed by Matembwe, Igongolo and Mtwango (0.4 facilities per village each), while Lupembe, Idamba and Ikuna Wards had the best ratio of a facility per village (Table 5.1).

	NT C	Hos	pitals	Health	Centres	Disper	nsaries	- TF ( )	Villages
Ward	No. of Villages	Public	Private	Public	Private	Public	Private	Total Facilities	Facility Ratio
Ikondo	2	0	0	0	0	1	0	1	0.5
Lupembe	4	0	0	1	0	3	1	5	1.3
Idamba	2	0	0	0	0	2	0	2	1
Mfriga	4	0	0	0	0	4	0	4	1
Matembwe	5	0	0	1	0	0	1	2	0.4
Ikuna	4	0	0	0	0	2	1	3	0.8
Ninga	3	0	0	0	0	1	0	1	0.3
Igongolo	5	0	0	0	0	2	0	2	0.4
Kichiwa	6	0	0	1	0	1	0	2	0.3
Kidegembye	3	0	0	0	0	2	0	2	0.7
Mtwango	5	0	0	1	0	0	1	2	0.4
Ukalawa	2	0	0	0	0	1	0	1	0.5
Total	45	0	0	1	0	16	4	27	0.6

Table 5.1: Status and Distribution of Health Facilities by Ward, Njombe District Council, 2015

## 5.1.2 Population per Health Facility

Looking at the population against health facilities, the Council managed to reduce the mean average population per facility from 3,223 people in 2011 to 3,176 people in 2015. There was an insignificant reduction due limited increase of health facilities from 22 in 2011 to 27 in 2015.

Ward wise, uneven distributions of population per health facilities have been observed in both years (2012 and 2015). In 2012, the population per health facility ranges from 1,062 in Mfriga ward to 8,447 in Igongolo ward. The other wards with bigger ratios were Mtwango (6,474), Ninga (5,751) and Kichiwa (4,981). However in 2015, the population per health facility ranged from 1,416 in Mfriga ward to 7,635 in Ikondo wards. The other wards with bigger ratios were Mtwango (6,474), Ninga (6,474), Ninga (5,751) and Matembwe (4,327) (Table 5.2).

	2012 2015					
Ward	Total Population	No. of Facilities	Population Per Facility	Total Population	No. of Facilities	Population Per Facility
Ikondo	4,673	1	4,673	7,635	1	7,635
Lupembe	7,709	4	1,927	7,709	4	1,927
Idamba	3,148	2	1,574	3,148	2	1,574
Mfriga	4,249	4	1,062	4,249	3	1,416
Matembwe	8,653	2	4,327	8,653	2	4,327
Ikuna	9,178	3	3,059	9,178	4	2,295
Ninga	5,751	1	5,751	5,751	1	5,751
Igongolo	8,447	1	8,447	8,447	2	4,224
Kichiwa	9,961	2	4,981	9,961	3	3,320
Kidegembye	8,068	2	4,034	8,068	2	4,034
Mtwango	12,948	2	6,474	12,948	2	6,474
Ukalawa	2,962	1	2,962	2,962	1	2,962
Total	85,747	25	3,430	85,747	27	3,176

Table 5.2: Relating Health Facilities to the Population by Ward, Njombe District, 2012 and 2015

As the available official health facilities were not enough to serve the ever growing population of Njombe District Council, primary rural health centres were established to complement the existing official health infrastructure. These centres are operated by Village Health Workers (VHWs) assisted by Traditional Birth Attendants (TBAs) under supervision of Village Health Committees (VHCs). Table 36 shows that by 2015, the council had only 20 trained Tradition Birth Attendants, 94 Village Health Workers and 94 Village Health Committees.

Table 5.3 also shows that the average number of Trained Traditional Birth Attendants per village for the 2015 was 0.4 and Village Health Workers 2. Moreover, Table 36 also shows the average number of health carders per village for each ward. Ikondo ward had the best ratio having 1.5 TBAs, while Ukalawa ward had the best ratio of 4 VHWs. Contrary to the expectations of establishing complementary rural health facilities, it is obvious that the council had also shortages of these facilities as indicated in Table 5.3.

Ward	No. of Villages	No. of TBA s (Trained)	TBAs Village Ratio	No. of VHWs	VHWs Village Ratio	No. of VHC	No. of TMP (Registered)
Ikondo	2	3	1.5	6	3	6	0
Lupembe	4	2	0.5	8	2	8	0
Idamba	2	1	0.5	4	2	4	1
Mfriga	4	2	0.5	8	2	8	6
Matembwe	5	2	0.4	10	2	10	12
Ikuna	4	1	0.3	10	3	10	0
Ninga	3	1	0.3	6	2	6	6
Igongolo	5	2	0.4	10	2	10	0
Kichiwa	6	2	0.3	8	1	8	5
Kidegembye	3	1	0.3	6	2	6	2
Mtwango	5	1	0.2	10	2	10	6
Ukalawa	2	2	1	8	4	8	8
Total	45	20	0.4	94	2	94	46

Table 5.3: Distribution of Complementary Rural Health Facilities by Ward, Njombe District, 2015

## 5.1.3 Population per Doctor and Hospital Bed Ratios



Table 5.4 shows the average population per hospital bed by Ward. Lack of involvement of private sector in the provision of health services in Njombe District Council has reduced accessibility of health facilities in 2015. Lack of health centres and hospitals in the council has made the number of hospital beds in 2012 to remain the same at 16. There is no improvement of population bed ratio in the council as it

stands at 5,359 persons per bed in 2012 as well as in 2015 as indicated in Table 5.4. In 2012, only one out of 12 wards had a health centre with only 16 beds. This situation provides evidence for the needs of major efforts to be done in order to serve the life of people in the council as soon as possible.

		2012		2015			
Ward	Total Population	No. of Beds	Population Per Bed	Total Population	No. of Beds	Population Per Bed	
Ikondo	4,673	0	0	7,635	0	0	
Lupembe	7,709	16	482	7,709	16	482	
Idamba	3,148	0	0	3,148	0	0	
Mfriga	4,249	0	0	4,249	0	0	
Matembwe	8,653	0	0	8,653	0	0	
Ikuna	9,178	0	0	9,178	0	0	
Ninga	5,751	0	0	5,751	0	0	
Igongolo	8,447	0	0	8,447	0	0	
Kichiwa	9,961	0	0	9,961	0	0	
Kidegembye	8,068	0	0	8,068	0	0	
Mtwango	12,948	0	0	12,948	0	0	
Ukalawa	2,962	0	0	2,962	0	0	
Total	85,747	16	5,359	85,747	16	5,359	

Table 5.4: Distribution of Hospitals Beds by Ward, Njombe District Council, 2007 and 2012

Table 5.5 also indicates that the Njombe District had a serious problem of practitioners. In 2012 the council had only 45 doctors to the council population of 85,747 with an average of 1,905 persons per doctor. Only Lupembe ward had health centres with nine doctors with average population per doctor ratio of 857. However, the rest of wards had had very few doctors and ratios of persons per doctor are as can be seen in the table (Table 5.5).

Table 5.5: The Number of Doctors and Average Population per Doctor by Ward, Njombe District, 2012 and2015

		2012			2015	
Ward	Total Population	No. of Doctors	Population per Doctor	Total Population	No. of Doctors	Population per Doctor
Ikondo	4,673	3	1,558	4,673	3	1,558
Lupembe	7,709	9	857	7,709	10	771
Idamba	3,148	3	1,049	3,148	3	1,049
Mfriga	4,249	4	1,062	4,249	4	1,062
Matembwe	8,653	1	8,653	8,653	3	2,884
Ikuna	9,178	6	1,530	9,178	6	1,530
Ninga	5,751	1	5,751	5,751	1	5,751
Igongolo	8,447	3	2,816	8,447	3	2,816
Kichiwa	9,961	6	1,660	9,961	6	1,660
Kidegembye	8,068	3	2,689	8,068	3	2,689
Mtwango	12,948	5	2,590	12,948	5	2,590
Ukalawa	2,962	1	2,962	2,962	2	1,481
Total	85,747	45	1,905	85,747	49	1,750

Source: District Executive Director's Office (District Medical's Office), Njombe District Council, 2016

## 5.1.4 Status of Health Personnel

The provision of quality health facility depends on, among others, the availability of qualified practitioners, hospital equipment and medicines. Table 5.6 shows that the availability of medical personnel for the 2015 was uneven and in favor of females. Out of 113 medical staff, 65 percent were females with more numbers in Trained Nurses and Medical attendants' carders. The council had shortages of specialist doctors, assistant clinical officers and radiographers in 2015.

			Female		
Medical Personnel	Male	Female	Percent	Total	
Specialist Doctors	0	0	0	0	
Medical doctors	1	0	0	1	
Ass. Medical Officers	2	1	33	3	
Clinical Officers	13	7	35	20	
Ass. Clinical Officers	19	11	36.6	30	
Ass. Dental Officer	1	0	0	1	
Dental Therapist	1	2	67	3	
Pharmacists	1	0	0	1	
Pharmaceutical Technicians	0	2	100	2	
Laboratory Technicians	0	2	100	2	
Laboratory Ass.	11	7	39	18	
Radiographer	0	0	0	0	
Nursing Officers	0	1	100	1	
Trained Nurse/NM/PHN	33	59	41	92	
MCHA	0	3	1	3	
Medical Attendants	5	44	90	49	
Health Assistants	1	1	50	2	
Health Secretaries	1	2	67	3	
Total	<u>89</u>	142	61	231	

Table 5.6: Type and	Number of Medical	Personnel, Niombe	District Council, 2015
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Source: Njombe District Executive Director's Office (District Medical Officer), 2016

## 5.1.5 Morbidity

The health sector aims at solving the problem of morbidity or sicknesses along with mortality and these are the key targets of any health service development efforts. In order to take care of morbidity, the government must have an inventory of these health problems. The inventory shows that the ten most commonly reported causes of illnesses are those given in Table 5.7.

## 5.1.5.1 Out-patients

Out of 130,275 out patients recorded in 2011, about 82 percent were suffering from one or the other of the first five illnesses. Malaria ranked second as a cause of morbidity in Njombe District Council. ARI ranked first and the third disease in ranking was Pneumonia. The fourth and fifth diseases were Diarrhea and Injuries respectively.

Observations made in 2015 were almost similar to those of 2011 in regard to the first five diseases except the order of reported cases. The report reveals that Malaria ranked first with a total of 3,547 (20.3 percent) of out - patients, followed by Pneumonia (15.8 percent of out - patients) and ARI (15.3 percent) ranked third. The fourth and fifth diseases were intestinal worms and other diagnosis (14.1 percent of cases and 11.3 percent of cases respectively).

	20	11	2	013	2015		
No.	Disease	Number of occurrences	Disease	Number of occurrences	Disease	Number of occurrences	
1	ARI	39,599	ARI	38,214	Malaria	3,547	
2	Malaria	34,241	Malaria	33,144	Pneumonia	2,768	
3	Pneumonia	14,826	Skin Diseases	13,572	ARI Intestinal	2,671	
4	Diarrhea	9,766	Diarrhea	13,276	worms Other	2,464	
5	Injuries	8,329	Pneumonia Intestinal	12,781	diagnosis Emergency surgical	1,976	
6	Skin disease	7,007	worms	6,983	conditions Skin	1,482	
7	Intestinal worms	6,816	Eye conditions	5,289	diseases Diarrhea	778	
8	Eye conditions Gastro Intestinal	5,581	Oral conditions	3,289	diseases Ear	709	
9	Disease	2,143	Ear conditions Genital	2,590	conditions Genital	662	
10	UTI	1,967	discharge	1,658	discharge	455	
Total		130,275		130,796		17,472	

 Table 5.7: List of the Ten Most Commonly Reported Causes of Morbidity (Out Patients Only), Njombe District Council, 2011, 2013 and 2015

Source: Njombe District Council Director's Office (District Medical Officer), 2016

## 5.1.5.2 In-patients

A similar trend was observed for in-patients though there was a slight difference in the ranking and magnitude of cases. Out of 4796 in patients recorded in 2011, about 75.9 percent were suffering from one of the first five illnesses. In 2015 the first five causes of morbidity accounted to 78.2 percent of 156 in-patients. Moreover, the health data for in-patients in 2011 reveals that severe pneumonia ranked first, ARI second, respiratory disease third while severe malaria ranked fourth and diarrhea fifth. The first five diseases which were the cause of morbidity in 2015 were pneumonia, severe malaria, gastro intestinal disease, HIV/AIDS and bronchial asthma (Table 5.8).

	2011	l	20	13	2015	
		Number of		Number of		Number
No.	Disease	cases	Disease	cases	Disease	of cases
1	Pneumonia		Uncomplicated		Pneumonia	
		1,138	malaria	2,959		50
2	ARI	782	Pneumonia	2,272	Severe malaria	35
3	Respiratory disease	587	Severe malaria	1,189	Gastro Intestinal disease	14
4	Severe malaria	586	Diarrhoea disease	1,017	HIV/AIDS	12
5	Diarrhoea disease	549	ARI	594	Bronchial Asthma	11
6	Skin infections	428	anaemia	418	Diarrhoea	10
7	HIV/AIDS	275	Clinical Aids	402	Poisoning	7
8	Anaemia	191	Fractures	156	Complication of Abortion	7
9	Intestinal Worms	-	PID	125	Road traffic accidents	5
10	Burns	170	Burns	30	Severe hypertension	5
Total		90 <b>4,796</b>		9,162		156

# Table 5.8: List of the Ten Most Commonly Reported Causes of Morbidity (In - Patients Only), Njombe District Council, 2011, 2013 and 2015

Source: Njombe District Council Director's Office (District Medical Officer), 2016

## 5.1.6 Mortality

The dominant cause of mortality for inpatients of all ages in 2011 was HIV/AIDS (Table 42). Table 5.9 shows that out of 284 reported deaths in 2011, about 65.5 percent were caused by the first five diseases, of which HIV/AIDS accounted for 28.2 percent, followed by severe malaria (23.6 percent), diarrhea (22.5 percent), pneumonia (14.8 percent) and anemia (6.3 percent).

In 2015 however, the main cause of mortality for inpatients of all ages was pneumonia (41.2 percent) followed by diarrhea (29.4 percent), severe malaria (17.6 percent) and HIV/AIDS (11.8 percent). Lack of information besides hospital records at ward level have given limitation of actual death toll at grass – root level which is advocated by the Decentralization by Devolution Policy (D by D Policy) and limit the sector department to understand the performance of health sector on curative and preventive measures done at the grass – root level. Therefore, there is a need of strengthening the data collection system of health (MTUHA).

		2011		2015			
Number	Disease	No. of cases	Number of deaths	Disease	No. of cases	Number of deaths	
1	Pneumonia	1,138	42	Pneumonia	50	7	
2	ARI	782	5	Severe malaria	35	3	
3	Respiratory disease	587	8	Gastro intestinal disease	14	0	
4	Severe malaria	586	67	HIV/AIDS	12	2	
5	Diarrhea disease	549	64	Bronchial Asthma	11	0	
6	Skin infection	428	0	Diarrhea	10	5	
7	HIV/AIDS	275	80	Poisoning	7	0	
8	Anemia	191	18	Complication of abortion	7	0	
9	Intestinal worms	170	0	Road traffic accidents	5	0	
10	Burns	90	0	Severe hypertension	5	0	
Total		4,796	284		156	17	

 Table 5.9:
 List of the Ten Most Commonly Reported Causes of Mortality in Njombe District Council (In Patients Only), 2011 and 2015

Source: Njombe District Council Director's Office (District Medical Officer), 2016

## 5.1.7 HIV/AIDS Infections

HIV/AIDS remains one of the world's most significant public health challenges, particularly in lowand middle-income countries

HIV/AIDS is the single most important threat to morbidity and survival of the human race. In this context AIDS has now caught up with malaria and tuberculosis as the greatest causes of death among in-patients. The big difference is that malaria and tuberculosis are virtually static while that of HIV/AIDS is on the upsurge. Hence, the assessment of HIV/AIDS prevalence along with its control is the single greatest challenge to the health delivery system in the council and country at large.

Though it is not known when the first HIV/AIDs case was diagnosed in the council, the available data indicates that HIV/AIDs case in Njombe District Council was reported in early 1990s. Since then, the number of new AIDS cases being reported each year has been fluctuating with no sign of stagnating or reversal. Although there are a number of ways that can be used to measure the extent and trend of HIV prevalence among the people, the one that are used in Njombe District Council is testing prevalence among VCT and expected mothers participating in the PMTCT service.

Though hospital records are not exhaustive since they exclude unreported incidents can be used as indicative information to examine HIV/AIDs prevalence at the council level. Establishment of VCT services in remote areas to a great extent manage to establish a reliable source of data on the extent and significant of HIV prevalence in Njombe District Council since it involves moral and

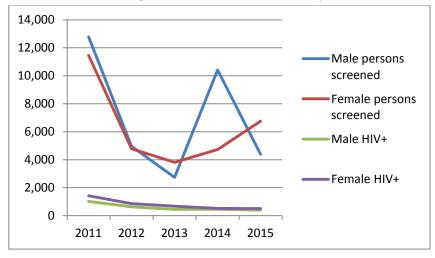
willingness of inhabitants to be screened. Contrary to the expectations, Njombe District Council has managed to establish VCT centers in all it wards in the inform of PITC (Provider Initiative Testing and Counseling). This means that, more people are receiving this very important service for their health. Table 5.10 shows the number of people screen voluntarily since 2011 in the council. The table shows that out of 12,780 males screened in 2011, as much as 8.0 percent were effected with HIV/AIDS and 1,425 (equivalent to 12.4 percent) out of 11,450 females were HIV positive. At the council level, 8.4 percent out of 35,274 males screened in the five years were found HIV positive while about 12.6 percent of 31,526 females screened were found to be HIV positive. There was no data given at the ward level. This is not an encouraging observation but we hope that with the 2013 circumcision campaign of circumcising males, the situation will change.

Table 5.10:Group of VCT Volunteers who screened for HIV and Those Subsequently Treated with ARV by<br/>Sex and by Ward, Njombe District Council, 2011-2015

					No. Treated with
Year	Sex	No. Screened	No. of HIV+	Percent HIV+	ARV
	Male	12,780	1,019	8	76
20	011 Female	11,450	1,425	12.4	116
	Male	4,951	629	12.7	164
20	012 Female	4,786	859	17.9	273
	Male	2,733	454	16.6	192
20	013 Female	3,809	677	17.7	238
	Male	10,415	456	4.3	282
20	014 Female	4,727	515	10.8	637
	Male	4,395	391	8.9	279
20	015 Female	6,754	511	7.6	539
	Male	35,274	2,949	8.4	801
Total	Female	31,526	3,987	12.6	1,565

Source: District Executive Director's Office (District Medical Officer), Njombe District, Council, 2016

Figure 5.1: HIV Prevalence Diagnosed from VCT volunteers, Njombe District Council, 2011 – 2015.



Source: District Executive Director's Office (District Medical Officer), Njombe District Council, 2016

Progress has also been made in preventing and eliminating mother-to-child transmission (PMTCT) and keeping mothers alive.

WHO has released a set of normative guidelines and provides support to countries in formulating and implementing policies and programmes to improve and scale up HIV prevention, treatment, care and support services for all people in need.

Table 5.11 reveals that out of 3,331 expectant mothers who participated in that service 3,037 were screened and 185 of them (6.1 percent) were found to be HIV positive. At ward levels, Ukalawa ward lead with 31.8 percent followed by Mfriga ward at 27.9 percent and Kidegembye ward at 11.5 percent.

Ward	Name of Hospital/Health Centre/Dispensary	No. of AN Attendants	No. Screened	No. HIV+	Percent of HIV+	No. of given Niverapine	Percent of given Niverapine
Ikondo	Ikondo Disp	171	166	9	5	17	13
Ukalawa	Ukalawa Disp	128	117	2	1.7	5	6.6
	Igombola	74	72	9	12.5	9	27
	Kanikelele	67	62	5	8	9	21
	Matembwe Rc	114	104	10	9.6	19	18
Mtwango	Mtwango Hc	477	449	24	5.3	59	29.6
Mfriga	Mfiriga Disp	47	46	2	4.3	8	19.5
	Madeke disp	39	39	0	0	0	0
	Itambo Disp	56	46	1	2	1	4
	Msima Sayuni Disp	74	69	9	13	7	22.5
	Nyombo Disp	131	103	11	10.6	7	28
Idamba	Lwanzali Disp	35	35	5	14.2	8	24
	Iwafi disp	56	56	3	5.3	2	4.4
Kidegembye	Kidegembye disp	145	139	15	10.8	15	16.6
	Image Disp	149	140	1	0.7	3	1.8
Ninga	Ninga Disp	220	218	11	5	13	13
Igongolo	Igongolo Disp	281	279	15	5.3	18	13.8
Kichiwa	Kichiwa Disp	187	188	11	5.8	8	6.9
	Ibumila Disp	109	107	11	10	17	56.6
Total		3,331	3,037	185	6.1	276	0.2

Table 5.11: Expectant Mothers who participated in the PMTCT Service, Njombe District Council, 2015

Source: Njombe District Council Director's Office (District Medical Officer), 2016

## 5.1.5.1 The Impact of HIV/AIDS

The socio-economic assessment of Njombe District Council is not complete without discussing the extreme challenges caused by the HIV/AIDS and the effect of efforts so far made by various local and international organizations in combating the epidemic. HIV/AIDS is highlighted in this

document, because it is a major health problem and a leading cause of mortality mostly for the working group since its advent at the end of 1987. The other reason for discussing the epidemic stems from the role it plays in impoverishing families and generating widows, orphans and vulnerable children due to the loss of bread-winners in their families.

The report from the District Medical Office (DMO) qualifies Njombe as among few districts with ever increasing rates of HIV/AIDS prevalence in Njombe region. There are socio-economic factors that account for the rapid spread of the epidemic. Historically, Njombe District Council people are migrant labourers and entrepreneurs who do business in various parts of the country, which makes it easy for them to engage in romantic relationships. Other reasons include the traditional practice of prolonged drinking and unsafe sexual practices especially since many men are circumcised, polygamy as well as poverty. The poor, especially young girls who migrate to urban centres end up being domestic workers for sometime before resorting to prostitution for survival.

## (i) The increase of widows

Understanding the status of HIV and AIDS prevalence in Njombe District Council is very difficult since many people die before reaching the hospital. Lack of awareness and unsafe sex in most areas (which make it difficult for people to be tested in order to know their health status) fuel this problem.

One of the indications of a high prevalence rate in the council is the increasing number of widows. Unfortunately, the council or the Population and Housing Census do not have current information about percentage of widows and their characteristics council wise.

## (ii) The increase of orphaned children

Lack of data on status of orphan hood in the council, has created a problem of not understanding the trend and level of orphan hood. Orphans are persons of certain ages (usually 0-17) whose both parents, mother and father are dead. According to the 2013 data from the council, 704 (about 20 percent) children aged 0 - 17 years were classified as orphans in Njombe District Council. This figure looks suspicious but as there are no data from the 2012 census on orphan hood by council at the moment one can still work on them.

#### (iii) Child Labour

Since the economy of Njombe District Council is dominated by peasant agriculture, most families face hardship and, fail to afford school contributions and expenses to meet basic needs for their

families due to family size. As a result, children from these families opt to work in order to sustain their lives and those of other siblings.

Poverty compounded with other difficulties has led to the weakening of extended family system. The breakdown of extended families which acted as a safety net for children who had no parents, causes orphans to find alternative means of survival such as engaging in the prostitution for young girls and work for boys. Therefore children move out of their homes to search for food and shelter. Parental negligence by some parents due to alcohol, drug abuse, desertion and general laxity; and attractions due to peer pressure from those who return home motivate some children to join the labour market.

The magnitude of child labour is unknown because their employment is illegal but some studies confirm that Njombe District Council has experiences an ever increasing problem of child labour. The experiences have identified the causes of childlabour as the poverty that persist in the council mostly in the rural areas, deaths of parents/guardians, parental negligence, the changing family culture, peer pressure, gender imbalance and rural – urban linkages. The indicative information for children who were abandoned by their parents are those found in Njombe town, Makambako and Iringa towns as well as other urban centers such as Mbeya, Morogoro and Dar es Salaam who were in one way or another engaged in child labour such as house girls, prostitution and street children. Nevertheless, The Council Authority should conduct a study/survey to understand the magnitude of child labour and street children who are rooming in Njombe and other urban centres including Iringa Bus Stand.

## 5.1.5.2 Malaria Prevalence



Malaria is the most killer disease in the country and also considered as the major cause of deaths of people living with HIV/AIDs in the country. Besides this fact, the government decided to combat malaria along with the HIV/AIDs disease. Until 1995, the Council considered malaria as the major disease. Njombe District Council like

other councils in the country has decided to use similar methods used by the nation to fight against malaria. Data show a minimum effort done by the council to reduce malaria prevalence. To date, malaria is becoming a major disease as reported by health services. In 2011, malaria was ranked the number one disease which caused morbidity as well as mortality and ranked third again in 2015.

## 5.1.5.3 Tuberculosis Prevalence

Tuberculosis is a known disease in Njombe district council, but very few morbidity cases were reported before the advent of HIV/AIDS. The effort of government to combat tuberculosis in Njombe district council has not shown successes since the available data indicate that the number of new tuberculosis cases has increased in the last decade. Figure 5.2 shows that tuberculosis prevalence increased from seven cases in 2011 and reached 14 in 2012 before rising further to 17 cases in 2013. There were 23 cases in 2014 before shooting to 55 cases in 2015. This trend is not encouraging as it shows that the council has failed to combat the disease. Analysis ward wise cannot be done since not all wards have a health center but data show that Lupembe Health Center had many diagnosed many cases of TB.

Ward	Hosp/Health centre	Sex	2010	2011	2012	2013	2014	2015
		Male	0	0	0	0	0	0
Ikondo		Female	0	0	0	0	0	0
		Male	0	0	0	0	0	0
Ukalawa		Female	0	0	0	0	0	0
		Male	0	4	7	12	8	10
Lupembe	Health centre	Female	0	3	7	5	18	13
		Male	0	0	0	0	0	2
Matembwe	Health centre	Female	0	0	0	0	0 8 18	1
		Male	0	0	0	0	0	18
Mtwango	Health centre	Female	0	0	0	0	0	10
C		Male	0	0	0	0	0	0
Mfriga		Female	0	0	0	0	0	0
		Male	0	0	0	0	0	0
Ikuna		Female	0	0	0	0	0	0
		Male	0	0	0	0	0	0
Idamba		Female	0	0	0	0	0	0
		Male	0	0	0	0	0	0
Kidegembye		Female	0	0	0	0	0	0
		Male	0	0	0	0	0	0
Ninga		Female	0	0	0	0	0	0
		Male	0	0	0	0	0	0
Igongolo		Female	0	0	0	0	0	0
		Male	0	0	0	0	0	1
Kichiwa	Health centre	Female	0	0	0	0	0	0
Total			0	7	14	17	26	55

Table 5.12: Distributions of New Tuberculosis Cases by Sex in NjombeDistrict Council, 2010-2015

Source: Njombe District Council Director's Office (District Medical Officer), 2016

Sex wise, the magnitudes of tuberculosis prevalence among sexes slightly differs from year to year, but males were more affected than females in the referred periods. Table 5.12 shows that

percentages of affected males were more than females (53 percent for males against 47 percent for females). There were no data showing relapse cases of tuberculosis in the council.

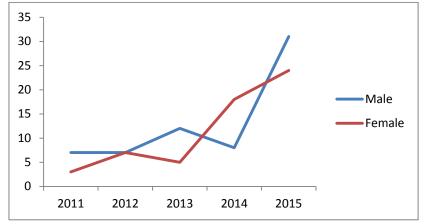


Figure 5.2: Distributions of New Tuberculosis Cases by Sex in Njombe District Council, 2011-2015

Source: Njombe District Council Director's Office (District Medical Officer), 2016

#### 5.1.8 Child Nutrition



Children from the stage of fetus to under - five years and their mothers are the most vulnerable group in the society. Therefore, reproductive and child health services are the most vital service in the council. Besides vaccination programmes, children are also weighed to reveal among other things how prevalent underweight is among them and hence the extent of child malnutrition. Nutritional food intake is associated with

child health and therefore, poor diet can result into severe malnutrition, which in turn manifests itself in high infant and child mortality rates.

The medical records indicate that the problem of severe malnutrition in Njombe District Council was successfully reduced from 0.71 percent in 2013 to 0.66 percent in 2015. There are no records given for year 2011 (Table 5.13).

At ward level, Table 5.13 shows that the highest severe malnutrition in 2013 was reported in Idamba ward (3.2 percent), followed by Mfriga ward (2.3 percent) and Ukalawa ward (1.7 percent) while the lowest was reported by Kichiwa and Matembwe wards (0.2 percent each). In 2015, the highest percentages of children with severe malnutrition were reported at Kichiwa ward (1.6 percent), while the ward with lowest percentages of severe malnutrition was Lupembe and Ukalawa (0.1 percent each).

u	lu 2013								
_		2011			2013			2015	
Ward	Total Weighed	Percent of Moderately Underweight	Percent of Severely Underweight	Total Weighed	Percent of Moderately Underweight	Percent of Severely Underweight	Total Weighed	Percent of Moderately Underweight	Percent of Severely Underweight
Mtwango	-	-	-	1,661	3.5	0.3	1,915	2.5	0.3
Igongolo	-	-	-	1,085	7.2	0.5	1,249	4.5	0.9
Kichiwa	-	-	-	1,249	7	0.2	1,474	4.6	1.6
Ninga	-	-	-	739	5	1.2	408	2	1.2
Ikuna	-	-	-	865	9	1.3	1,358	2	0.4
Kidegembye	-	-	-	1,036	6.3	0.7	1,193	2.3	0.3
Matembwe	-	-	-	984	3	0.2	1,279	3.4	0.7
Lupembe	-	-	-	1,112	7	0.4	1,140	1.1	0.1
Ikondo	-	-	-	507	7.7	0.4	584	1.5	0.2
Mfriga	-	-	-	386	4.2	2.3	628	1.1	1.4
Idamba	-	-	-	346	7.8	3.2	466	2.6	1.5
Ukalawa	-	-	-	474	3.6	1.7	545	2	0.1
Total	-	-	-	10,444	5.8	0.7	12,239	2.7	0.7

Table 5.13:Severe Malnutrition for Children under One Year by Ward, Njombe District Council, 2011, 2013<br/>and 2015

Source: Njombe District Council Director's Office, 2016

## 5.1.9 Mother and Child Health Care TT2 Vaccination

Protection of expectant/lactating mothers and children from measles, tuberculosis through immunization programme (CSPD) supported by development partners has to large extent reduced the risk of them being infected. Reduction of deaths among children and their mothers is attributed to the massive coverage of immunization campaigns done in the council. Contrary to the expectations, the number of expectant mothers who were vaccinated with TT2 fluctuated. Table 5.14 shows that the targeted expectant mothers increased from 3,342 in 2011 to 3,695 expectants in 2013, but decreased slightly to 3,521 in 2015. More observations in the percentage of the vaccinated expectant mothers with TT2 were done. It showed that there was an increase in the percentages from 52 percent in 2011 to 54 percent in 2013 and reached 74 percent in 2015. There were no data showing vaccination by ward (Table 5.14).

		2011			2013			2015	
Name of Hospital/Health Centre/Dispensary	Total Targeted	Total Vaccinat ed	Percent Coverage	Total Targeted	Total Vaccinat ed	Percent Coverage	Total Targeted	Total Vaccinat ed	Percent Coverage
Ibumila Disp.	141	138	98	167	112	67	150	57	38
Igongolo Disp.	377	89	24	320	154	48	347	162	47
Ikang'asi Disp.	71	14	20	96	20	21	51	17	33
Ikondo Disp.	146	47	32	142	26	18	162	51	32
Ikuna Disp.	123	66	54	135	166	123	135	154	114
Image Disp.	142	85	60	128	159	124	140	267	191
Isoliwaya Disp.	130	7	5	124	41	33	122	12	10
Itambo Disp.	-	-	-	-	-	-	35	35	100
Iwafi Disp.	81	188	232	123	178	145	87	47	54
Kanikelele Disp.	105	35	33	116	15	13	107	17	16
Kichiwa HC	-	-	-	163	23	14	259	138	53
Kidegembye Disp.	146	51	35	290	79	27	191	141	74
Lupembe H/C.	219	51	23	241	81	34	250	198	79
Lwanzali Disp.	42	20	48	40	46	115	42	10	24
Madeke Disp. Matembwe RC	22	18	82	28	10	36	28	18	64
Disp	179	59	33	179	88	49	118	149	126
Matembwe HC.	-	-	-	-	-	-	75	33	44
Mfriga Disp.	90	14	16	96	6	6	65	31	48
Msimasayuni Disp.	255	105	41	216	53	25	101	97	96
Mtwango HC.	526	396	75	388	376	97	348	428	123
Ninga Disp.	230	51	22	232	112	48	236	195	83
Nyombo Disp.	-	-	-	170	32	19	141	181	128
Siloam Disp.	166	252	152	178	169	95	182	165	91
Ukalawa Disp	151	38	25	123	63	51	149	16	11
Total	3,342	1,724	52	3,695	2,009	54	3,521	2,619	74

Table 5.14: Percentage of Expectant Mothers Vaccinated TT2 by Ward, Njombe District, 2011, 2013 and 2015

Source: Njombe District Executive Director's Office, 2016

## **Measles vaccination**



Measles vaccination for children under one year in Njombe District Council, like in other councils in the country, was performed to protect them against measles. At the council level coverage was 92 percent in 2011 increased slightly to 102 percent of targeted children in 2013 and dropped further to 92 percent in 2015. A similar trend was observed for children vaccinated, of

which 2,768 children were vaccinated in 2011 compared to 3,217 in 2013 and 3,080 children in 2015.

At the ward level, the best performer ward was Idamba (194 percent), while the worst performer was Lupembe ward (69 percent) in 2011. In 2013, the best performer ward was Kidegembye ward (162 percent) and worst performer ward was again Lupembe with only 61 percent of vaccinated children. In 2015 however, the best performer ward was Mfriga (106 percent) while the worst performer ward was Kichiwa ward at 74 percent. The performance other wards can be seen at the table below (Table 5.15).

		2011			2013			2015	
Ward	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ikondo	131	139	106	130	132	102	154	161	105
Ukalawa	136	139	102	155	133	86	143	122	85
Lupembe	291	201	69	378	232	61	340	287	84
Matembwe	278	208	75	279	240	86	299	300	100
Mtwango	622	552	89	455	554	122	506	518	102
Mfriga	165	169	102	191	148	77	166	176	106
Ikuna	340	260	76	322	285	89	358	367	103
Idamba	111	215	194	108	164	152	123	94	76
Kidegembye	259	301	116	266	432	162	315	276	88
Ninga	207	204	99	197	199	101	224	225	100
Igongolo	339	227	67	293	330	113	330	266	81
Kichiwa	127	153	120	372	368	99	389	288	74
Total	3,006	2,768	92	<b>3,146</b>	3,217	102	3,347	3,080	92

Table 5.15: Percentage of Children under One Year Vaccinated Measles by Ward, Njombe District Council,2011, 2013 and 2015

Source: District Executive Director's Office, 2016

## **BCG vaccination**

There has been a steady growth in the number of children under one year who receive BCG vaccination in the council. The number of vaccinated children increased from 2,944 in 2011 to 3,632 children in 2013, but slightly decreased to 3,500 in 2015. At council level vaccination coverage was 88 percent 2011 and reached 106 percent in 2013 before slightly dropping to 99 percent in 2015.

At ward level, in 2011, the vaccination coverage was uneven ranging from 57 percent in Lupembe ward to 172 percent in Idamba ward which was the best ward. In 2013, Kidegembye ward had the best coverage of 195 percent of targeted children followed by Mtwango ward (151 percent); Lupembe ward with coverage of 58 percent was the last. Similar situation was also experienced in

2015, of which vaccination coverage was uneven ranging from 75 percent in Ninga ward to 152 percent in Mtwango ward (Table 5.16).

		2011			2013			2015	
Ward	Total	Total           Vaccinated	Percent Coverage	Total Targeted	Total           Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ikondo	146	127	87	142	173	122	162	140	86
Ukalawa	151	120	79	170	167	98	152	117	77
Lupembe	324	185	57	413	241	58	357	316	89
Matembwe	309	199	64	305	232	76	315	297	94
Mtwango	692	737	107	498	754	151	530	803	152
Mfriga	183	168	92	210	147	70	174	182	105
Ikuna	378	263	70	351	295	84	377	305	81
Idamba	123	212	172	119	164	138	129	104	81
Kidegembye	288	342	119	291	568	195	331	423	128
Ninga	230	201	87	216	193	89	236	176	75
Igongolo	377	239	63	320	300	94	347	299	86
Kichiwa	141	151	107	407	398	98	409	338	83
Total	3,342	2,944	88	3,442	3,632	106	3,519	3,500	99

Table 5.16: Percentage of Children under One Year Vaccinated BCG by Ward, Njombe District Council, 2011,2013 and 2015

Source: Njombe District Executive Director's Office, 2016

## **DPT3/HB3 vaccination**

The trend of DPT3/HB3 vaccination for children under one year shows fluctuation in the number of children vaccinated between 2011 and 2015. At the council level the number of targeted children under one year who were vaccinated in 2011, 2013 and 2015 were 2,739 or (91 percent), 2,695 or (86 percent) and 3,258 or (97 percent) respectively.

Table 5.17 also shows that the wards with the highest percentage coverage were Kidegembye (115 percent), followed by Idamba (112 percent) and Mfriga (111 percent), in 2011 while Igongolo had lowest coverage with 53 percent of children under one being vaccinated. In 2013, Ikondo ward with 122 percent followed by Kidembye (121 percent) and Idamba (119 percent) had the highest coverage while Lupembe with 59 percent coverage had the lowest percentage. Table 53 also shows an increase percentage of children vaccinated in 2015. Three out of 12 wards had lowest percent coverage of less than 90 percent, of which Kichiwa had lowest percentage (75 percent), followed by Lupembe (81 percent) and Ikondo (85 percent).

		2011			2013			2015	
Ward	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ikondo	131	114	87	130	158	122	154	131	85
Ukalawa	136	131	96	155	121	78	143	130	91
Lupembe	291	208	71	378	224	59	340	274	81
Matembwe	278	248	89	279	220	79	299	274	92
Mtwango	622	619	100	455	393	86	506	597	118
Mfriga	165	183	111	191	154	81	166	212	128
Ikuna	340	300	88	322	261	81	358	322	90
Idamba	111	124	112	108	128	119	123	129	105
Kidegembye	259	299	115	266	322	121	315	372	118
Ninga	207	223	108	197	166	84	224	221	99
Igongolo	339	180	53	293	217	74	330	303	92
Kichiwa	127	110	87	372	331	89	389	293	75
Total	3,006	2,739	91	3,146	2,695	86	3,347	3,258	97

 Table 5.17:
 Percentage of Children Under One Year Vaccinated DPT3/HB3 by Ward, Njombe District Council, 2011, 2013 and 2015

Source: Njombe District Executive Director's Office, 2016

#### **OPV3 vaccination**

There has been a fluctuation trend of growth in the number of children under one year who receive OPV3 vaccination in the council. At the council level the number of vaccinated children decreased slightly from 2,830 in 2011 to 2,803 children in 2013, but increased to 3,246 in 2015. Percentage – wise, children vaccinated in 2011 were 94 percent decreased to 89 percent in 2013 and shot to 97 percent in 2015.

Ward wise, the highest coverage was in Ikondo ward (125 percent), followed by Ukalawa ward (111 percent), Idamba and Kidegembye wards (110 percent each) in 2011. Igongolo ward with coverage of 57 percent had the lowest coverage in 2011. Mtwango ward had the highest coverage with 144 percent of children under one being vaccinated in 2013, followed by Ikondo ward (124 percent) and Idamba ward (108 percent) while Lupembe ward with 55 percent coverage had the lowest coverage. In 2015, levels of vaccination ranged from 128 percent in Mfriga ward to 75 percent in Kichiwa ward (Table 5.18).

		2011			2013			2015	
Ward	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ikondo	131	164	125	130	161	124	154	131	85
Ukalawa	136	151	111	155	128	83	143	130	91
Lupembe	291	217	75	378	209	55	340	273	80
Matembwe	278	258	93	279	213	76	299	274	92
Mtwango	622	653	105	455	657	144	506	597	118
Mfriga	165	174	105	191	155	81	166	212	128
Ikuna	340	300	88	322	253	79	358	322	90
Idamba	111	122	110	108	117	108	123	129	105
Kidegembye	259	285	110	266	248	93	315	372	118
Ninga	207	202	98	197	164	83	224	221	99
Igongolo	339	193	57	293	177	60	330	293	89
Kichiwa	127	111	87	372	321	86	389	292	75
Total	3,006	2,830	94	3,146	2,803	89	3,347	3,246	97

 Table 5.18: Percentage of Children under One Year Vaccinated OPV3 by Ward, Njombe District Council,

 2011, 2013and 2015

Source: Njombe District Council Director's Office, 2016

## 5.1.10 Investment Opportunities for Health Sub-Sector

This sub-sector faces many problems including prevalence of diseases such as pneumonia, malaria, diarrhea, clinical AIDS, to mention a few, shortages of health centers and dispensaries are a bottleneck for development of this sector.

If for example you look at the growth status and distribution of health facilities in the council, you will note that there has been a very poor growth. Until 2014 there was only one Health Center in the entire council and 21 dispensaries but in 2015 the number of Health Centers increased to four but dispensaries decreased to 19. There was no private Health Center in the entire council between 2011 and 2015 but there were 4 dispensaries.

It is my sincere hope that the district council authority has seen these shortcomings and will take into consideration improving the situation.

# 5.2.1 Education Sector An Overview

The system of education that is set by the Ministry of Education and Vocational Training is ranked in the following classes, Pre- Primary, Primary and Secondary, Colleges and Universities and Vocational education.

## 5.2.2 Pre Primary Education

The ministry of Education and Vocational Training has set a condition that formal education has to start with pre-primary education but in finding the solution to overcome the problem of drop outs especially for girl pupils, Njombe DC had allowed parents with children who have reached six years and did not attend pre- primary education to join directly primary schools. At the same time the district council authority makes efforts to emphasize parents to enroll children of less than six years in pre - primary schools.

Table 5.19 shows that Njombe district council had an increase of three pre- primary schools between 2011 and 2015. There was an increase of one school in 2013 from 55 schools to 56 schools and then the number increased to 58 in 2015. Majority of the schools (53 out of 58 in 2015) in all the years are owned by the Government implying that there are very few private pre-primary schools in the district council.

	2011		2013		2015	
Ward	Publi	Private	Publi	Private	Publi	Private
Idamba	2	0	2	0	2	0
Igongolo	5	0	5	0	5	0
Ikondo	2	0	2	0	2	0
Ikuna	6	0	6	0	6	0
Kichiwa	6	0	6	0	6	0
Kidegembye	4	0	4	0	4	0
Lupembe	4	0	4	0	4	0
Matembwe	5	0	5	0	5	1
Mfriga	4	0	4	0	4	0
Mtwango	5	4	6	4	7	4
Ninga	5	0	5	0	5	0
Ukalawa	3	0	3	0	3	0
TOTAL	51	4	52	4	53	5

Table 5.19: Number of Pre-Primary School by Ownership and Ward, Njombe District Council; 2011-2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

On average the proportion of schools per village is 1.1. Therefore there is an average of one Pre-Primary School per village (Table 5.20.

		Number of	Pre- Primary S	chools	Proportion of P per village	re- Primary S	School
Ward	No of Villages	2011	2013	2015	2011	2013	2015
Ikondo	2	2	2	2	1	1	1
Ukalawa	2	3	3	3	1.5	1.5	1.5
Lupembe	4	4	4	4	1	1	1
Idamba	2	2	2	2	1	1	1
Mfriga	4	4	4	4	1	1	1
Matembwe	5	5	5	6	1	1	1.2
Ikuna	4	6	6	6	1.5	1.5	1.5
Ninga	3	5	5	5	1.7	1.7	1.7
Igongolo	5	5	5	5	1	1	1
Kichiwa	6	6	6	6	1	1	1
Kidegembye	3	4	4	4	1.3	1.3	1.3
Mtwango	5	9	10	11	1.8	2	2.2
Total	45	55	56	58	1.1	1.1	1.2

Table 5.20: Proportion of Wards and Villages per Pre-Primary School by Ward and Village, Njombe DC2011, 2013 and 2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

## 5.2.3 Pre primary Enrolment

The enrollment in pre-primary schools seems to fluctuate in the three years shown in Table 5.21 below. The enrollment was 3,057 in 2011 but increased to 3,160 in 2013 and rose again to 3,213 in 2015. This fluctuation was caused by several factors, one being the campaign to promote pre primary education which is done by the council authority. When the campaign was done parents are persuaded to take their children to pre primary school which increased the enrollment. In 2011, Ukalawa ward had the lowest enrollment (106) compared to other wards followed by Ikondo (119) and Idamba at 129. In 2013 Idamba had the lowest enrollment of 95 followed by Ukalawa (122) and Mfriga and Ikondo wards at 164 each. In 2015 the three wards were observed to have the lowest enrollment in pre primary school. Ikuna ward had the highest enrollment for all the three years.

	2011	-	2013	3	2015	
Ward	Public	Private	Public	Private	Public	Private
Idamba	129	0	95	0	119	0
Igongolo	204	0	249	0	203	0
Ikondo	119	0	164	0	167	0
Ikuna	571	0	537	0	525	0
Kichiwa	385	0	347	0	429	0
Kidegembye	187	0	314	0	324	0
Lupembe	235	0	269	0	233	0
Matembwe	344	0	289	0	286	22
Mfriga	157	0	164	0	146	0
Mtwango	348	125	313	93	371	73
Ninga	147	0	204	0	203	0
Ukalawa	106	0	122	0	112	0
TOTAL	2,932	125	3,067	93	3,118	95

Table 5.21: Pre-Primary Schools Total Enrolment by Ownership and by Ward Njombe DC, 2011, 2013 and2015.

## 5.2.4 Primary Education



The Tanzanian Government set a policy that every child of age 7-13 has the right to achieve primary education. To make this possible the Central Government collaborates with Local Government Authorities to mobilize communities to play part in providing convenient and significant education. The first task was to have reliable number of primary schools which would

make the increase in enrollment possible.

To make sure that this is done, the Central Government sited primary school education under the control of the Local Government so as to make an effective involvement of the community in the area.

	201	1	201	3	201	5
Ward	Public	Private	Public	Private	Public	Private
Idamba	2	0	2	0	2	0
Igongolo	5	0	5	0	5	0
Ikondo	2	0	2	0	2	0
Ikuna	6	0	6	0	6	0
Kichiwa	6	0	6	0	6	0
Kidegembye	4	0	4	0	4	0
Lupembe	4	0	4	0	4	0
Matembwe	5	0	5	0	5	1
Mfriga	4	0	4	0	4	0
Mtwango	9	0	10	0	11	0
Ninga	5	0	5	0	5	0
Ukalawa	3	0	3	0	3	0
TOTAL	55	0	56	0	57	1

Table 5.22: Number of Primary Schools by Ownership and by Ward, District, 2011, 2013 and 2015.

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

The number of primary schools that are provided in this table seem to be virtually equivalent to the number of pre-primary schools because of the policy set by the Government that in every primary school there should be pre primary classes. By having equal number of pre primary and primary schools it means that almost all pre primary schools in Njombe DC are attached to primary schools. There is a very small increase in primary schools in the district for the three years shown in the table. The number of primary schools were 55 in 2011, 56 in2013 and 58 in 2015. It can be observed that there is only one private primary school in the District council.

#### 5.2.5 Coverage of Education System

The average number of schools per 100 square kilometers in Njombe District council was 2 schools in 2011, 2013 and 2015. In 2011 the average number of schools per 100 square kilometers was two, therefore on average there is an increase of one school per 100 square kilometer. This means that the average walking distance for pupils to reach a primary school is 50 kilometers. This is a long walking distance especially if we consider children of age below six years who are attending pre primary education in these schools. The wards of Ukalawa, Ikondo and Idamba have fewer schools compared to other wards.

	Total Land Area (sq	No of	Schools				tion of Pr y School		No of schools per 100sqkms			
Ward	kms)	Villages	2011	2013	2015	2011	2013	2015	2011	2013	2015	
Mtwango	300	5	5	6	7	1	1.2	1.4	2	2	2	
Igongolo	297	5	5	5	5	1	1	1	2	2	2	
Kichiwa	294	6	6	6	6	1	1	1	2	2	2	
Ninga	303	3	4	5	4	1.3	1.7	1.3	1	2	1	
Ikuna	315	4	6	6	6	1.5	1.5	1.5	2	2	2	
Kidegembye	234	3	4	4	4	1.3	1.3	1.3	2	2	2	
Matembwe	304.5	5	5	5	6	1	1	1.2	2	2	2	
Lupembe	294	4	4	4	4	1	1	1	1	1	1	
Ikondo	160	2	2	2	2	1	1	1	1	1	1	
Mfriga	261	4	4	4	4	1	1	1	2	2	2	
Idamba	306	2	2	2	2	1	1	1	1	1	1	
Ukalawa	85	2	2	2	2	1	1	1	2	2	2	
Total	3,154	45	49	51	52	1.1	1.1	1.2	2	2	2	

Table 5.23: Proportion of Schools by 100 Sq. kms by Ward and Village, Njombe DC 2011, 2013 and 2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

#### 5.2.6 Standard one Enrollment

The enrollment of primary school pupils decreased slightly from 2,989 in 2011 to 2,937 pupils in 2013 and then decreased further to 2,745 in 2015. There is no big difference in the enrollment of primary school pupils among the wards but Idamba ward had the lowest enrollment in 2011.

Ukalawa ward had the lowest enrollment in 2013 and 2015 (Table 5.24). The enrollment of children to primary schools depend of the number of children who completed pre primary education therefore the fluctuation in pre primary children enrollment leads to the fluctuation in standard one enrollment. The policy requires children to attend pre primary education before they are enrolled into primary schools.

	20	)11	20	)12	20	)13	20	)14	20	)15
Ward	Public	Private								
Idamba	110	0	122	0	136	0	111	0	140	0
Igongolo	249	0	264	0	296	0	223	0	206	0
Ikondo	147	0	129	0	136	0	138	0	138	0
Ikuna	428	0	358	0	322	0	316	0	320	0
Kichiwa	355	0	349	0	319	0	307	0	316	0
Kidegembye	260	0	241	0	247	0	285	0	236	0
Lupembe	202	0	225	0	235	0	239	0	216	0
Matembwe	305	0	269	0	331	0	306	6	286	22
Mfriga	146	0	175	0	133	0	162	0	147	0
Mtwango	439	0	390	0	490	0	506	0	445	0
Ninga	218	0	161	0	184	0	192	0	182	0
Ukalawa	130	0	108	0	108	0	111	0	91	0
TOTAL	2,989	0	2,791	0	2,937	0	2,896	6	2,723	22

Table 5.24: Standard I Enrolment by School Ownership and by Ward Njombe DC 2011, 2012, 2013, 2014 and2015.

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

Table 5.25 shows the enrollment to standard one by age and sex. In the period of five years 6,175 boys were enrolled to primary schools at the age of seven while 6,542 girls were enrolled at the same age. At eight to ten years 872 boys were registered while 794 girls were registered. In 2011 more girls were enrolled at the age of seven years (1,400) while for boys of the same age it was (1,291). At the age of eight to ten years the number of boys was 179 while that of girls was 124. In totality, in 2011 the number of girls exceeded that of boys by two percent. In 2015 the number of girls was higher than boys by two percent. Net enrollment rate was 1,016.7 in 2011 as compared to 1,024.3 in 2015. Minor difference in the number of boys and girls enrolled was a result of the council's efforts to ensure that girls get equal opportunity as boys in primary school education.

Table 5.25: Standard I Enrolment b	ov Age Group	in Niombe DC. 2011-2015

Year	Age	e seven ex populatio		Age	seven regis children	stered	Age	8-10 regi children		Tot	al registe	red	Gross children ratio	Net enrolme nt rate
Ital	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total		
2011	1,298	1,375	2,673	1,291	1,400	2,691	179	124	303	1,468	1,524	2,992	1,039.34	1,016.76
2012	1,246	1,300	2,546	1,224	1,295	2,519	144	146	290	1,368	1,441	2,809	1,054.66	1,012.89
2013	1,277	1,400	2,677	1,218	1,354	2,572	194	173	367	1,412	1,527	2,939	1,041.11	986.82
2014	1,256	1,293	2,549	1,263	1,239	2,502	179	203	382	1,442	1,442	2,884	1,102.94	1,034.99
2015	1,236	1,273	2,509	1,179	1,254	2,433	176	148	324	1,355	1,403	2,758	1,042.06	1,024.31
Total	6,313	6,641	12,954	6,175	6,542	12,717	872	794	1,666	7,045	7,337	14,38 2	5,280.1	5,075.8

Table 5.26 shows total enrolment (Standard I – VII) in each ward for the period of five years, 2011 - 2015. At the Council level, enrolments recorded more girls than boys in all the five years. Girls' enrolment rate accounted for about 52 percent in all the five years. The slight difference in the number of boys and girls enrolled was a result of the district's efforts to implement national objective of ensuring girls get equal opportunity as boys in the education sector. At ward level, all wards had minimum girls' enrolment rates of more than 50.0 percent in 2011 and 2013, but in 2015 Ikondo and Ikalawa wards had minimum number of (49 and 46 percent respectively) girls enrolled in its primary schools.

	20	11	202	12	201	13	201	14	201	15
Ward	Boys	Girls								
Idamba	302	343	291	347	287	352	289	347	303	353
Igongolo	920	1,001	958	1033	948	1,053	786	966	732	924
Ikondo	326	410	323	412	348	440	347	461	369	460
Ikuna	1,020	1,103	1,001	1,091	996	1,120	1,014	1,101	1,012	1,091
Kichiwa	1,143	1,242	1,211	1,210	1,153	1,204	1,057	1,158	1,035	1,114
Kidegembye	861	964	760	868	742	838	777	839	812	838
Lupembe	754	791	697	748	707	737	707	722	652	691
Matembwe	942	1,127	922	1,087	942	1,066	914	979	908	959
Mfriga	453	475	433	445	427	429	447	412	444	412
Mtwango	1,348	1,449	1,297	1,437	1,320	1,497	1,362	1,591	1,348	1,545
Ninga	603	743	662	684	721	763	741	759	695	714
Ukalawa	315	317	309	319	302	343	312	363	319	373
TOTAL	8,987	9,965	8,864	9,681	8,893	9,842	8,753	9,698	8,629	9,474

Table 5.26: Total STD (I - VII) Enrolment by Sex and by Ward Njombe DC, 2011-2015.

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

#### 5.2.7 Primary School Completion Rate

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

Within a cohort of 1,336 Boys who were enrolled in standard one in 2008, only 955 completed standard seven in 2014. For a cohort of 1,433 girls who were enrolled in standard one in 2008, about 1,215 completed standard seven in 2014. This gives a completion rate of 67 for boys' and girls' completion rate as 88. The overall completion rate for the year 2014 for standard seven in Njombe DC was 78 percent. Igongolo ward had the lowest completion rate of 54 percent whereby among 332 pupils enrolled to standard one in 2008 only 178 completed standard seven. Mtwango ward had the highest completion rate of 96 percent where by the enrolled number of pupils were 365 in 2008 and the completed number was 350. The data for the 2009 cohort is a little different. The overall completion rate for 2015 for standard seven was 72 percent as compared to 78 percent in 2014. Of the 2,707 pupils enrolled in standard on in 2009, only 1,948 completed standard seven in 2015 in Njombe District Council. Ward-wise, Ukalawa ward had the lowest rate of 51 percent in 2015.

			20	)08 to 20	014						2009 to	2015		
		olled 08	-	pleted 14	-	oletion by Sex	Perce nt of		olled 09		pleted )15		oletion by Sex	Percent of
Ward	Boys	Girls	Boys	Girls	Boys	Girls	Comp letion	Boys	Girls	Boys	Girls	Boys	Girls	Completi on
Idamba	33	50	22	44	66.7	88.0	79.5	29	40	24	33	82.8	82.5	82.6
Igongolo	177	155	90	88	50.8	56.8	53.6	154	150	71	93	46.1	62.0	53.9
Ikondo	59	70	27	51	45.8	72.9	60.5	66	63	34	47	51.5	74.6	62.8
Ikuna	109	154	90	143	82.6	92.9	88.6	131	129	105	119	80.2	92.2	86.2
Kichiwa	174	190	137	171	78.7	90.0	84.6	206	215	130	175	63.1	81.4	72.4
Kidegembye	91	127	62	97	68.1	76.4	72.9	136	118	63	83	46.3	70.3	57.5
Lupembe	116	115	72	97	62.1	84.3	73.2	132	131	93	85	70.5	64.9	67.7
Matembwe	160	161	136	159	85.0	98.8	91.9	147	156	97	115	66.0	73.7	70.0
Mfriga	81	71	51	58	63.0	81.7	71.7	56	56	36	43	64.3	76.8	70.5
Mtwango	178	187	166	184	93.3	98.4	95.9	124	192	116	177	93.5	92.2	92.7
Ninga	119	117	71	86	59.7	73.5	66.5	92	88	69	88	75.0	100.0	87.2
Ukalawa	39	36	31	37	79.5	102.8	90.7	50	46	20	29	40.0	63.0	51.0
TOTAL	1,336	1,433	955	1,215	71.5	84.8	78.4	1,323	1,384	858	1,087	64.9	78.5	71.9

Table 5.27: Primary School Completion Rate by ward Njombe DC, 2008-2014 and 2009-2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

Table 5.27 further shows that boys' completion rate dropped to 65 percent in 2015compared to 72 percent of 2014 while girls' completion rate dropped from 85 percent in 2014 to 79 percent in 2015. In this cohort the completion rate for girls was higher than that of boys. The highest completion rate in 2014 was observed in Mtwango ward (96 percent), it was followed by Matembwe ward (92 percent) and Ukalawa ward (91percent). The lowest Completion rate was observed in Igongolo ward with a completion rate of 54 percent. In 2015, Mtwango ward led again with 93 percent completion rate followed by Ninga ward (87percent) and Ikuna ward at 86 percent. The ward with the lowest rate was Ukalawa with 51 percent.

The figure below shows the completion rate for the two years in Njombe DC by Sex.

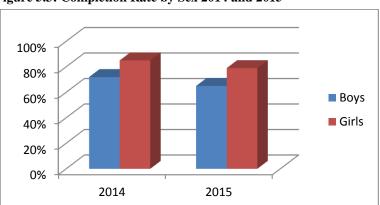


Figure 5.3: Completion Rate by Sex 2014 and 2015

#### 5.2.8 Primary School Dropout Rate

The dropout seems to vary year by year although the percentage varies depending on the enrollment. In 2012 the dropout was 287 (1.7 percent), it increased to 311 (1.8 percent) and then decreased to 298 (1.8 percent) and decreased further to 258 (1.6 percent0 in 2015. Dropout due to truancy is higher among boys than girls. This may be due to the reason that boys are involved in labour work in tea farms or lumbering which engage a lot of labour force in their activities. Other reasons like repetition have caused more dropouts to pupils in the reference years. The big number that is seen in this group is due to the fact that many pupils in this group had been degraded to previous classes due to poor performance. Dropout due to pregnancy has negligible effect.

Source: District Executive Director's Office (Education Department), Njombe DC, 2012

		2012			2013			2014			2015	
Reason	Boys	Girls	Total									
Truancy	97	75	172	106	71	177	99	68	167	86	67	153
Pregnancy		1		0	0		0	1		0	1	
Death	1	4	0	4	7	0	4	5	0	6	6	0
Others	59	50	109	58	59	117	53	69	122	58	56	114
Total dropout	157	130	287	174	137	311	156	142	298	121	137	258
Total Enrolment	8,036	8,749	16,785	8,048	8,915	16,963	7,919	8,789	16,708	7,820	8,602	16,422
Percentage	2.0	1.5	1.7	2.2	1.5	1.8	2.0	1.6	1.8	1.5	1.6	1.6

Table 5.28: Drop Outs by Reason Njombe DC, 2012, 2013, 2014 and 2015

\*mainly drop out has been caused by repetition

## 5.2.9 Pass Rate

Pass rates refer to the rate of passing the standard VII examinations and being selected to join Form I. Referring to Table 5.29 the number of pupils who sat for the std. seven examinations decreased from 2,403 in 2011 to 1,871 in 2015. In all the three reference years the number of girls who sat for the std. seven examinations was higher than that of the boys. The percentage of boys who passed the std. seven examinations was almost equal to that of the girls except in 2013.

Table 5.29: Number of Pupils who Sat and Passed STD. Seven Examinations in Public Primary Schools, NjombeDC, 2011, 2013 and 2015

	Sat for exa	minations	Passed examination	minations	Percent passed	l
Year	Boy	Girl	Boy	Girl	Boy	Girl
20	<b>11</b> 1,076	1,327	666	812	62	61
20	<b>13</b> 967	1,263	533	770	55	61
20	<b>15</b> 851	1,021	588	723	69	71

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

The number of students who were selected to join form one in Njombe District Council has been decreasing year after year as seen in Table 5.30. While in 2011 there were 1,504 selected students in 2013 the number decreased to 1,318 students before decreasing further to 1,312. In 2011 the selection rate was higher among girls than boys but in 2013 the selection rate for boys was higher than that for girls. In 2011 about 98 percent of the selected boys joined form 1 as compared to 99 percent for girls. For 2013 and 2015 the percentage of boys who joined form 1 was higher than that for girls.

	Number of p Selected	oupils	Number of s who joined f		Percent selec	eted	Percent joined form 1		
Year	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girl	
2011	671	833	660	821	101	103	98	99	
2013	545	773	534	752	102	100	98	97	
2015	586	726	583	710	100	100	99	98	

# Table 5.30: Number of Students selected and joined Form I in Public Secondary Schools, Njombe DC, 2011,2013 and 2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

#### **5.2.10 Primary School Facilities**

A school is not only a structural building but it is a combination of many facilities like classrooms libraries, toilets, teachers, books, furniture, staff house and book stores; so the Government and the community have to insure all the facilities are in place.

#### 5.3.2.1 Classrooms

Njombe DC has a total of 52 primary schools with 379 classrooms available in the district council. The total number of pupils in these schools is 18,633 giving a classroom pupil ratio (CPR) of 1:49.The required number of classrooms to serve this number of pupils is 466; therefore there is a deficit of 92 classes which is equivalent to 20 percent. With the exception of two wards of Ikondo and Mfriga with a surplus of classes, all the wards in Njombe DC had a deficit of classes, the highest deficit being in Lupembe ward (38 percent) followed by Kidegembye ward (36 percent) and Ukalawa with 35 percent deficit. The classrooms deficit in other wards is as shown in table 5.31.

	Number of	Total	Available	Classroom Pupils Ratio	Required -		Deficit of assrooms
Ward	schools	Pupils	Classrooms	(CPR)	Classrooms	Number	Percent
Idamba	2	827	13	1:64	18	5	28
Igongolo	5	1,657	39	1:42	47	11	23
Ikondo	2	829	21	1:39	21	0	0
Ikuna	6	2,103	41	1:51	50	9	18
Kichiwa	6	2,142	50	1:43	66	16	24
Kidegembye	4	1,650	27	1:61	42	15	36
Lupembe	4	1,343	21	1:64	34	13	38
Matembwe	5	2,084	38	1:55	46	8	17
Mfriga	4	856	24	1:36	22	0	0
Mtwango	7	2,893	59	1:49	65	6	9
Ninga	5	1,557	33	1:47	35	2	6
Ukalawa	2	692	13	1:53	20	7	35
TOTAL	52	18,633	379	1:49	466	92	20

Table 5.31: Availability of Classrooms in Public Primary Schools by Ward; Njombe District Council; 2015

**Source:** District Executive Director's Office (Education Department), Njombe DC, 2016

## 5.3.2.2 Pit-Latrines



Facilities for academic and non-academic activities need to be properly put in place to provide an optimal sanitary environment which is safe and conducive for physical, mental and emotional health of the student in order to achieve maximum benefits from educational programmes. Most schools, especially public school, reveal serious concern about the school environment where students learn,

some of which lack or characterized with inadequate toilet facilities. Provision of toilet facilities is considered a privilege rather than a necessity by most school authorities. Inadequate or lack of toilet facilities has its health implications, some of these may be bacterial, viral and parasitic in origin such as typhoid and paratyphoid fever, dysenteries, diarrheas, cholera, hookworm, ascariasis, viral hepatitis, schistosomiasis, guinea worm diseases, etc.

Table 5.32 shows that Njombe DC had a total of 756 pit latrines for 18,633 pupils with 358 pit latrines for boys and 398 for girls. This makes the council's PLPR of 1:24 giving a deficit of 37 pit latrines (8.5 percent) for girls' pit latrines. Overall, the data shows that, the performance of the council in terms of primary school pit latrines was highly significant, 98 percent of the required pit latrines in the council were met and the deficit was only 2 percent. The official requirement of pit latrines is that one pit latrine should serve 20 girls or 25 boys; therefore the district council is performing better in terms of pit latrines.

The wards with high deficit of pit latrines are Ikondo, Kichiwa and Ukalawa both having PLPR of 1:46, 1:34 and 1:35 respectively conflicting the official requirements. On the other hand, most of the wards have excess of pit latrine especially for boys (Table 5.32).

-			Avail	able pit	Pit	latrine	Requ	ired pit	Defic	it of Pit	Percent	Deficit
	Tota	al Pupils	]	latrines	pup	oil ratio	]	latrines	Lat	rine for	of Pit	Latrine
Ward	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Idamba	389	438	16	16	1:24	1:27	16	22	0	6	0.0	27.3
Igongolo	732	925	33	38	1:22	1:24	31	49	-2	11	-6.5	22.4
Ikondo	419	410	9	9	1:47	1:46	15	23	6	14	40.0	60.9
Ikuna	1,012	1,091	47	49	1:22	1:22	40	55	-7	6	-17.5	10.9
Kichiwa	1,033	1,109	36	27	1:29	1:41	60	62	24	35	40.0	56.5
Kidegembye	812	838	42	50	1:19	1:17	30	40	-12	-10	-40.0	-25.0
Lupembe	652	691	27	26	1:24	1:27	27	35	0	9	0.0	25.7
Matembwe	1,011	1,073	36	45	1:28	1:24	38	51	2	6	5.3	11.8
Mfriga	444	412	19	24	1:23	1:17	18	21	-1	-3	-5.6	-14.3
Mtwango	1,348	1,545	57	70	1:24	1:22	34	39	-23	-31	-67.6	-79.5
Ninga	768	789	27	33	1:28	1:23	15	19	-12	-14	-80.0	-73.7
Ukalawa	319	373	9	11	1:35	1:34	13	19	4	8	30.8	42.1
TOTAL	8,939	9,694	358	398	1:25	1:24	337	435	-21	37	-6.2	8.5

Table 5.32: Availability of Pit Latrine in Public Primary Schools by Ward, Njombe District Council, 2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

5.3.2.3 Staff Quarters



Provision of housing facilities fulfills one of the basic necessities of life namely food, clothing and shelter. Among the various teaching incentives, availability of houses within the school compound promotes retention of teachers, teaching morale and confidence.

Table 5.33 indicates that Njombe district council had a total of 269 teachers' houses compared to actual requirement of 505 houses. Comparing to the official standard House Teacher Ratio (HTR) of 1:1; Njombe district council had a deficit of 236 houses (equivalent to 47 percent deficit). The most affected ward was Matembwe with a deficit of 84 percent, followed by Mtwango (72 percent), Ukalawa (60 percent) and Kidegembye (51 percent). The least affected was Ninga ward with 14 percent deficit of houses.

		Number				Deficit of Houses		Percent of
Ward	Required Teachers	of Available Teachers	Actual Requirement of Houses	Available Houses	No.	Percent	Surplus/deficit based on HTR	Deficit Based on HTR
Idamba	18	18	18	11	7	39	1:2	39
Igongolo	47	42	47	28	19	40	1:2	45
Ikondo	21	16	21	15	6	29	1:1	38
Ikuna	57	50	50	40	10	20	1:1	20
Kichiwa	63	54	63	37	26	41	1:1	48
Kidegembye	46	36	43	21	22	51	1:2	61
Lupembe	35	31	38	23	15	39	1:1	48
Matembwe	56	43	56	9	47	84	1:5	109
Mfriga	22	28	28	23	5	18	1:1	18
Mtwango	86	76	86	24	62	72	1:3	82
Ninga	35	31	35	30	5	14	1:1	16
Ukalawa	15	14	20	8	12	60	1:2	86
TOTAL	501	439	505	269	236	47	1:2	54

Table 5.33: Availability of Primary School Teachers' Houses by Ward, Njombe District Council; 2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

# 5.3.2.4 Furniture (Desks)

The average number of pupils per desk is an important indicator for ensuring a proper teaching and learning environment for teachers and pupils.

Table 5.34 shows that, Njombe district council required a total of 9,182 desks for 18,635 pupils in the council so as to conform to the official Desk Pupils Ratio of 1:3. The available desks were 7,790 which imply that the council had a deficit of 1,392 desks which is equivalent to 18 percent.

The most affected wards were Mtwango with deficit of 43 percent, followed by Ninga 38 percent and Mfriga 37 percent. The least affected ward was Kidegembye with the deficit of only 2 percent. Other wards had the deficit and surplus as shown in the table below. In general Njombe district council has performed well in terms of DPR having the ratio of 1:2 as compared to the official requirement of 1:3 (Eight out of 12 wards had DPR of 1:2).

					Defic	it of Desks	Deficit	Percent of
Ward	Total Pupils	Available Desks	Desk Pupils Ratio	Required Desks	No.	Percent	Based on DPR	Deficit Based on DPR
Idamba	827	420	1:2	414	-6	-1	-138	-1,030
Igongolo	1,657	673	1:2	829	156	23	11	79
Ikondo	829	383	1:2	415	32	8	26	194
Ikuna	2,103	828	1:3	1,052	224	27	9	70
Kichiwa	2,142	872	1:2	1,054	182	21	12	88
Kidegembye	1,650	743	1:2	760	17	2	97	725
Lupembe	1,343	688	1:2	659	-29	-4	-46	-346
Matembwe	2,084	913	1:2	1,000	87	10	24	179
Mfriga	856	312	1:3	428	116	37	7	55
Mtwango	2,893	1,013	1:3	1,446	433	43	7	50
Ninga	1,557	566	1:3	779	213	38	7	55
Ukalawa	692	379	1:2	346	-33	-9	-21	-157
TOTAL	18,633	7,790	1:2	9,182	1,392	18	13	100

Table 5.34: Availability of Desks in Public Primary Schools Ward; Njombe District 2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

## 5.3.2.5 Accessibility of Water

Water is essential in ensuring the health of pupils, teachers and the community that is around the school surroundings.

Njombe district council has managed to supply water to some of her primary schools through water tanks, water wells and tap water.

Table 5.35 shows that in 2013 and 2015 the council had a total of 52 primary schools. In 2013, about 37 schools which is equivalent to 71 percent were supplied with water. Most of the schools had water wells and accounted to 40 percent of all schools in the council supplied with water facilities, followed by schools with tape water 29 percent and 2 percent of schools had water tanks. The schools which were not supplied with water facilities were 15 which is equivalent to 29 percent. The available data shows that, in 2015, 81 percent all schools in the district were supplied with either water tanks, water wells or tape water. Schools supplied with water wells accounted to 38 percent, followed by schools with tape water 31 percent and 12 percent schools with water tanks.

		201	3		2015					
Ward	Total No	No. of Pri	mary. Schools working	s with	Total	No. of Primary Schools with working				
	of Schools	Water Tanks	Water wells	Tape water	number of schools	Water Tanks	Water wells	Tape water		
Idamba	2	0	1	1	2	0	1	1		
Igongolo	5	0	3	4	5	0	1	4		
Ikondo	2	0	1	1	2	1	0	1		
Ikuna	6	0	6	0	6	0	6	0		
Kichiwa	6	0	0		6	1	2	0		
Kidegembye	4	0	3	1	4	0	2	2		
Lupembe	4	0	2	2	4	0	2	2		
Matembwe	5	1	0	0	5	1	0	0		
Mfriga	4	0	4	1	4	0	4	0		
Mtwango	7	0	1	5	7	0	1	6		
Ninga	5	0	0	0	5	3	1	0		
Ukalawa	2	0	0	0	2	0	0	0		
TOTAL	52	1	21	15	52	6	20	16		

Table 5.35: Accessibility of Water in Public Primary Schools by Ward, Njombe District Council, 2013 and 2015

#### 5.3.2.6 Teachers

The teacher to pupil ratio is an important indicator to show the quality of education provided in schools. The standard requirement is that one teacher should serve a class of 45 pupils (1:45). In general, Njombe DC has an average TPR of 1:42. Table 5.36 shows that the recommended ratio was met in most of the wards in 2015. With the exception of Mfriga ward which has a surplus of 6 teachers; other wards had a small deficit. In general, the council had a deficit of 63 teacher's equivalent to 13 percent. The most affected wards were Ikondo having the deficit of 24 percent, followed by Matembwe 23 percent and Kidegembye 22 percent. The least affected ward was Ukalawa 7 percent and Igongolo 9 percent.

Ward	Total Pupils	Teachers Required	Available Teachers	Deficit	Percent of Deficit	Teacher Pupils Ratio	Deficit Based on TPR	Percent Deficit Based on TPR
Idamba	827	18	18	0	0	1:46	0	0
Igongolo	1,657	47	42	5	11	1:39	331	116
Ikondo	829	21	16	5	24	1:52	166	58
Ikuna	2,103	57	50	7	12	1:42	300	105
Kichiwa	2,142	63	54	9	14	1:40	238	83
Kidegembye	1,650	46	36	10	22	1:46	165	58
Lupembe	1,343	38	31	7	18	1:42	192	67
Matembwe	2,084	56	43	13	23	1:48	160	56
Mfriga	856	22	28	-6	-27	1:31	0	0
Mtwango	2,893	86	76	10	12	1:38	289	101
Ninga	1,557	35	31	4	11	1:50	389	136
Ukalawa	692	15	14	1	7	1:49	692	241
TOTAL	18,633	504	439	65	13	1:42	287	100

Table 5.36: Number of Public Primary School's Teachers (Grade IIIB/C, IIIA, Diploma and Degree, Masters)by Ward Njombe District Council; 2015

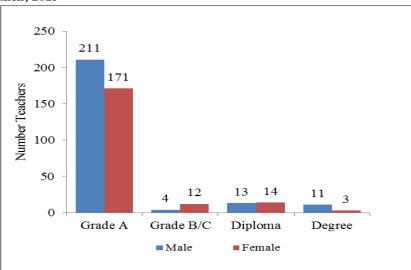
Table 5.37 reveals that Njombe district council has a total of 439 teachers with different qualifications. Most primary schools teachers available in the council are of Grade A totaling to 382 teachers of which 211 or 55 percent are males and 171 or 45 percent are females. This is followed by teachers with diploma 27, about 48 percent being males and 52 percent females. Grade B/C had a total of 16 teachers, males being 25 percent and females 75 percent. The last group of teachers is those with degree qualifications. The available data shows that 14 primary school teachers are degree holders, gender wise, out of 14; male teachers were 11 or 79 percent and 3 or 29 percent female teachers (Figure 5.4).

In general, of the total primary school teachers in the district council, 54 percent were males and 46 percent females. The distribution of teachers according to their qualifications by wards is as shown in table 5.37.

					Num	ber of T	eachers	s with				
		Grade B	s/C		Grade	A		Diploma			Degree	
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ward												
Idamba	0	0	0	12	4	16	0	2	2	0	0	0
Igongolo	1	0	1	20	17	37	3	1	4	0	0	0
Ikondo	0	0	0	11	5	16	0	0	0	0	0	0
Ikuna	0	0	0	24	24	48	1	0	1	0	1	1
Kichiwa	0	0	0	27	22	49	2	2	4	1	0	1
Kidegembye	2	1	3	19	13	32	0	1	1	0	0	0
Lupembe	1	0	1	15	9	24	3	1	4	1	1	2
Matembwe	0	0	0	22	18	40	1	0	1	1	1	2
Mfriga	0	0	0	20	6	26	1	0	1	1	0	1
Mtwango	0	11	11	15	39	54	1	6	7	4	0	4
Ninga	0	0	0	18	9	27	1	0	1	3	0	3
Ukalawa	0	0	0	8	5	13	0	1	1	0	0	0
TOTAL	4	12	16	211	171	382	13	14	27	11	3	14

 Table 5.37: Availability of Public Primary School's Teachers by Qualification and Ward, Njombe District Council; 2015

Figure 5.4: The number of Public Primary School's Teachers by Qualification and Ward, Njombe District Council; 2015



Source: District Executive Director's Office (Education Department), Njombe DC, 2016

#### 5.2.11 Adult Education (AE)

Adult education program is a program of providing education for illiterate adults. The promotion of adult education in Njombe district council is done through two programs, the Integrated Community Based Adult Education (ICBAE) commonly known as MUKEJA in Kiswahili, and MEMKWA.

Table 5.38 shows that in 2013 and 2015, the council had 30 and 26 centers respectively for MUKEJA programme and the centers are located in Idamba, Igongolo, Ikondo and Mtwango

wards. Enrolment of ICBAE programs in 2013 was 3,126 students but it dropped to 2,876 in 2015. For MEMKWA, the enrollment increased from 68 in 2013 to 142 in 2015.

Lack of sensitization campaigns for adults is the reason for the decrease in the number of adults who joined such program (ICBAE) in 2015. In 2015 there was no group for MUKEJA because of lack of sensitization and funds. The council should have regular sensitization campaigns for sustainability of the two programs

	Number of (MUKEJA) ·		Centres enrolment (M ICBAE	UKEJA) -	MEMKWA (Colbert) enrolment		
Ward	2013	2015	2013	2015	2013	2015	
Idamba	б	0	0	0	0	0	
Igongolo	17	17	2,828	2,828	11	14	
Ikondo	4	6	16	23	0	0	
Ikuna	0	0	0	0	0	0	
Kichiwa	0	0	0	0	0	0	
Kidegembye	0	0	0	0	0	0	
Lupembe	0	0	0	0	0	0	
Matembwe	0	0	0	0	0	0	
Mfriga	0	0	0	0	50	121	
Mtwango	3	3	282	25	7	7	
Ninga	0	0	0	0	0	0	
Ukalawa	0	0	0	0	0	0	
TOTAL	30	26	3,126	2,876	68	142	

Table 5.38: Number of Adult Education Centres and Enrolments by Ward, Njombe District Council; 2013 and2015

Source: District Executive Director's Office (Education Department), Njombe DC, 2016

## 5.3 Secondary Education

In Tanzania, secondary education has two levels consisting of "O-Level, form 1-4" and "A-Level, form 5-6. Students write national examinations in form 2 and form 4. They need to pass the form 4 exams in order to successfully graduate from O level secondary education. However, in order to continue with form five, they need to score marks at the level of division one or two which are the top score levels to advance academically.

Table 5.39 shows that in 2014 and 2015, Njombe DC had a total of 10 public secondary schools and 2 private schools. It is observed that, in the five years period, 2011 to 2015, only Mtwango ward had both public and private secondary schools. Other wards have only public secondary schools except Mfriga and Ukalawa wards which have no secondary schools at all.

Table 5.39: Number of Secondary Schools by Ownership and Ward, Njombe District Council; 2011-2015

	20	)11	20	012	20	)13	20	)14	2015		
Ward	Public	Private									
Mtwango	1	1	1	1	1	1	1	2	1	2	
Igongolo	1	0	1	0	1	0	1	0	1	0	
Kichiwa	1	0	1	0	1	0	1	0	1	0	
Ninga	0	0	0	0	1	0	1	0	1	0	
Ikuna	1	0	1	0	1	0	1	0	1	0	
Kidegembye	1	0	1	0	1	0	1	0	1	0	
Matembwe	1	0	1	0	1	0	1	0	1	0	
Lupembe	1	0	1	0	1	0	1	0	1	0	
Ikondo	1	0	1	0	1	0	1	0	1	0	
Mfriga	0	0	0	0	0	0	0	0	0	0	
Idamba	1	0	1	0	1	0	1	0	1	0	
Ukalawa	0	0	0	0	0	0	0	0	0	0	
Total	9	1	9	1	10	1	10	2	10	2	

## 5.3.1 Secondary School Enrolment

#### 5.3.2 Form One Enrolment

Table 5.40 reveals that student's enrolment into form one in public secondary schools in Njombe DC decreased from 1,241 in 2011 to 1,091 in 2015, equivalent to 12.1 percentage change. The larger decrease in the number of enrolled students is observed for girls (10.7 percent) than boys (9.7 percent) in 2015. In addition, the number of students selected to join form one in public secondary schools also decreased from 1,351 in 2011 to 1,148 in 2015; a 15.0 percentage change. The largest decrease is observed for the selected boys from 602 in 2011 to 500 (16.9 percent) in 2015 while that of girls is 749 in 2011 to 648 (13.5 percent) in 2015.

The decrease of student's enrolment in public secondary schools in Njombe DC is realized across all wards and for all boys except in Kichiwa ward with an increase from 115 in 2011 to 130; a 13.0 percentage increase. On the other hand, more than fifty percent decrease (50.6 percent) of student's enrolment into form one in public secondary schools occurred in Idamba ward. However, more than 2 out 5 students selected to join public secondary schools decreased between 2011and 2015.

			Num	ber of	Alloca	ted Stud	dents					Nun	iber of	f Enrol	led Stud	lents		
		2011	L		2013			2015	1		2011	L		2013	i		2015	i
Ward	В	G	Т	В	G	Т	В	G	Т	В	G	Т	В	G	Т	В	G	Т
Mtwango	100	105	205	72	88	160	77	105	182	98	95	193	91	98	189	75	102	177
Igongolo	90	90	180	54	66	120	69	72	141	86	80	166	61	78	139	63	74	137
Kichiwa	60	60	120	50	70	120	55	85	140	58	57	115	53	77	130	50	80	130
Ninga	0	0	0	15	16	31	46	48	94	0	0	0	12	13	25	44	46	90
Ikuna	95	98	193	69	91	160	50	64	114	88	87	175	88	91	179	45	63	108
Kidegembye	72	60	132	65	95	160	55	74	129	69	56	125	57	85	142	51	70	121
Matembwe		140	140		120	120		95	95		131	131		90	90		87	87
Lupembe	80	85	165	92	68	160	90	40	130	77	75	152	74	84	158	89	39	128
Ikondo	60	56	116	35	83	118	34	35	69	50	45	95	42	39	81	31	38	69
Mfriga	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Idamba	45	55	100	41	39	80	24	30	54	39	50	89	40	43	83	20	24	44
Ukalawa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	602	749	1,351	493	736	1,229	500	648	1,148	565	676	1,241	518	698	1,216	468	623	1,091

Table 5.40: Total Form 1 Enrolment in Public Secondary Schools by Sex and Ward; Njombe District Council;2011, 2013 and 2015

Table 5.41 shows that students registered in public secondary schools slightly increased from 765 in 2011 to 803 (5.0 percent increase) in 2015, with large number of registered girls from 381 in 2011 to 506 (32.8 percent increase) in 2015; while the number of registered boys decreased from 2,395 in 2011 to 2,312 (3.5 percent decrease) in 2015.

When comparing the number of students registered in public secondary schools and those who completed form IV in 2015, it can be observed that while the number of registered students was 803 those who completed form IV in the same year were 791, indicating that 99 percent of registered students in Njombe DC completed for IV in 2015. The number of registered boys was 2,312 in 2015 and 2,372 of them completed for IV (More than 100 percent), while for girls, 506 students were registered and 487 of them completed for IV (96.2 percent). In general, the proportion of students registered and those who completed form IV across the wards is ranging from 97 percent for to 100 percent.

				Regist	ered stu	idents						Stud	lents Co	mplete	d Form	IV		
		2011			2013			2015			2011			2013			2015	
Ward	В	G	Т	В	G	Т	В	G	Т	В	G	Т	В	G	Т	В	G	Т
Mtwango	67	73	140	55	78	133	55	59	114	66	72	138	53	75	128	54	58	112
Igongolo	40	52	92	52	49	101	35	56	91	39	53	92	52	47	99	35	56	91
Kichiwa	35	35	70	38	38	76	45	25	70	35	35	70	38	38	76	24	45	69
Ninga	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ikuna	55	57	112	53	54	107	65	52	117	49	59	108	52	47	99	52	64	116
Kidegembye	46	40	86	41	62	103	38	64	102	41	45	86	39	61	100	63	37	100
Matembwe					106	106		152	152		77	77		102	102		148	148
Lupembe	70	48	118	39	76	115	20	43	63	68	45	113	50	61	111	42	21	63
Ikondo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mfriga	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Idamba	30	32	62	24	21	45	13	18	31	33	30	63	19	17	36	13	18	31
Ukalawa	41	44	85	55	23	78	26	37	63	41	43	84	55	22	77	25	36	61
Total	2,395	381	2776	2,370	506	2876	2,312	506	803	372	459	831	358	470	828	308	483	791

 Table 5.41: Number of Students Registered and Completed Form IV by Sex and Ward in Public Secondary Schools, Njombe District Council; 2011, 2013 and 2015

Table 5.42 shows student's performance in form IV examinations in public secondary schools in Njombe DC from 2011 to 2015. It is observed that, a large number of boys than girls scored division I, II or III in the five year periods except in 2014 and 2015 where more girls than boys score division I or II. Again a large proportion of girls than boys had high scores only in division III in 2015. In addition, the proportion of girls who scored division IV and division O is higher than that of boys (24.0 and 25.9 percent for girls compared to 21.1 and 16.6 percent for boys respectively).

Likewise, the number of girls who completed secondary education in public secondary schools in Njombe DC is higher (3,263) than that of boys (2,698). This can be associated to the wood business which is mostly taking place across the council. The number of students who completed form IV in 2015 differs with the total number of student's performance in the same year because the results for four students were withheld by the national Examination Council of Tanzania.

	Boys							Girls					Total	Increase
Year		DI	VISION	[		Total		Ι	DIVISI	ON		Total	Total	(percent)
	Ι	II	III	IV	0		Ι	II	III	IV	0			
2011*	15	39	101	678	483	1,316	2	9	41	680	657	1389	2,705	-
2012	1	13	25	164	221	424	2	4	22	169	401	598	1,022	-62.2
2013	4	25	60	142	126	357	3	16	59	200	193	471	828	-19
2014	2	22	68	121	61	274	6	19	31	84	111	251	525	-36.6
2015	2	23	35	131	90	281	4	19	44	263	176	506	787	67.8
Total	25	129	298	1,257	989	2,698	17	68	203	1,430	1,545	3,263	5,961	-

 Table 5.42: Students Performance in Form IV Examinations in Public Secondary Schools by Sex, Njombe District Council; 2011 – 2015

\*2011 results include the newly formed councils, Makambako and Wanging'ombe which formally were part of Njombe DC.

#### 5.3.3 High School Enrollment

The enrolment of students in high schools in Njombe district council increased very slightly. But with the increase of school infrastructures construction through people's participation and parents' awareness of the importance of education to their children we expect in some years to come, large number of students will be enrolled. It shows that student's enrolment is very low as Njombe District Council has only one public high school located in Matembwe ward a girls high school that is to say boys students have no public high school in Njombe DC. Number of student enrolled in 2013 was 21 girls and the number of students enrolled in 2015 was 135 girls. Government should do something to make sure that the number of high schools in Njombe DC is increased. Generally the real picture is not good that needs the authority to look at this matter very seriously.

## 5.3.4 Number of Students Enrolled and Completed High School Education

The number of students who were enrolled and completed high school education by sex in Njombe district council in the year 2015 show that out of 21 students who were enrolled in 2013 where by all of them were girls, only 18 students completed high school education in Njombe DC which is equal to 86 percent that shows a good hope to our students.

#### 5.3.5 Students Performance in Form VI Examinations in Public Secondary Schools

Students Performance in high school education by sex in Njombe district council in 2014 show that division one was 10 students, Division two also had 10 students and division three had only

one student. In the year 2015 out of 18 students who completed form VI, about 10 students got division one, 10 students got division two and only one student got division O. Performance in Form six examinations in public secondary school shows a very good picture as almost all students who were enrolled happened to pass with very good marks.

## 5.4 Secondary School Facilities

In order to operate any public school, availability of facilities is very essential. In Njombe DC, availability of secondary school facilities is below the standard laid down by the education authorities. This section discusses availability of secondary facilities such as teachers, classrooms, desks, dormitories, staff quarters, toilets, libraries, dormitories and laboratories.

## 5.4.1 Availability of Teachers

Table 5.43 shows that out of 10 available public secondary schools in Njombe DC, 364 teachers are available and 268 teachers are still needed and the shortage is 24. Few wards had experienced teacher's deficit and the larger proportion deficit is observed in Ninga Ward (38.5 percent) followed by Ikondo ward (30.8 percent) and Idamba had 23.1 percent deficit.

Apart from the deficit of teachers experienced in other secondary schools, greater part of schools in Njombe DC had more than the required secondary school teachers. Mtwango ward had the largest number of available teachers 68 while only 26 teachers were required, followed by Igongolo ward which had 51 available teachers and 26 are required and Matembwe ward had 55 available teachers, 34 are required.

Ward	Number of Schools	Requirement of Teachers	Available Teachers	Deficit of Teachers	Percent of Deficit
Mtwango	1	26	68	0	0
Igongolo	1	26	51	0	0
Kichiwa	1	26	30	0	0
Ninga	1	26	16	10	38.5
Ikuna	1	26	37	0	0
Kidegembye	1	26	40	0	0
Matembwe	1	34	51	0	0
Lupembe	1	26	26	0	0
Ikondo	0	0	0	0	0
Mfriga	0	0	0	0	0
Idamba	1	26	20	6	23.1
Ukalawa	1	26	17	0	0
Total	10	268	356	24	9

Table 5.43: Availability of Public Secondary School's Teachers by Ward, Njombe District Council; 2015

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

Table 5.44 shows that Njombe DC had only one public secondary school teacher with masters degree and 120 teachers with first degree. However, the majority of teachers (234) had diplomas. The number of male secondary school teachers is almost twice (230) as much as female (119), though only one female teacher had master's degree.

Mtwango ward had the largest number of secondary school teachers with first degree (28) followed by Matembwe ward with 25 teachers, Kidegembye ward (13), Igongolo and Ikuna wards had 12 teachers each and Idamba had the lowest number of teachers (4) with first degree. On the contrary, Matembwe ward had the largest number of secondary school teachers with diploma (29) followed by Kidegembye and Mtwango with 27 teachers each and Ninga ward had the lowest number of teachers with diploma (14).

When comparing two qualifications, Idamba ward had indicated to have a large proportion of teachers with low qualifications – diploma (95.2 percent) compared to only 4.8 percent teachers with degree, followed by Lupembe ward (80.0 percent) and Kichiwa 76.5 percent.

					Nun	nber of T	eachers	with				
		Diplom	a	Degree			Masters				Total	
Ward	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mtwango	24	15	39	15	13	28	1	0	1	40	28	68
Igongolo	19	13	32	13	6	19	0	0	0	32	19	51
Kichiwa	14	8	22	7	1	8	0	0	0	21	9	30
Ninga	7	4	11	3	2	5	0	0	0	10	6	16
Ikuna	14	11	25	8	4	12	0	0	0	22	15	37
Kidegembye	15	12	27	8	5	13	0	0	0	23	17	40
Matembwe	16	13	29	19	3	22	0	0	0	35	16	51
Lupembe	13	7	20	6	0	6	0	0	0	19	7	26
Ikondo	0	0	0	0	0	0	0	0	0	0	0	0
Mfriga	0	0	0	0	0	0	0	0	0	0	0	0
Idamba	14	2	16	3	1	4	0	0	0	17	3	20
Ukalawa	7	3	10	6	1	7	0	0	0	13	4	17
Total	143	88	231	88	36	124	1	0	1	232	124	356

 Table 5.44: Availability of Public Secondary School's Teachers by Qualification and Ward, Njombe District Council; 2015

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

Table 5.45 indicates that Njombe DC required more secondary school arts teachers (180) than science teachers (80). A total of 356 are available teachers teaching science and arts subjects. Among them, 55 teachers are teaching Science subjects with the majority (11 teachers) residing in Kichiwa ward, followed by Mtwango ward with 7 teachers. The number of teachers teaching science subjects is higher for males (51 teachers) than females (5 teachers).

With regard to arts subject, the council had a total of 301 available arts teachers. Mtwango ward had more arts teachers (61 teachers) followed by Igongolo ward with 47 teachers and Matembwe had 43 available teachers teaching arts subjects. The number of available male's teachers, teaching arts subject is higher (205 teachers) compared to female teachers (96). However, the number of required arts teachers is evenly distributed across the wards (18) each.

				Number o	f Teachers					
		e Teachers T ience subject		Required Science		Available Teachers Teaching Arts subjects				
Ward	Male	Female	Total	Teachers	Male	Female	Total			
Mtwango	б	1	7	12	39	22	61	18		
Igongolo	4	0	4	8	31	16	47	18		
Kichiwa	11	0	11	8	10	9	19	18		
Ninga	3	0	3	4	11	2	13	18		
Ikuna	4	1	4	8	25	10	35	18		
Kidegembye	3	1	4	8	25	10	35	18		
Matembwe	б	2	8	16	30	13	43	18		
Lupembe	б	0	6	8	12	6	18	18		
Ikondo	2	0	2	4	13	3	16	18		
Mfriga	0	0	0	0	0	0	0	18		
Idamba	б	0	6	4	9	5	14	18		
Ukalawa	0	0	0	0	0	0	0	0		
Total	51	5	55	80	205	96	301	180		

 Table 5.45: Number of Science and Arts Teachers in Public Secondary Schools by Ward, Njombe District Council; 2015

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

#### 5.4.2 Classrooms

Table 5.46 shows that Njombe DC had a total of 107 available public secondary school classrooms. Ikuna and Kichiwa wards had the largest number of available classrooms (15 each) followed by Mtwango, Igongolo and Matembwe wards with 13 each and Ninga had the lowest number of available classrooms (4). On the other hand, 154 classrooms are required by the council. With the exeption of Matembwe ward which required more classrooms (20), the remaining wards required 16 classrooms each except Lupembe and Idamba wards which require 12 and 10 respectively.

In total, the council had a shortage of 47 or 31 percent of the required classrooms. Ninga ward experienced the largest shortage of classrooms (12 or 75 percent) followed by Ikondo ward (10 or 63 percent) and the remaining wards had a deficit of less than 10 classrooms.

			Numl	oer of Classro	oms	
Ward	No. of Schools	Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwango	1	16	13	3	19	6
Igongolo	1	16	13	3	19	7
Kichiwa	1	16	15	1	6	9
Ninga	1	16	4	12	75	1
Ikuna	1	16	15	1	6	10
Kidegembye	1	16	12	4	25	5
Matembwe	1	20	13	7	35	4
Lupembe	1	12	10	2	17	8
Ikondo	1	16	6	10	63	2
Mfriga	0	0	0	0	0	12
Idamba	1	10	6	4	40	3
Ukalawa	0	0	0	0	0	0
Total	10	154	107	47	31	

#### 5.4.3 Pit-Latrines

Table 5.47 shows that Njombe DC had 10 schools with 166 available pit latrines accommodating 3,741 students with a deficit of 100 pit latrines (38.2 percent). The ward with the largest number of pit latrines is Matembwe ward (30) followed by Igongolo ward (29) and Mtwango ward (28). Overall, about 262 pit latrines are required by the District council and the deficit is 38.2 percent. Kichiwa ward had 14 available pit latrines accommodating 380 students even though it has the largest number of required pit latrines (57) with a deficit of 75.4 percent. Kidegembye ward had only 8 available pit latrines accommodating 394 students with 70.4 percent deficit. Idamba ward had the least number of available pit latrines (6) which accommodate 180 students.

# Table 5.47: Availability of Pit Latrine in Public Secondary Schools by Sex and Ward; Njombe District Council2015

	10									Num	ber of P	it Latri	ne				
	umber Schools	Tot	tal stude	ents	I	Require	d	I	Availabl	e		Deficit		Per	cent De	ficit	Ward Ranking by
Ward	2	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Deficit
Mtwango	1	245	301	546	15	16	31	16	12	28	0	4	4	0	25	12.9	7
Igongolo	1	163	230	393	16	16	32	14	15	29	2	1	3	12.5	6.3	9.4	9
Kichiwa	1	133	247	380	27	30	57	10	4	14	17	26	43	63	86.7	75.4	1
Ninga	1	85	91	176	5	4	9	4	4	8	1	1	2	20	25	22.2	6
Ikuna	1	199	204	403	13	13	26	6	8	14	7	5	12	53.8	38.5	46.2	4
Kidegembye	1	163	231	394	12	15	27	4	4	8	8	11	19	66.7	73.3	70.4	2
Matembwe	1		692	692		34	34		30	30		4	4	0	11.8	11.8	8
Lupembe	1	190	162	352	10	7	17	9	9	18	1	0	1	10	0	5.9	10
Ikondo	1	98	127	225	7	8	15	5	6	11	2	2	4	28.6	25	26.7	5
Mfriga	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Idamba	1	75	105	180	6	8	14	2	4	6	4	4	8	66.7	50	57.1	3
Ukalawa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	10	1351	2390	3741	111	151	262	70	96	166	42	58	100	37.8	38.4	38.2	

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

#### 5.4.4 Staff Quarters

Teachers' houses are among the teaching incentives. The provision of staff quarters is very important as it facilitates the retention of teachers and promotes teaching practice. Table 5.48 shows that Njombe DC had a total of 80 teachers' houses compared to actual requirement of 308 houses. Lupembe ward had the largest number of available teacher's houses (16) followed by Igongolo ward with 13 available teacher's houses and Ikuna had 10 teacher's houses. Unlike Ninga ward which had no teacher's houses; Mtwango ward had only 4 teacher's houses.

With respect to deficit, the most affected ward is Ninga which had 100 percent deficit of teacher's houses followed by Mtwango ward (89.0 percent) and Kidegembye ward (83.0 percent). In contrast, about 305 teacher's houses are required. Kidegembye ward require more teachers houses (40) followed by Mtwango (36) and Matembwe ward require 31 teacher's houses. Ikondo and Idamba wards require less teacher's houses compared to other wards.

	-		Nun	nber of Houses		
Ward	No. of Schools	Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwango	1	36	4	32	89	2
Igongolo	1	30	13	17	57	9
Kichiwa	1	30	9	21	70	7
Ninga	1	30	0	30	100	1
Ikuna	1	30	10	20	67	8
Kidegembye	1	40	7	33	83	3
Matembwe	1	31	9	22	71	6
Lupembe	1	30	16	14	47	10
Ikondo	1	24	6	18	75	4
Mfriga	0	0	0	0	0	-
Idamba	1	24	6	18	75	5
Ukalawa	0	0	0	0	0	-
Total	10	305	80	225	74	

Table 5.48: Availability of Teachers Houses in Public Secondary Schools by Ward, Njombe District Council;2015

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

#### 5.4.5 Dormitories

Availability of dormitories and hostels in public secondary schools can help students by solving problems of walking long distances to school and back. Table 5.49 reveals that, Njombe DC had shortages of dormitories or hostels. It is indicated that, the council had a total of 21 available dormitories or hostels. Matembwe ward had the largest number of dormitories/hostels (6) followed by Igongolo and Kidegembye wards with 3 dormitories or hostels each. Mtwango ward had no

dormitories or hostels, marking a deficit of 100 percent. In overall, the council had 69 percent deficit of dormitories or hostels.

With respect to requirements, 68 dormitories or hostels are required by District council. Matembwe ward had indicated to require more dormitories or hostels (13) followed by Ikuna ward (12) and Igongolo ward (8). Mtwango, Lupembe and Ikondo wards require less dormitories or hostels (4) each compared to other wards.

			Number of	f Dormitories/l	hostels	
Ward	No. of Schools	Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwango	1	4	0	4	100	1
Igongolo	1	8	3	5	63	6
Kichiwa	1	6	1	5	83	2
Ninga	1	6	1	5	83	3
Ikuna	1	12	2	10	83	4
Kidegembye	1	6	3	3	50	9
Matembwe	1	13	6	7	54	8
Lupembe	1	4	2	2	50	10
Ikondo	1	4	1	3	75	5
Mfriga	0	0	0	0	0	-
Idamba	1	5	2	3	60	7
Ukalawa	0	0	0	0	0	-
Total	10	68	21	47	69	

Table 5.49: Availability of Dormitories/hostels in Public Secondary Schools by Ward, Njombe District Council;2015

**Source:** District Executive Director's Office (Education Department)

## 5.4.6 Libraries

The library facility is considered as an essential facility for the development of knowledge and skills of a student. According to the standards set by the Ministry of Education and Vocation Training, every secondary school should have a library to enable students borrow and use supplementary books besides textbooks. According to the information provided by the education department of the council, all the constructed secondary schools have not yet built libraries.

Moreover, information can be obtained at the library by using modern internet services with the aid of a computer. It is nowadays common to find most libraries are fully equipped with internet services especially in urban areas where the public can make use of such facilities for acquiring knowledge at an affordable cost.

Table 5.50 shows the availability of libraries in public secondary schools by wards in Njombe DC in 2015, whereby only 1 library was available in Lupembe ward. The required number of libraries was 10, with a deficit of 9 libraries. The deficit of libraries was observed in all wards except

Lupembe ward. The observed situation is probably due to the fact that the local authorities are in the transition period of building secondary education system, and local authorities should include the provision of libraries in their school development plans for the future.

			Num	ber of Library	y	
Ward	No. of Schools	Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwango	1	1	0	1	100	1
Igongolo	1	1	0	1	100	2
Kichiwa	1	1	0	1	100	3
Ninga	1	1	0	1	100	4
Ikuna	1	1	0	1	100	5
Kidegembye	1	1	0	1	100	6
Matembwe	1	1	0	1	100	7
Lupembe	1	1	1	0	0	-
Ikondo	1	1	0	1	100	8
Mfriga	0	0	0	0	0	0
Idamba	1	1	0	1	100	9
Ukalawa	0	0	0	0	0	0
Total	10	10	1	9	90.0	

Table 5.50: Availability of Libraries in Public Secondary Schools by Ward; Njombe District Council; 2015

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

#### 5.4.7 Quantity and State of School Facilities

The quantity and quality of facilities in the secondary school system in Njombe DC are below the standards. The most common facilities are classrooms, toilets, staff quarters, libraries, laboratories, dormitories, desks and teachers. However these are important indicators for ensuring a proper teaching and learning environment for teachers and pupils. The following discussion only aims at indicating quantitative adequacy of the facilities in the district council.

Table 5.51 shows that in 2015 the council had a total of 4,226 chairs and 4,080 tables. However the required number of tables was 4482 and chairs 4604. The deficit of tables was 408 (9.10 percent) and chair 691(15 percent).

At ward level, Igongolo ward has the highest level of deficit 184 chairs (28.8 percent) and 184 tables (28.8 percent), followed by Kidegembye ward which had a deficit of 108 chairs (20.8 percent) and 108 tables (20.8 percent). Kichiwa ward had a deficit of 37 chairs (8.9 percent) and 157 tables (34.4 percent). Other wards like Idamba had a deficit of 36 chairs (15 percent) and 140 tables (41.2 percent). Some of the wards like Mtwango, Ninga, Ikuna, Lupembe Ikondo, Mfriga and Ukalawa had zero deficits of both chairs and tables.

119

			36 590 678 704 0 0 0 0 6												
	No. of	Requ	uired	Avai	lable	Def	licit	Percent	t Deficit	Ranking					
Ward	Schools	Tables	Chairs	Tables	Chairs	Tables	Chairs	Tables	Chairs	Deficit					
Mtwango	1	536	590	678	704	0	0	0	0	6					
Igongolo	1	640	640	456	456	184	184	28.8	28.8	3					
Kichiwa	1	417	457	380	300	37	157	8.9	34.4	2					
Ninga	1	176	176	176	176	0	0	0	0	7					
Ikuna	1	478	478	478	478	0	0	0	0	8					
Kidegembye	1	518	518	410	410	108	108	20.8	20.8	4					
Matembwe	1	692	720	649	649	43	71	6.2	9.9	5					
Lupembe	1	360	360	370	382	0	0	0	0	9					
Ikondo	1	325	325	325	325	0	0	0	0	10					
Mfriga	0	0	0	0	0	0	0	0	0	0					
Idamba	1	340	340	304	200	36	140	15	41.2	1					
Ukalawa	0	0	0	0	0	0	0	0	0	0					
Total	10	4,482	4,604	4,226	4,080	408	691	9.1	15	-					

Table 5.51: Availability of Tables and chairs in Public Secondary Schools by Council; Njombe DC, 2015

## 5.4.8 Laboratories

A laboratory is a necessary facility for students who are studying science subjects. The specifications set by the government are that each school should have at least three laboratories for physics, chemistry and biology subjects. Similarly, it is known that all community secondary schools built at ward level suffered shortages of laboratories but this is very different in Njombe DC whereby they have zero laboratories' deficit. In 2015, Table 5.52 shows that Njombe DC had 10 secondary schools with 31 available laboratories, which accounted for 100 percent of the required laboratories.

			Numb	er of Laborate	ories	
Ward	No. of Schools	Required	Available	Deficit	Percent Deficit	Ranking Deficit
Mtwango	1	4	4	0	0	0
Igongolo	1	3	3	0	0	0
Kichiwa	1	3	3	0	0	0
Ninga	1	3	3	0	0	0
Ikuna	1	3	3	0	0	0
Kidegembye	1	3	3	0	0	0
Matembwe	1	3	3	0	0	0
Lupembe	1	3	3	0	0	0
Ikondo	1	3	3	0	0	0
Mfriga	0	0	0	0	0	0
Idamba	1	3	3	0	0	0
Ukalawa	0	0	0	0	0	0
Total	<u>10</u>	<u>31</u>	31	0	0	

Table 5.52: Availability of Laboratories in Public Secondary Schools by Ward; Njombe District Council; 2015

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

#### 5.4.9 Electricity

Electric power is necessary for accelerating socio-economic development in any country. Thus, the government has been working hard to ensure that most households, offices, schools, institutions, among others in both rural and urban areas use electricity as the main source of energy for lighting as well as for other uses. Table 5.53 shows the availability of electricity power in Secondary Schools by Ward in 2015. A total of 10 schools are available in Njombe DC of which 4 schools were using electricity from the National Grid and 6 schools were using solar power.

		Ν	umber of	Secondary	School using			
Ward	Total No. of Schools	National Grid Electricity	Biogas	Solar Power	Generator	Other Sources	Total	percentage
Mtwango	1	1	0	0	0	0	1	0.1
Igongolo	1	0	0	1	0	0	1	0.1
Kichiwa	1	0	0	1	0	0	1	0.1
Ninga	1	0	0	1	0	0	1	0.1
Ikuna	1	0	0	1	0	0	1	0.1
Kidegembye	1	1	0	0	0	0	1	0.1
Matembwe	1	1	0	0	0	0	1	0.1
Lupembe	1	1	0	0	0	0	1	0.1
Ikondo	1	0	0	1	0	0	1	0.1
Mfriga	0	0	0	0	0	0	0	0
Idamba	1	0	0	1	0	0	1	0.1
Ukalawa	0	0	0	0	0	0	0	0
Total	<u>10</u>	4	<u>0</u>	6	0	0	10	

Table 5.53: Availability of Electricity Power in Secondary Schools by Ward, Njombe District Council; 2015

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

## 5.4.10 Water

Njombe DC has managed to supply water in some of the secondary schools through water tanks, water wells and tap water, as water is the basic necessity of life without which no life exists. Table 5.54 shows that in 2013 out of 10 public secondary schools six public secondary schools accessed water through water wells while two accessed through tape water and only one through water tank. The same situation was revealed in 2015.

		2	2013		2015					
	No. of Se working	c. Schools w	vith	Total	No. of Se working	vith	Total			
Ward	Water Tanks	Water wells	Tape water	No. of Schools	Water Tanks	Water wells	Tape water	No. of Schools		
Mtwango	0	0	1	1	0	0	1	1		
Igongolo	0	1	0	1	0	1	0	1		
Kichiwa	0	1	0	1	0	1	0	1		
Ninga	0	1	0	1	0	1	0	1		
Ikuna	0	1	0	1	0	1	0	1		
Kidegembye	0	1	0	1	0	1	0	1		
Matembwe	0	1	0	1	0	1	0	1		
Lupembe	0	0	1	1	0	0	1	1		
Ikondo	0	0	0	0	0	0	0	0		
Mfriga	0	0	0	0	0	0	0	0		
Idamba	0	0	0	0	0	0	0	0		
Ukalawa	1	0	0	1	1	0	0	1		
Total	1	6	2	9	1	6	2	9		

Table 5.54: Accessibility of Water in Public Secondary Schools by Ward, Njombe District Council; 2013 and2015

#### 5.5 Water Supply and Sanitation Sector

#### 5.5.1 Overview

Tanzania is a big country with almost, one out of every two persons has no access to clean and safe water supply. Due to the big geographical dispersion, rural Tanzanians often have to travel long distances, consuming many hours to fetch water. This has a huge negative impact on economic development and often results in girls dropping out of schools as they have to join their mothers in fetching potable water. Improving supply of clean and safe water therefore will reduce the number of girls dropping out of schools, general improvements in time savings in which will be used by women in other economic activitities and increase the standard of the their live. There will also be cost savings as people will spent less on public health due to spread of water bornediseases. However, for Njombe District Council, the Water Supply and Sanitation Sector covers rural water supply only in terms of water sources, schemes and technology used to supply water.

#### 5.5.2 Water Supply

By 2015, access to clean and safe water was still a major problem in most part of Njombe District Council. The main dependable source of drinking water was shallow wells (unprotected wells) of which in the year 2015. The community in the council dependence much on springs and shallow wells (unsafe water) is evidence that the council still has a lot to do in implementing the 2006 inaugurate National Rural Water Supply and Sanitation Program (NRWSSP) which was adopted

for the period of 2006 – 2025. This program aims for long term plan development of the rural water supply and sanitation so as to meet the MDG targets and beyond.

Table 5.55 reveals, in 2015, Njombe District Council had a total of 72 rural water schemes (sources) in various stage of operation or non-operation. 53 schemes (sources) (equivalent to 74 percent of total schemes) were operating (working) and the remaining 19 schemes (26 percent) were not operating (not working). Shallow wells was the dominant water source in rural areas as the council had 20 operating or working shallow wells (equivalent to 27.8 percent of council's water sources). Piped scheme with 16 (22.2 percent) was the second dependable water source, followed by working spring with 12 (16.7 percent), and rain water for harvest was the least water source as only 6 permanent tank is available.

At ward level, Kichiwa and Kidegembye had the highest number of working shallow wells with seven each, followed by Mtwango with four working shallow wells. Igongolo and Lupembe were leading in number of working piped schemes with three each. Springs were another source of water in Igongolo and Lupembe wards (three springs each), Mfriga and Idamba wards each had two operating springs. Ninga and Ikondo wards were using river water as there source of drinking water while Ukalawa ward was using the rain water harvest tank. Basing on the facts given in Table 5.55, most of the wards had unreliable water sources. Hence, the council still has a long way to go in improving the availability of safe and clean water to her people.

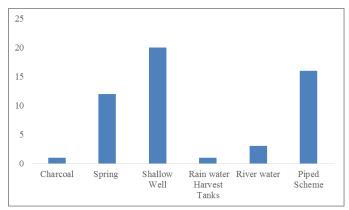
					Rain water Shallow Harvest Pi						ped		
	Cha	rcoal	Spi	ring	W	'ell	Та	nks	River	water	Scheme		
Ward	W	NW	W	NW	W	NW	W	NW	Р	S	W	NW	Total
Ikondo	0	0	0	0	0	0	0	0	1	0	1	0	2
Ukalawa	1	0	0	0	0	0	1	0	1	0	1	0	4
Lupembe	0	0	3	1	0	0	0	0	0	0	3	1	8
Idamba	0	0	2	0	0	0	0	0	0	0	2	0	4
Mfriga	0	0	2	0	0	0	0	0	0	0	2	0	4
Matembwe	0	0	1	2	0	0	0	0	0	0	1	2	6
Ikuna	0	0	0	1	2	3	0	0	0	0	0	1	7
Ninga	0	0	0	2	0	0	0	0	1	0	1	2	6
Igongolo	0	0	3	0	0	0	0	0	0	0	3	0	6
Kichiwa	0	0	0	0	7	4	0	0	0	0	1	0	12
Kidegembye	0	0	0	0	7	0	0	0	0	0	0	0	7
Mtwango	0	0	1	0	4	0	0	0	0	0	1	0	6
Total	1	0	12	6	20	7	1	0	3	0	16	6	72

Table 5.55: Number and Type of Rural Water Sources by Ward for Njombe District Council, 2015

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

Source: District Executive Director's Office (Water Supply and Sanitation Department), Njombe District Council, 2015

#### Figure 5.5: Number of Working/Operating Main Rural Water sources, Njombe District Council; 2015



Source: District Executive Director's Office (Water Supply and Sanitation Department), Njombe District Council, 2015

Table 5.56 shows that, Njombe DC had a total 52 water delivery technologies among them 40 (77 percent) were operating (working) and 12 (23 percent) were not working. Hand pumps were the most popular form of water delivery technology. It accounted to accounted for 20 working water schemes equivalent to 50 percent of all operating schemes. Working gravity piped totalled to 7 (17.5 percent) ranked second dependable water delivery technology in Njombe District Council.

Working wind mill/solar was the third dependable water delivery technology. There were six operating wind mill/solar in the district council. Kidegembye and Kichiwa wards which had highest number of shallow wells also had the highest number of hand pumps technology. Each ward had seven working hand pumps. Electricity pumps were available in Matembwe, Ikondo and Lupembe wards while diesel pumps were in Idamba and Lupembe wards.

Ward	Wind Water hydra/	wheel/	Electi Pui	•	Diesel	Pump	Hand 1	Pump	Gravi	ty Piped	Tot	tal
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW
Ikondo	0	0	1	0	0	0	0	0	0	0	1	0
Ukalawa	0	0	0	0	0	0	0	0	0	0	0	0
Lupembe	1	1	2	0	1	0	0	0	1	0	5	1
Idamba	1	0	0	0	1	0	0	0	0	0	2	0
Mfriga	2	0	0	0	0	0	0	0	1	0	3	0
Matembwe	1	1	1	0	0	0	0	0	0	0	3	1
Ikuna	0	1	0	0	0	0	3	2	1	1	4	4
Ninga	0	2	0	0	0	0	0	0	1	0	1	2
Igongolo	0	0	0	0	0	0	0	0	3	0	8	0
Kichiwa	0	0	0	0	0	0	9	3	1	0	11	3
Kidegembye	1	0	0	0	0	0	7	0	1	0	9	0
Mtwango	0	0	0	0	0	0	4	2	1	0	5	2
Total	6	5	4	0	4	0	28	7	10	1	52	13

 Table 5.56: Number and Type of Technology Used in Rural Water Schemes by Ward for Njombe District Council, 2015

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

Source: District Executive Director's Office (Water Supply and Sanitation Department), Njombe District Council, 2015

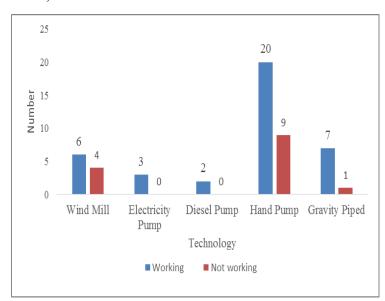


Figure 5.6: Number and Type of Technology Used in Rural Water Schemes by Ward for Njombe District Council, 2015

Source: District Executive Director's Office (Water Supply and Sanitation Department), Njombe District Council, 2015

Drinking water or potable water is water safe enough to be consumed by human beings or used with low risk of immediate or long term harm. Over large parts of the Njombe District Council especially in rural areas, people have inadequate access to potable water and use sources with unacceptable level of safety and cleanness. Unprotected shallow wells which are the dominant water source in the district council expose the Njombe District Council people (mostly rural people) with widespread of waterborne diseases.

Table 5.57 shows that, half of the rural population in 2015 was accessing clean water. At ward level, Igongolo ward reported to have the highest proportion of people accessing clean water with 87.1 percent. Ninga ward was the most disadvantaged ward as only 19.3 percent of its people had access to clean water.

Ward	Total Rural Population	Population Served with Clean Water	Percent Population Served with Clean Water
Ikondo	4,673	3,710	79.4
Ukalawa	2,962	0	0
Kidegembye	8,068	5,648	70
Lupembe	7,709	3,770	48.9
Matembwe	8,653	3,107	35.9
Ninga	5,751	1,109	19.3
Idamba	3,148	1,837	58.4
Mfriga	4,249	2,310	54.4
Mtwango	12,948	10,593	81.8
Ikuna	9,178	2,000	21.8
Kichiwa	9,961	4,250	42.7
Igongolo	8,447	7,361	87.1
Total	85,747	45,695	53.3

Source: District Executive Director's Office (Water Supply and Sanitation Department), Njombe District Council, 2015

In rural areas it is the policy that once water supply schemes have been established, their running and maintenance is handed over to the rural people themselves who in turn manage them through their village water committees (VWCs) and village water funds (VWFs). One village may have more than one VWC or VWF. Villagers also formulate Water Users Groups (WUGs).

By owning and managing village water funds commonly referred as Operational Maintenance Accounts (O & M accounts), water user groups and village water committees are able to manage day to day minor operational costs of water sources or projects in their villages.

Table 5.58 shows that, there were 13 water committees with 160 members in Njombe DC in 2015. Water committees in Lupembe and Kichiwa observed to have the biggest number of members (30 each) while Ninga, Ikondo and Mtwango wards had no COWSOs. On the other hand, the village water committee in Kidegembye ward was the most stable financially by accumulating TZS 7,145,000 which was the highest amount than any of the other committees. It was followed by Ukalawa with TZS 3,250,000 while Mtwango was the least financially ward having only TZS 45,000.

			Village	Water Co	mmittees	Village Water	
		Number -	Me	embers		Fund (VWF)/Water	
Division	Ward	of COWSOs	Male	Female	Total members	Users Group (WUG)	Total funds In Tshs
Lupembe	Ikondo	0	0	0	0	0	0
-	Ukalawa	1	5	5	10	3,250,000	3,250,000
	Kidegembye	1	6	6	12	7,145,000	7,145,000
	Lupembe	1	15	15	30	1,000,000	1,000,000
	Matembwe	2	12	12	24	0	0
	Mfriga	0	0	0	0	0	0
	Idamba	1	6	6	12	717,300	717,300
	Sub-Total	6	44	44	88	12,112,300	12,112,300
Makambako	Mtwango	1	3	3	6	45,000	45,000
	Kichiwa	2	15	15	30	415,000	415,000
	Ninga	0	0	0	0	0	0
	Ikuna	1	6	6	12	0	0
	Igongolo	3	12	12	24	555,000	555,000
	Sub-Total	7	36	36	72	1,015,000	1,015,000
<b>Grand Total</b>		13	80	80	160	13,127,300	13,127,300

Table 5.58: Number of Rural Village Water Committees, Village Water Funds and Funds in the VWFs byWard, for Njombe District Council, as at 31.12 2015

Source: District Executive Director's Office (Water Supply and Sanitation Department), Njombe District Council, 2016

## 5.5.3 Sanitation

Sanitation facilities in Njombe District are fairly well spread. With reference to Table 5.59, a total of 24,211 households (100 percent) of the population of Njombe district were using toilets of one type. The most common way of disposing human waste is through pit latrines. Moreover, over flooding toilets and uncollected garbage pollute the environment of the District. They also attract diarrhea and water-borne diseases in the district.

Ward	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
Ikondo	1,078	1,078	100	-	-
Ukalawa	924	924	100	-	-
Lupembe	2,066	2,066	100	-	-
Idamba	1,115	1,115	100	-	-
Mfriga	1,455	1,455	100	-	-
Matembwe	2,555	2,555	100	-	-
Ikuna	2,725	2,725	100	-	-
Ninga	1,508	1,508	100	-	-
Igongolo	2,142	2,142	100	-	-
Kichiwa	2,779	2,779	100	-	-
Kidegembye	2,104	2,104	100	-	-
Mtwango	3,760	3,760	100	-	-
Total	24,211	24,211	100	0	0

Table 5.59: Availability of Toilet Facilities by Ward for Njombe District Council; 2015

Source: District Executive Director's Office (Water Supply and Sanitation Department), Njombe District Council, 2016

## 5.5.4 Staff Establishment

Njombe district council had a total of 11 staffs working in water sector. Proportion of the staff was as follows, two engineers, five technicians and four plumbers/ass technicians. Basing on unreliable accessibility of clean and safe water in Njombe DC, it is therefore important for the government in collaboration with the district council to employ more staff who will be able to save the population 85,747 in Njombe DC.

#### 5.5.5 Policy Implication on Water sector

Rural water supply in the district has been dominated by shallow wells which most of its water is not safe for domestic consumption. It is therefore, necessary to identify an effective approach for rural households safe water promotion based on current initiatives made within the district council and mainstreaming those initiatives into national wide program supported with adequate staffing and budgets. There is also a need of establishing practicable institutional arrangements and mechanisms to ensure the sustainability of community managed rural water supplies.

#### **5.3.6 Investment Opportunities in Water Supply**

Due to inadequate supply of clean and safe water in the district, primary investment in this sector should focus on supply of clean and safe water through tap water and even with boreholes. Promotion of rain water harvest technology as an alternative water source is also recommended.

# **CHAPTER SIX**

## **OTHER DEVELOPMENT ISSUES**

## 6.0 Introduction

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

## 6.1 Women Protection and Development

Women in Njombe DC suffer from a high degree of social inferiority influenced by customs and low status in the family circles. The absence of women in leadership position especial in ward levels demonstrates this. Thus the majority of women in the council are restricted to their traditional roles of child minders, family cooks and housekeepers, firewood and water collectors, farm labourers and even house builders.

The response of the government and enlightened 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 the Njombe DC to catch up with the rest of the country in the matter of 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 centres, establishment of women economic groups, participation in SACCOS, CBOs and other cooperative activities. These initiatives are also being implemented in Njombe DC.

## 6.2 Women Economic Groups



Women economic groups have been established to cater for to-day's women emerging needs, and respond to the needs of women emancipation in society. Women in Njombe DC are industrious and a good number of them are engaged in various economic activities.

Table 6.1 shows that there were 120 women engaged in several economic groups in 2013 and 140 in 2015. Most

economic groups assisted in 2013 were 11 groups in Kichiwa ward (loaned Tshs. 11,000,000) and 6

groups in Matembwe ward (loaned Tshs. 6,000,000). In 2015, 7 and 6 groups were assisted in Ikondo and Ikuna wards respectively (loaned 7,000,000 and 6,000,000 Tshs. Respectively).

		2	013		2015					
Ward	Total Members	No. of Groups Assisted	Total Loaned Tshs	Total Members	No. of Groups Assisted	Total Loaned Tshs.				
Mtwango	0	0	0	0	0	0				
Kichiwa	55	11	11,000,000	20	4	4,000,000				
Igongolo	0	0	0	5	1	1,000,000				
Ninga	25	5	5,000,000	20	4	4,000,000				
Ikuna	5	1	1,000,000	30	6	6,000,000				
Kidegembye	0	0	0	0	0	0				
Matembwe	30	6	6,000,000	25	5	5,000,000				
Lupembe	5	1	1,000,000	0	0	0				
Mfriga	0	0	0	0	0	0				
Idamba	0	0	0	0	0	0				
Ikondo	0	0	0	35	7	7,000,000				
Ukalawa	0	0	0	5	1	1,000,000				
Total	120	24	24,000,000	140	28	28,000,000				

 Table 6.1: 1Number of Women Economic Groups by Ward, Njombe DC 2013 and 2015

Source: Njombe DC (Community Development department), 2016

## 6.3 Gender Empowerment

Table 6.2 reveals encouraging level of women participation in professional, managerial and political. Managerial post that including Directors, WEOs and VEOs had 21 women. Also there were 511 women particularly in the professionals' posts; where by 5 women appeared to be in politics position. Hence, more effort needs to be done in order to reach the SDGs fifth goal that emphasizes more on gender equality.

	Manage	erial	Professionals/ 7	Fechnicians	Politicians (N Councill	
Ward	Male	Female	Male	Female	Male	Female
Njombe DC HQ	15	5	69	39	0	0
Mtwango	3	2	107	90	1	1
Kichiwa	5	1	83	61	1	1
Igongolo	4	5	65	50	1	0
Ninga	5	0	36	31	1	1
Ikuna	3	1	64	52	1	0
Kidegembye	2	2	62	44	1	0
Matembwe	2	3	87	47	1	0
Lupembe	4	1	60	55	2	2
Mfriga	4	0	33	27	1	0
Idamba	3	0	30	25	1	0
Ikondo	1	1	18	10	1	0
Ukalawa	3	0	25	19	1	0
Total	56	21	670	511	13	5

Table 6.2: Participation in Managerial, Political, Professional and Technical Personnel by gender, Njombe DC,2015

Source: Njombe District Council (Administrative Officer), 2015

## 6.4 Children Day Care Centers

Table 6.3 shows the number of day care centres as well as the number of children in these centres for the year 2013 and 2015. Ikondo ward had the largest number of day care centres in 2013, followed by Kidegembye ward. However, in 2015 Kichiwa ward had the largest number of day care centres followed by Igongoro ward.

However Kidegembye ward despite of the fact that it had 4 day care centers and a total of 390 pupils in 2013, but in 2015 they had no day care centre and pupils this is because the centers use volunteering teachers who depend on contribution from community so the minute they stop contributing and the centers stop as well. This also happened to Ikondo and Idamba wards. For the case of Igongolo ward that in 2013 it had one day care cente and 381 pupils while in 2015 there were six day care centres and 344 pupils this is because some pupils are shifting to private day care centres.

Day care centres contributed a lot in reducing the burden of women in taking care of children and thus, giving women more time to participate in income generating activities, therefore there is a need to put more efforts in creating awareness and sensitizing on the importance of day care centres.

The efforts should aim at wards which have no such centres like Ninga, Mfriga Matembwe and Ukalawa wards. Moreover, awareness and sensitization campaign could also focus on encouraging people to invest in the construction of day care centres.

	20	13	201	15	Difference in	Percent
Ward	Number of Centres	Number of pupils	Number of Centres	Number of pupils	Numbers of Pupils	Difference of Pupils
Mtwango	2	123	3	275	152	55%
Kichiwa	1	377	11	556	179	32%
Igongolo	1	381	6	344	-37	-11%
Ninga	0	0	0	0	0	0%
Ikuna	1	0	0	0	0	0%
Kidegembye	4	390	0	0	-390	100%
Matembwe	0	0	0	0	0	0%
Lupembe	1	28	1	40	12	0%
Mfriga	0		0	0	0	0%
Idamba	2	68	0	0	-68	100%
Ikondo	5	228	0	0	-228	100%
Ukalawa	0	0	0	0	0	0%
Total	17	1595	21	1215	-380	3.76

Table 6.3: Distribution of Day Care Centers by Ward; 2013 and 2015

Source: Njombe DC (Community Development department), 2015

Figure 6.1 shows the percentage difference of pupils day care centre between year 2013 and year 2015 where by some wards show the different was 100% as there was no new pupil enrolled in the current year 2015

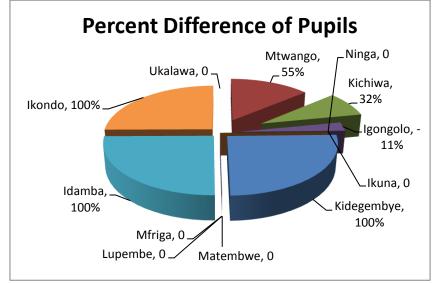


Figure 6.1: Percent Difference of day care centre pupils between year 2013 and 2015

Source: Njombe DC (Social Welfare Office)

## 6.5 Youth Development

Youths are the main source of labor force in a country and they involve significantly in production sectors which are essential for development of the country's economy. Moreover, Njombe DC has paid attention to this group by encouraging them to form economic groups. Table 6.5 shows the number of members and the amount of money loaned to these groups.

The table (Table 6.4) shows that there were 50 members in 2013 where by male were 12 and female were 38 in the year 2015 also there were 50 members who got loans, males 14 and females 36. As it is advised and known that working together in economic groups increase the chances of youths accessing credit funds.

Even though this youth economic groups are very difficult to sustain this makes groups to disappear with time but they do recover the loans through SACCOS which act as a partner in making follow up to all beneficiaries groups, by the end of 2013/2015 there were 100 members who managed to get to get loans amounting to TZS.20, 000,000.

			2013					2015		
					Total amount of funds loaned					Total amount of funds loaned
				No. of	(Tshs)				No. of	(Tshs)
	<b>Total Members</b>			Groups		То	Total Members Groups			
Ward	Male	Female	Total	Assisted		Male	Female	Total	Assisted	
Mtwango	2	3	5	1	1,000,000	0		0	0	0
Kichiwa	6	29	35	7	7,000,000	0	10	10	2	2,000,000
Igongolo	0	0	0	0	0	0	0	0	0	0
Ninga	0	0	0	0	0	6	14	20	4	4,000,000
Ikuna	0	0	0	0	0	8	12	20	4	4,000,000
Kidegembye	0	0	0	0	0	0	0	0	0	0
Matembwe	0	0	0	0	0	0	0	0	0	0
Lupembe	4	6	10	2	2,000,000	0	0	0	0	0
Mfriga	0	0	0	0	0	0	0	0	0	0
Idamba	0	0	0	0	0	0	0	0	0	0
Ikondo	0	0	0	0	0	0	0	0	0	0
Ukalawa	0	0	0	0	0	0	0	0	0	0
Total	12	38	50	10	10,000,000	14	36	50	10	10,000,000

Source: Njombe DC (Community Development department), 2016

## 6.6 Vulnerability

Vulnerability refers to the risk of adverse outcome, such as impoverishment, ill health, social exclusion. It reflects not only the likelihood that an unpleasant event 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.

If vulnerability is a reflection of lack of control, then all children with no support especially young children are vulnerable simply because of their age; they depend on others to provide for their basic needs. Increasing physical and mental maturity usually leads to growing capability for self-provisioning, but during the period of childhood and adolescence, children and young people continue to be in need of special care and support. Lack of special attention and care will be a poison for the future generation

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
- Education and child labour and
- Gendered abuse.

Table 6.5 shows that large numbers of most vulnerable children are found in Njombe DC. A total of 3,643 children were most vulnerable. The table shows that out of 3,643 vulnerable children, about 1,118 children were orphans and a total of 2,525 children were non orphans. Mtwango ward had the highest number of vulnerable children 613 followed by Igongoro 519 and Kidegembye 459, while the least number of vulnerable children were in Ikondo ward 111. HIV/AIDS has focused much attention on the plight of orphaned children in the council.

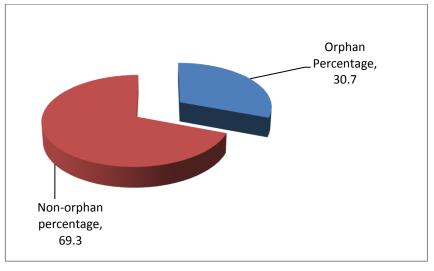
				Ν	Iost Vulne	rable Chi	ldren	ren										
			Orphans				Ν	lon Orpha	ins									
Ward	No. of girls	Girls (Percent)	No. of boys	Boys Percent	Total	No. of girls	Girls (Percent)	No. of boys	Boys (Percent)	Total								
Mtwango	90	15	93	17	183	183	15	247	19	430								
Kichiwa	56	10	43	8	99	115	9	104	8	219								
Igongolo	91	16	62	12	153	178	14	188	15	366								
Ninga	20	3	23	4	43	36	3	33	3	69								
Ikuna	65	11	55	10	120	161	13	141	11	302								
Kidegembye	76	13	67	12	143	171	14	145	11	316								
Matembwe	41	7	35	7	76	80	6	74	6	154								
Lupembe	45	8	45	8	90	108	9	129	10	237								
Mfriga	40	7	53	10	93	62	5	77	6	139								
Idamba	20	3	27	5	47	41	3	58	5	99								
Ikondo	14	2	15	3	29	45	4	37	3	82								
Ukalawa	23	4	19	4	42	66	5	46	4	112								
Total	581	100	537	100	1,118	1246	100	1279	100	2,525								

Table 6.5: Number of the most vulnerable children Njombe DC, 2015

Source: Njombe DC (Community Development department), 2016

From Figure 6.2 it shows that a large percentage of vulnerable children are non-orphan. In order to rescue the most vulnerable children, more complementary qualitative work is needed to better inform conscious approaches to changing views of adults towards their children and young people. Njombe DC in collaboration with community organization like Roman Catholic Church through Ilunda Tumaini Center, COCODA(Community Concern for Orphans Development Association), and Upendo Group, have made initiative to save these children with necessary needs.

#### Figure 6.2: Percentage Orphan and Non-orphan most vulnerable children



Source: Njombe DC (Community Development department), 2016

## 6.7 SACCOS, CBOs and FBOs

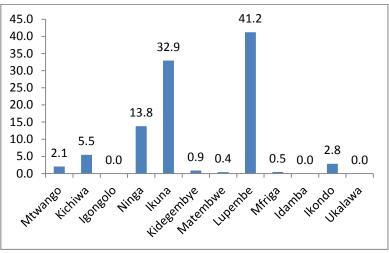
Savings and Credit Cooperative Societies (SACCOS) in the council contribute significantly to development especially for low income groups and individuals. SACCO's members have access to financial resources because financial institutions in Tanzania prefer to channel loans to these groups or individuals through their SACCOS.

The Government and stakeholders should encourage people to create SACCOS so as to alleviate poverty. SACCOs are perceived as appropriate and micro financing outlets for rural and poor people because they are a simple form of financial institutions and very suitable for rural communities.

In 2015 a total of 10 registered SACCOS were reported, of which only two SACCOS was dormant. Table 6.6 shows that Ikuna ward had a total of two SACCOS with about 1,246 members. Ninga ward having only one SACCOS with 954 members, followed by Lupembe ward which had one SACCOS and 609 members in the district council.

	Total Members							
	Active	Dormant	Male	Female	Total	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)
Mtwango	1	0	50	59	109	31,492,900	62,096,00	45,422,100
Kichiwa	1	0	261	396	657	83,589,635	1,021,004,808	892,999,028
Igongolo	0	0	0	0	0	0	0	0
Ninga	1	0	531	423	954	210,571,910	1,011,719,000	422,597,034
Ikuna	2	0	726	520	1246	503,077,455	5,020,824,966	3,722,489,798
Kidegembye	0	1	69	37	106	13,634,000	0	0
Matembwe	1	1	230	152	382	5,968,000	4,259,000	2,957,000
Lupembe	1	0	469	140	609	629,446,178	458,930,824	232,771,756
Mfriga	1	0	168	121	289	6,964,454	27,448,830	12,083,830
Idamba	0	0	0	0	0	0	0	0
Ikondo	1	0	231	69	300	43,250,131	153,208,500	91,342,900
Ukalawa	0	0	0	0	0	0	0	0
Total	10	2	2,780	1,986		1,527,994,663	7,759,491,928	5,422,663,446
Source: Njombe (DC Community Development department) 2016								

Figure 6.3 shows shares owned according to wards, Lupembe had about 41.2 percent of the total shares owned by all SACCOS in the district council; Ikuna ward had 32.9 percent of shares followed by Ninga ward having of 13.8 percent of all shares in the district council.





Source: Njombe (DC Community Development department) 2016

#### 6.8 Village Community Bank (VICOBA)

Village community Banks (VICOBA) operates in Njombe DC council. Table 6.7 shows that by 2015, there were a total of 11 VICOBAs for the whole DC whereby Kichiwa ward had 4 and 7 in Ikuna ward. People in the community should be encouraged to participate in VICOBA so that they learn about establishment of small business as it has been shown that only two wards in Njombe DC participate in VICOBA.

			Mem	Ders	
Ward	Number of VICOBA	Male Female		Total members	
Mtwango	0	)	0	0	0
Kichiwa	4		25	0	25
Igongolo	C	)	0	0	0
Ninga	C	)	0	0	0
Ikuna	7		32	146	178
Kidegembye	C	)	0	0	0
Matembwe	C	)	0	0	0
Lupembe	C	)	0	0	0
Mfriga	C	1	0	0	0
Idamba	C	1	0	0	0
Ikondo	C	1	0	0	0
Ukalawa	C	1	0	0	0
Total	11		57	146	203

Table 6.7: Village Community Bank (VICOBA) by Ward, Njombe District Council 2015

Source: Njombe DC (Community Development department), 2016

# 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 tranquillity and crime related to property.

## 6.9.2 Total number of Crimes Reported in Police Stations

Njombe DC like other parts of the country also experiences several crimes as well as erosion of morals. Crime Statistics provide the government with indicators that help to monitor implementation of various interventions for reduction and control of crimes in the country. This helps to maintain peace and respect to the rule of law which are essential for maintaining peace and order as a pre-condition for social and economic development.

A total of 1,925 crime cases were reported in Njombe DC in the period 2013 -2015. Property crime cases were leading by having 1,255 crimes of which zero people were jailed. As many as 670 violent crimes were reported and also there were 31 Drug crimes reported.

The numbers of Police stations in Njombe DC was only one with 11 Police Officers. These figures show that on average one Police Officer is responsible for as many as 7,795 persons in the council. Meanwhile the international standard recommends that one Police Officer should serve about 350 people. More police officers than currently available are required to cop up with the increasing number of crimes associated with the increase of population in the council.

#### 6.9.3 Theft Cases

Table 6.8 shows that a total of 62 theft cases were reported in Njombe DC from January 2015 to December 2015. The number of cases reported includes motor vehicle stolen which was 36 also there were cases of 19 bicycles stolen within the same reference period. It was also reported that there were 7 cases of livestock stolen.

	Total no. of	Total number of				
	Police Posts in the Council	Motor vehicles stolen	Motor cycles stolen	Bicycles stolen	Livestock stolen	
	1	0	36	19	7	
Total	1	0	36 36	19	7	

Table 6.8: Total number of theft cases reported in the Police Station, 2015

Source of data: Njombe District (OCD office), 2016

#### **6.9.4** Motorcycle Operators (BodaBoda)

Table 6.9 provides the number of boda boda operators in Njombe DC and their estimated income earned per month. Findings show that, a total number of 132 boda boda operators are in the council and the majority (23) reside in Mtwango ward, followed by Kichiwa ward and Lupembe ward that have 20 boda boda operators each.

Similarly, it is showed that each boda boda operator earned between 150,000.00 and 450,000.00 TZS per month in the council giving an average of about Tshs. 297,500.00 per month. However, income earned per boda boda operators in a month in the region is estimated to range from TZS 130,000.00 to TZS 450,000.00 per month.

Common/Local name of their business centre	Number of Bodaboda operators	Estimated Income earned per Bodaboda operator in a month (Tshs)
Mtwango	23	450,000.00
Kichiwa	20	240,000.00
Igongolo	10	150,000.00
Ninga	9	240,000.00
Ikuna	5	300,000.00
Kidegembye	8	420,000.00
Matembwe	11	360,000.00
Lupembe	20	330,000.00
Mfriga	7	270,000.00
Idamba	8	210,000.00
Ikondo	6	210,000.00
Ukalawa	5	390,000.00
Total	132	3,570,000.00

Source of data: Njombe District (Trade Department)

#### 6.10 Potential Areas for Investment

Njombe district council has identified sectors as potential areas for investment; these include agriculture, livestock development, industrial development, tree nurseries and education.

#### 6.10.1 Agriculture

The district council has great potential of land. Appropriate extension services to farmers as well as provision of education on the proper methods of land utilization management that will lead to increased food and cash crop production is of great important. Analysis shows that, potential food crops calling for strategic investment include maize, sorghum, sweet potatoes cassava and legumes; whereas cash crops include tea, coffee and pyrethrum. Also irrigation schemes in the production of horticulture crops such as tomato is also of vital importance. This will enable the district council to produce enough tomatoes for its needs as well as surplus for exchanging with other goods and services and also for exporting to other areas.

#### 6.10.2 Livestock Development

Livestock sector needs to be developed as the analysis shows that livestock keeping in Njombe DC 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 is also a feasible project in the district council.

#### 6.10.3 Industrial Development

Industrial development in Njombe district council is of very low level, such that investors are invited to establish small, medium and large scale industries. Also the construction of tea factories

and cereal millings in the district council is another green area for investment. The area for construction as well as raw materials is available e.g. oil seeds, leather, dairy products etc.

## 6.10.4 Tree Nurseries

Private individuals are invited to establish tree nurseries to meet the requirement of seedling for agro-forest programmes.

## 6.10.5 Education

The government's education policy states clearly on the call for private sector participation in the sector. Consequently, individuals, NGOs, Religious institutions are invited to invest in private primary schools as well as secondary schools in Njombe DC.

Facilities for such investments are available e.g. education and water supply are potential areas which require investment. For instance, there is a need to increase the number of health facilities, to increase the number of secondary schools with focusing more on private ones. Rural water supply needs further investment.