



The United Republic of Tanzania

MUFINDI DISTRICT COUNCIL SOCIO-ECONOMIC PROFILE, 2013



December, 2013



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Jointly prepared by

Ministry of Finance,
National Bureau of Statistics

and

Mufindi District Council



**National Bureau of Statistics
Dar es Salaam**



**Mufindi District Council
Iringa Region**

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Foreword

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

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

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

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

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

Capital Development Grant from Tanzanian Government and funds from UNICEF enabled the Mufindi District Council to prepare this Socio-Economic profile. The publication of this profile should be viewed as a modest attempt towards finding solutions to the existing problem of data and information gap at district level.

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

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

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

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District Executive Director
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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
BCG	Bacillus Calmet Guerin (TB Vaccine)
CBO	Community Based Organization
CBPP	Contagious Bovine Plural Pneumonia
CFR	Crude Fertility Rate
CPR	Classroom Pupil Ratio
DPR	Desk Pupil Ratio
DPT3/HB	Diphtheria Pertusis Tetanus / Haemoglobin Level 3 rd Doze
ECF	East Cost Fiver
GIS	Gographical Information System
Govt.	Government
HIV	Human Immune Virus
IMR	Infant Mortality Rate
MMR	Maternal Mortality Rate
NBS	National Bureau of Statistics
NCD	New Castle Disease
OPV3	Oral Polio Vaccine 3 rd Doze
PLHA	People Living with HIV/AIDS
PMTCT	Prevention Mother to Child Transmission
PR	Pass Rate
SACCOS	Savings and Credit Cooperative Societies
Sq. Km.	Square Kilometre
STD VII	Standard Seven
TB	Tuberculosis
TBAs	Traditional Birth Attendants
TPR	Toilet Pupil Ratio /Teacher Pupil Ratio

TT2	Tetanus Toxoid 2 nd Doze
U5MR	Under Five Mortality Rate
VCT	Voluntary Counselling and Testing
VHC	Village Health Committee
VHWs	Village Health Workers
VWC	Village Water Committee
VWF	Village Water Fund
WUG	Water User Group

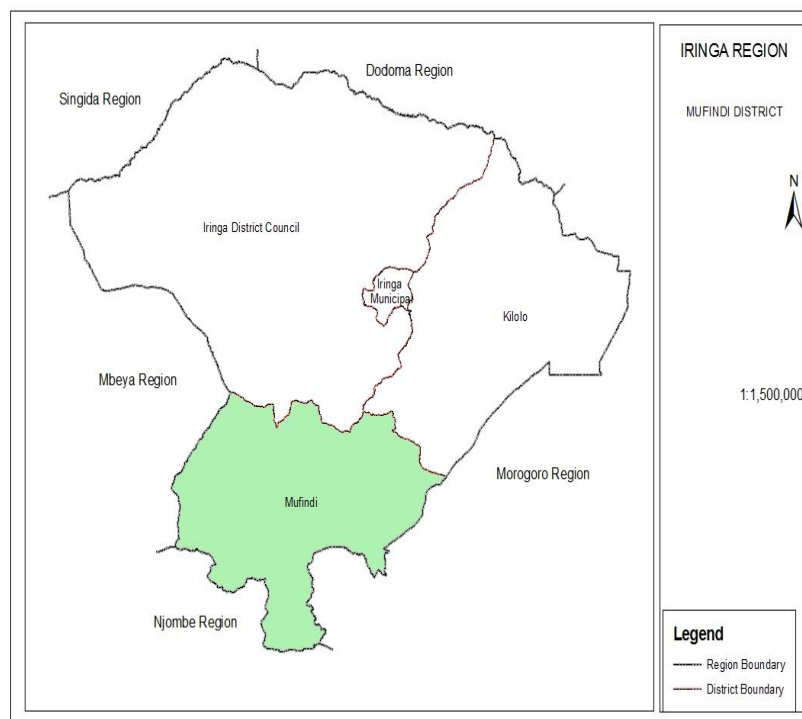
CHAPTER ONE

Land, Climate, Agro-Ecological Zones and People

1.0 An Overview

Chapter one gives information on the geographical location, land area, administrative units, climate and agro-ecological zones of Mufindi District. Moreover, information about ethnic groups, population distribution, size and other demographic characteristics is also given in.

Map 1: Geographical Location of Mufindi District Council; 2012



Source: National Bureau of Statistics, GIS Unit, 2013



Mufindi District's Offices in Mafinga Township

In the past, Mufindi District Council was a part of Iringa District Council. It was inaugurated in early 1970's and in 2006 it was reduced in area while establishing Kilolo District. The District is one of the four districts of Iringa Region and is located 80 km south of Iringa Municipal. Other districts are Iringa Rural District Council, Iringa Urban and Kilolo. It is bordered by Njombe District to the south, Mbarali District to the west and Iringa District to the north. To the north east lies Kilolo District. The headquarters is located at Mafinga Town along Mbeya Road. In terms of international identification, the District lies between latitudes 8°0' and 9°0'S south of the Equator and between longitudes 30°0' and 36°0'E east of Greenwich.

1.2 Land Area, Land Use and Administrative Units

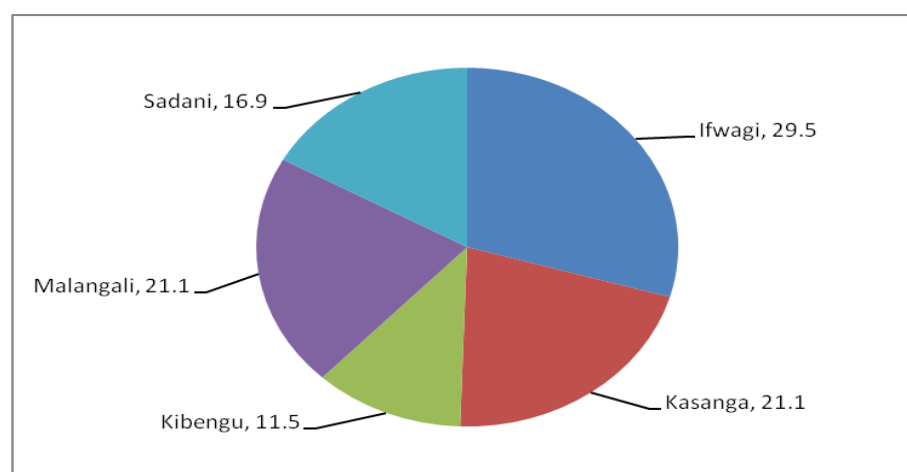
1.2.1 Land Area and Administrative Units

The District is divided into 5 divisions of Ifwagi, Sadani, Kibengu, Kasanga and Malangali, 30 wards, 125 villages and 608 hamlets distributed unevenly as shown in Table 1.1 and Figure 1: Ifwagi division covers about 29.5 percent of total land area of the district followed by Kasanga and Malangali divisions with about 21.1 percent each of the total land area. Kibengu division has the smallest land area in the district constituting only 11.5 percent of the total district area. The District, though has second smallest percent share of regional area, most of land is occupied by the forest (10,411.3 sq.km) leaving only 2,427.6 sq. km. for human activities.

Table 1. 1: Land Area and Administrative Units by Division, Mufindi District; 2012

S/No.	Division	Area .sq Kms.	Percent	Wards	Villages	Hamlets
1	Ifwagi	2,100	29.5	9	32	150
2	Kasanga	1,500	21.1	8	32	158
3	Kibengu	820	11.5	3	16	81
4	Malangali	1,500	21.1	6	27	133
5	Sadani	1,203	16.9	4	18	86
Total		7,123	100	30	125	608

Source: Mufindi District Executive Director's Office, 2013

Figure 1: Percentage Distribution of Land Area by Division, Mufindi District, 2012

Source: Mufindi District Executive Director's Office, 2013

1.2.2 Land Use Pattern

Mufindi District has a total area of 7,123sq.km which is about 19.9 percent of the total area of the Iringa Region. Most of the total land area, 652,630 ha, (91.6 percent) is arable land used for crop cultivation and the remaining 59,670 ha (8.4 percent of total area) is either covered by forest reserves, rocky mountains or water bodies. Although the District has, there is enough land for crop cultivation and livestock keeping, land tenure and lease hold system limits land utilization by smallholder farmers especially in parts of Eastern Highlands and Central. Large tracts of land are leased to large-scale farmers for growing tea (Unilever Tea Tanzania Limited and Mufindi Tea Company) and tree plantations (SaoHill Forest

and Green Resource), while the customary land tenure (Malungulu) system leaves some people with insufficient land for use.

Table 1. 2: Land Area Distribution by District, Iringa Region; 2012

S/No.	District / Council	Area (.sq kms).	Percent Area
1	Iringa Rural	20,414	57.1
2	Mufindi	7,123	19.9
3	Iringa Urban	331	0.9
4	Kilolo	7,875.	22.0
Total (Iringa Region)		35,743	100.0

Source: Mufindi District Executive Director's Office, 2013

1.3 Climate and Topography

The District climate varies with altitude and closely associated with two distinctive landscape zones namely the Eastern Highlands and the Mufindi Plateau characterize the Mufindi district council.

1.3.1 The Eastern Highlands

The Highlands lie at an altitude of 1,700 – 2,200 above sea level. The feature ranges from southwest to the eastern part of Udzungwa Mountain Ranges, which is the part of the Eastern Arc Mountains and includes the Kihansi Dam with its Catchments. The mean annual rainfall ranges between 1,200-1,600mm. The average precipitation is 1,400mm per annum whereby the East and South are the wetter parts while the West is much drier. Temperatures are often below 15°C, with the mean monthly temperature of 18.4°C. The soil is generally red clay of moderate fertility with dark top soil having high organic matter content. Much of the land is at risk of erosion due to steep slopes of over 30° gradient.

Topography of the Eastern Highland typified by its steep topography; most of the landform is steeply dissected with slopes of more than 30 degrees gradient, often as steep as 50 degrees. Flatter top slopes of 2 to 8 degrees and 8 to 16 degrees gradient comprise an average about 10 percent of this land unit. The drainage pattern is very dense, with infield flat bottomlands generally less than 20 mm width. Vegetation includes low/shrub land and scattered forests.

Major economic activities are agriculture and main crops are maize, tea, coffee, pyrethrum, wheat, round potatoes and temperate fruits like pears, peaches and plums. Livestock keeping is also practiced in small scale. Processing of primary products like tea and wood.

1.3.2 The Mufindi Plateau

It is extensive and uniform extending from halfway Iringa to Mafinga up to Makambako. Its altitude ranges from 1700-2000m above sea level (a.s.l.). The average mean annual rainfall is 950 mm. In the eastern part of the plateau, the annual rainfall is slightly higher than 950 mm. The average evapotranspiration is 1300mm per annum, whereas the maximum mean temperature is 18.3°C (February) and the minimum is 13.1°C (July).

The soils are uniform yellow highly leached clays. Fertility is low due to high degree of chemical leaching and the absence of humid or dark top soils. Most organic matter has already mineralized due to relatively dry and warm conditions. Most of the plateau consists of undulating plateau with slopes of less than 8 degree gradient. The zone typified by extensive grassland characterized by clump shrubs and remnants of Miombo trees. Grasses are perennial with low nutritional value. The western part and North West of the zone are the main catchments of the Great Ruaha River.

Topography of Mufindi plateau is very extensive and uniform extending from half way Iringa – Mafinga up to Makambako. Most of this land is undulating with slopes of 2 to 8 degrees. Scattered areas and slopes towards drainage lines are steeper with slopes of up to 20 degree gradient. The drainage system is infield with moderately wide bottomlands. In addition, incised drainage occurs in areas where topography is steeper than general. Cultivated land is dominant. Miombo woodlands are common on the hill slopes in the eastern parts, while thicket vegetation and shrubs/grassland are more common in the western parts.

Mufindi District has one rainfall season starting from early November and ending in June. Rainfall is critical for agricultural production, which is the mainstay of the Mufindi district's economy and livelihood. Thus, human settlement and land use patterns are influenced by the distribution of rainfall such that there is a concentration of people on the Eastern Highland area.

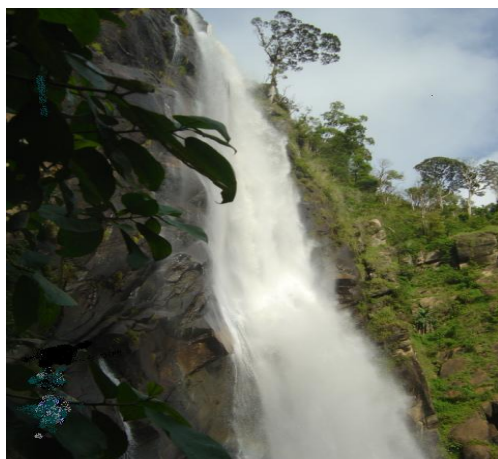
Major economic activity is agriculture and crops grown are maize, sorghum, beans, ground nuts and tropical fruits. Cash crops grown are sunflower, pyrethrum, tobacco and paprika. Livestock keeping is also practiced in small scale. Pyrethrum extraction is also done.

1.3.4 Topography

The district receives rainfall of between 950mm and 1,600mm annually, falling between the months of October or November and December and a dry season from January to February or March and a second lower peak occurs in February or March and the rains then tail off in April or sometimes in May.

1.3.5 Drainage System

Lowland and the highland are characterised by three main rivers namely; the little Ruaha that has four major branches (Mkewe-originating from Bumilayinga, Lyandembela-originating from Ifunda, Maduma and Maguvani-both flowing towards the Great Ruaha), the Kihansi that originates at Mapanda Village and Mwenga-both flowing towards Kilombero. There are also three water bodies namely Kihanga, Ngwazi and Nzivi dams. These bodies are important for fishing activities, tourism, research and electricity generation. The Kihansi, Mwenga and Lyandembela are the main sources of electricity generation in the country while tourism and research are not well advertised.

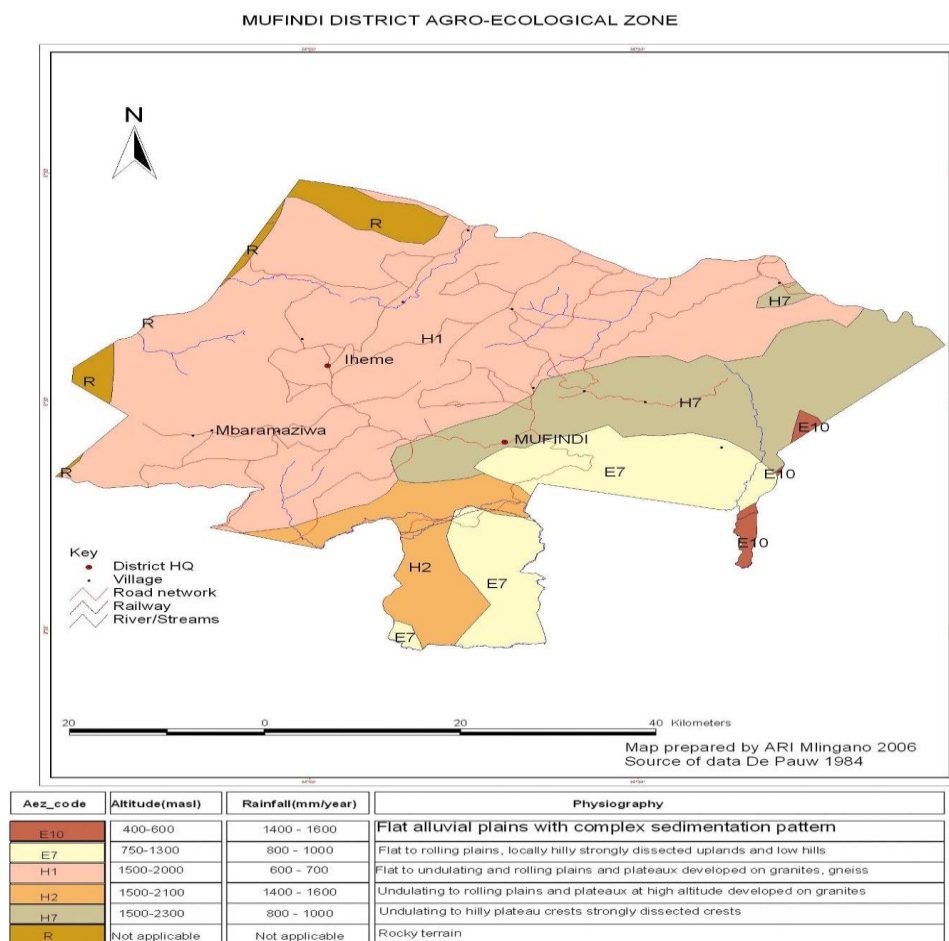


The Kihansi River and Spray Toads' Habitats

1.4 Agro – Ecological Zones (AEZ)

Like climate, there are 2 agro-ecological zones and associated landscape zones. The main economic activities in these zones are determined by the climate, altitude and soils.

Map 2 : Mufindi District Agro – Ecological Zone; 2012



1.5 Population

1.5.1 Ethnic Groups

The major ethnic group is the Wahehe who constitute about 85percent of the entire population. Their main activity is farming followed by a little livestock keeping. The Wabena, Wakinga and others make up the remaining 15 percent

and these migrated into the District from neighbouring Njombe and Makete districts in search of work in tea and timber industries as well as employment in the Government.

Table 1. 3: Distribution of Five Major Ethnicity Groups by Division, Mufindi District, 2012

S/No.	Division	Area(sq kms)	Wards	No of Ethnic Groups	Ethnic Groups
1	Ifwagi	2,100	9	3	Hehe, Kinga and Bena
2	Kasanga	1,500	8	3	Hehe, Kinga and Bena
3	Kibengu	820	3	2	Hehe and Bena
4	Malangali	1,500	6	3	Hehe, Kinga and Bena
5	Sadani	1,203	4	2	Hehe and Bena
Total		7,123	30		

Source: Mufindi District Executive Director's Office

1.5.2 Population Size and Growth

Separation of three districts of Njombe, Ludewa and Makete from Iringa Region has changed the status of Mufindi District in terms of population size. The population of Mufindi District increased from 282,071 people in 2002 to 317,731 in 2012, contributing about 34 percent of the population of Iringa Region. Based on 1988-2002 annual average growth rate of 1.5 percent, the district is estimated to have minimum population growth rate compared to other districts and is below Iringa regional average of 1.6 percent as well as the national average growth rate of 2.4. Growth rate for intercensal period of 2002-2012 for Mufindi and for the whole country not yet computed.

Table 1. 4 : Population Size and Growth by District, Iringa Region, 2002 and 2012 Census

District	Area (sq kms)	2002 Population Census		2012 Population Census		Growth Rate	
		Number	Percent	Number	Percent	1988 - 2002	2002 - 2012
Iringa Rural	20,414	245,033	29.2	254,032	27.0	1.6	-
Mufindi	7,123	282,071	33.7	317,731	33.8	1.5	-
Iringa Urban	331	106,371	12.7	151,345	16.1	1.7	-
Kilolo	7,875	204,372	24.4	218,130	23.2	*	-
Total	35,743	837,847	100.0	941,238	100.0	1.6	-

* Included under Iringa Rural District Source: Population Censuses Reports. 2002 and 2012

1.5.3 Population Density

Table 1.5 shows that the population density (45 persons per sq. km.) of Mufindi district that is almost twice that of region of 26 persons per sq. km and Mufindi was the most densely populated among the rural districts in the Region during 2012. Among other reasons, Mufindi District attracts a lot of migrants due to the availability of arable land, employment opportunities in the large scale farms of tea, pyrethrum and forestry activities. The increase of population growth has caused the population density of the District to increase by 21.6 percent compared to 37 persons per sq. km in 1988.

Table 1. 5: Population Densities by District in 2002 and 2012 Censuses, Iringa Region

District	Area (sq Kms)	2002 Population Census		2012 Population Census		Population Density	
		Number	Percent	Number	Percent	2002	2012
Iringa Rural	20,414	245,033	29.2	254,032	27.0	12	12
Mufindi	7,123	282,071	33.7	317,731	33.8	40	45
Iringa Urban	331	106,371	12.7	151,345	16.1	321	457
Kilolo	7,875	204,372	24.4	218,130	23.2	26	28
Total	35,743	837,847	100.0	941,238	100.0	23	26

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

At divisional level, in 2012 as in 2002, Ifwagi was the most densely populated division with 57 persons per sq. km in 2012) while Sadani was the least (26 persons per sq. kms) densely populated division in the district followed by Malangali Division with 33 persons per sq. km. As Table 1.6 shows, most of people are concentrated in Ifwagi, Kasanga and Kibengu divisions due to various reasons such as availability of adequate arable land.

Table 1. 6: Population Densities by Division in 2002 and 2012 Censuses, Mufindi District

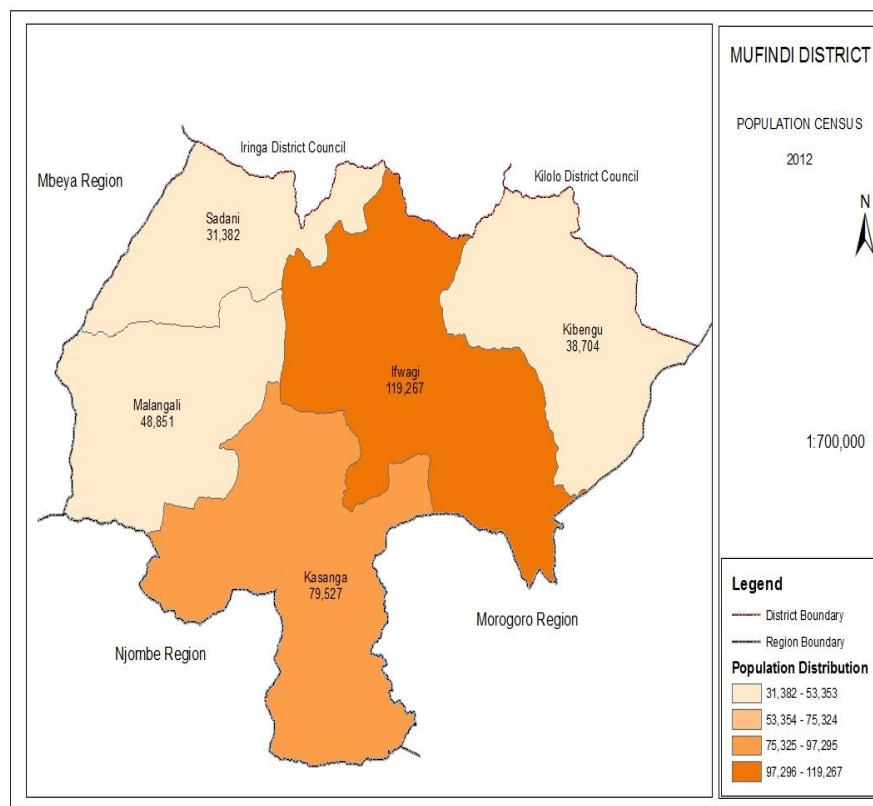
Division	Area (sq km)	2002 Population Census		2012 Population Census		Population Density	
		Number	Percent	Number	Percent	2002	2012
Ifwagi	2100	100,211	36.8	119,267	37.5	48	57
Kasanga	1500	71,525	26.3	79,527	25.0	48	53
Kibengu	820	36,674	13.5	38,704	12.2	45	47
Malangali	1500	45,327	16.7	48,851	15.4	30	33
Sadani	1203	28,334	10.4	31,382	9.9	24	26
Total	7,123	282,071	100.0	317,731	100.0	40	45

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

1.5.4 Population Trend

Table 1.7 shows that from 2002 to 2012 the District population increased slightly by about 35,660 people from 282,071 in 2002 to 317,731 in 2012. At division level, there were significant differences in the nature and level of population change with 3 divisions registering large population increase while population increased slightly in the remaining 2 divisions. In regards to the slight increase in population, the most affected division was Kibengu where the population increased by 5.5 percent followed by Malangali with a population increase of 7.8 percent.

Map 3 : Showing Population Distribution by Ward, Mufindi District Council; 2012 Census



Source: National Bureau of Statistics, GIS Unit, 2013

Table 1. 7: Population Trend by Division, Mufindi District, 2002 and 2012 Censuses

Division	2002 Population Census	2012 Population Census	Population Increase: 2002 to 2012	
			Number	Percent age
Ifwagi	100,211	119,267	19,056	19.0
Kasanga	71,525	79,527	8,002	11.2
Kibengu	36,674	38,704	2,030	5.5
Malangali	45,327	48,851	3,524	7.8
Sadani	28,334	31,382	3,048	10.8
Total	282,071	317,731	35,660	12.6

Source: Population Censuses (2002 and 2012) Reports.

At ward level, both population censuses indicates that Mufindi residents are unevenly distributed and there was internal migration among wards as shown in Table 1.8. Five wards were affected by out migration since their population has a negative increase, of which Malangali was the most affected ward lost about 14.4 percent of its residents, followed by Mtwango (6.5 percent), Mbalamaziwa (3.0 percent), Kasanga (2.5 percent) and Mdabulo (1.9 percent). The 2012 Population Census indicated that Boma ward in Mafinga Township was the most populous ward in the district, by having 21,723 persons of the total district population followed by Mtwango and Kinyanambo wards with 18,265 and 16,414 persons. The least populous ward was Mpanga with a total number of 727 inhabitants. Uneven distribution of Mufindi residents is mostly influenced by the availability of natural resources including arable land that is suitable for cultivation, availability of casual labour and accessibility of infrastructure.

Table 1. 8: Population Distribution and Percentage Change, by Ward, Mufindi District, 2002 and 2012 Censuses

Ward	2002 Population Census			2012 Population Census			Percent Population Change
	Male	Female	Total	Male	Female	Total	
Kiyowela	2,994	3,179	6,173	3,696	3,844	7,540	22.1
Makungu	4,914	4,948	9,862	6,360	6,391	12,751	29.3
Mninga	6,880	7,863	14,743	7,017	7,782	14,799	0.4
Kasanga	3,798	4,316	8,114	3,648	4,260	7,908	-2.5
Igowole	5,175	5,938	11,113	6,399	7,060	13,459	21.1
Mtambula	4,644	5,560	10,204	4,889	5,608	10,477	2.7
Itandula	4,785	5,858	10,643	5,427	6,439	11,866	11.5
Mbalamaziwa	3,897	4,375	8,272	3,736	4,285	8,021	-3.0
Idunda	2,492	2,845	5,337	2,924	3,186	6,110	14.5
Malangali	3,253	3,578	6,831	2,765	3,084	5,849	-14.4
Nyololo	4,853	5,500	10,353	5,643	6,336	11,979	15.7
Ihowanza	4,185	4,792	8,977	5,070	5,686	10,756	19.8
Ikweha	3,368	3,819	7,187	3,982	4,231	8,213	14.3
Sadani	3,598	4,210	7,808	4,111	4,474	8,585	10.0
Igombavanu	2,988	3,606	6,594	3,395	3,706	7,101	7.7

Table 1. 8 ctd: Population Distribution and Percentage Change, by Ward, Mufindi District, 2002 and 2012 Censuses

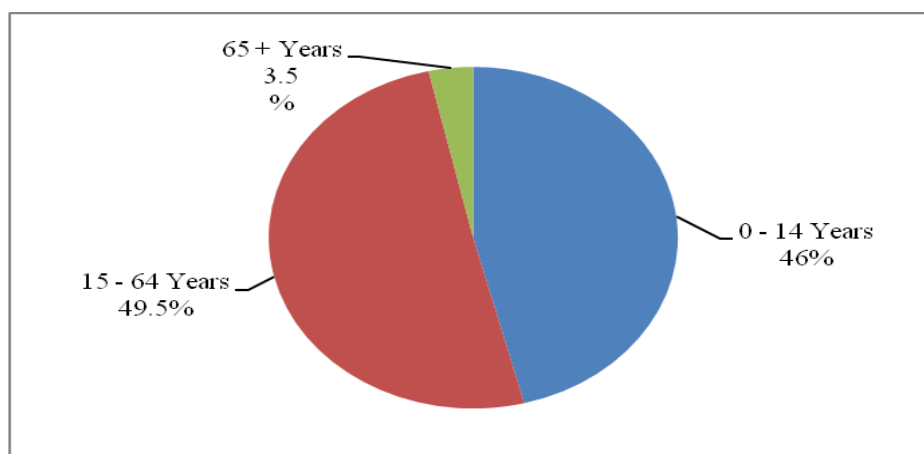
Ward	2002 Population Census			2012 Population Census			Percent Population Change
	Male	Female	Total	Male	Female	Total	
Bumilayinga	2,582	2,975	5,557	3,008	3,128	6,136	10.4
Mtwango	8,793	9,472	18,265	8,008	9,065	17,073	-6.5
Isalavuna	3,049	3,696	6,745	3,570	3,913	7,483	10.9
Rungemba	2,552	2,842	5,394	2,819	3,301	6,120	13.5
Ifwagi	7,702	8,635	16,337	8,088	8,634	16,722	2.4
Mdabulo	4,430	5,096	9,526	4,410	4,932	9,342	-1.9
Ihalimba	4,774	5,706	10,480	5,277	5,928	11,205	6.9
Kibengu	7,108	8,548	15,656	7,284	8,522	15,806	1.0
Mapanda	4,777	5,761	10,538	5,504	6,189	11,693	11.0
Mpanga			673	406	321	727	8.0
Ihanu	3,761	4,279	8,040	3,970	4,570	8,540	6.2
Luhunga	4,277	4,853	9,130	4,510	5,058	9,568	4.8
Boma	*	*	*	10,241	11,482	21,723	*
Kinyanambo	17,135	16,384	33,519	8,216	9,198	17,414	54.8
Sao Hill	*	*	*	6,668	6,097	12,765	*
Total	132,764	148,634	282,071	151,041	166,710	317,731	12.6

Source: Population Censuses (2002 and 2012) Reports.

1.5.5 Dependency Ratio

The Age Dependency Ratio gives number of children aged 0 – 14 years and adults aged 65 years and above for every 100 persons aged 15 – 64 years. Figure 2 shows that 46 percent of the district population were children aged less than 15 years, 3.5 percent were the elderly aged population (65 years and above), while 49.5 percent were the working age group (15 – 64 years) according to the 2002 Population Census. Therefore, the dependent group, 0-14 and 65 years and above constitute 49.6 percent of the total population. This means, in 2002 there were about 139,893 people (dependants) in the District who had to be supported by 142,178 people of working age.

Figure 2 : Percentage Distribution of Population by Broad Age Groups, Mufindi District 2002



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

Table 1.9 shows that in Mufindi district the number of dependants for every 100 persons in the active group decreased from 106 in 1988 to 98 in 2002. Looking at the rural/urban differentials, dependency ratio in rural areas was higher, estimated at 102 persons compared to 75 people in urban areas. Data tells that for every 100 active populations there were 98 peoples to be supported in Mufindi District. Nevertheless, the district had still a long way to go since its dependency ratio was above the regional average of 94 persons and national average of 51 persons.

Table 1. 9: Dependence Ratio by District, Iringa Region, 1988 and 2002 Population Censuses

District	1988 Population			2002 Population		
	Number of		Dependency Ratio	Number of		Dependency Ratio
	Dependants	Economically Active		Dependants	Economically Active	
Iringa Urban	40,410	44,101	92	42,710	63,661	67
Mufindi	117,627	111,271	106	139,893	142,177	98
Kilolo	*	*	*	102,321	102,051	100
Iringa Rural	187,063	174,852	107	121,489	123,544	98
Total Region	345,100	330,224	105	406,413	431,433	94

* Included in Iringa Rural District Council

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

1.5.6 Households and Household Size

Mufindi district had the largest number of households and this is perhaps due to the availability of arable land and other favourable socio-economic factors. With a population of 317,731 according to the 2012 census, there were 76,491 private households, equivalent to 34.5 percent of the total 221,600 private households in the region. However Mufindi district had the smallest average household size of 4.2 in the Region. As Table 1.10 shows, during the intercensal period, the average household size remained the same in Iringa Urban and Iringa Rural, but decreased in Mufindi and Kilolo. In 2012 Mufindi District had the smallest average household size at 4.2 persons per household.

Table 1. 10 : Distribution of Households and Average Households Size by Districts, Iringa Region, 2002 and 2012 Censuses.

District	2002 Census			2012 Census	
	Number of Households	Average Household size	Total Population	Number of Households	Average Household size
Iringa Urban	24,512	4.3	151,345	35,281	4.3
Iringa Rural	56,682	4.3	254,032	59,530	4.3
Kilolo	45,337	4.5	218,130	50,298	4.3
Mufindi	66,058	4.3	317,731	76,491	4.2
Total Region	192,589	4.3	941,238	221,600	4.2

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

Table 1.11 below shows the distribution of households and average household size by ward, In 2012 the average household size for Mufindi District was 4.2 people per household compared to 4.3 people per household in 2002. The smallest average household size was that of Mtwango at 3.6 people per household, while the largest was that of Sao Hill Ward at 4.8 people per household followed by Bumilayinga (4.6 persons) and Rungemba and Kibengu (4.5 persons each).

Table 1. 11 : Population, Households and Average Household Size by Ward, Mufindi District, 2002 and 2012 Censuses

Ward	2002 Population Census		2012 Population Census				Average
	Total	Average	Male	Female	Total	Number of Households	Household Size
		Households Size					
Kiyowela	1,411	4.4	3,696	3,844	7,540	1,714	4.4
Makungu	2,484	4.0	6,360	6,391	12,751	3,188	4.0
Mninga	3,640	4.1	7,017	7,782	14,799	3,795	3.9
Kasanga	2,020	4.0	3,648	4,260	7,908	2,028	3.9
Igowole	2,667	4.0	6,399	7,060	13,459	3,365	4.0
Mtambula	2,283	4.5	4,889	5,608	10,477	2,381	4.4
Itandula	2,545	4.2	5,427	6,439	11,866	2,697	4.4
Mbalamaziwa	2,033	4.1	3,736	4,285	8,021	1,910	4.2
Idunda	1,395	3.8	2,924	3,186	6,110	1,490	4.1
Malangali	1,633	4.2	2,765	3,084	5,849	1,427	4.1
Nyololo	2,396	4.3	5,643	6,336	11,979	2,852	4.2
Ihowanza	2,235	4.0	5,070	5,686	10,756	2,501	4.3
Ikweha	1,743	4.1	3,982	4,231	8,213	1,910	4.3
Sadani	1,824	4.3	4,111	4,474	8,585	2,044	4.2
Igombavanu	1,604	4.1	3,395	3,706	7,101	1,691	4.2
Bumilayinga	1,222	4.5	3,008	3,128	6,136	1,334	4.6
Mtwango	5,020	3.6	8,008	9,065	17,073	4,743	3.6
Isalavanu	1,663	4.1	3,570	3,913	7,483	1,740	4.3
Rungemba	1,278	4.2	2,819	3,301	6,120	1,360	4.5
Ifwagi	3,999	4.1	8,088	8,634	16,722	4,079	4.1

Table 1. 11 (ctd): Population, Households and Average Household Size by Ward, Mufindi District, 2002 and 2012 Censuses

Ward	2002 Population Census		2012 Population Census				Average Household Size
	Average		Male	Female	Total	Number of Households	
	Total	Households Size					
Mdabulo	2,079	4.6	4,410	4,932	9,342	2,076	4.5
Ihalimba	2,316	4.5	5,277	5,928	11,205	2,547	4.4
Kibengu	3,200	4.9	7,284	8,522	15,806	3,512	4.5
Mapanda	2,306	4.6	5,504	6,189	11,693	2,658	4.4
Mpanga	178	3.8	406	321	727	182	4.0
Ihanu	1,882	4.3	3,970	4,570	8,540	2,083	4.1
Luhunga	2,344	3.9	4,510	5,058	9,568	2,225	4.3
Boma	*		10,241	11,482	21,723	5,717	3.8
Kinyanambo	7,548	4.4	8,216	9,198	17,414	4,465	3.9
Sao Hill	*		6,668	6,097	12,765	2,659	4.8
Total	66,948	4.3	151,041	166,710	317,731	76,491	4.2

Source: NBS Computed Data, Population Censuses Reports, 2002 and 2012.

CHAPTER TWO

The District Economy

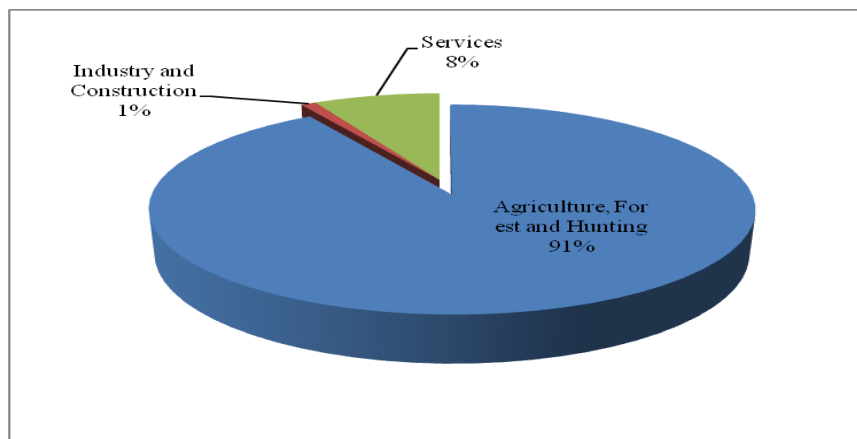
2.0 Introduction

Chapter Two highlights the economic performance of Mufindi District and its poverty status. The economic indicators used to assess the District economy include the Gross Domestic Product (GDP), Per Capita Gross Domestic Product and the main sources of income for the inhabitants of the District. The poverty indicators cover income and non-income indicators, including percentage of people living below poverty line, the spread of poverty, consumption pattern, and health and education status, access to drinking water and housing conditions.

2.1 GDP and Per Capita GDP

Mufindi, like other rural districts of Iringa Region, its economy is dominated by the agriculture sector which employs more than 85 percent of its population. Both cash and food crops are produced, with the latter dominating. According to the results of the 2008 Regional Gross Domestic Product Survey, agriculture sector contributes close to 91 per cent of the District's GDP, of which crop production sub sector contributed about 90.2 percent followed by livestock (0.7 percent) while hunting and forestry accounted for 0.2 percent. Services and industry sectors account for 8 percent and one percent respectively. The performance of the manufacturing sector has benefited from the presence of large scale multinational companies which are engaging in the production of pyrethrum and tea productions. These are Pyrethrum Company of Tanzania (PCT), Uniliver Tea Tanzania Ltd, Mufindi Tea Company and Chai Bora. Chai Bora is basically for tea packaging while the other two companies are engaged in processing. There are also a number of wood related manufacturing industries including the Mufindi Paper Mill (MPM) at Mgololo, Sao Hill Industries and many other small industries. Equally important are a number of agricultural based industries of varied sizes.

Figure 3 :Percentage Contribution of District GDP by Broad Sector, Mufindi District, 2008



Source: Iringa Region GDP Report, 2008

The computation the per capita GDP, of Mufindi District is affected by its population size. Mufindi is the mostly densely populated district in the region with an estimated of 312,873 people (the 2008 projected population) Its per capita GDP was TZS 1,206,917 per annual.

2.2 Poverty Indicators

As stated earlier, beside GDP and per capita GDP, there are a number of other indicators that portray the poverty level in the District. These indicators include Gini coefficient, poverty gap, percent of households below basic needs poverty line, main source of cash income, food consumption patterns, net enrolment, adult literacy rate, health indicators and access to safe drinking water. They also include housing conditions in terms of type of toilets, roofing materials and source of lighting energy as well as source of cooking energy.

2.2.1 Income Poverty Rate, Poverty Gap and Gini Coefficient

Mufindi was not among the best 20 districts in Tanzania Mainland in regards to the people living below poverty line, but at regional level, it is considered to be the second best district according to the 2005 Poverty and Human Development Report (Poverty and Human Development Reports, 2005). The Report indicates that only 24 percent of Mufindi people were living below the poverty line

(Table 2.1). With respect to rate of poverty gap, Mufindi and Kilolo are also the second best districts by having only 7 percent each after Iringa urban (5 percent). The situation is different in regard to the Gini Coefficient Rate. At 43 percent, Mufindi had the worst uneven distribution of wealth in Iringa region. The best district in terms of the distribution of income among people was Kilolo whose rate was 31 percent followed by Mufindi (32 percent) as indicated in Table 2.1.

Table 2. 1: Selected Poverty Indicators by District, Iringa Region; 2005

District	Percent of People Live Below Poverty Line	Poverty Gap	Gini Coefficient Rate	Number of Poor Per Sq. Km.
Iringa Rural	31	8	32	4
Mufindi	24	7	43	6
Iringa Urban	18	5	35	132
Kilolo	29	7	31	7

Source: Poverty and Human Development Report, 2005

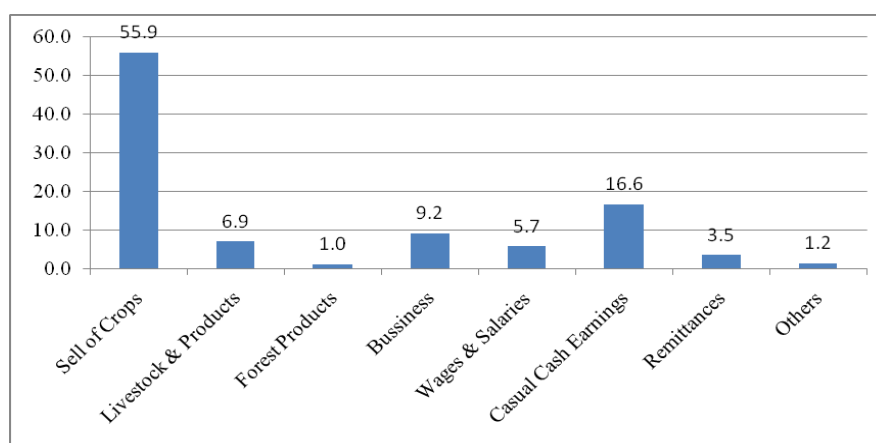
2.2.2 Main Source of Cash Income.



Forest products has become an important economic activity in Mufindi District

National Agriculture Sample Survey (2008) report show that, Agriculture Sector ranked first in regards to the selling of both annual and permanent crops. Figure 4 shows that cash income comes from selling crops (55.5 percent), selling live livestock and their products (6.9 percent) casual cash earnings (16.6 percent), different businesses,(9.2 percent) and 5.7 percent wages and salaries. Also, significant cash earnings (3.5 percent) come from outside the District as remittances while forest products accounts for one percent of the income of Mufindi inhabitants (Figure 4).

Figure 4 : Percentage Distribution of cash Income by Main Source, Mufindi District, 2008

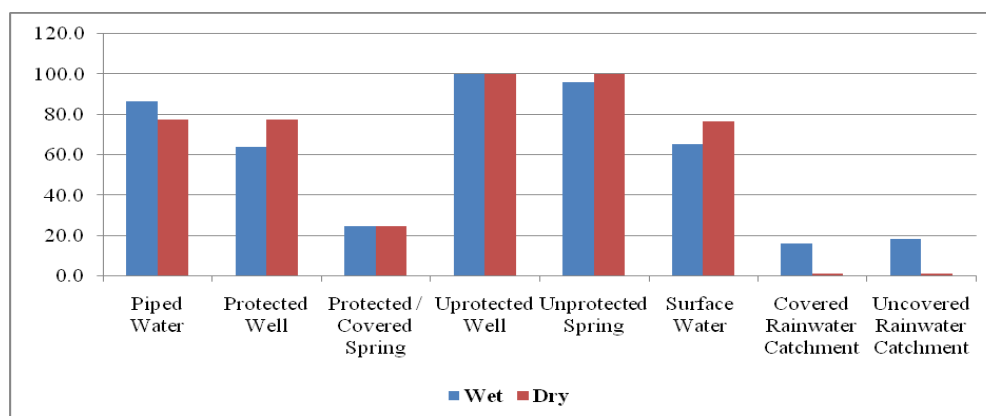


Source: National Agriculture Sample Survey Report, 2010

2.2.3 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 the District. Figure 5 show that there is insignificant variation in the sources of water during wet and dry seasons. For example, the 2008 National Agriculture Sample Survey revealed that unprotected wells and springs together with piped water were the main source of drinking water in Mufindi District, followed by protected wells and surface water including dams, rivers and lakes. However, a significant proportion of households use rain water catchments both covered and uncovered during the wet season (Figure 5).

Figure 5 :Percentage of households by Type of Water Source during Wet and Dry Seasons, Mufindi District, 2008

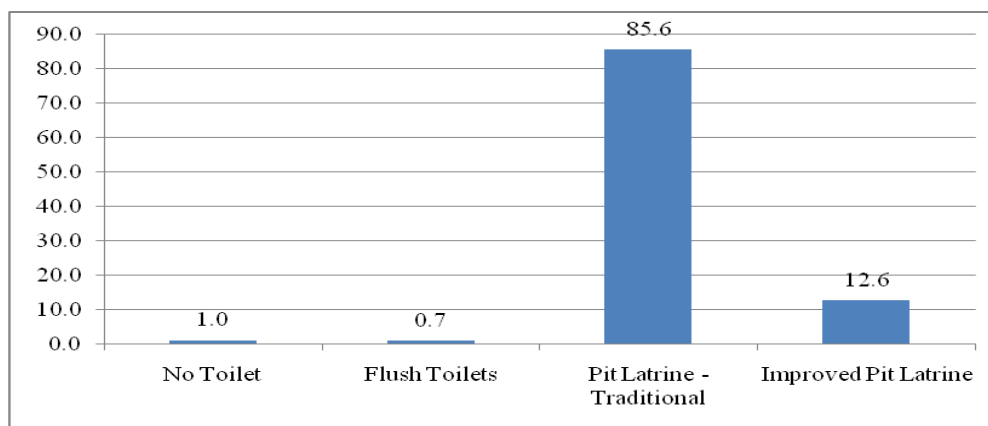


Source: 2007/08, NBS, National Agriculture Sample Survey Report, Iringa Region

2.2.4 Types of Toilets

With respect to availability of toilets, the National Agriculture Sample Survey of 2007/08 indicates that 85.6 percent of all households in Mufindi district use traditional pitlatrines followed by improved pit latrine (12.6 percent) and flash toilets (0.7 percent) (Figure 6). However, the district still has almost one percent of the total number of households which do not use of toilets.

Figure 6: Percentage of Households by Type of Toilet Facility, Mufindi District, 2008

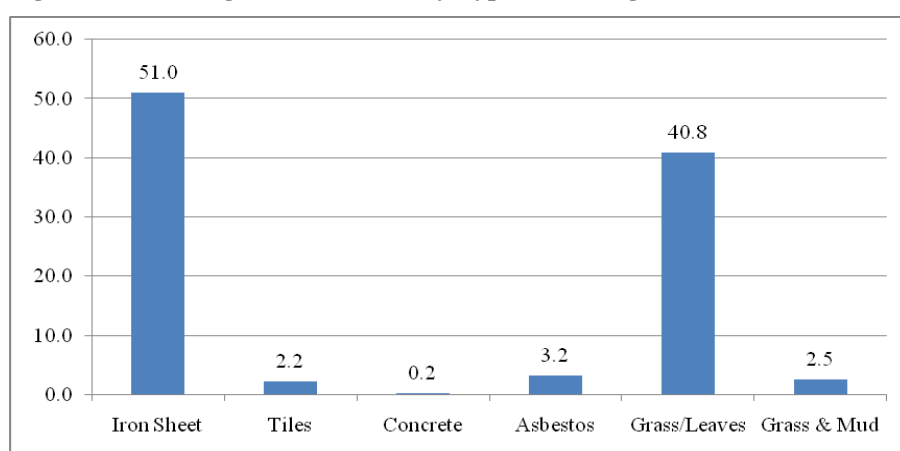


Source: 2007/08, NBS, National Agriculture Sample Survey Report,

2.2.5 Types of Roofing Materials

The National Sample Census of Agriculture 2007/08 revealed that grass and leaves were the most common roofing materials in the rural areas of the country. However the situation is different in Mufindi District where 51.0 percent of households had iron sheets the main roofing material, followed by grass or leaves (40.8 percent), asbestos (3.2 percent) while only 2.5 percent used grass and mud (Figure 7).

Figure 7: Percentage of Households by Type of Roofing Material, Mufindi District;2007/08

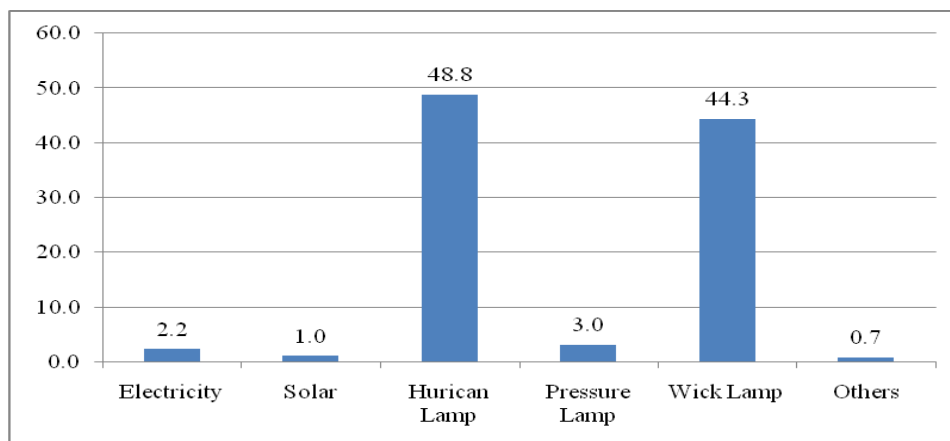


Source: 2007/08, NBS, National Agriculture Sample Survey Report,

2.2.5 Source of Lighting Energy

Because of the lack of electricity in rural areas, the 2007/08 National Sample Census of Agriculture revealed that only 2.2 percent of households used electricity. Hurricane lamp was found to be the main source of lighting energy; about 48.8 percent of total households used this source of energy, followed by wick lamp (44.3 percent) and pressure lamp (3.0 percent). However, there is an increase in percentage in the use of solar energy in the district. Almost one percent of households used solar energy for lightings compared to 0.02 percent in 2003.

Figure 8: Percentage of Households by Main Source of Energy for Lighting, Mufindi district, 2007/08

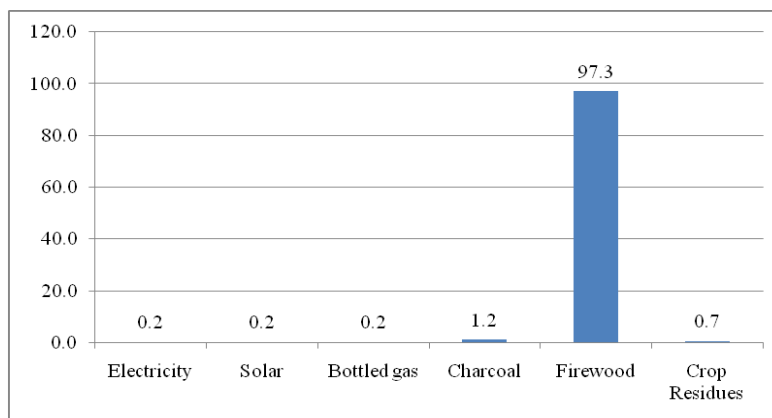


Source: 2007/08, NBS, National Agriculture Sample Survey Report,

2.2.6 Source of Energy for Cooking

As revealed by the 2007/08 National Sample Census of Agriculture, firewood was the source of energy for cooking in the country. This also applied to Mufindi District. The National Sample Census of Agriculture 2007/08, 97.3 percent of the households in the District used firewood for cooking, followed by charcoal (1.2 percent). An insignificant number of the households reported using modern and/or environmental friendly source of energy for cooking such as electricity, solar energy, crop residues and bottled gas. If the current practice continues, deforestation and depletion of natural vegetation through the use of firewood and charcoal will destroy the nature and ecology of Mufindi District. Measures should be taken to safe guard the natural vegetation and ecology of the district.

Figure 9 : Percentage of Households by Main Source of Energy for Cooking, Mufindi District, 2007/08

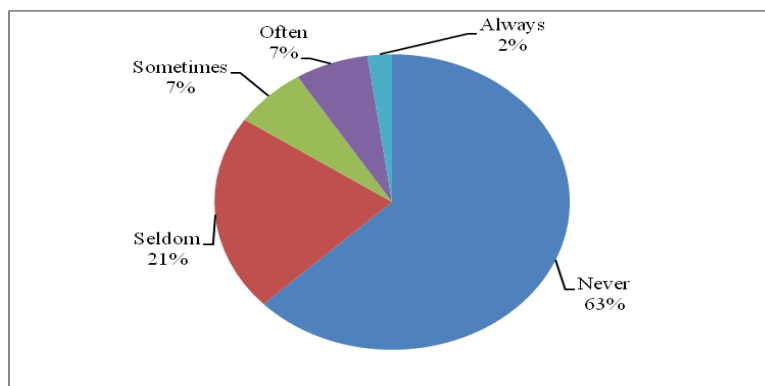


Source: 2007/08, NBS, National Agriculture Sample Survey Report,

2.2.7 Food Security

Food security in Mufindi District is very significant, according to the 2007/2008 National Sample Census of Agriculture, only about 2 percent of the households said they always experienced food insufficiency, and 63 percent of the total households in the District said they had never experienced problems in satisfying the household food requirements and 21 percent they seldom experienced problems in satisfying the household food requirements. The report also revealed that 7 percent said they either often or sometimes experienced problems in satisfying the household food requirements (Figure 10).

Figure 10 : Percentage Distribution of Rural Agricultural Households by Status of Food Satisfaction, Mufindi District, 2007/08



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

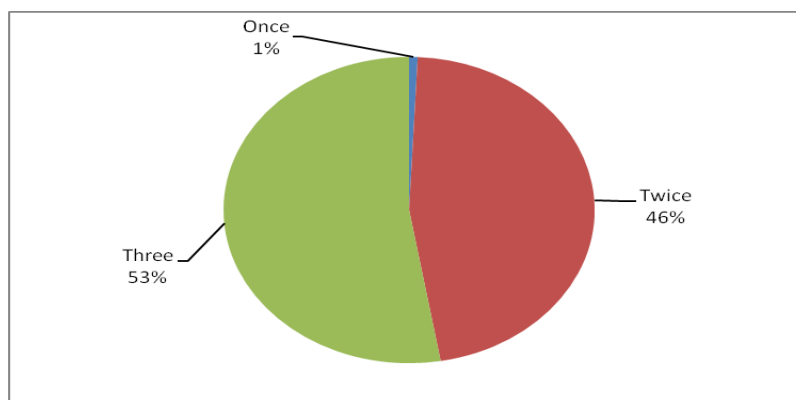
2.2.8 Food Consumption Patterns

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.

2.2.8.1 Number of Meals per Day

The National Sample Census of Agriculture 2007/08 revealed that the majority of rural agricultural households in Mufindi District normally had three meals per day (53 percent of total households), while 46 percent have two meals. Moreover, the results also indicate that one percent of total households had one meal. These results indicate that food insufficiency affects a very small proportion of rural households in the District.

Figure 11 : Percentage Distribution of Rural Agricultural Households by Meals taken per Day, Mufindi District; 2007/08

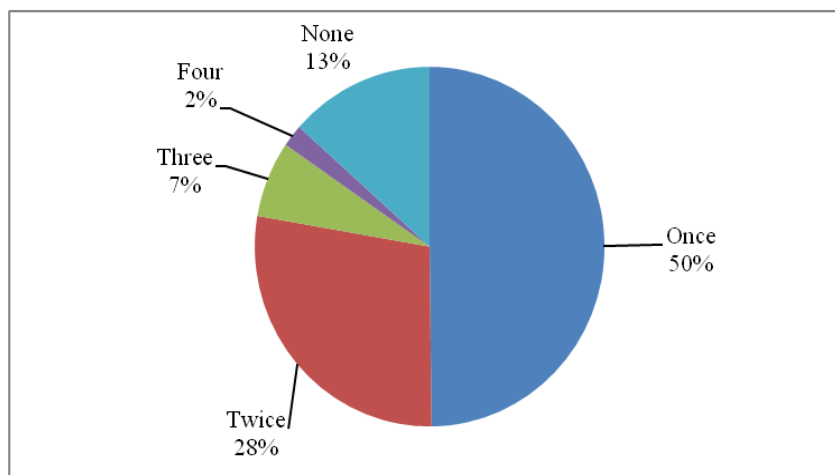


Source: 2007/08, NBS, National Agriculture Sample Survey Report

2.2.8.2 Protein (Meat and Fish) Consumption Frequencies

Mufindi District had a big percentage of households that did not eat meat compared to other districts in the region (Agricultural Sample Census 2007/2008). Figure 12 shows that most of the households ate meat once per week (50 percent), followed by those that ate meat twice (28 percent), then those that ate meat three times (7 percent). However, a significant number of households (13 percent) did not eat meat during the week prior to the enumeration.

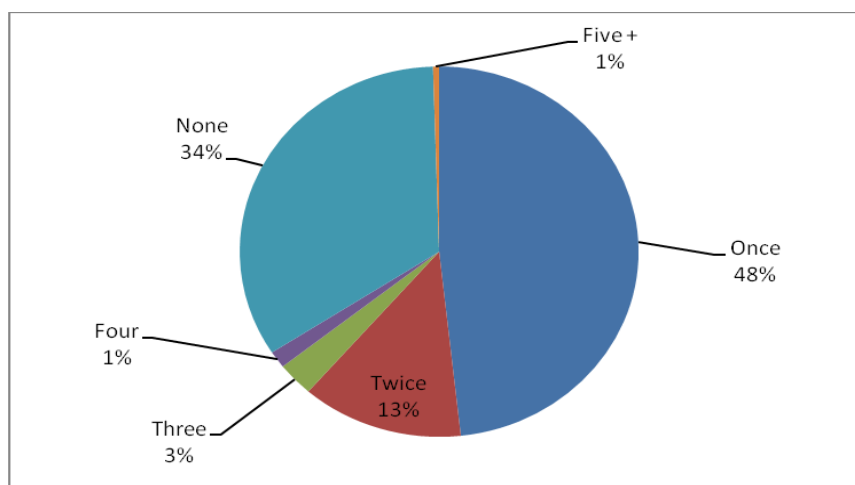
Figure 12: Percentage Distribution of Rural Agricultural Households by Frequency of Meat Consumption per Week by Households, Mufindi District, 2007/08



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

The observation was different regarding fish consumption. More than a quarter (about 34 percent) of households did not eat fish during the week prior to the enumeration. However, as Figure 13 shows, about 48 percent of the households ate fish once and 13 percent ate fish twice per week and those who ate fish three times per week were 3 percent. About one percent of households ate fish either four or five times in the week respectively.

Figure 13: Percentage Distribution of Rural Agricultural Households by Frequency of Fish Consumption per Week by Household, Mufindi District, 2007/08



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

2.2.7 Land Development

Land use planning and surveying are essential in the development of both urban and rural areas in the district. 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 for instance afforestation and grazing are the major needs for land.

The situation in Mufindi district in relation to land use planning and surveying in rural areas is impressive. A total of 131 out of 132 villages have been surveyed by December 2012; 30 villages have land use plans and the exercise is going concurrent with the preparation of traditional title deeds. In the planning of farms, grazing areas and human settlements in rural areas, the village is the first step. By the end of 2012, Mufindi District had managed to survey as many as 131 villages out of which 88 villages (67.2 percent) were offered their village land certificates. More efforts need to be directed at finishing the surveying of the remaining few villages and the issuing of certificates to the already surveyed villages so that they can organise themselves in the use of land efficiently and obtain loans from financial institutions.

Table 2. 2: Village Land Use Planning in Rural Areas by Ward, Mufindi District; 2012

Ward	Number of Villages	Number of Surveyed Village	Percent of Surveyed Village	Number of Village Offered Certificates	Percent of Village Offered Certificates
Kiyowela	4	4	100.0	4	100.0
Makungu	4	4	100.0	4	100.0
Mninga	5	5	100.0	5	100.0
Kasanga	5	5	100.0	3	60.0
Igowole	4	4	100.0	1	25.0
Mtambula	4	4	100.0	3	75.0
Itandula	5	5	100.0	-	0.0
Mbalamaziwa	6	6	100.0	4	66.7
Idunda	3	3	100.0	-	0.0
Malangali	5	5	100.0	1	20.0
Nyololo	5	5	100.0	4	80.0
Ihowanza	4	4	100.0	-	0.0
Ikweha	4	4	100.0	1	25.0
Sadani	5	5	100.0	2	40.0
Igombavu	5	5	100.0	-	0.0
Bumilayinga	4	4	100.0	4	100.0
Mtwango	6	6	100.0	6	100.0
Isalavuna	4	4	100.0	2	50.0
Rungemba	3	3	100.0	3	100.0
Ifwagi	7	7	100.0	7	100.0
Mdabulo	5	5	100.0	5	100.0
Ihalimba	5	5	100.0	5	100.0
Kibengu	6	6	100.0	6	100.0
Mapanda	5	5	100.0	3	60.0
Mpanga	1	0	0.0	-	0.0
Ihanu	6	6	100.0	6	100.0
Luhunga	5	5	100.0	2	40.0
Boma	*	*	*	*	*
Kinyanambo	7	7	100.0	7	100.0
Sao Hill	*	*	*	*	*
Total	132	131	99.2	88	67.2

Source: Mufindi District Executive Director's Office, 2013

CHAPTER THREE

Productive Sectors

3.0 Overview

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

3.1 Agriculture

3.1.1 Introduction



As majority of small scale farmers use hand hoe as a common tilling tool, the district has long way to go attain Kilimo Kwanza targets

Agriculture is the leading sector in Mufindi District. Favorable rainfall and good soil texture makes Mufindi a big producer of both food and cash crops. In terms of cash crops, tea provides significant contribution to the district's economy. Tea and forests have made establishment of industries in the District possible as they provide raw materials for the production of made tea and timber. According to Agriculture Sample Census of 2007/08, Mufindi District had the largest number of households involved in agriculture in the Region. However, the District produces four major food crops namely maize, beans, irish potatoes and wheat. The major cash crops grown are tea which is the leading, followed by sunflower which is a food and cash crop, then pyrethrum and coffee. Vegetable production is small in the District. Major livestock found in the District are cattle, poultry, goat and sheep.

3.1.2 Distribution of Arable Land

Arable land is the land that is suitable for growing crops. Mufindi District has a total land area of 712,300 hectares of which arable land is 652,630 (92 percent). Table 3.1 reveals that only 40.4 percent of the total arable land was under cultivation in the year 2012. Mufindi District had the largest number of households involved in smallholder agriculture according to Agriculture Sample Census 2007/08 yet only 40.4 percent of the arable land was used for crops and trees plantation as it is revealed in Table 3.1. The utilization of arable land in Mufindi District is not sufficient as more than half (59.6 percent) of arable land was not used for agricultural activities in 2011/12. This is attributed to the use of inappropriate agriculture implements since farmers use hand hoe which is time and energy consuming. The three leading divisions in the utilization of arable land were Sadani (56.8), Malangali Division (55.8 percent) and Kasanga Division (42.8 percent). The ward with the highest utilization of the land for agriculture was Itandula Ward which utilized 88.6 percent of its arable land, it was followed by Luhunga ward (83.0 percent) the third was Isalavanu with (77.1 percent).

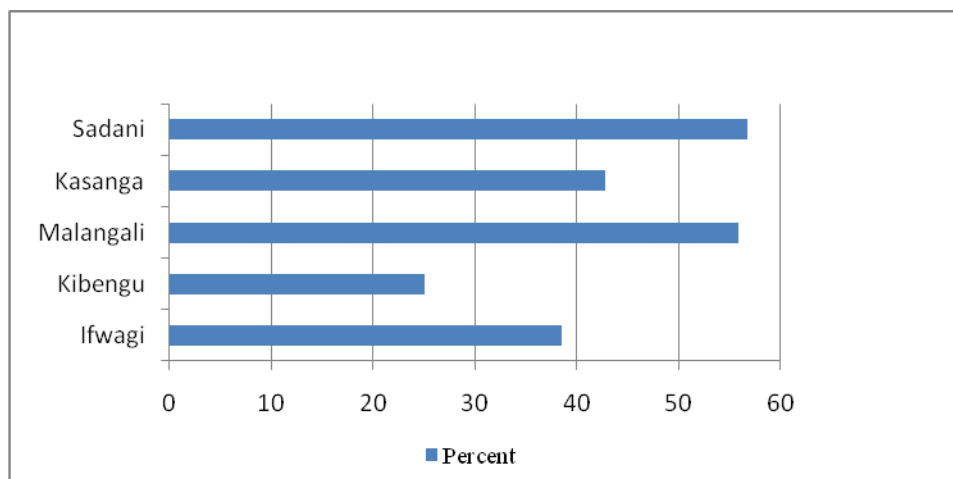
Table 3. 1: Distribution of Total Arable Land by Ward, Mufindi District; 2012

Ward	Total Land Area (Ha)	Arable Land Area (Ha)	Arable land Under cultivation (Ha)	% of Arable land under cultivation
Boma	1,600	96	21	21.9
Kinyanambo	2,010	983	434	44.2
Sao hill	4,183	3,027	1,171	38.7
Rungemba	17,836	14,963	1,488	9.9
Ifwagi	29,117	26,935	12,094	44.9
Mdabulo	21,297	19,650	10,234	52.1
Luhunga	16,586	14,759	12,253	83.0
Ihanu	105,321	102,945	32,409	31.5
Mtwango	9,801	6,579	3,013	45.8
Total Ifwagi Division	207,751	189,937	73,117	38.5
Kibengu	53,814	50,840	9,605	18.9
Ihalimba	32,731	29,642	6,385	21.5
Mapanda	86,941	85,965	25,773	30.0
Total Kibengu Division	173,486	166,447	41,763	25.1
Malangali	13,268	9,630	5,105	53.0
Nyololo	25,505	22,948	11,020	48.0
Idunda	6,729	4,273	2,993	70.0
Ihowanza	7,976	5,477	4,048	73.9
Bumilayinga	24,987	22,996	13,924	60.5
Mbalamaziwa	11,061	8,781	4,226	48.1
Total Malangali Division	89,526	74,105	41,316	55.8

Table 3. 1 (ctd): Distribution of Total Arable Land by Ward, Mufindi District; 2012

Ward	Total Land Area (Ha)	Arable Land Area (Ha)	Arable land Under cultivation (Ha)	% of Arable land under cultivation
Kasanga	15,384	14,655	3,667	25.0
Mtambula	4,579	2,863	1,552	54.2
Makungu	25,070	23,935	7,937	33.2
Igowole	12,784	10,894	5,242	48.1
Kiyowela	66,396	64,875	31,975	49.3
Mninga	12,703	9,974	1,578	15.8
Itandula	7,740	5,535	4,906	88.6
Mpanga Tazara	2,219	2,069	869	42.0
Total Kasanga Division	146,875	134,800	57,726	42.8
Sadani	24,500	21,848	8,457	38.7
Isalavanu	10,500	9,857	7,598	77.1
Igombavanu	16,547	14,674	9,082	61.9
Ikweha	43,115	40,962	24,493	59.8
Total Sadani Division	94,662	87,341	49,630	56.8
District-Total	712,300	652,630	263,552	40.4

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

Figure 14: Percentage Distribution of Arable Land under Cultivation by Division, Mufindi District; 2012

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

3.1.3: Food and Cash Crops Production

3.1.3.1 Food Crops Production

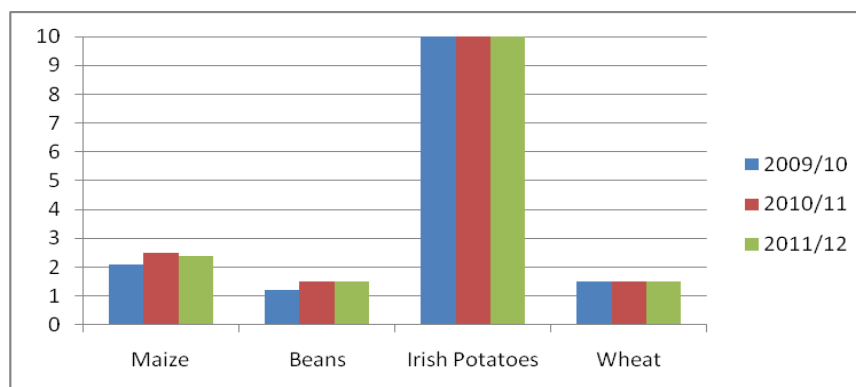
Maize is the most important food crop and is produced as both staple food and a cash crop. It is followed by beans, Irish potatoes and wheat. Table 3.2 shows that the total area planted with food crops decreased from 151,020 hectares in 2009/10 to 148,969 hectares in 2010/11 and then increased to 153,116 hectares in 2011/12. Despite this fluctuation of the planted area, the total production shows increasing trend in all years. The total production increased from 321,891 tons in 2009/10 to 367,295 tons in 2010/11 and then it increased to 372,606 in 2011/12. Maize had a highest planted area in all the years while wheat had the least planted area among all the food crops planted in all the years. Irish potatoes had the best yield per hectare of 10 tons in 2011/12. Areas planted with food crops show increasing trend. Increased by 28,020 hectares equivalent to 22.8 percent from 123,000 hectares counted during 2007/08 Agriculture Sample Census to 151,020 hectares in 2009/10. Between 2009/10 and 2011/12, overall area planted with food crops increased by 2,056 hectares (1.4 percent) from 151,020 hectares to 153,116 hectares in 2011/12. However, as Table 3.2 shows, maize dominates hectares under food crops followed by beans, Irish potatoes and wheat had small areas. Increase in area planted is evidence of surplus which the district is experiencing.

Table 3. 2 : Production and Yield of Major Food Crops, Mufindi District; 2009/10 - 2011/12

Crop	2009/10		Yield (t/ha)	2010/11		Yield (t/ha)	2011/12		
	Planted Area (ha)	Production (tonne)		Planted Area (ha)	Production (Tons)		Planted Area (ha)	Production (Tonne)	Yield (t/ha)
Maize	103,215	215,430	2.1	100,226	251,316	2.5	102,915	247,287	2.4
Beans	37,496	44,995	1.2	37,496	56,244	1.5	38,022	57,033	1.5
Irish Potatoes	5,412	54,120	10.0	5,043	50,430	10.0	5,884.30	58,843	10.0
Wheat	4,897	7,346	1.5	6,204	9,305	1.5	6,295	9,443	1.5
Total	151,020	321,891	2.1	148,969	367,295	2.5	153,116	372,606	2.4

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

Figure 15: Production per Hectare of Major Food Crops, Mufindi; 2009/10 - 2011/12



Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

(a) Maize



Maize is the principle food crop in the district

According to Agriculture Sample census 2007/08 Mufindi District had the second largest number of maize growing households and the second in largest area planted with maize. Table 3.2 maize was the dominant food crop in the District in terms of area planted and total tonnes produced. The largest producer of maize in Iringa Region was Mufindi followed Iringa Rural and Kilolo. Table 3.2 shows that the crop occupied an average of 102,119 hectares per year over the period 2009/10 – 2011/12 which was higher than of any other food crop. The area planted with maize was 67 percent of the total area planted with major food crops in 2011/12; According to the Table 3.3, production of maize per hectare is low. Only averages of 2.3 tonne per hectare were harvested against the normal yield of

(2.5- 3.0) tonne of maize per hectare. The reason for such low yield should be sought. Maize is grown in almost every ward in the District.

(b) Beans

According to 2007/08 Agriculture Sample Census, Mufindi District had the second largest area planted with beans in Iringa Region and was the second district in beans production in the Region. According to Table 3.2, the average area planted with beans was 25 percent of the average total area planted with major food crops in the three year period the production was 44995, tonnes in 2009/10, 56244 tonnes in 2010/11 and 57033 tonnes in 2011/12. Average yield in tonnes per hectare was 1.2 in 2009/10 and 1.5 in both 2010/11 and 2011/12.

(c) Irish Potatoes.

Mufindi ranked fourth in Irish potatoes production in Iringa Region according to the Agriculture Sample Census 2007/08. Irish potatoes which are a tuber crop grown in wet season had an average planted area of 5446 hectares during for the period 2009/10-2010/12. The yield per hectare of Irish potatoes was highest among all the major food crops in the District. Table 3.2 shows that the crop had a yield of 10.0 tonnes/hectare in all the three years.

(d) Wheat

Agriculture Sample Census 2007/08 reveals that Mufindi was second in Iringa Region in both the area planted with wheat and in wheat production. Table 3.2 gives the number of hectares planted with wheat and the quantity produced. The average yield of wheat remained 1.5 tonnes per hectare in all years reported in the Table.

3.1.4 Food Security

Mufindi District is secure in terms of food. The status of food satisfaction in Mufindi District according to the Agriculture Sample Census 2007/08 was that 63 percent of the households never experienced food shortage, followed by those that seldomly experienced food shortage (22 percent), sometimes (7 percent) often 7 percent and those who always experienced food shortage (2 percent).

3.1.5 Major Cash Crops Production

3.1.5.1 Area planted with cash crops



Tea is the leading cash crop in Mufindi district

Tea is a major cash crop in Mufindi District. The District is leading in Iringa Region in the production of tea. Tea contributes a lot to the economy of the District and Iringa Region as a whole. Table 3.3 reveals that the average area planted with tea per year was 5,751 hectares over the period 2007/08-2011/12. Tea accounted for 49 percent of the average total area planted with major cash crops., Sun flower which is both a food and a cash crop follows after tea, occupying an average area of 4,699 hectares or 40 percent of the average total area under cash crops. Pyrethrum was the third cash crop grown in Mufindi District with a cumulative planted area of 4,279 hectares during the period 2007/08 to 2011/12 and an average planted area of 856 hectares per year or 7 percent of the average total area planted with major cash crops in the District. Coffee is another cash crop grown in Mufindi District. It is the least of the four major cash crops grown with an average of 340 hectares per year or 3 percent of the average total area. Table 3.3 also reveals that the average area planted with major cash crops per year. Cash crops utilized 11,646 hectares and the largest area under cash crop was in 2010/11 with a total of 13,154 hectares.

Table 3. 3: Estimated Area (ha) under Major Cash Crops, Mufindi District; 2007/08-2011/12

Crop	2007/08	2008/09	2009/10	2010/11	2011/2012	Total	Yearly Avarage	Percent of Total
Tea	5,777	5,745	5,745	5,745	5,745	28,757	5,751	49
Coffee	145	398	398	405	354	1,700	340	3
Sunflower	3,923	4,659	4,912	5,250	4,752	23,496	4,699	40
Pyrethrum	225	372	1,654	1,754	274	4,279	856	7
Total	10,070	11,174	12,709	13,154	11,125	58,232	11,646	100

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

3.1.5.2 Production per Hectare of Major Cash crops

The production of cash crops during the three years of 2007/08, 2009/10 and 2011/12 is shown in Table 3.4a. Tea had the highest production in all the three years. Its production was 24,913 tonnes in 2007/08 which declined to 18,112 tonnes in the year 2009/10 and then rose slightly to 18,225 tonnes in 2011/12. The average production per hectare was higher for tea than other major cash crops in the District. The yield tea declined from 4.4a tonnes per hectare in 2007/08 to 3.2 in 2009/10 and 2011/12. The yield of coffee declined from 0.8 tonnes per hectare in 2007/08 to 0.3 in 2009/10 and 2011/12. The yield of sunflower also decreased from 1.0 tonnes per hectares in 2007/08 to 0.9 in 2009/10 and it rose again to 1.1 tonnes per hectare in 2011/12. The situation was worse in pyrethrum where the yield dropped from 1.6 tonnes per hectares in 2007/08 to 1.1 in 2009/10 and then further dropped to 0.6 tonnes per hectare in 2011/12. The district authorities should find a reason behind this decline in production.

(a) Tea

Mufindi is the leading District in tea production in Iringa Region. The crop is mostly grown in large scale rather than small scale. As findings in Table 3.4 reveals, size of large scale tea farms ranges from 180 to 3,620 hectares. Unilever Tanzania Limited has the largest size of 3,620 hectares while the smallest size of 180 hectares belongs to Malenda (Table 3.4). Favourable condition and soil texture is the main reason for tea farming is more popular in Mufindi than other districts in Iringa Region.

Table 3. 4: Large Scale Farms of Tea (Over 50 hectares), Mufindi District Council; 2011/12

S/N.	Farm Name	Location (Ward)	Area (Hectares)	Distance from Iringa Town (km.)	Propriator
1.	MTC	Ifwagi	901	120	MTC
2.	Unilever Tanzania Ltd	Mtwango	3620	130	Unilever Tanzania Ltd
3.	Malenda farm	Kasanga	180	130	Ng'umbi Family
Total			4701	380	

(b) Coffee

Coffee is grown on a area in Mufindi district although the weather condition of Mufindi district is suitable for growing coffee, famers prefer tea production over coffee because tea production is not labor intensive as compared to coffee.

(c) Sunflower

Sunflower is an oil seed crop that is most widely grown in the District. It serves as both food and cash crop; it has low soil nutrient requirements, is less labor intensive and would normally be able to produce even if it is planted late. This crop is grown routinely throughout the district each year. Sunflower is the second leading cash crop produced in Mufindi District.

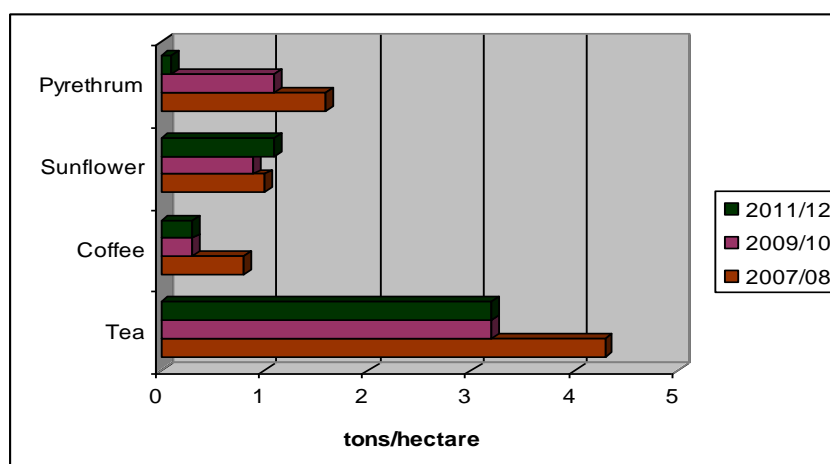
(d) Pyrethrum

Mufindi district is the leading district in production of pyrethrum in Iringa Region. Among challenges facing pyrethrum, low price against production cost is the major challenge. On the other hand, pyrethrum is a crop that is produced for industrial use only therefore famers have no wide market for their produce since there is only one buyer (industry) in the District, It this aspect is if not looked at properly it may result into low production of the crop.

Table 3.4 a: Production and Yield of Major Cash Crops, Mufindi District; 2007/08, 2009/10 and 2011/12

Crop	2007/08		Yield (t/ha)	2009/10		Production per Hectare (2009/10)	2011/12		
	Planted Area (ha)	Production (Tonne)		Planted Area(ha)	Production (Tonne)		Planted Area (ha)	Production (Tonne)	Yield (t/ha)
Tea	5,777	24,913	4.3	5,745	18,112	3.2	5,745	18,225	3.2
Coffee	145	114	0.8	398	104.4	0.3	354	121	0.3
Sunflower	3,923	3,923	1.0	4,912	4,659	0.9	4,752	5,002	1.1
Pyrethrum	225	356	1.6	1,654	1,870	1.1	274	14.96	0.6
Total	51,019	50,194	1.0	44,456	49,194	1.1	46,330	44,838	1.0

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

Figure 16: Production per Hectare of Major Cash Crops, Mufindi District; 2007/08, 2009/10 and 2011/12

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

3.1.6 Crop marketing

Although Mufindi District is well known for the production of maize as a major food crop and tea as cash crop, but there are other crops grown in the district as indicated in Table 3.4a above. Unfortunately, Mufindi District Council does not keep record of the quantities sold and earning from food and cash crops. In future, the District should keep record of sales of food and cash crops by ward in order to fulfill the need of different data users and to monitor the marketing of agricultural products that are produced.

3.1.7 Irrigation Prospects



Improved irrigation is practised in some areas of the district

Agriculture Sample Census of 2007/08 revealed that Mufindi District was the second leading District in the use of irrigation in Iringa region. The leading district was Iringa rural. Table 3.5 shows that Mufindi District had a potential area for irrigation of 4,320 hectares in 20011/12. The area under irrigation was 1,265 hectares (8.3 percent of the potential area). The most common source of irrigation water in Mufindi District was the river, followed by tap water and canal was used by a small proportion of household using irrigation (Agriculture Sample Census 2007/08). Irrigation was most popular in Ikweha ward than other wards as 84.8 percent of the potential area for irrigation was irrigated.

Table 3. 5: Irrigation Prospects by Ward, Mufindi District; 2011/12

Ward	Estimated Potential Area (Ha)	Area Under Irrigation (Ha)	Percent under Irrigation	Major Crops
Makungu	3,600	700	19.4	Maize, Beans, Paddy, Tomato, Vegetables
Ikweha	660	560	84.8	Paddy, Maize, Tomato, Beans, Vegetables
Ihalimba	60	5	8.3	Maize, Tomato, Vegetables, Round Potato
Total	4,320	1265	29.3	

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013



Water from rivers is the main source of irrigation in Mufindi district

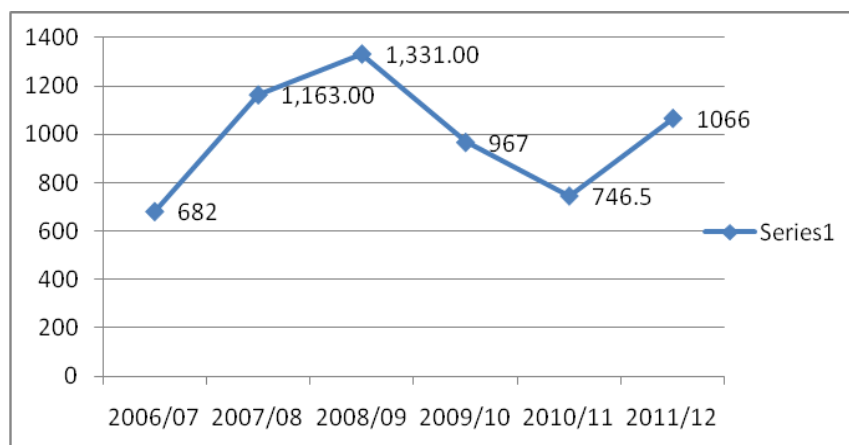
3.1.8 Rainfall trends

Table 3.5a gives rainfall trend for 6 years in Mufindi District. Heavy rainfall was in the year 2008/09 (1,331 mm) with an average of 11.6 mm per day. Mufindi District like other parts of the country depends on rainfall for agriculture. Heavy rainfall that the District receives is due to heavy forest cover that is in the district. The lowest rainfall was recorded in 2006/07 (682 mm) with an average rain of 12.4 mm.

Table 3.5 a: Rainfall Trend, Mufindi District; 2006/07-2011/12

SN	Season	Rainfall amount (mm)	Days	Average rain/day(mm)	Starting date	Finishing date
1	2006/07	682	55	12.4	04/11/2006	24/05/2007
2	2007/08	1,163.00	103	11.3	25/11/2007	29/04/2008
3	2008/09	1,331.00	115	11.6	24/11/2008	05/05/2009
4	2009/10	967	99	9.8	06/11/2009	24/05/2010
5	2010/11	746.5	82	9.1	17/11/2010	25/04/2011
6	2011/12	1066	84	12.7	04/11/2011	17/04/2012
Total		5,955.50	626	9.5		

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

Figure 17 : Rainfall Trends Recorded for Six years (2006/07-2011/12), Mufindi District

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

3.1.9 Agricultural Inputs

3.1.9.1 Introduction

Reducing rural poverty by delivering appropriate agricultural inputs and improving output markets for Tanzanian farmers are among the objectives of "Kilimo Kwanza" policy in Tanzania. In Agriculture First policy, priority is given to transforming traditional agriculture which depends on hand hoe to mechanized agriculture and improving agriculture extension services through employing more extension officers. In addition to that, distributing chemical fertilizers including establishing credit facilities for farmers, and setting up storage through a warehouse receipt system was introduced to reinforce crops production. Unfortunately, there is no documented evidence showing failure or success of Agriculture First policy implementation in the district.

3.1.9.2 Chemical/Inorganic Fertilizers

Mufindi has a larger number of households using chemical fertilizers than those who use organic fertilizers. Initiatives made by the Government of Tanzania to introduce the system of distributing chemical fertilizers to farmers through 'Vouchers System' in the country, aimed of facilitating the purchases of chemical fertilizers by farmers in rural areas of Tanzania. Table 3.6 shows the distribution of chemical fertilizers for the two seasons 2010/11 and 2011/2012 in Mufindi District. The total demand of all kinds of fertilizers was 12,300 tonnes in 2010/11. The Kilimo Kwanza objective have to be reviewed in Mufindi District

because Table 3.6 reveals that of 6,622 tonnes of fertilizers supplied in 2011/12 only 5503 tonnes were distributed to farmers this is because farmers fail to top up the amount needed to buy voucher. This is same case as in 2010/11 when the distributed amount was 6,385 tonnes and supplied amount was 6,660 tonnes. Therefore, the remaining vouchers were returned to the government though the demand was still high. This is the case in all types of fertilizers. There is a need to review the policy for the benefit of not only the farmers in Mufindi District but also farmers in other part of the country. The supply and distribution of MINJINGU was low in both seasons because farmers were not used to that kind of fertilizer. In the case of CAN, the supply and distribution have dropped in the last season since farmers shifted from using CAN to UREA because of the rise in the price of CAN to the extent that is was about equal to the price of UREA which farmers prefer.

Table 3. 6: Quantity(tonnes) of Chemical Fertilizers sold to Farmers through Voucher System by Type, Mufindi District; 2010/11 and 2011/12

Type of fertilizer	2010/11			2011/12		
			Distributed	Demand	Supplied	Distributed
			14	1,200	7	7
			1,064	3,465	3,025	2300
MINJINGU	2,200	181	26	2,300	182	27
MAZAO						
UREA	3,450	3,078	3,036	4,850	2,415	2,303
CAN	2,500	2,280	2,215	1,600	960	840
SA	500	17	16	20	2	0
NPK	300	18	14	185	5	4
YARA MILA	-	-	-	100	26	22
Total	12,300	6,666	6,385	13720	6622	5503

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

DAP: Double Ammonium Phosphate

3.1.9.3 Fungicides

Plant pests and diseases are among factors which limit agriculture production in this District. Crops such as Tea and pyrethrum demand the use of pesticides to control of insect infestation and plant diseases for optimum crop harvests. Table 3.6a lists the fungicides used for controlling plant pests in the District. The use of fungicides was low in 2011/12 compared to 2010/11. The use of bravo fill by 110 liters in 2011/12. In both seasons the supply exceeds the distribution done.

Table 3.6 a: Availability of Fungicides (in ltrs/kgs/tons), Mufindi District; 2010/11 and 2011/12

Type of Fungicides	2010/2011				2011/12		
	units	Demand	Supplied	Distributed	Demand	Supplied	Distributed
Blue copper	t	5	3.2	2.6	5t	1.4t	0.5t
Bravo	t	200	198	136	200L	92L	26L
Dithane	t	10	2.8	1.9	10t	3.2t	2.6t
M45							
Ridomil	t	8	4.9	3.54	15t	4.5t	2.1t
Farmer/	t	4	2.4	1.8	6t	4.3	1.2
Hecozeb							
Ivory 80WP	t	5	6.2	5.4	10t	7.3t	5.3t

Na: t=Ton

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2012**3.1.9.4 Nsecticides**

Insecticide is commonly applied in Mufindi District, Table 3.6b shows that the most used insecticide was thionex. The use of insecticides was higher in 2010/11 than in 2011/12 (Table 3.6b).

Table 3.6 b : Availability of Insecticides (Ltrs/kgs/tonnes), Mufindi District; 2010/11 and 2011/12

Type of Insecticide	2010/2011			2011/12			
	units	Demand	Supplied	Distributed	Demand	Supplied	Distributed
Sumithion	ltr	400	22	14	400	99	16
Thionex	ltr	600	669	626	700	657	492
Selecron	ltr	100	32	21	100	82	34
Dursban	ltr	500	465	346	600	172	31
Actellic 50EC	ltr	200	175	137	300	180	42
Actellic super dust	ltr	5	3.16	3.08	8	5.6	4.8
Shumba	ltr	-	-	-	14	9.4	7.6

Ltr= Litre

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

3.1.9.5 Improved Seeds

Mufindi was leading in Iringa Region in number of households using improved seeds (Agriculture Sample Census 2007/08). Table 3.6c reveals that the supply of some types of improved seeds was higher than the demand in the two seasons and also the distribution although it is slightly lower than the supply, but it was higher than the demand. PAN: 691 maize seed was the most used seed in 2011/12 and in 2010/11 H:625 was the most used seed. In the case of sunflower seed, the supply was below the demand and the distribution was just below the supply.

Table 3.6 c: Availability of Improved Seeds (tonnes), Mufindi District; 2010/11 and 2011/12

Type	2010/2011			2011/12		
	Demand	Supplied	Distributed	Demand	Supplied	Distributed
MAIZE, H:614	20	32	30.16	180	115	109.7
H:625	15	70.68	69	200	6.4	6.4
H:6303	25	0.6	0.6	60	63	61.9
H:615	13	17.8	17.8	80	120	114
H:628	3	0.82	0.8	80	33	31
PAN:691	5	3.7	3.34	82	118	116.2
Sunflower	25	21.5	21.2	80	60.4	58.2

Source: District Executive Director's Office (Agriculture Department), Mufindi District, 2013

3.1.9.6 Farm Implements

Mufindi district had a total of 152 tractors for all the farmers in the district. Considering that Mufindi District had the largest number of agricultural households in Iringa Region, the number of tractor available was too small to meet the demand. The Ministry of Agriculture must see how farmers in Mufindi District can be provided with enough tractors in order to increase crops production.



Provision of modern agriculture implements in Mufindi district is done through implementation of Agriculture First policy

3.1.10 Policy Implication in Agriculture

Mufindi district which is endowed with a large arable land area, makes a big contribution to Iringa Region in terms of food and cash crops. The District has largest area planted with maize and beans in the Region. It is also the leading district in tea production. Efforts to increase yield per hectare of those crops through the use of better agriculture inputs and farm implements is hampered by the shortage of those items. Hand hoes are still common tilling tools in the District and the district should make further effort and to transform such kind of agriculture into a modern and mechanized one

3.1.11 Investment Opportunities in Agriculture Sector

Potential areas for investment in agriculture include:

- Sunflower oil production and processing,
- Production of maize,
- Supply of agriculture inputs such as fertilizer, insecticides, seeds etc at affordable prices,
- Supply of farm implements such as power tillers, tractors, hand hoes, ox-cats etc at affordable prices,
- Increasing the number of storage facilities for agriculture products during and after harvests,
- Expanding forest plantations since more than a half of arable land in the District is not being used.

3.2 Livestock Sub Sector

3.2.1 Introduction

Poultry are the most dominant livestock in the District followed by cattle, pig, goat, sheep and donkeys. Agriculture Sample cCensus 2007/08 revealed that Mufindi had the largest number of pigs and dairy cattle in the Region. As long as the District has abundant grazing land, there will be no conflicts between farmers and livestock keepers or forests encroachment by pastoralists.

3.2.2 Livestock population



Cattle was the second largest number of livestock in Mufindi district

Table 3.7 reveals that livestock population in Mufindi District was to 630,853. Poultry was leading by having a population of 494,996, followed by cattle 88,866 and pigs at 26,418. Compared to Agriculture Census data of 2007/08, livestock population in 2011/12 in the District decreased by 133,763 livestock (17.5 percent decrease) (Table 3.7). Over the agriculture intercensal period of 2002/03 to 2007/08, livestock population decreased by 140,037 (15.4 percent decrease). There was a sharp decrease in the number of pigs in the District in 2011/12 due to swine flu disease that led to quarantine for a long period. However, following the decrease in the livestock population reasons should be sought as to why the population dropped significantly by 2011/12.

Table 3. 7: Livestock Population in 2002/03, 2007/08 and 2011/12, Mufindi District

Type of the livestock	Agriculture and Livestock Census Data		District Data	Change in Number of Livestock	
	2002/03	2007/08	2011/12	2002/03-2007/08	2007/08-2011/12
Cattle	92,519	107,186	88,866	14,667	-18,320
Goat	116,480	36,577	15,306	-79,903	-21,271
Sheep	6,043	7,315	4,942	1,272	-2,373
Chicken	624,826	535,454	494,996	-89,372	-40,458
Donkey	255	0	325	-255	325
Pig	64,530	78,084	26,418	13,554	-51,666
Total	904,653	764,616	630,853	-140,037	-133,763

Source: NBS-2002/03 and 2007/08 Agriculture census reports and Mufindi district Council

Poultry accounted for 78.5 percent of total livestock population in the district, followed by cattle at 14.1 percent, pigs (4.2 percent), goat (2.4 percent), sheep (0.8 percent) and donkeys (0.1 percent). Analysis of Table 3.8 show that at ward level reveals that Itandula had a highest percentage of 10.3 of livestock in the district which is mostly contributed by poultry population. The second highest was Mtwango with a percentage of 8.4, followed by Ihowanza (5.7. The least percentages were in the wards of Mpanga Tazara (0.1 percent) and Kiyowela 0.9 percent.

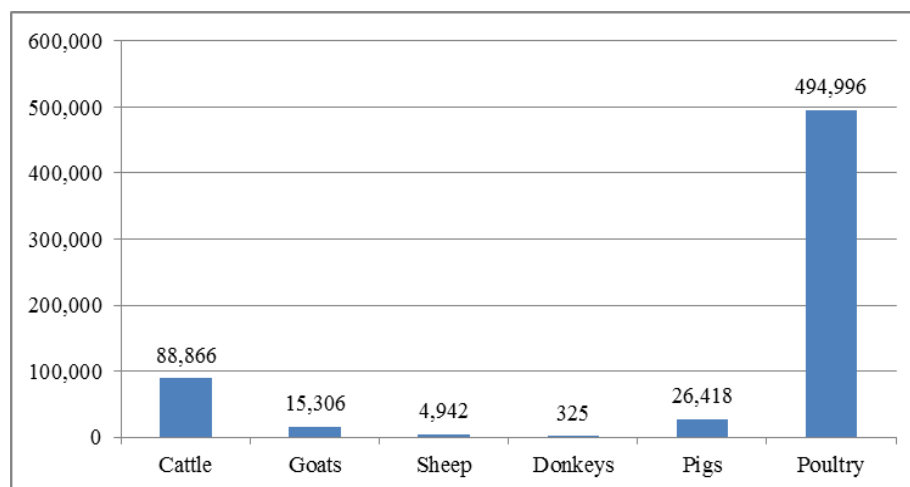
Table 3. 8: Estimated Livestock Population by Ward, Mufindi District; 2011/12

Ward	Cattle	Goats	Sheep	Donkeys	Pigs	Poultry	Total
Boma	884	261	43	0	619	5689	7496
Kinyanambo	529	139	72	9	291	13500	14540
Sao hill	2759	457	225	8	195	2327	5971
Ifwagi	5560	558	170	7	859	22924	30078
Mdabulo	393	163	57	0	5819	18688	25120
Ihanu	431	100	8	8	247	9915	10709
Mapanda	534	402	35	2	715	11378	13066
Rungemba	2049	265	66	0	521	10054	12955
Luhunga	245	89	224	0	455	25479	26492
Igowole	3047	863	213	0	385	9337	13845

Table 3. 8 (ctd): Estimated Livestock Population by Ward, Mufindi District; 2011/12

Ward	Cattle	Goats	Sheep	Donkeys	Pigs	Poultry	Total
Boma	884	261	43	0	619	5689	7496
Kinyanambo	529	139	72	9	291	13500	14540
Sao hill	2759	457	225	8	195	2327	5971
Ifwagi	5560	558	170	7	859	22924	30078
Mdabulo	393	163	57	0	5819	18688	25120
Ihanu	431	100	8	8	247	9915	10709
Mapanda	534	402	35	2	715	11378	13066
Rungemba	2049	265	66	0	521	10054	12955
Luhunga	245	89	224	0	455	25479	26492
Igowole	3047	863	213	0	385	9337	13845
Mninga	1077	304	120	3	411	16425	18340
Kasanga	2891	241	208	0	129	24138	27607
Makungu	2946	156	0	0	488	9030	12620
Kiyowela	2133	766	139	0	181	2304	5523
Itandula	5315	563	234	72	476	60432	67092
Mtambula	6321	556	162	71	231	13534	20875
Idunda	5972	616	443	27	161	7396	14615
Malangali	5092	1047	442	10	325	8079	14995
Ihowanza	5232	541	217	8	291	29984	36273
Ikweha	4956	1762	151	23	627	22276	29795
Bumilayinga	4027	301	326	0	254	7003	11911
Mbalamaziwa	3456	485	174	0	239	21109	25463
Sadani	5859	1486	221	49	392	10997	19004
Igombavanu	3543	702	81	13	463	27014	31816
Isalavanu	4185	285	119	3	8079	22070	34741
Kibengu	1593	961	301	0	1499	9440	13794
Mpanga/T	7	0	0	0	0	350	357
Ihalimba	1832	870	325	0	562	13133	16722
Mtwango	1762	115	14	0	1465	49617	52973
Nyololo	4236	252	152	12	39	11374	16065
Total	88,866	15,306	4,942	325	26,418	494,996	630,853

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

Figure 18 : Estimated number of Livestock Population in Mufindi District; 2011/12

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

3.2.3 Dairy Cattle production

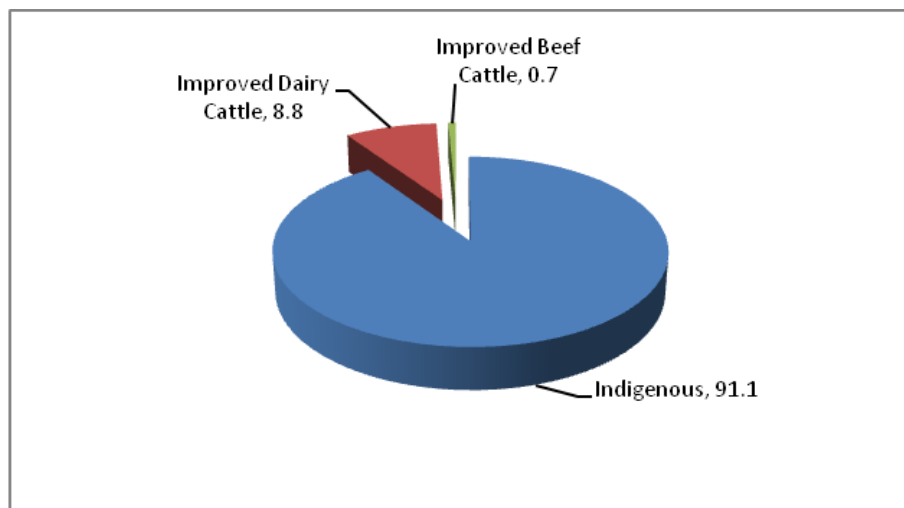
Of 88,866 cattle in Mufindi District 80,971 (91.1 percent) were indigenous cattle while 8.2 percent were improved dairy cattle and 0.7 percent were improved beef cattle.. There is a need District Authority promotes the keeping of and increase income of the people in the District. Table 3.9 shows that Mtambula Ward had the largest number cattle (6,321 cattle, 7.1 percent of total cattle in the District), followed by Idunda (5,972 cattle,6.7 percent) and Sadani (5,859 cattle,6.6 percent) ward with only 7cattle (0.01 percent) Mpanga Tazara Ward had the smallest number of cattle. Other wards with small number of cattle were Ihanu, Mapanda, Kinyanambo, Luhunga and Mdabulo each of which had less one percent of the total cattle in the District. Furthermore the District had more indigenous cattle than improved dairy cattle. The Ministry of Agriculture and Livestock together with various NGOs have been emphasizing dairy cattle keeping in the country so as improve the health of the people and increase income of poor people. But despite this, Table 3.9 shows that the District still has more indigenous cattle (80,971, 91.1 percent) than improved cattle (7,895,8.9 percent).

Table 3. 9: Population Distribution of Cattle by Type and by Ward, Mufindi District; 2011/12

Ward	Population of Cattle by Type					Percent of the District Total
	Improved cattle					
	Indigenous Cattle	Dairy Cattle	Beef Cattle	Total	Total	
Boma						1.0
Kinyanambo						0.6
Sao hill	1539	1220	0	1220	2759	3.1
Ifwagi	2163	2843	554	3397	5560	6.3
Mdabulo	284	63	46	109	393	0.4
Ihanu	266	165	0	165	431	0.5
Mapanda	469	65	0	65	534	0.6
Rungemba	1917	132	0	132	2049	2.3
Luhunga	165	65	15	80	245	0.3
Igowole	2,885	162	0	162	3047	3.4
Mninga	949	128	0	128	1077	1.2
Kasanga	2653	238	0	238	2891	3.2
Makungu	2709	237	0	237	2946	3.3
Kiyowela	2077	56	0	56	2133	2.4
Itandula	5281	34	0	34	5315	5.9
Mtambula	6056	265	0	265	6321	7.1
Idunda	5972	0	0	0	5972	6.7
Malangali	5077	15	0	15	5092	5.7
Ihowanza	5228	0	4	4	5232	5.9
Ikweha	4953	0	3	3	4956	5.5
Bumilayinga	3990	37	0	37	4027	4.5
Mbalamaziwa	3446	10	0	10	3456	3.9
Sadani	5807	45	7	52	5859	6.6
Igombavanu	3491	52	0	52	3543	4.0
Isalavanu	4153	32	0	32	4185	4.7
Kibengu	1528	65	0	65	1593	1.8
Mpanga/Tazara	7	0	0	0	7	0.0
Ihalimba	1690	142	0	142	1832	2.0
Mtwango	1334	428	0	428	1762	2.0
Nyololo	4067	162	7	169	4236	4.8
District Total	80,971	7,259	636	7,895	88,866	100.0
Percentage	91.1	8.2	0.7	8.9	100.0	

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

Figure 19 : Cattle Population in Mufindi District; 2011/12



Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

3.2.4 Small Scale Farms

There is significant number of small and large dairy cattle keepers in Mufindi District. Most of them are private institutions. According to Table 3.10, dairy farms with more than hundred cattles were Sao hill with 2,231 cattle, followed by JKT Mafinga (462), Tom Farm (225), Gereza Isupilo (217) and Kamadoresi Sisters (118).

Table 3. 10: Distribution of Small/large Scale Farms of Dairy Cattle by Ward, Mufindi District, 2012

Ward	Name of dairy Farm	Number of dairy Cattle
Mafinga	Mafinga Dairy Farm	36
Mafinga	JKT Mafinga	462
Mafinga	Consolata Farm	36
Mafinga	Mafinga Seminary	62
Mafinga	Parokia Mafinga	14
Mafinga	Lumwago Farm	46
Mafinga	Tom Farm	89
Mafinga	Luhavi Farm	22
Mafinga	Tom Farm	225
Luhunga	Ndokole Farm	25
Mafinga	Fox Farm	18

Table 3.10 (ctd): Distribution of Small/large Scale Farms of Dairy Cattle by Ward, Mufindi District, 2012

Ward	Name of dairy Farm	Number of dairy Cattle
Ifwagi	Gereza Isupilo	217
Changarawe	Maketekista Makalala	25
Mafinga	Almara farm	82
Mafinga	Sao-Hill Mifugo	2231
Mafinga	Kamadoresi Sisters	118
Mafinga	Maketekista Makalala	25
Kibengu	Usokami	37
Kibengu	Ushirika wa Wakulima Usokami	54
	Corlo solgia Farm	8
Total		3832

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2012

There was only one small scale dairy goat farm in Mufindi District which was located in Bumilayinga ward and had a total of 987 goats (Table 3.10a). Goat milk is as nutritious as cattle milk therefore there is a need to increase number of dairy goat farms in Mufindi District.

Table 3.10 a: Distribution of Small Scale Farms of Dairy Goats by Ward, Mufindi District, 2012

Ward	Name of Dairy Goats farm	Number of dairy goats
Bumilayinga	Kibidula	987
Total	1	987

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

3.2.5 Grazing Land

Grazing land is defined as the land which is used for grazing of livestock. It excludes all tsetse fly area, all wildlife and forest reserves and tree plantations. In many cases it overlaps arable land and areas for 'other uses'.

Mufindi District had a total grazing area of 66,223.6 hectares. At least each ward has a piece of land that is suitable for grazing. The ward with the biggest grazing land was Nyololo (6,710 ha), followed by Ikweha (6,498 ha), Isalavanu (5,598 ha), Ihowanza (5,389 ha), Igombavanu (5,388 ha) and Ifwagi (5,044 ha). Mufindi

District which is endowed with forests has succeeded in dividing its land into different uses without forgetting livestock keepers. This has enabled the District avoid conflicts between livestock keepers and farmers.

Table 3. 11 : Estimated Area under Grazing by Ward, Mufindi District, 2012

Ward	Land Fit for Grazing (h)	Land used for Grazing (h)	Tsetse Fly infected Area (ha)
Mafinga	490	490	0
Ifwagi	5044	5044	0
Mdabulo	238	238	0
Ihanu	522	522	0
Mapanda	1264	1264	0
Rung'emba	296	296	0
Luhunga	154	154	0
Igowole	276	276	0
Mninga	209	209	0
Kasanga	476	476	0
Makungu	797	797	0
Kiyowela	1430	1430	0
Itandula	1598	1598	0
Mtambula	2342	2342	0
Idunda	4662	4662	0
Malangali	4170	4170	0
Ihowanza	5389	5389	0
Ikweha	6498	6498	0
Bumilayinga	2676	2676	0
Mbalamaziwa	1584	1584	0
Sadani	4530	4530	0
Igombavanu	5388	5388	0
Isalavanu	5598	5598	0
Kibengu	2612	2612	0
Mpanga/Tazara	493	493	0
Ihalimba	676	676	0
Mtwango	102	102	0
Nyololo	6710	6710	0
Total	66,224	66,224	0

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

3.2.6 Livestock Infrastructure

Livestock infrastructure like dips, veterinary health centres and water sources are important for animal healthy. There are deadly diseases that have emerged in some sub Saharan countries. The risk of spreading in other countries can be checked by the availability of adequate livestock infrastructures. Diseases not only affect animals but also threaten the health of the people who consume animal products. . Diseases affect animal health and reduce both meat quality and/or quantity of milk produced and in some cases brings death to the animal affected. Table 3.12 show that in 2012, Mufindi District had 52 dips of which 12 were not operating. It also had one veterinary centre that was operating and three were not operating. Moreover, it had one crushes, one hides/skins shed and one abattoir. The livestock markets (auctions) were 2. There is no doubt that with 629,825 livestock, the available livestock infrastructure Table 3.12 also shows that the wards of Mdabulo, Ihanu, Mpanga tazara and Luhunga have no single infrastructure., Luhunga Ward has a small scale cattle farm therefore there is a need of livestock health services in this wards and others. Tick borne diseases are the most common cause of poor animal health in the District. They include East Coast Fever (ECF), heat water and anaplasmosis.

Veterinary centers are important for diagnosis and treatment of disease, having only one working veterinary centre in the District is danger for livestock health. Therefore, the Mufindi district council needs to increase number of veterinary centers as well as other livestock infrastructure for improving animal healthy.

Table 3. 12: Distribution of Livestock Infrastructure by Ward; Mufindi District; 2011/12

Ward	Dips			Veterinary Centres			Crushes	Hides/skin sheds	Abattoirs	Livestock market/Auction	Chaco dams	Slaughter Houses
	W	NW	Total	W	NW	Total						
Mafinga	6	-	6	1	-	2	1	1	1	-	-	
Ifwagi	4	2	6	-	-	-	-	-	-	-	-	
Mdabulo	-	-	-	-	-	-	-	-	-	-	-	
Ihanu	-	-	-	-	-	-	-	-	-	-	-	
Mapanda	-	1	1	-	-	-	-	-	-	-	-	
Rung'emba	1	2	2	-	-	-	-	-	-	-	-	
Luhunga	-	-	-	-	-	-	-	-	-	-	-	
Igowole	1	1	2	-	-	-	-	-	-	-	-	1
Mninga	1	-	1	-	-	-	-	-	-	-	-	
Kasanga	1	-	1	-	-	-	-	-	-	-	-	
Makungu	1	1	2	-	-	-	-	-	-	-	-	1
Kiyowela	2	-	2	-	1	1	-	-	-	-	-	
Itandula	2	-	2	-	-	-	-	-	-	-	-	
Mtambula	1	-	1	-	-	-	-	-	-	-	-	
Idunda	3	-	3	-	-	-	-	-	-	-	1	
Malangali	1	-	1	-	1	1	-	-	-	1	-	
Ihowanza	2	-	2	-	-	-	-	-	-	-	-	
Ikweha	2	-	2	-	-	-	-	-	-	-	-	
Bumilayinga	1	-	1	-	-	-	-	-	-	-	-	
Mbalamaziwa	1	-	1	-	-	-	-	-	-	-	-	
Sadani	2	-	2	-	1	1	-	-	-	-	-	
Igombavanu	2	-	2	-	-	-	-	-	-	-	-	
Isalavanu	2	-	2	-	-	-	-	-	-	1	-	
Kibengu	-	3	3	-	-	-	-	-	-	-	-	
Mpanga/Tazara	-	-	-	-	-	-	-	-	-	-	-	
Ihalimba	2	1	1	-	-	-	-	-	-	-	-	
Mtwango	-	1	1	-	-	-	-	-	-	-	-	
Nyololo	3	-	3	-	-	-	-	-	-	-	-	1
Total	40	12	52	1	3	4	1	1	1	2	1	3

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013
W=Working, NW=Not working.



A modern abattoir constructed in Mufindi district

3.2.7 Major Livestock Diseases

The quality of livestock depends on the delivery of health services such as dips, veterinary health centers and water sources in the District. For the past three years the District has managed to reduce the mortality of animals. Helminthiasis is the most common disease that affects animals in the district.

3.2.8 Cattle Diseases

Mufindi District like other districts in Iringa Region is threatened by various cattle diseases. The most common diseases for cattle are East Coast Fever, anaplasmosis, foot and mouth diseases helminthiasis and black quarter. Table 3.13 reports the number of morbidity and mortality cases for cattle in the District, The leading disease in mortality of cattle in the district was East Coast fever with 50.9 percent of all mortality cases. In the case of morbidity, the leading disease was helminthiasis with 40.9 percent of all morbidity cases reported in the period of five years 2008 – 2012. Anaplasmosis was the second dangerous disease for cattle with 25.2 percent of all mortality cases, foot and mouth diseases had least mortality cases at 3.9 percent. In the five year period covered by the Table the mortality cases were 1118 (3.5 percent 31,587 morbidity cases).

Table 3. 13: Five Major Cattle Diseases Reported in Mufindi District; 2008 - 2012

Disease	Number of Morbidity Cases Reported						Number of Mortality Cases Reported							
	2008	2009	2010	2011	2012	Total	Percent	2008	2009	2010	2011	2012	Total	Percent
East cost fever	2133	3126	2739	1872	872	10742	34.0	103	151	174	98	43	569	50.9
Anaplasmosis	962	1987	1937	909	807	6602	20.9	98	143	18	11	12	282	25.2
Foot and mouth diseases	321	231	67	75	32	726	2.3	14	10	11	9	0	44	3.9
Black Quarter(BQ)	275	223	42	45	22	607	1.9	63	54	7	3	0	127	11.4
Helminthiasis	2021	2783	4532	2544	1030	12910	40.9	94	2	0	0	0	96	8.6
Total Cases	5712	8,350	9,317	5445	2763	31,587	100	372	360	210	121	55	1118	100
Percentage	18.1	26.4	29.5	17.2	8.8	100	100	33.3	32.2	18.8	10.8	4.9	100	100

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2012

3.2.9 Goat Diseases

Heat water was the main cause of mortality in the District accounting for 40.2 percent of all mortality followed by helminthiasis 39.2 percent. According to Table 3.14 the most threatening disease for goats in the District was helminthiasis which accounted for of 80.9 percent of all morbidities percent, Pneumonia had the least mortality and morbidity rates of 20.6 and 5.4 percent respectively. There are no mortality cases that were reported to be caused by Helminthiasis or pneumonia in the year 2011 and 2012.

Table 3. 14: Three Major Goat Diseases Reported in Mufindi District; 2008- 2012

Disease	Number of Morbidity cases reported							Number of Mortality cases reported						
	2008	2009	2010	2011	2012	Total	Percentage	2008	2009	2010	2011	2012	Total	Percentage
Helminthiasis	152	211	775	685	392	2215	80.9	22	13	5	0	0	40	39.2
Pneumonia	45	32	42	12	18	149	5.4	14	7	0	0	0	21	20.6
Heart water	72	63	57	79	102	373	13.6	12	5	3	10	11	41	40.2
Total Cases	269	306	874	776	512	2737	100.0	48	25	8	10	11	102	100.0
Percentage	9.8	11.2	31.9	28.4	18.7	100.0		47.1	24.5	7.8	9.8	10.8	100.0	

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

3.2.10 Sheep Diseases

Pneumonia caused most mortalities (44.0 percent) followed by heart water (32.1 percent) and helminthiasis (23.9 percent). Pneumonia was the most deadly disease for sheep since of the 52 morbidity cases reported 48 become mortality cases. Table 3.15 reveals that among 379 mortality cases reported the mortality was 109 for the five years.

Table 3. 15 : Three Major Sheep Diseases Reported in Mufindi District; 2009- 2011

Disease	Number of Morbidity Cases Reported							Number of Mortality Cases Reported						
	2008	2009	2010	2011	2012	Total	Percentage	2008	2009	2010	2011	2012	Total	Percentage
Helminthiasis	16	23	12	22	42	115	30.3	2	4	9	8	3	26	23.9
Pneumonia	20	5	4	14	9	52	13.7	14	15	11	7	1	48	44.0
Heart water	63	57	45	36	11	212	55.9	12	8	5	10	0	35	32.1
Total cases	99	85	61	72	62	379	100.0	28	27	25	25	4	109	100.0
Percentage	26.1	22.4	16.1	19.0	16.4	100.0		25.7	24.8	22.9	22.9	3.7	100.0	

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

3.2.11 Poultry Diseases

From 2008-2012, a total of 6,809 morbidity and 404 mortality cases of poultry were recorded in the District. Infectious coryza was the main cause of morbidity at 2,897 (41.2 percent) cases while Newcastle was the main killer disease with 227 (56.2 percent) mortality cases.

Table 3. 16: Three Major Poultry Diseases Reported in Mufindi District; 2008-2012

Disease	Number of Morbidity Cases Reported							Number of Mortality Cases Reported						
	2008	2009	2010	2011	2012	Total	Percentage	2008	2009	2010	2011	2012	Total	Percentage
Newcastle D"	719	812	95	42	6	1674	24.6	125	65	15	17	5	227	56.2
Infectious Coryza	1205	1567	11	9	15	2807	41.2	9	11	24	11	0	55	13.6
Coccidiosis	615	1209	123	147	234	2328	34.2	23	18	37	26	18	122	30.2
Total cases	2539	3588	229	198	255	6809	100.0	157	94	76	54	23	404	100.0
Percent	37.29	52.69	3.363	2.908	3.745	100		38.9	23.3	18.8	13.4	5.7	100.0	

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2012

3.2.12 Marketing of Livestock and Their Products

Total revenue of TShs. 9,188,490,000 was earned by the District from official marketing of cattle, goats, pigs and sheep (Table 3.17). Indigeneous cattle accounted for 40.6 percent all livestock marketed and 36.2 percent of the total revenue collected in 2011 and 2012 as sheep are not common in the District, only a small number of them were marketed. The number marketed accounted for 2.4 percent of all the liverstocks marketed.

Table 3. 17 Number Marketed Livestock by Type (Official Markets), Mufindi District; 2011 and 2012

Livestock	Total Number of Livestock Marketed				Annual Revenue Collected in TSh			Percentage
	2011	2012	Total	Percent	2011(000)	2012(000)	Total (000)	
Indigenousscattle	2894	3211	6105	40.6	1,881,100	1,444,950	3,326,050	36.2
Dairy Cattle	170	159	329	2.2	1,105,000	111,300	1,216,300	13.2
Beef Cattle	1534	1298	2832	18.8	920,400	973,500	1,893,900	20.6
Goats	266	342	608	4.0	159,600	23,940	183,540	2.0
Pig	2,387	2,419	4806	32.0	2,148,300	241,900	2,390,200	26.0
Sheep	178	183	361	2.4	160,200	18,300	178,500	1.9
Total	7429	7612	15041	100.0	6,374,600	2,813,890	9,188,490	100.0

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2012

3.2.13 Marketing of Hides and Skins

Hides and skins provide alternative source of income for livestock keeping households. Table 3.18 shows that inthe three year period 2010-2012 hides and skins earned a total income of TShs 21,078,953 from the sale of 9,197 units. Cattle hides/skins were leading in income generating followed by goat skins. There was no record of sheep skins sold during the three year period. Absence of adequate 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 processed hides and skins.

Table 3. 18: Marketing of Livestock Hides and Skins in Mufindi District, 2009 - 2011

Type of hides/skins	Total Number of units Marketed				Total value in Tshs				Average price (TShs)
	2010	2011	2012	Total	2010	2011	2012	Total	
CattleHides/Skins	3462	3567	986	8015	12,117,000	4,222,820	2,748,900	19,088,720	2,382
Goat Skins	415	370	397	1182	622,500	657,200	704,500	1,984,200	1,679
Sheep Skins	0	0	0	0	0	0	0	0	0
Total	3,877	3,937	1,383	9,197	12741510	4882031	3455412	21,078,953	1,384

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2012



A modern skin shed in boma ward. Availability of modern infrastructures adds value to skins and hides

3.2.14 Milk Marketing

Over the period of 2010-2012 a total of 11,698,331 litres of milk valued at Tshs 8,995,770,800 were marketed in the District (Table 3.19). Dairy cattle were leading in milk production. The earning gained from produced milk has increased in the three year period from 2010 to 2012.

Table 3. 19: Production of Milk by Type of Livestock, Mufindi District; 2010 - 2012

Milk from	Total Number of Litres				Total Value in TShs			
	2010	2011	2012	Total	2010	2011	2012	Total
Indigenous Cattle	172,890	154,413	155,540	482,843	121,023,000	123,530,000	124,432,000	368,985,000
Diary Cattle	3,397,125	3,047,345	4,710,625	11,155,095	2,377,987,500	2,437,876,300	3,768,500,000	8,584,363,800
Diary Goats	18,920	16,875	19,598	55,393	13,244,000	13,500,000	15,678,000	42,422,000
Total	3,588,935	3,218,633	4,885,763	11,693,331	2,512,254,500	2,574,906,300	3,908,610,000	8,995,770,800

Source: District Executive Director's Office (Livestock Department), Mufindi District, 2013

3.2.15 Policy Implication in Livestock sub sector

For sustainable development of this sector, the District needs to have policies or bylaws which will be its guidelines towards managing and improving livestock extension services. Reliable transport for extension officers, regular capacity building in the form of training for livestock extension officers are necessary. Animal diseases are another reason that cause a decrease in the number of livestock. Shortage of livestock infrastructure (the District has one working veterinary centre, 40 working dips and one charco dam) adds to ill health and even death of livestock and thus limiting development of this sector in Mufindi. Therefore, improving livestock infrastructures and supply of adequate number of livestock medicines will be a good step to start with in developing this sector.

3.2.16 Investment Opportunities in Livestock sub sector

Mufindi District has inadequate livestock infrastructures which are operating such as dips, health centres, water points, slaughter houses etc. Therefore construction of livestock infrastructure 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. Animal pharmaceutical shops and veterinary centres where qualified veterinary and livestock officers can offer consultancy services especially in remote areas are other areas for investment.

3.3 Natural Resources

3.3.1 Introduction

The natural resources sector in Mufindi District contributed TSh mill 1,704 to the Iringa Region GDP of 2008. Its contributed was larger than in any other District in Iringa Region. (Iringa Region GDP report of 2008)

Natural resource sector is comprised of forestry, hunting, beekeeping and tourism., The forestry sub sector plays an important role in maintaining ecological balance, protect soils from erosion and conserves water and wildlife. Forests are sources of domestic energy and provide industrial raw materials. Forests also provide useful non-wood products mainly honey and beewax. Mufindi is endowed with large areas of forest reserves.

3.3.2 Forestry



Mufindi has large areas of forest reserves

Good soil and weather are the main facilitators of forestry. Mufindi with a cold weather, fertile soil and adequate rain is suitable land for forests. Forest reserves are mainly owned by the central government and village governments, these authorities face some challenges like overgrazing, wildfire, deforestation and encroachment.

Mufindi District had 62,878 hectares of forest reserves in 2012. Table 3.20 reveals that only six wards had forest reserves in the District, Kibengu Ward had the largest proportion of reserved forests at 43.2 percent, followed by Ifwagi (31.8 percent), then Kasanga (13.6 percent), Mlangali (10.7 percent), Sadani (0.6 percent) and Mtwango (0.1 percent). The level of encroachment is highest in the ward of Kibengu (43.4 percent) followed by Kasanga (37.2 percent) Ifwagi (18.6 percent) and then Mtwango (0.9 percent). Despite the largest number of reserves located in Mlangali Ward there was no encroachment in this Ward. The level of illegal harvesting is generally insignificant in Mufindi District due to availability of adequate private and public forest areas.

Table 3. 20: Status of Forest Reserves, Mufindi District; 2012

Ward	Name of Forest Reserve	Size in Hectares	Percent of Total Hectares	Illegal Harvesting level*	Size of Encroached Area (ha)	Percent Encroached
Ifwagi	Mufindi scarp(E)	18,183	28.9	Fair	100	12.4
Ifwagi	Kibao	440	0.7	Insignificant	0	0.0
Ifwagi	Lulanda	250	0.4	Nil	0	0.0
Ifwagi	Kidete	105	0.2	Fair	10	1.2
Ifwagi	Lugodalutali	108	0.2	Nil	0	0.0
Ifwagi	Myangala	35	0.1	Nil	0	0.0
Ifwagi	Kidegemsitu	218	0.3	Fair	40	5.0
Ifwagi	Ipafu	88	0.1	Nil	0	0.0
Ifwagi	Igoda	33	0.1	Nil	0	0.0
Ifwagi	Mkongge	97	0.2	Nil	0	0.0
Ifwagi	Mpanga	116	0.2	Insignificant	0	0.0
Ifwagi	Luhunga	252	0.4	Nil	0	0.0
Ifwagi	Madisi	84	0.1	Nil	0	0.0
Total Ifwagi		20,009	31.8		150	18.6
Kasanga	Mufindi Scarp(W)	5,927	9.4	Fair	300	37.2
Kasanga	Kigogo	2,552	4.1	Insignificant	0	0.0
Kasanga	Kitwite	69	0.1	Nil	0	0.0
Total kasanga		8,548	13.6		300	18.7
Kibengu	Ihang'ana	2,982	4.7	Insignificant	0	0.0
Kibengu	Njerera (Luhega)	23,833	37.9	Fair	350	43.4
Kibengu	Idewa	291	0.5	Insignificant	0	0.0
Kibengu	Ndundulu	5	0.0	Nil	0	0.0
Kibengu	Kifyoya	58	0.1	Insignificant	0	0.0
Kibengu	Duma	11	0.0	Nil	0	0.0
Total kibengu		27,180	43.2		350	43.4
Malangali	Mtili	131	0.2	Insignificant	0	0.0
Malangali	Ifunda	31	0.0	Insignificant	0	0.0
Malangali	Utangilo	80	0.1	Insignificant	0	0.0
Malangali	Ryagoda	316	0.5	Insignificant	0	0.0
Malangali	Kibada	31	0.0	Insignificant	0	0.0
Malangali	Nzogomelo	425	0.7	Insignificant	0	0.0
Malangali	Chaluwanga	415	0.7	Insignificant	0	0.0
Malangali	Kisada A	11	0.0	Insignificant	0	0.0

Table 3.20 ctd: Status of Forest Reserves, Mufindi District; 2012

Ward	Name of Forest Reserve	Size in Hectares	Percent of Total Hectares	Illegal Harvesting level*	Size of Encroached Area (ha)	Percent Encroached
Malangali	Kinyangesi	31	0.0	Insignificant	0	0.0
Malangali	Mtundu	78	0.1	Insignificant	0	0.0
Malangali	Udumuka	102	0.2	Insignificant	0	0.0
Malangali	Usita	107	0.2	Insignificant	0	0.0
Malangali	Lalika	936	1.5	Insignificant	0	0.0
Malangali	Mayale	17	0.0	Insignificant	0	0.0
Malangali	Mdindilo	286	0.5	Insignificant	0	0.0
Malangali	Kipagamo	64	0.1	Insignificant	0	0.0
Malangali	Kisada B	68	0.1	Insignificant	0	0.0
Malangali	Gendigulwime	17	0.0	Insignificant	0	0.0
Malangali	Kinyamaganga	41	0.1	Insignificant	0	0.0
Malangali	Kidete	222	0.4	Insignificant	0	0.0
Malangali	Kibaho	47	0.1	Insignificant	0	0.0
Malangali	Kingoma A	61	0.1	Insignificant	0	0.0
Malangali	Kingoma B	38	0.1	Insignificant	0	0.0
Malangali	Kipagamo	64	0.1	Insignificant	0	0.0
Malangali	Lugoda	421	0.7	Insignificant	0	0.0
Malangali	Chaluvangala	381	0.6	Insignificant	0	0.0
Malangali	Chaulema	1,485	2.4	Insignificant	0	0.0
Malangali	Ikangamwani	768	1.2	Insignificant	0	0.0
Malangali	Itulilo	22	0.0	Insignificant	0	0.0
Malangali	Ilamba	14	0.0	Insignificant	0	0.0
Total Mlangali		6710	10.7		0	0.0
Sadani	Masuni	190	0.3	Insignificant	0	0.0
Sadani	Mandumbulu	206	0.3	Insignificant	0	0.0
Total		396	0.6			0.0
Sadani						
Mtwango	Lufuna	35	0.1	Fair	7	0.9
Total		62,878	100.0		807	100

* fair, insignificant, nil

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

Due to the high demand of tree seedlings in the District, there are several institutions involved in raising tree seedlings in the district. Most of the tree seedlings are raised by the District Government followed by central government. Schools and NGO's also plays a big part in this area Table 3.21 shows The tree seedlings raised has increased in the past three years among all the participants, with the village governments raising about 39 percent of all seedlings raised in 2011/12.

Table 3. 21: Number of Tree Seedlings Raised by Institution, Mufindi District; 2009/10 -- 2011/12

Institution	2009/10	2010/11	2011/12
Central Government	4,000,000	6,000,000	7,570,000
District Council	20,000	26,000	32,000
Village Government	8,000,000	9,000,000	12,475,000
Schools	2,350,000	2,400,000	2,670,000
NGO's	4,000,000	8,000,000	9,007,500
Total	18,370,000	25,426,000	31,754,500

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013



Tree seedlings raising has created employment to people of Mufindi District

Table 3.21a below shows tree seedlings raised by ward during a three year period (2010 – 2012). These seedlings were owned privately by individuals, Mapanda ward with 3 percent of the seedlings was leading, followed by Ifwagi ward (17 percent) and Makungu ward (11 percent), Ikweha ward was the only ward which produced no tree seedlings during the period.

Table 3.21 a: Number of Tree Seedlings Raised by Ward, Mufindi District; 2009/10 - 2011/12

Ward	2009/10	2010/11	2011/2012	Total	Percent
Kasanga	1,670,000	1,785,000	1,125,400	4,580,400	5
Mtambula	52,630	53,345	40,550	146,525	0
Makungu	3,653,880	3,853,500	2,950,800	10,458,180	11
Igowole	1,920,380	1,815,255	1,755,800	5,491,435	6
Kiyowela	5,680	4,975	5,540	16,195	0
Mninga	22,760	23,334	21,550	67,644	0
Itandula	50,780	49,450	51,540	151,770	0
M/Tazara	2,350	2,150	1,980	6,480	0
Sadani	3,670	2,985	2,587	9,242	0
Isalavanu	2,600	1,850	1,789	6,239	0
Igombavanu	1,800	2,100	2,080	5,980	0
Ikweha	0	0	0	0	0
Malangali	5,672	5,570	4,568	15,810	0
Idunda	0	0	1200	1,200	0
Nyololo	15,640	13,240	15,520	44,400	0
Ihowanza	0	2500	2800	5,300	0
Bumilayinga	10870	13960	11545	36,375	0
Mbalamaziwa	13450	15490	12200	41,140	0
Kibengu	1,864,000	1,960,000	2,100,260	5,924,260	6
Ihalimba	50,510	48,020	51,500	150,030	0
Boma	1,644,540	1,600,650	1,554,636	4,799,826	5
Kinyanambo	85,058	92,500	75,610	253,168	0
Sao Hill	72,775	82,870	71,580	227,225	0
Mapanda	9,845,147	9,688,040	9,945,147	29,478,334	31
Rungemba	5,000	4,453	4,580	14,033	0
Ifwagi	5,265,500	6,350,000	5,150,900	16,766,400	17
Mdabulo	1,050,000	1,250,226	1,950,000	4,250,226	4
Luhunga	3,000,850	3,550,000	3,012,560	9,563,410	10
Ihanu	115,470	125,527	112,470	353,467	0
Mtwango	1,234,230	1,125,120	1,137,808	3,497,158	4
Total	31,665,242	33,522,110	31,174,500	96,361,852	100

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.3.3 Natural Resources Products

3.3.3.1 Forest Products



Timber is a main product from forest

Forest products such as timber, poles and charcoal earn revenue for the Government through permits and taxes. Table 3.22 shows the amount of revenue earned from timber and charcoal in 2012. In 2012, Mufindi District Council collected TShs 27,431,600,000 from timber and TShs 22,165,000 from charcoal. Rungemba was leading in the sales of timber followed by Ihalimba ward, whereas Kiyowela was leading in the sales of charcoal followed by Rungemba. Forest products add significant revenue in the income of Mufindi district.

Table 3. 22: Revenue collected from Timber Mufindi District, 2012

Ward	Volume of Timber Sold (M3)	Total Values M3 @350,000	Number of Charcoal Bags sold	Total value@Bag 3500/= Tshs
Kasanga	1,670	584,500,000	165	577500
Mtambula	870	304,500,000	150	525000
Makungu	10,650	3,727,500,000	205	717500
Igowole	3,405	1,191,750,000	185	647500
Kiyowela	0	0	550	1925000
Mninga	1,200	420,000,000	235	822500
Itandula	0	0	118	413000
M/Tazara	0	0	86	301000
Sadani	0	0	1234	4319000
Isalavanu	0	0	115	402500
Igombavanu	0	0	234	819000
Ikweha	0	0	225	787500
Malangali	0	0	112	392000
Idunda	0	0	252	882000
Nyololo	970	339,500,000	127	444500
Ihowanza	0	0	135	472500
Bumilayinga	570	199,500,000	285	997500
Mbalamaziwa	822	287,700,000	126	441000
Kibengu	1,350	472,500,000	112	392000
Ihalimba	11,500	4,025,000,000	132	462000
Mapanda	2,740	959,000,000	108	378000
Boma	340	119,000,000	0	0
Kinyanambo	150	52,500,000	0	0
Sao Hill	6,205	2,171,750,000	278	973000
Rungemba	12,214	4,274,900,000	370	1295000
Ifwagi	10,700	3,745,000,000	154	539000
Mdabulo	2,570	899,500,000	106	371000
Luhunga	2,600	910,000,000	114	399000
Ihanu	3,000	1,050,000,000	125	437500
Mtwango	4,850	1,697,500,000	295	1032500
Total	78,376	27,431,600,000	6333	22,165,500

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.3.2.2 Beekeeping



Mufindi district is on the stage of shifting from traditional to modern beehives dependence

Beekeeping is one of the economic activities in Mufindi. Natural forests and forests plantations available in most parts of the District have great potential for beekeeping. Besides those endowments, beekeeping sub-sector is still under developed due to lack of know-how and modern technology. As Table 3.23 shows, in 2012 traditional beehives were the dominant by accounting for 62 percent of all beehives. This situation led to low production of honey and bee wax within in the District. Tradition beehives are mainly made by carving logs whilst modern beehives are more improved and made of timber. If the available beekeeping potential is fully utilized, it would reduce unemployment/underemployment of rural population in the District.

Table 3. 23 : Number of Traditional and Modern Beehives, Mufindi District; 2010 -2012

	Traditional					Modern				
	2010	2011	2012	Total	Percent	2010	2011	2012	Total	Percent
Mbalamaziwa	321	413	580	1314	24.1	313	430	288	1031	32.8
Ihowanza	512	320	370	1202	22.1	244	25	290	559	17.8
Sadani	538	540	425	1503	27.6	220	311	289	820	26.1
Igombavanu	420	510	501	1431	26.3	200	245	289	734	23.3
District Total	1,791	1,783	1,876	5,450	100	977	1011	1156	3144	100.0

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.3.2.3 Beekeeping Products

Beekeeping generates income for the District. Table 3.24 shows the District produced a total of 16,152 kgs of honey valued at TShs 53,518,000 and 594 kgs of bee-wax with a value of TShs 1,391,500. Production of these products can be increased if bee-keepers are given assistance to enable them change from traditional to modern beehives which are more efficient in honey production. Extension officers should encourage peasants around forest reserve area to engage in beekeeping as an off-farm part time economic activity.

Table 3. 24: Quantity and Value of Beekeeping Products and Value (Tshs), Mufindi District; 2010 – 2012

Year	Honey			Bee-wax		Honey and Bee-wax	
	Kgs.	TShs.	Percentage	Kgs.	T.shs.	Value(TShs)	Percentage
2010	6,012	18,036,000	34	187	374,000	18,410,000	33.5
2011	5,078	15,234,000	28	191	477,500	15,711,500	28.6
2012	5,062	20,248,000	38	216	540,000	20,788,000	37.9
Total	16,152	53,518,000	100	594	1,391,500	54,909,500	100.0

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.3.2.4 Fisheries



Pond in Igowole ward is used for different purposes including fishing

Fish farming is common in Igowole ward. Table 3.25 shows that fish farming earned Tshs 46, 276,000 from the production of 14,345 kgs of fish in the year 2012. The District had 123 fishermen in 2012. The average price of fish was TShs 3226 per kg.

Table 3. 25 : Fisheries Resources and Production from January to December, 2012, Mufindi District

Ward	Type of Fishing Resources			Fish Production	
	No. of Fishing licesenses	No. of Fishermen	No. of Registered Fishing Vessels	Weight (kg)	Value Tshs
Igowole	45	123	45	14,345	46,276,000
Total	45	123	45	14,345	46,276,000

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

Table 3. 26: Revenue Collection from Fishermen (Tshs) by Ward, Mufindi District, 2009 to 2012

Ward	2010	2011	2012	Total
Igowole	100,579,400	132,140,000	46,276,000	278,995,400
Total	100,579,400	132,140,000	46,276,000	278,995,400

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.3.2.5 Wildlife

There is no national park or game reserve in Mufindi district, but there are wild animals found in forests reserve in the District. Some are migrate from Ihifu. Hunting is allowed after obtaining permit from district authorities.

3.3.2.6 Poaching

To some extent poaching takes place in forest reserves in Mufindi District. Table 3.27 shows the level of poaching for aperiod of four years and the revenue lost. Poaching has been decreasing since 2008 and 2012 there was no records of poaching in the District. The total revenue lost during a four year period was TShs 800,000.

Table 3. 27: Poachers Arrested and Revenue Lost Mufindi , District 2008 to 2012

Year	Number of Poachers Netted	Estimated Revenue lost from Poaching
2008/2009	9	400,000
2009/2010	4	200,000
2010/2011	3	200,000
2011/2012	-	-
Total	16	800,000

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.3.2.7 Tourism



Chief Muniyigumba Grave yard

Table 3.28 reveals historical sites that are potential for tourism in Mufindi District. Chief Mkwawa who was the chief of the hehe tribe was the superior one in Iringa Region. Many of his hiding and resting places were established in Mufindi District. Chanunu and Uole cave which is in Malangali Ward was a hiding place for Mkwawa during the war with Germans, Ngoni and luguru people, There are resting places like Kisupo cha Mkwawa and also Mnyigumba Boma where there is a grave of Mkwawa's father. These sites are monitored by the Mkwawa family. The district is in the process of making arrangements to make those sites being among other potential tourist attractions.

Table 3. 28: Historical sites potential for Tourism; 2012

Historical sites	Village	Ward	Division
Chanunu Cave	Itengule	Malangali	Malangali
Chamumbwi German Old Fort	Ihowanza	Ihowanza	Malangali
Kisupo cha Mkwawa	Sawala	Mtwango	Ifwagi
Ulole Caves	Bumilayinga	Bumilayinga	Malangali
Mnyigumba's Grave Yard and Boma	Rungemba	Rungemba	Ifwagi
Kirufi Worshipping	Ihomasa	Kasanga	Kasanga

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.3.2.8 Eco Tourism

Availability of good infrastructure such as accommodation facilities, telecommunication services, roads, banking/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. Mufindi District has a number of hotels and guest houses. Table 3.29 shows that in 2012 the district has 16 hotels and 90 guest houses. Boma ward where the district headquarters is located has more hotels and guest houses.

Table 3. 29: Accommodation facilities by Ward, Mufindi District; 2011

Ward	Number of Hotels				Number of Guest Houses			
	2010	2011	2012	Percents	2010	2011	2012	Percentage
Boma	8	9	9	56.3	51	51	55	61.1
Kinyanambo	3	3	3	18.8	4	6	6	6.7
Sao hill	1	1	1	6.2	3	3	3	3.3
Rungemba	-	-	-		-	-	-	
Ifwagi	-	-	-		1	1	1	1.1
Mdabulo	-	-	-		2	2	2	2.2
Luhunga	1	1	1	6.2	1	1	1	1.1
Ihanu	-	-	-		-	-	-	
Mtwango	-	-	-		3	3	3	3.3
Kibengu	-	-	-		2	2	2	2.2
Ihalimba	-	-	-		-	-	-	
Mapanda	-	-	-		-	-	-	
Malangali	-	-	-		1	1	1	1.1
Nyololo	2	2	2	12.5	5	5	5	5.6
Idunda	-	-	-		-	-	-	
Ihowanza	-	-	-		-	-	-	
Bumilayinga	-	-	-		-	-	-	
Mbalamaziwa	-	-	-		-	-	-	
Kasanga	-	-	-		-	-	-	
Mtambula	-	-	-		-	-	-	
Makungu	-	-	-		4	4	4	4.4
Igowole	-	-	-		6	6	6	6.7
Kiyowela	-	-	-		-	-	-	
Mninga	-	-	-		-	-	-	
Itandula	-	-	-		-	-	-	
Mpanga	-	-	-		-	-	-	
Tazara								
Sadani	-	-	-		1	1	1	1.1
Isalavanu	-	-	-		-	-	-	
Igombavanu	-	-	-		-	-	-	
Ikweha	-	-	-		-	-	-	
Total	15	16	16	100	84	86	90	100.0

Source: District Executive Director's Office (Commerce Department), Mufindi District, 2013



A hotel in Luhunga ward, accommodation is potential for tourist attraction

3.4.1 Natural resource Personnel

Availability of natural resource personnel is necessary for the management of natural resources and ensures sustainability in the use of natural resources as well as the conservation of available resources. Mufindi District had a total of 17 personnel who were divided into four natural resource subsectors. The forestry subsector had 10 personnel, fisheries (3) then beekeeping and wildlife had 2 each. Gender issue is of concern as Table 3.30 reveals that female were only 3 out of 17 available personnel.

Table 3. 30: Availability of Natural Resources Personnel Mufindi District 2012

Ward	Forest	Beekeeping	Fisheries	Wildlife	Total
Male	8	2	2	2	14
Female	2	0	1	0	3
Total	10	2	3	2	17

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.4.2 Environment

Development partners in Mufindi District played an important role in resolving conflicts that arose between government authorities and the people surrounding forests reserves. This has helped to balance national and local interests in resource

use. Mufindi population is expected to increase, creating economic opportunities as well as putting unprecedented pressure on both the people and resources. To maximize current and future benefits, careful shorefront planning guided by clear principles and backed by enforceable practices is necessary in order to avoid or resolve conflicts among users. Development partners, NGO's and CBO's shown in Table 3.31 were involved in various activities pertaining to environmental conservation in Mufindi District in 2012.

Table 3. 31: Number of NGOs and Development Partners Involved in Environmental Conservation in Mufindi District; 2012

Ward	Number of NGOs	Number of Development Partners
Mtambula	MUET	Green Resources Ltd
Idunda a& Malangali	INCOMET	Mufindi Paper Mills
	NGOs (TFCG, MUET, INCOMET, TGA)	Mufindi Tea Company
		Unilever Tea Tanzania Ltd
		Highland Forest Plantation
		LKEMP
		Participatory Forest
		Management(PFM),SWMP –
		DANIDA,
		EAMCEF
		WWF

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.4.3 Policy Implication on Natural resources

Natural resources is a productive sector which can, at least potentially, generate its own income if properly managed and if the laws and regulations permit and support sectoral self-financing. In many countries natural resources sector is actually a net contributor to the state treasury.

Illegal forests harvests, encroachment of forest reserves by livestock keepers and agricultural expansion are activities which to some extent endanger natural resources in the District. The district has by laws guiding the protection and

management of natural resources. However, proper enforcement of by laws and follow ups are lacking/missing. Furthermore, the beneficiaries who are the communities living close to the respective natural resources need to be involved on choosing the best approach for sustainable utilization, management and protection of natural resources. In addition to that, environmental benefits would be substantial if there was joint effort among the beneficiaries (the community) and authorities responsible for controlling and managing natural resources.

Forestry being part of the natural resources has a large potential to contribute to the District economy. Forestry resource can be properly used to invest in other off farm activities like beekeeping, timber processing and carpentry workshop, proper use of forest resources could improve the income of families in Mufindi District and discourage girls from migrating to other regions especially Dar-es Salaam to look for employment in private households as housegirls. Fish industry can also be alternative source of income for people of Mufindi if plans of introducing man made fish production ponds are put in place. Providing people with fish production management skills and soft loans would improve the livelihood of Mufindi residents.

3.4.4 Investment Opportunities in Natural Resources

(i) Agro-forestry

Sustainable agro-forestry is an area to take advantage of. This includes the promotion of commercial beeswax and honey production also afforestation programmes.

(ii) Environmental conservation

Investment in the planting and supply of seedlings is essential in the District in order to balance the state of aforestation and deforestation that is going on in the District. Mufindi like other districts of Iringa Region face the problem of depletion of forest cover due to firewood and charcoal burning. Investment is also needed in providing education in agro forestry and forest resource management.



Kihansi waterfalls, environment like this need to be conserved

(iii) Beekeeping

Investment in beekeeping subsector can increase the social economic status of the people of Mufindi District if serious measures are taken. Small scale beekeepers could be developed by being trained in using modern technology of beekeeping. Beekeeping does not have to be done in forest reserves but individuals can be trained to practice beekeeping in the areas surrounding their households in order to increase their household incomes.

(iv) Fisheries

Households in Igowole ward and the whole Mufindi District have a very good opportunity of increasing their income by getting involved in fishing. Therefore, a dynamic and well funded fisheries program is needed in Mufindi to transform the income and nutrition status of their households.

(v) Tourism

The District has historical sites which can be an important attraction to tourists. Therefore, the District authorities have to find ways of promoting these sites. The better way to start is with internal tourism promotion.

3.5 Mineral Resources

There is no mineral deposits that have been discovered in Mufindi District so far.

3.6. Industrial Development

3.6.1 Introduction

In Tanzania Industrial and construction sectors' contribution to the national GDP was 24.8 percent in 2011 (Statistical Abstract 2011). Table 3.32 gives the number of small scale industries that were available in the District in 2012, Mufindi District had 15 small establishments involved in timber processing of which, 11 were located in Boma ward and 4 were in Kinyanambo ward. There were 8 medium sized establishments located in 7 different wards. These were dealing with tea processing (6), pyrethrum (1), and timber (1) (Table 3.33). The Large establishments were 3 with one in each of the following activities paper manufacture, sawmilling, tea processing. These establishments were in Saohill, Mtwango and Makungu wards. (Table 3.34). These industries play an important role in providing employment opportunities in the District. Timber is very important in the informal sector which employs a lot of people within and outside the District.

Table 3. 32: Number of Small Establishments by Ward and Industrial Activity , Mufindi District, 2012

Ward	Industrial Activity	2010	2011	2012
Boma	Timber	8	8	11
Kinyanambo	Timber	4	4	4
Total		12	12	15

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

Table 3. 33 : Number of Medium Establishments) and Industrial Activity. by Ward, Mufindi District, 2013

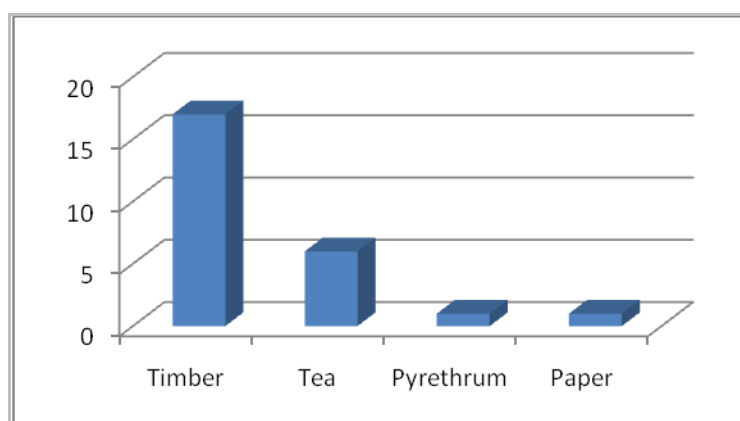
Ward	Type of Industrial Activity	2010	2011	2012
Boma	Tea	1	1	1
Kinyanambo	Pyrethrum	1	1	1
Sao hill	Timber	1	1	1
Ifwagi	Tea	2	2	2
Mtwango	Tea	1	1	1
Igowole	Tea	1	1	1
Mninga	Tea	1	1	1
Total		8	8	8

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

Table 3. 34: Number of Large Establishment by Ward and Industrial Activity, Mufindi District, 2012

Ward	of Industrial Activity	2010	2011	2012
Sao hill	Timber	1	1	1
Mtwango	Tea	1	1	1
Makungu	Paper	1	1	1
Total		3	3	3

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

Figure 20: Number of Establishment by Type, Mufindi district 2012

Source: District Executive Director's Office (Natural resource Department), Mufindi District, 2013

3.7 Policy Implication on Industrial sector

Industrial sector in Mufindi largely depends on agriculture and forests products for sustainability. Poor performance of agriculture sector caused by the use of inferior farm implements/inputs resulted into decrease in production and hence affected livelihood of the Mufindi people. Implementation of agriculture first policy through using modern farm implements/inputs added by improved crops extension services would help increase agriculture production and thus easy raw materials for industries. Moreover, to make forest products beneficial not only to investors coming from other part of the country and also outside the country, policy is required which will make investors coming in the district join with local people in managing and operating forest industries.

3.8 Investment in Industrial sector

The basis for industrial development in Mufindi District has been forest timber and agricultural produces. There is still room for establishment of small and medium scale agro-based industries such as milling of sunflower and sawmilling of forest timber and the establishment 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 Mufindi through encouraging people 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 economic infrastructure in Mufindi District. 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 calls and television facilities. In the energy sector, the service of hydro-electricity, biogas, solar panels, fuel wood and fossil fuels are examined.



67.3 percent of the road network in Mufindi District is earth road

4.1 Road Network by Type

Despite the Government's efforts to improving its road network, extending this network to rural areas where the majority of Tanzania's poor live and carry out substantive economic activities, has been a challenge. Up to the end of 2010, only 24 percent of Tanzania's rural population lives within two kilometres of an all-weather road. This makes the flow of goods and services to and from the rural areas difficult and expensive. In urban areas, traffic congestion has become a chronic and costly transport impediment as the investment in urban roads has not kept place with the increase in population.

In Mufindi District, road transportation is the major type of transportation for people and goods within and outside the District. The District is served by trunk, regional, district and feeder roads. Table 4.1 shows the length of road network by ward and by type. The length of the road network was 1,573.3 kms in 2012. 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 and are mostly maintained by Village/Mitaa communities. Table 4.1 further shows that about 95 km (6 percent of total road network) were trunk roads, regional roads were 399 km (25.4 percent) and district roads were (680.3 km, or 43.2 percent of the road network. Feeder roads which are the true arteries of the economy of the district, constituted 399 km or 25.4 percent of the total length of all roads in the District. Kibengu ward with 113.7 km (7.2 percent) of the road network had the longest portion of the network while Igowole ward with 21 km (1.3 percent) of the network had the shortest portion.

Table 4. 1: Road Networks by Ward and Type of Road, Mufindi District; 2012

Ward	Grade (Kms)					Percent
	Trunk	Regional	District	Feeder	Total	
Boma	2	-	60	0	62	3.9
Kinyanambo	5	12	17.5	5	39.5	2.5
Sao Hill	15	-	35	7	57	3.6
Rungemba	15	5	10	4	34	2.2
Ifwagi	-	-	15.5	14	29.5	1.9
Mdabulo	-	-	41.5	14	55.5	3.5
Luhunga	-	-	38.5	5	43.5	2.8
Ihanu	-	-	44.5	21	65.5	4.2
Mtwango	-	40	7	18	65	4.1
Kibengu	-	46	36.7	31	113.7	7.2
Ihalimba	-	21	18.5	21	60.5	3.8
Mapanda	-	30	20.8	33	83.8	5.3
Malangali	-	12	5	26	43	2.7
Nyololo	20	15	28	14	77	4.9
Idunda	-	-	31	9	40	2.5
Ihowanza	-	30	5.2	25	60.2	3.8
Bumilayinga	-	-	19	21	40	2.5
Mbalamaziwa	21	6	14	12	53	3.4

Table 4. 1 (ctd): Road Networks by Ward and Type of Road, Mufindi District; 2012

Ward	Grade (Kms)					Percent
	Trunk	Regional	District	Feeder	Total	
Kasanga	-	20	6	10	36	2.3
Mtambula	-	12	16	7	35	2.2
Makungu	-	51	-	18	69	4.4
Igowole	-	9	-	12	21	1.3
Kiyowela	-	10	45	12	67	4.3
Mninga	-	31	13	10	54	3.4
Itandula	17	18	10	11	56	3.6
MpangaTanzara	-	-	24	0	24	1.5
Sadani	-	17	19.1	3	39.1	2.5
Isalavanu	-	7	23.5	10	40.5	2.6
Igombavanu	-	7	40	7	54	3.4
Ikweha	-	-	36	19	55	3.5
District- Total	95	399	680.3	399	1573.3	100.0
Percentage	6.0	25.4	43.2	25.4	100.0	

Source: Mufindi District Council (Ujenzi Department), 2013

4.1.1 Road Classification by Grade of Road Surface

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. Table 4.2 shows the length of road network by grade of road surface in Mufindi District. The Table reveals that, tarmac roads cover the least distance of 95 km (6 percent of total road length in the District). About 419.5 kilometers (26.7 percent) are gravel roads and 1,058.8 kilometers (67.3 percent) are earth roads. Since more than half of the total road length in Mufindi District is earth roads, the responsible authorities should take immediate action to improve earth roads and ease transportation of goods and services.

Table 4. 2: Road Network by Surface Condition and Ward, Mufindi District; 2012

Ward	Type of Surface (kms)				
	Tarmac	Gravel	Earth	Total	Percentage
Boma	2	0	60	62	3.9
Kinyanambo	5	0	34.5	39.5	2.5
Sao Hill	15	0	42	57	3.6
Rungemba	15	5	14	34	2.2
Ifwagi	0	14.5	15	29.5	1.9
Mdabulo	0	10	45.5	55.5	3.5
Luhunga	0	0	43.5	43.5	2.8
Ihanu	0	33	32.5	65.5	4.2
Mtwango	0	40	25	65	4.1
Kibengu	0	40	73.7	113.7	7.2
Ihalimba	0	21	39.5	60.5	3.8
Mapanda	0	30	53.8	83.8	5.3
Malangali	0	12	31	43	2.7
Nyololo	20	15	42	77	4.9
Idunda	0	0	40	40	2.5
Ihowanza	0	30	30.2	60.2	3.8
Bumilayinga	0	0	40	40	2.5
Mbalamaziwa	21	6	26	53	3.4
Kasanga	0	20	16	36	2.3
Mtambula	0	12	23	35	2.2
Makungu	0	51	18	69	4.4
Igowole	0	9	12	21	1.3
Kiyowela	0	12	55	67	4.3
Mninga	0	10	44	54	3.4
Itandula	17	18	21	56	3.6
MapangaTazara	0	0	24	24	1.5
Sadani	0	17	22.1	39.1	2.5
Isalavanu	0	7	33.5	40.5	2.6
Igombavanu	0	7	47	54	3.4
Ikweha	0	0	55	55	3.5
District Total	95	419.5	1058.8	1573.3	100.0
Percentage	6.0	26.7	67.3	100	

Source: Mufindi District Council (Ujenzi Department), 2013

4.1.2 Road Passability

Roadworthiness during the rainy season measures the effectiveness of the road network. Mufindi is a lack district as though more than half (67.3 percent) of its total road network is earth road most of them are passable throughout a year even during rainy season. Sandy soil is poor water retainer and makes those earth roads passable in all seasons. This is evident in Table 4.3 as 1,561.3 km (99.2 percent) and 8 km (0.3 percent) were passable roads. Topographic nature of MpangaTazara which consists of steep slopes and sharp hills impedes construction of better roads as a result the ward had the longest road length (4km) which was not passable most of the year (Table 4.3).

Table 4. 3: Passability of Road Network in kilometres, Mufindi District; 2012

Ward	Condition of Network Throughout the Year in kilometres				
	Passable Throughout the Year	Passable a Greater Part of the Year	Not Passable Most of the Year	Total Road Network	Percentage Passable (Columns 2 +3)
Boma	62	0	0	62	100
Kinyanambo	39.5	0	0	39.5	100
Sao Hill	57	0	0	57	100
Rungemba	34	0	0	34	100
Ifwagi	29.5	0	0	29.5	100
Mdabulo	55.5	0	0	55.5	100
Luhunga	43.5	0	0	43.5	100
Ihanu	65.5	0	0	65.5	100
Mtwango	65	0	0	65	100
Kibengu	113.7	0	0	113.7	100
Ihalimba	60.5	0	0	60.5	100
Mapanda	83.8	0	0	83.8	100
Malangali	43	0	0	43	100
Nyololo	77	0	0	77	100
Idunda	40	0	0	40	100
Ihowanza	60.2	0	0	60.2	100
Bumilayinga	40	0	0	40	100
Mbalamaziwa	53	0	0	53	100

Table 4. 3 (ctd):Passability of Road Network in kilometres, Mufindi District; 2012

Ward	Condition of Network Throughout the Year in kilometres				
	Passable Throughout the Year	Passable a Greater Part of the Year	Not Passable Most of the Year	Total Road Network	Percentage Passable (Columns 2 +3)
Kasanga	36	0	0	36	100
Mtambula	35	0	0	35	100
Makungu	69	0	0	69	100
Igowole	21	0	0	21	100
Kiyowela	67	0	0	67	100
Mninga	54	0	0	54	100
Itandula	56	0	0	56	100
MpangaTazara	12	8	4	24	83.3
Sadani	39.1	0	0	39.1	100
Isalavanu	40.5	0	0	40.5	100
Igombavanu	54	0	0	54	100
Ikweha	55	0	0	55	100
Total	1561.3	8	4	1573.3	100
Percentage	99.2	0.5	0.3	100	

Source: Mufindi District Council (Ujenzi Department), 2013

4.1.3 Major Road Connections

Table 4.4 highlights road connections and road links which connect various parts of the District. Although, Table 4.4 indicates 30.3 percent of the total major inter District road connections were considered good, but, so long as majority of them are earth roads, regular repair is important to easy transportation of goods and services to rural areas of the District. Moreover, road connections considered 'fair' and 'poor' accounted for 40.6 percent and 28.2 percent of total length of links respectively. Road of 98.2 km connecting Sawala (in Mtwango ward), Mkonge (in Luhunga ward) and Lulanda (in Ihanu ward) and Mtili is the longest road and the road of 6 km connecting Igomtuwa in Kibengu ward and Ihanzutwa in Sadani Ward is the shortest.

Table 4. 4 : Major Road Connections and Road link, Mufindi District; 2012

Major Inter – District Road Connections	Road links	Length of Road link in kms.	Quality of Road surface	Type of Road
Rungemba – Isalavanu	District	32.7	Fair	Gravel
Mapogolo – Utozi	District	24.6	Good	Earth
Tambalang’ombe – Kwatwanga	District	40.1	Good	Earth
Changarawe – Nyololo	District	26.3	Good	Earth
Kisada – Ugenza	District	17.8	Good	Gravel
Isimikinyi - Nyanyembe	District	14	Fair	Earth
Sawala – Mkonge – Lulanda – Mtili	District	98.2	Fair	Earth
Kinyanambo – Kibengu	Regional	58.1	Good	Gravel
Kibengu – Ukami	District	56	Fair	Earth
Kibengu – Uhafiwa	District	62.5	Fair	Earth
Numdwe – Ikongosi- Mtili	District	25.5	Good	Earth
Lutherani – Isupilo	District	15.5	Fair	Gravel
Mwitikilwa – Ifwagi	District	7.3	Poor	Earth
Kiyowela – Idete	District	31	Fair	Earth
Magunguli – Mashambani	District	10.5	Poor	Gravel
Maguvani – Udumuka	District	30	Poor	Gravel
Ikwega – Kasanga	District	12	Poor	Earth
Lulanda – Mpanga Tzr	District	37	Fair	Earth
Rungemba – Maduma	District	12	Poor	Earth
Ndolezi – Kikombo	District	5	Good	Earth
Nyololo – Maduma	District	20	Good	Earth
Ukemele – Nzivi	District	16	Fair	Earth
Ihalimba – Igomtwa	District	18	Poor	Earth
Mtambula – Nzivi	District	18	Poor	Earth
Uhambila – Wasa	District	7.2	Fair	Earth
Ihanu – Kilosa – Vikula	District	30	Poor	Earth
Igomtwa – Ihanzutwa	District	6	Poor	Earth
Kitiru – Itulituli	District	8	Good	Gravel
Ludilo – Mdabulo	District	12	Poor	Earth
Idunda – Ihowanza	District	13	Good	Earth
Mafinga Town roads	District	95	Poor	Earth
Mafinga - Ugute	District	7.7	Good	Earth
Ihowanza – Idumulavanu	District	9.2	Good	Earth
Kitiru - Itulituli	District	14.2	Good	Gravel
Total		890.4	Summary: Good=13=30.3% Fair=10=41.6% Poor=11=28.2%	

Source: Mufindi District Council (Ujenzi Department), 2013

4.1.4 Agricultural Productivity of the Road Network

The economy of Mufindi District is based 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. Mufindi district's road network covered agricultural production at 265.3 tonnes of food and cash crops per kilometer of road. This means that during the crop season of 2011/12, on average, one kilometer of overall road networks in the district facilitated transportation of 265.3 tonnes of both food and cash crops. Therefore, for improving the District's economy at significant level, construction of more roads is important to easy transportation of agricultural products and other goods/services within and outside the district.

Table 4. 5: Agricultural Productivity of the Road Network, Mufindi District; 2011/12

Total District Road length (kms)	Agricultural production (tonnes)			tonnes/km
	Food crops	Cash crops	Total	
1,573.30	372,606	44,838	417,444	265.3

Source: Mufindi District Council (Ujenzi Department), 2013

4.2 Railway Services

Railways remain the most affordable way of transporting heavy and bulk goods though the unsatisfactory performance of Tanzania's railways has forced many companies and individuals to rely on the relatively more expensive road transportation to move their goods.

The economy of Mufindi District apart from other factors is also influenced by the presence of reliable and affordable railway transport namely Tanzania Zambia Railway line (Tazara). As shown in Table 4.6, Kiyowela and MpangaTazara are two railway stations which serve as a gateway for receiving/exporting heavy and bulk goods and services in and out of the District. Presence of reliable public road transportation of passengers, goods and services attributed also by poor performance of the railwayline caused gradual decrease in number of passengers and good/services in recent years transported through this railwayline in Mufindi District.

Table 4. 6 : Railway Services in Mufindi District; 2012

No. of Stations	Name of Stations	Located at	
		Ward	Division
2	Kiyowela	Kiyowela	Kasanga
	Mpanga Tazara	Mafinga	Kasanga

Source: Mufindi District Council (Ujenzi Department), 2013

4.3 Air Transport

Mufindi District's airtransport is unreliable and served by two airstrips namely Mafinga JKT and Ngwazi (Table 4.7). Iringa regional airport located about 80 km from Mufindi is the only airport that has a chance of at least providing reliable airtransport services to the District. Moreover, unreliability of air transport and uncertainty of railway services makes road transport the only reliable transport of the District.

Table 4. 7: Air Services in Mufindi District; 2012

No. Air strips available	Name of Strip	Located at	
		Ward	Division
2	Mafinga JKT	Saohill	Ifwagi
	Ngwazi	Igowole	Kasanga

Source: Mufindi District Council (Ujenzi Department), 2013

4.4 Telecommunications

Mufindi District enjoys internet and telephone services (both cellular phone and land line based telephone services) and postal services. Mufindi Township is the most privileged area in the district as it is well accessed to the above mentioned telecommunications services. Peripheral areas access cellular phone services though with network coverage difficulties. Unfortunately, there are no television and radio stations stationed in the District but, famous Tanzania Local Television channels like Independent Television (ITV), Channel Ten; Tanzania National Broadcasting Television (TBS) can be accessed.

4.5 Energy Sector Development

Energy is a prerequisite for proper functioning of nearly all sectors in the economy. It is an essential service whose availability and quality determines success or failure of development endeavours. As such, the importance of energy as a sector in the district economy cannot be over-emphasised. The main source of energy in Mufindi District is electricity, solar, firewood and charcoal. Electricity is commonly used in urban or semi urban areas.

4.5.1 Electricity

Electricity supply stimulates development, both social and economic. It improves leisure and generally improves the quality of life. Like other part of the country, TANESCO is to be the sole supplier of electricity in the District. Electricity supply in the district is not yet stable and faces a number of problems such as intermittent power supply, low voltage, rationing, and outages. In one way or another, these problems affect production of goods and services in the District.

The last comprehensive electricity coverage survey was carried out in 2012 Population and Housing Census. Since 2012 census detailed analytical reports portaying electricity coverage are no yet, out the 2002 report has been used. Therefore, the findings from the 2002 Population and Housing Census, Mufindi District Profile Report, volume IV reveals that during that census year, 4.72 percent of Mufindi District's total households used electricity as their main source of energy for lighting. In urban areas 28.08 percent of the households used electricity as the main source of energy for lighting compared to 1.17 percent of the households in rural areas. Once the relevant results of the 2012 population Census are out we shall be in a postion toknow to what extent the use of electricity for lighting has changed.

4.5.2 Fuel wood

Fuel wood is a dominant source of energy for domestic consumption. The main use of fuel wood has been for cooking and lighting and this makes wood consumption very high in the District. Data on energy consumption are normally captured during the national Population and Housing Census exercise. Since the 2012 census results showing such kind of information are not yet out the 2002 Census results have been used.. In this regard, the 2002 Population and Housing

Census Mufindi District Profile Report revealed that 95 percent of the District's total households in 2002 used firewood as their main source of energy for cooking. In rural areas, 98.4 percent of the household depended on firewood for cooking compared to 71 percent of the urban households.. About four percent of all households in the District used charcoal which is also a product of wood as the main source of energy for cooking. However, once we get the 2012 Population Census results we will be able to know how far there has been an improvement on in the use of fuel wood for cooking.

4.5.3 Biogas and Solar Energy

There has been no use of biogas in the District, but biogas can be used as an alternative source of energy in order to reduce the excessive use of fuel wood and charcoal for cooking purposes. Although, there is no data showing number of households who are using solar energy as the source of energy for lighting in the district, it is believed that there is a significant number of households who are using such kind of energy for lighting.

4.5.4 Fossil Fuel

The 2002 Population and Housing Census Mufindi District profile indicated that 0.49 percent of the households in Mufindi District used kerosene/paraffin for cooking. Urban households at 2.07 percent used more kerosene/paraffin for cooking than rural households at 0.25 percent.

4.6 Policy Implication on Economic Infrastructures

Of the district's total road network of 1573.3 km, 1,058.8 km equivalent to 67.3 percent were earth roads. The District is urged to find ways of upgrading those roads to tarmac level. Increasing budget of road maintenance/rehabilitation and construction through the use of District's own funds or funds received from central government might be among the strategies. The improved roads will have multiplier effect such as facilitating easy transportation of goods and services. It will also expand availability of social services even in remote areas of the District and thus improve the, social welfare of the Mufindi resident.

As by 2012 the majority of rural population the Mufindi District is still using firewood and charcoal as their main source of energy source for cooking,

sensetization campaigns of promoting the use of biogas as an alternative source of energy is important to curb accelerated deforestation . Solar power which is more affordable than electricity to low income earners should also be encouraged and supported as an alternative source of energy for lightining. Regarding the telecommunication industry, the District should make use of the country's policy of allowing investors in telecommunication industry especially radio and television and find possible strategies of attracting such investors. This will help the District to have radio and television station(s) broadcasting from the District.

CHAPTER FIVE

Social Services

5.0 Introduction

This chapter discusses the status of social services that are available in Mufindi District and cover the development of health sector in terms of preventive and curative measures as well as morbidity, mortality, and reportable communicable diseases. It also covers preventive measures on HIV/AIDS prevalence, tuberculosis, mother and child health also health facilities.

Education is the second sector discussed in this chapter. It highlights education performance in terms of, enrolment performance; school infrastructure and quality of education are also discussed.

Water supply and sanitation are also discussed in this chapter. Performance of water supply in both rural and urban areas of Mufindi District is highlighted in terms of sources, technology and capacity of water supply. , Sanitation level at the District is also briefly explained.

5.1 Health Sector



Mafinga Hospital in Mufindi District

5.1.1 Health Facilities

The status of health services in any district can be assessed through the health infrastructure, availability and commitment of health practitioners, implementation of preventive and curative measures and availability of medicine. 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, the number of health facilities increased from 39 in 1988 to 48 in 2008 and reached 71 in 2012. As a result, Mufindi District has managed to raise its number of facilities per ward from 1.6 in 1988 to 2.4 in 2012 and reduce the number of villages per facility from 2.6 in 2008 to 1.8 in 2012 (Table 5.1).

Table 5. 1: Distribution and Growth of Health Facilities by Division, Mufindi District, 1988, 2008 and 2012

Division	Ward	Villages	Total Health Facility			Facilities per Ward		Villages per Facility	
			1988	2008	2012	2008	2012	2008	2012
Ifwagi	9	32	12	15	27	1.7	3	0.5	0.8
Kasanga	8	32	8	10	15	1.3	1.9	0.3	0.5
Kibengu	3	16	8	9	10	3.0	3.3	0.6	0.6
Malangali	6	27	6	7	10	1.2	1.7	0.3	0.4
Sadani	4	18	5	7	9	1.8	2.3	0.4	0.5
Total	30	125	39	48	71	1.6	2.4	0.4	0.6

Source : District Executive Director's Office

Table 5.2 shows that Mufindi District has two hospitals, 8 health centres and 71 dispensaries, of which Mafinga Hospital is designated as the District referral centre-receiving patients from peripheral health facilities and from outside the District. District also managed to establish 135 primary health centres to supplement the existing health facilities in the District. Besides efforts made by the District Authority, the District still has shortages of health centres and dispensaries and this has caused unnecessary loss of peoples' lives through preventable diseases. Mbalamaziwa is the most affected ward with a ratio of 6 villages per dispensary followed by Kasanga, Makungu, Malangali, Igombavanu, Mdabulo and Ihalimba with a ratio of 5 villages per dispensary each. Only Mpanga and Mpanda wards have the best ratios of villages per dispensary. In regards to the Health Policy, the District has a long way to go before

implementing it fully and have a ratio of a health centre per ward and a dispensary per village.

Table 5. 2: Availability of Health Facilities and Number of Villages per Dispensary by Ward, Mufindi District, 2012

District	Number of Villages/Sub-villages	Health facilities				Villages per Dispensary
		Hospitals	Health Centres	Dispensaries	Total	
Kiyowela	4	0	0	2	2	2
Makungu	5	0	1	1	2	5
Mninga	4	0	0	1	1	4
Kasanga	5	0	1	1	2	5
Igowole	4	0	0	1	1	4
Mtambula	4	0	0	2	2	2
Itandula	5	0	0	3	3	2
Mbalamaziwa	6	0	0	1	1	6
Idunda	3	0	0	1	1	3
Malangali	5	0	1	1	2	5
Nyololo	5	0	1	2	3	3
Ihowanza	4	0	0	2	2	2
Ikweha	4	0	0	2	2	2
Sadani	5	0	1	2	3	3
Igombavanu	5	0	0	1	1	5
Bumilayinga	4	0	0	1	1	4
Mtwango	6	1	0	4	5	2
Isalavuna	4	0	0	2	2	2
Rungemba	3	0	0	2	2	2
Ifwagi	7	0	1	1	4	2
Mdabulo	5	0	0	1	3	5
Ihalimba	5	0	0	1	1	5
Kibengu	6	0	1	4	5	2
Mapanda	5	0	0	4	4	1
Mpanga	1	0	0	1	1	1
Ihanu	6	0	0	2	2	3
Luhunga	5	0	0	2	2	3

Table 5. 2 (ctd) : Availability of Health Facilities and Number of Villages per Dispensary by Ward, Mufindi District, 2012

District	Number of Villages/Sub-villages	Health facilities				Villages per Dispensary
		Hospitals	Health Centres	Dispensaries	Total	
Boma	*	*	*	*	*	*
Kinyanambo	7	1	1	4	6	2
Sao Hill	*	*	*	*	*	*
Total	132(i)	2	8	54	64	2

Note: (i)= Includes 16 sub villages in urban Mufindi

Source: District Executive Director's Office

5.1.2 Population per Doctor

In regards to population against health facilities, the District managed to reduce the average population per facility from 5,641 people in 2002 to 4,475 people in 2012. The reduction was due to the increase of health facilities from 50 in 2002 to 71 in 2012. The number of health facilities per 10,000 people increased from 1.8 in 2002 to 2.2 in 2012.

At division level, in 2002 Sadani had the smallest number of persons per health facility(4,048) followed by Kasanga (4,075) and Malangali (5,036). Similarly in 2012 Sadani had the smallest number of persons per facility (3,487) followed by Kasanga (3,870) and Ifwagi (4,417). On the other hand, Kibengu had largest number of persons' per facility both in 2002 and 2012 (Table 5.3).

Table 5. 3: Relating Health Facilities to the Population by Division, Mufindi District, 2002 and 2012

Division	2002				2012			
	Total Population	Total Number of h.f.s	Average Population per h.f.s	H.f.s / 10,000 people	Total Population	Total Number of h.f.s	Average Population per h.f.s	H.f.s /10,000 people
Ifwagi	100,211	18	5,567	1.8	119,267	27	4,417	2.3
Kibengu	71,525	7	10,218	1.0	79,527	15	5,302	1.9
Kasanga	36,674	9	4,075	2.5	38,704	10	3,870	2.6
Malangali	45,327	9	5,036	2.0	48,851	10	4,885	2.0
Sadani	28,334	7	4,048	2.5	31,382	9	3,487	2.9
Total	282,071	50	5,641	1.8	317,731	71	4,475	2.2

Source: District Executive Director's Office

As the available official health facilities were not enough to serve the ever growing population of Mufindi District, primary rural health centres were established to complement the existing official health facilities. These centres are operated by Village Health Workers (VHWs) assisted by Traditional Birth Attendants (TBAs) under supervision of Village Health Committees (VHCs). Table 5.4 shows that by 2012, the District had 64 trained Traditional birth attendants, 246 village health workers and 78 village health committees.

Table 5.4 also shows that the average number trained traditional birth attendants per village for the 2012 was less than one and village health workers almost two. However, Table 5.4 also shows the average number of TBA and VHWs per village for each division. Kibengu Division had the best average number of TBAs per village (0.1), while Kasanga Division had the best average number of VHWs per village (2.1).

Table 5. 4 : Distribution of Complementary Rural Health Facilities by Division, Mufindi District, 2012

Divison	No. of Village	Total Trained TBAs	Ratio of TBAs per Village	No. of VHWs	Ratio of VHWs per Village	No. of VHC	No. of TMP (Registered)
Ifwagi	32	15	0.4	64	1.6	23	44
Kibengu	16	11	0.7	32	2.0	7	12
Malangali	27	11	0.4	48	1.8	17	48
Sadani	18	11	0.6	36	2.0	11	10
Kasanga	32	16	0.5	66	2.1	20	44
Total	125	64	0.5	246	1.9	78	158

Source: District Executive Director's Office

5.1.3 Population per Hospital Bed Ratio



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

Table 5.5 shows average population per hospital bed. Involvement of private sector in the provision of health services in Mufindi District has increased the number of beds by 205. At district level, the number of persons per bed was 703 in 2012 (Table 5.5). In 2012 Sadani Division with 4,970 persons per bed had the worst access to the hospital bed followed by Kasanga Division which had 785 persons per bed while Ifwagi Division (479 persons per bed) had the best access. The significant contribution of private sector is more evident in Kibengu Division where all hospital beds are from the private sector. Moreover, in Malangali Division, the number of persons per bed drops from 1,433 to 545 where private sector beds are included.

Table 5. 5: The Number of Hospital Beds and Average Population per Bed by Division, Mufindi District, 2012

Division	2012 Population	Number of Beds			Population/ Bed in Public FacilitiesX	Population/Bed in All Bed Facilities
		Public Facilities	Private Facilities	Total		
Ifwagi	119,267	164	85	249	727	479
Sadani	79,527	16	0	16	4,970	4,970
Malangali	38,704	27	44	71	1,433	545
Kibengu	48,851	0	76	76	0	643
Kasanga	31,382	40	0	40	785	785
Total	317,731	247	205	452	1,286	703

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2010

5.1.4 Status of Health Personnel

The provision of quality health service depends, among other things, on the availability of qualified practitioners and medicines. Table 5.6 shows that the distributions of doctors by division for the year 2002 and 2012 were uneven and in favour of Ifwagi which has the District hospital. The District's average population per doctor was 31,341 in 2002 which significantly changed to 15,130 in 2012.

Table 5. 6 : Distribution of Doctors among Population by Division, Mufindi District, 2002 and 2012

Division	2002			2012		
	Total Population	Total Doctors	Population Per Doctor	Total Population	Total Doctors	Population Per Doctor
Ifwagi	100,211	7	14,316	119,267	17	7,016
Kibengu	71,525	0	0	79,527	1	79,527
Kasanga	36,674	2	18,337	38,704	1	38,704
Malangali	45,327	0	0	48,851	1	48,851
Sadani	28,334	0	0	31,382	1	31,382
Total	282,071	9	31,341	317,731	21	15,130

Source: District Executive Director's Office, 2013

Table 5.7 shows the availability of medical personnel for the year 2012 was uneven and in favour of female. The District had shortage of dental surgeons, assistant dental surgeons and radiologists in 2012.

Table 5. 7: Type and Number of Medical Personnel, Mufindi District, 2012

Medical Personnel	Number of Medical Personnel		
	Male	Female	Total
Specialist Doctors	1	0	1
Medical Doctors	6	0	6
Ass. Medical Officers	9	3	12
Clinical Officers	37	12	49
Ass. Clinical Officers	4	2	6
Dental Surgeon	0	0	0
Ass. Dental Officer	0	0	0

Table 5. 7 (ctd): Type and Number of Medical Personnel, Mufindi District, 2012

Medical Personnel	Number of Medical Personnel		
	Male	Female	Total
Dental Therapist	2	2	4
Pharmacists	1	0	1
Pharmaceutical Technicians	2	1	3
Pharmaceutical Assistant	2	0	2
Laboratory Technicians	4	2	8
Laboratory Assistants	8	4	12
Radiologist	0	0	0
Radiographer	2	0	2
Radiographic Assistant	1	1	2
Nursing Officers	6	28	34
Trained Nurse/NM/PHN	10	119	129
MCHA	0	8	8
Medical Attendants	5	149	154
Health Officers	5	3	8
Health Assistants	3	1	4
Health Secretaries	1	1	2
Other Medical Carders	1	0	1
Total	110	336	446

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

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 effort. 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 5.8.

5.1.5.1 Out-patients

Out of 183,354 out patients recorded in 2008, 79.7 percent were suffering from one or the other of the first five illnesses. In 2012 the first five causes of morbidity dropped to 77.4 percent of recorded 120,106 out-patients. In 2008 ARI ranked first as a cause of morbidity in Mufindi District. Malaria ranked second and the third disease in ranking was pneumonia. The fourth and fifth diseases were diarrhoea and intestinal worms respectively.



ARI was ranked first cause of morbidity in Mufindi District

Observations made in 2012 were almost similar to those of 2008 in regard to the first five diseases except for skin infection and GDS. The report again reveals that ARI ranked first with a total of 34,835 (29.0 percent) of out patients, followed by Malaria (21.2 percent of out patients) and pneumonia (10.4 percent of out patients) ranked third. Fourth and fifth diseases were skin infection and GDS (8.5 percent of cases) and (8.3 percent of cases), respectively.

Table 5. 8 : List of the Ten Most Commonly Reported Causes of Morbidity (Out Patients Only), Mufindi District, 2008 and 2012

S/No.	2008			2012		
	Disease	No. of Occurrences	Percent Share	Disease	No. of Occurrences	Percent Share
1	ARI	61,625	33.6	ARI	34,835	29.0
2	Malaria	30,503	16.6	Malaria	25,495	21.2
3	Pneumonia	20,512	11.2	Pneumonia	12,435	10.4
4	Diarrhoea	19,095	10.4	Skin infection	10,240	8.5
5	Intestinal worm	14,314	7.8	GDS	9,969	8.3
	Sub Total	146,049	79.7	Sub Total	92,974	77.4
6	Skin infection	11,533	6.3	Interstinal. Worms	8,798	7.3
7	Minor surgery	10,734	5.9	Minor surgionl	6,896	5.7
8	Eye infection	6,087	3.3	Eye infection	4,299	3.6
9	Non-infect.git diseases	4,661	2.5	UTI	3,885	3.2
10	Ear infection	4,290	2.3	Emerg. Oral Care	3,254	2.7
Total		183,354	100		120,106	100

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

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 22,412 in patients recorded in 2008, 92.6 percent were suffering from one of the first five illnesses. In 2012 the first five causes of morbidity accounted to 67.2 percent of 3,078 in-patients. Moreover, the health data for in-patients in 2008 reveals that uncomplicated malaria illness ranked first, pneumonia second, diarrhoea third severe malaria ranked fourth and ARI fifth among causes of morbidity in Mufindi District, while in 2012 the first five cause of morbidity were pneumonia, uncomplicated malaria, fracture/dislocation, clinical AIDs and diarrhoea non bacteria (Table 5.9).

Table 5. 9: List of the Ten Most Commonly Reported Causes of Morbidity (In - Patients Only), Mufindi District, 2008 and 2012

S/No	2008			2012		
	Disease	No. of Occurrences	Percent Share	Disease	No. of Occurrences	Percent Share
1	Uncomplicated malaria	16,691	74.5	Pneumonia	495	16.1
2	Pneumonia	1,568	7.0	Uncomplicated. Malaria	494	16.0
3	Diarrhoea disease	1,135	5.1	Fracture/dislocation	395	12.8
4	Severe malaria	766	3.4	Clinical Aids	374	12.2
5	ARI	590	2.6	Diarrhoea non bacteria	309	10.0
	Sub Total	20,750	92.6	Sub Total	2,067	67.2
6	Anaemia	424	1.9	Severe Malaria	223	7.2
7	Clinical aids	394	1.8	Complic. of Pregnancy	222	7.2
8	Complication of pregnancy	385	1.7	Anaemia	211	6.9
9	Poisoning	238	1.1	ARI	200	6.5
10	Tuberculosis	221	1.0	Hypertension	155	5.0
Total		22,412	100.0		3,078	100.0

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.6 Mortality

The dominant cause of mortality for inpatients of all ages in 2008 was uncomplicated malaria (Table 5.10). Table 5.10 shows that out of 514 reported deaths in 2008, 85.0 percent were caused the first five diseases, of which by pneumonia accounted for 31.7 percent, followed by clinical Aids (23.3 percent), severe malaria (15.4 percent), anaemia (7.6 percent) and diarrhoea (7.0 percent).

In 2012, the dominant cause of mortality for inpatients of all ages was again clinical aids (35.8 percent) followed by severe malaria (11.1 percent), anaemia (10.6 percent), tuberculosis (8.8 percent) and hypertension (8.0 percent). Lack of ward information on hospital records

limitats of further analysis at grass – root level which is advocated by the Decentralisation by Devolution Policy (D by D Policy) and limits the Health Departments understanding of the performance of health sector on curative and preventive measures at grass – root level. Therefore, there is a need of strengthening data collection system of health (MTUHA).

Table 5. 10 : List of the Ten Most Commonly Reported Causes of Mortality in Mufindi District (In Patients Only), 2008 and 2012

S/No.	2008			2012		
	Disease	No. of Occurrences	Percent Share	Disease	No. of Occurrences	Percent Share
1	Pneumonia	163	31.7	Clinical Aids	81	35.8
2	Clinical aids	120	23.3	Severe Malaria	25	11.1
3	Severe malaria	79	15.4	Anaemia	24	10.6
4	Anaemia	39	7.6	Tuberculosis	20	8.8
5	Diarrhoea disease	36	7.0	Hypertension	18	8.0
	Sub Total	437	85.0	Sub Total	168	74.3
6	Tuberculosis	32	6.2	Cardiacfailure	17	7.5
7	Complication of pregnancy	20	3.9	Pneumonia	15	6.6
8	Cardiovascular disease	10	1.9	Diarrhoea	12	5.3
9	ARI	8	1.6	Complication of Pregnancy	9	4.0
10	Burn	7	1.4	Burn	5	2.2
	Total	514	100.0		226	100.0

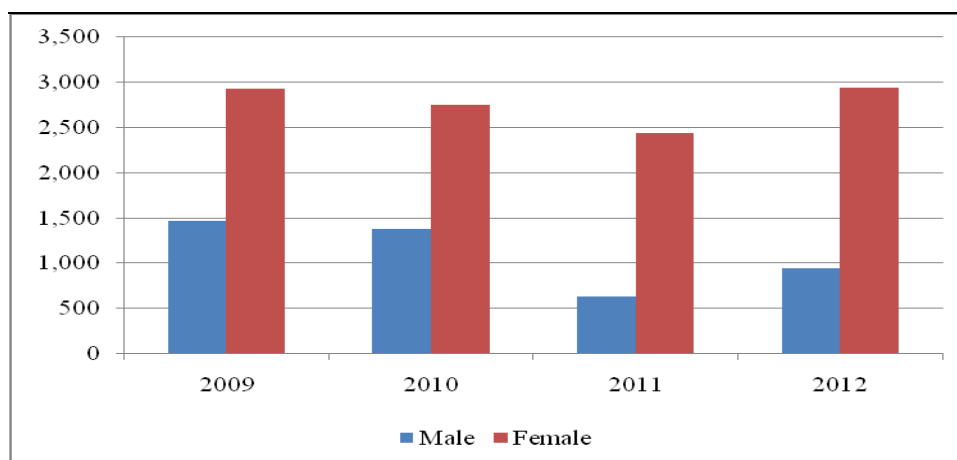
Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.5 HIV/AIDS Infections

The modern health problem of HIV/AIDS is the single most important threat to the survival of the human race. In the context of the country AIDS has now caught up with malaria and tuberculosis as the major causes of death among in-patients. The big problems of 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 regions and country at large.

Though it is not known when the first HIV/AIDS case was diagnosed, the available data indicates that HIV/AIDS case in Mufindi District was reported in 1992. Since then, the number of new AIDS cases being reported each year has been on the increase with no sign of stagnation or reversal. Figure 21 shows HIV/AIDS prevalence by sex in Mufindi District. It shows that in 2012 referred more women than men were infected.

Figure 21: New AIDS Cases Diagnosed From Family Blood Donors, Mufindi District, 2009-2012



Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

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 Mufindi district are testing family blood donors, prevalence among VCT and expected mothers participating in the PMTCT service.

Though family blood donation is not a reliable indicator of HI/AIDs prevalence, it nevertheless gives indicative information on the extent and trend of the problem. Table 5.11 shows that out of 633 blood donors screened from 2009 to 2012, 61 (equivalent to 4.6 percent) were reported to be HIV positive.

Table 5. 11 : HIV Infections among Family Blood Donors, Mufindi District, 2009-2012

Year	No. of Blood Donors			No. of HIV+			Percent of HIV+		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2009	242	13	255	3	2	5	1.2	15.4	2.0
2010	175	29	204	10	1	11	5.7	3.4	5.4
2011	28	30	58	9	6	15	32.1	20.0	25.9
2012	65	51	116	17	13	30	26.2	25.5	25.9
Total	510	123	633	39	22	61	7.6	17.9	9.6

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

The prevalence of HIV/AIDS can also be assessed through PMTCT service. Table 5.12 reveals that out of 10,588 expectant mothers who participated in that service and hence screened, 12.0 percent of them were found to be HIV positive. At divisional level, Ifwagi had the highest rate of infection (13.0 percent) among expectant mothers and the highest proportion of those given Niverapine to protect unborn child against HIV infection. Table 5.12 also shows that 94.4 percent of HIV positive expectant mothers were given Niverapine in Mufindi District.

Table 5. 12: Expectant Mothers who Participated in the PMTCT Service by Division Mufindi District, 2012

Division	No. Attending	No. of Screened	No. HIV+	Percent of HIV+	HIV+ Received AZT	Percent Given AZT
Ifwagi	4,130	3,134	407	13.0	390	95.8
Kibengu	1,076	668	58	8.7	51	87.9
Malangali	1,625	775	86	11.1	441	90.2
Sadani	6831	4577	551	12.0	882	92.6
Kasanga	2,287	1,434	167	11.7	1,764	95.2
Total	15,949	10,588	1,269	12.0	3,528	94.4

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

Establishment of VCT services in remote areas to a large extent enabled the District to establish a reliable source of data on the extent and significant of HIV prevalence since it managed to raise confidence and willingness of inhabitants to examine their health. Table 5.13 shows that out of 7,831 males screened 1,414 (equivalent to 18.1 percent) were effected with HIV/AIDS while 1,219 (equivalent to 16.5 percent) out of 7,409 females screened were found to be HIV positive. Data also shows that male was more affected with HIV/AIDS than female in all divisions.

The use of ARV by affected persons is a major constraint in combating the HIV/AIDS prevalence in Mufindi district. Table 5.13 reveals that only 45.6 percent of affected people received ARV in 2012. Malangali was the worst division in the District since only 18.9 percent of affected people received ARV followed by Ifwagi (44.5 percent) and Kasanga (69.9 percent). Sadani had the highest percentage (122.2 percent) of affected persons received ARV due to the habit of people to decide to use VCT services outside their home division secretly together with those people who living across divisional borders decides to use a nearby service of a different division.

Table 5. 13: Group of VCT Volunteers who Screened for HIV and those Subsequently Treated with ARV by Sex and by District, Mufindi District, 2012

Division	Male			Female				Total	
	Screened	HIV+	Percent HIV+	Screened	HIV+	Percent HIV+	HIV+	Receive ARV	Percent Receive ARV
Ifwagi	5,437	905	16.6	5,077	783	15.4	1,688	752	44.5
Kibengu	0	0	0.0	0	0	0.0	0	0	0.0
Malangali	940	219	23.3	1,207	251	20.8	470	89	18.9
Sadani	68	20	29.4	147	34	23.1	54	66	122.2
Kasanga	1,386	270	19.5	978	151	15.4	421	293	69.6
Total	7,831	1,414	18.1	7,409	1,219	16.5	2,633	1,200	45.6

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013



CTC building-Mufindi

5.1.4.1 The Impact of HIV/AIDS

The socio-economic assessment of Mufindi District 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 organisations in combating the epidemic. HIV/AIDS is highlighted in this document, because it is a major health problem and a leading cause of mortality since its advent at the end of 1987. The other reason for 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 Mufindi as among few districts with ever increasing rates of HIV/AIDS prevalence in Iringa Region. There are socio-economic factors that account for the rapid spread of the epidemic. Economically, Mufindi people are migrant labourers and industrialists 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, 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

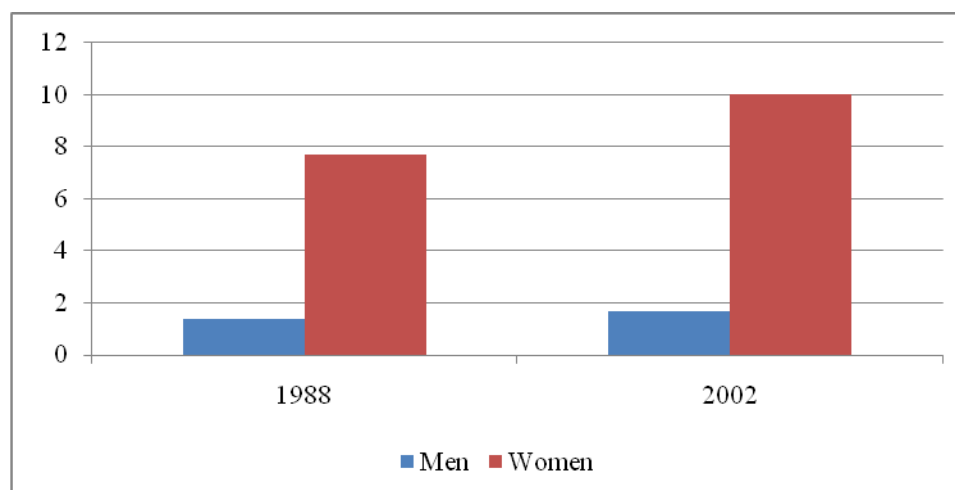
Understanding the status of HIV/AIDS prevalence in Mufindi is very difficult since many people die before reaching the hospital. With exception of 2009, lack of VCT in remote areas where people can be tested in order to know their health status is a problem. Therefore, it is possible that there are people who live with the HIV/AIDS virus without knowing that they have it.

One of the indication of a high prevalence rate in the district is the increasing number of widows. The data gathered in 1988 and 2002 population censuses show that the number of person widowed increased from 7,375 in 1988 to 11,969 in 2002, and the proportion of widowed increased from 4.8 percent in 1988 to 6.2 percent in 2002. The proportion of the widowed is higher for women than men in both years. In 1988, 7.6 percent of the women were widowed compared 1.4 percent of the men and in 2002 the corresponding figures were 10.0 percent for women against 1.7 percent for men. There is a need of conducting a study that will gather information from the widowed and their problems in order to come up with appropriate measures and solutions.

Table 5. 14: Total Population 10 Years and Above by Marital Status by Sex, Mufindi District, 1988 and 2002

Marital Status	1988			2002		
	Men	Women	Total	Men	Women	Total
Single/Never Married	38,369	33,604	71,973	50,138	42,298	92,436
Married/Living Together	28,344	42,723	71,067	36,918	49,065	85,983
Divorced/Separated	619	1,560	2,179	793	2,294	3,087
Widowed	979	6,396	7,375	1,562	10,407	11,969
Total	68,311	84,283	152,594	89,411	104,064	193,475
Percent Widowed	1.4	7.6	4.8	1.7	10.0	6.2

Source: URT, 1988 and 2002 Population and Housing Census

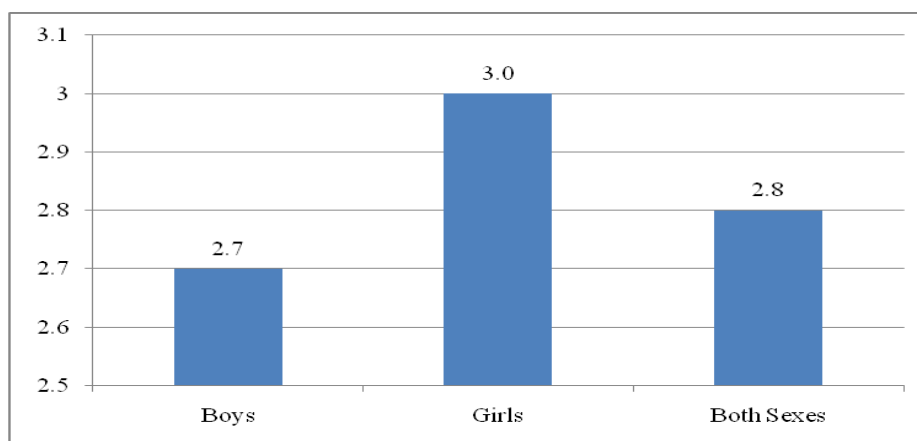
Figure 22: The Trend of Widows in Mufindi District, 1988 and 2002

Source: The 2002 Population and Housing Census (Vol. IV), Mufindi District Profile Report, 2004

(ii) The Increase of Orphaned Children

Orphans are classified between persons for whom both parents, mother and father are dead and those with a single parent; whether father or mother. Data on survival of parents collected in the 2002 census were used to determine the extent of orphanhood in Mufindi District as portrayed in Figure 23. According to the 2002 data, 2.8 percent of children aged 0 – 17 years were orphans. Comparing sexes, the incidence of orphanhood was higher among girls (3.0 percent) than boys (2.7 percent) (Figure 23).

Figure 23: Percentage Distribution of Child Orphan who Lost Both Parents by Sex, Mufindi District, 2002



Source: URT, 1988 and 2002 Population and Housing Census Reports

(iii) Child Labour

Since the economy of Mafinga 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 have led to the weakening of extended family system. The break down 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.

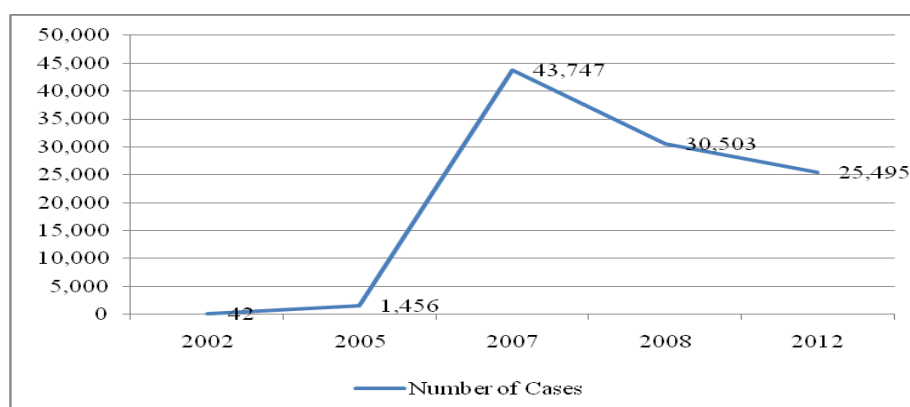
The magnitude of child labour is unknown because their employment is illegal but some studies confirm that Mufindi District experiences an ever increasing problem of child labour. The causes of childlabour are considered to be poverty that persist in the district mostly in the rural areas, deaths of 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 urban centers such as Mafinga,

Iringa, Mbeya, Morogoro and Dar es Salaam who were in one way or another engaged in child labour, prostitution and street children. Nevertheless, the District Authority should conduct a study/survey to understand the magnitude of child labour and street children who are rooming in urban centres including the Mufindi Bus Stand.

5.1.6 Malaria Prevalence

Malaria is the main killer disease in the country and also considered as the major cause of deaths of people living with HIV/AIDs in the country. Based on this fact, the Government decided to combat malaria along with HIV/AIDS disease. Mufindi has decided to use methods similar to those used by other district to fight against malaria. Due to environment change together with an increase of HIV prevalence, number of malaria cases reported at health services reached 1,456 before reaching a peak at with 43,747 cases in 2007. Malaria cases dropped to 30,503 in 2008 and dropped further to 25,495 cases in 2012 (Figure 24).

Figure 24: Distributions of Malaria Cases in Mufindi District, 2002-2012

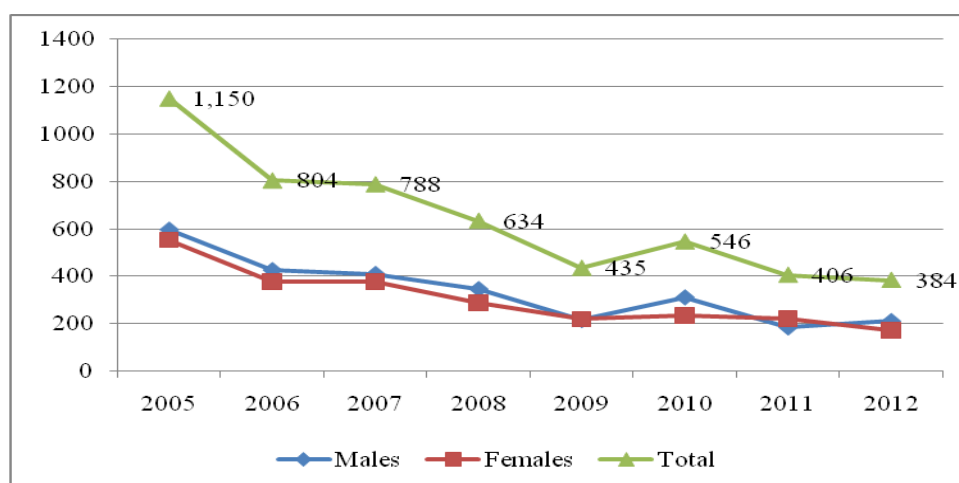


Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.7 Tuberculosis Prevalence

Tuberculosis is a known disease in Mufindi District, but very few morbidity cases were reported before the advent of HIV/AIDS. The effort of Government to combat tuberculosis in Mufindi District has shown some success since the available data indicate that the number of new tuberculosis cases has decreased in the last decade. Figure 25 shows that the number of new tuberculosis cases decreased from 1,150 in 2005 to 435 in 2009 before dropping further to 384 in 2012.

Figure 25: Distributions of New Tuberculosis Cases by Sex in Mufindi District, 2005-2012



Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

The magnitudes of tuberculosis prevalence differed slightly between sexes from year to year, but males were more affected than females in the reference period. Table 5.15 shows that percentages of affected males were more than females except in 2009 and 2011. Nevertheless, data also signifies that relapse cases of tuberculosis were declining throughout the referred period with exception of year 2010, of which there was an increase of 25.5 percent of new cases compared to the reported ones in 2009.

Table 5. 15: Distributions of New Tuberculosis Relapse Cases by Sex in Mufindi District, 2005 - 2012

Years	Male		Female		Total	Change of Cases	
	No.	Percentage	No.	Percentage	No.	No.	Percentage
2005	597	51.9	553	48.1	1,150		
2006	426	53.0	378	47.0	804	-346	-30.1
2007	410	52.0	378	48.0	788	-16	-2.0
2008	346	54.6	288	45.4	634	-154	-19.5
2009	215	49.4	220	50.6	435	-199	-31.4
2010	311	57.0	235	43.0	546	111	25.5
2011	184	45.3	222	54.7	406	-140	-25.6
2012	211	54.9	173	45.1	384	-22	-5.4

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.8 Reportable Communicable Diseases

The epidemic of reportable communicable diseases in Mufindi district occurs occasionally especially during rainy seasons. Table 5.16 shows that dysentery was the most common communicable disease followed by rabid animal and typhoid. Dysentery threaten the lives of people mostly in 2009, when 3,241 cases were treated compared to 38 cases in 2005, but dropped to 282 in 2012. Number cases for other communicable diseases fluctuated from year to year, but most of them were prevented early as indicated in Table 5.16.

Table 5. 16: Number of Reported Cases of Reportable Communicable Diseases in Mufindi District, 2005, 2008, 2009, 2010, 2011 and 2012

Disease	Number of cases					
	2005	2008	2009	2010	2011	2012
Dysentery	38	1,557	3,241	2,081	206	282
Rabid animal	0	0	9	17	12	231
Typhoid	26	2	7	254	1	80
Meningitis	19	0	2.0	0	5	0
Animal Bite	272	129	n.a.	n.a.	n.a.	n.a.

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.8 Mother and Child Health Care

Protection of expectant/lactating mothers and children from measles, tuberculosis, etc through immunisation programme (CSPD) which is supported by development partners has to a large extent reduced the risk of their being infected. This is evidenced by the decline of all mortality rates relating to mothers and children by 2012. Infant Mortality rate reached 15 per 1,000 infants, deaths of children under five years were estimated at 20 per 1,000 children and the estimated maternal mortality rate was 120 per 100,000 mothers, while life expectancy was estimated to be 53 years. The data for maternal mortality gave an indication of increasing deaths of expectant mothers in the District in recent years.

Table 5. 17: Estimates of Mortality Indicators, Mufindi District, 2008, 2010 and 2012

Year	IMR (per 1,000)	U5MR (per 1,000)	MMR (per 100,000)	Prenatal Mortality Rate* (per 1,000)	Neonatal Mortality Rate** (per 1,000)
2008	12	13	50	5	4
2010	13	17	197	5	4
2012	15	20	120	15	9

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

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

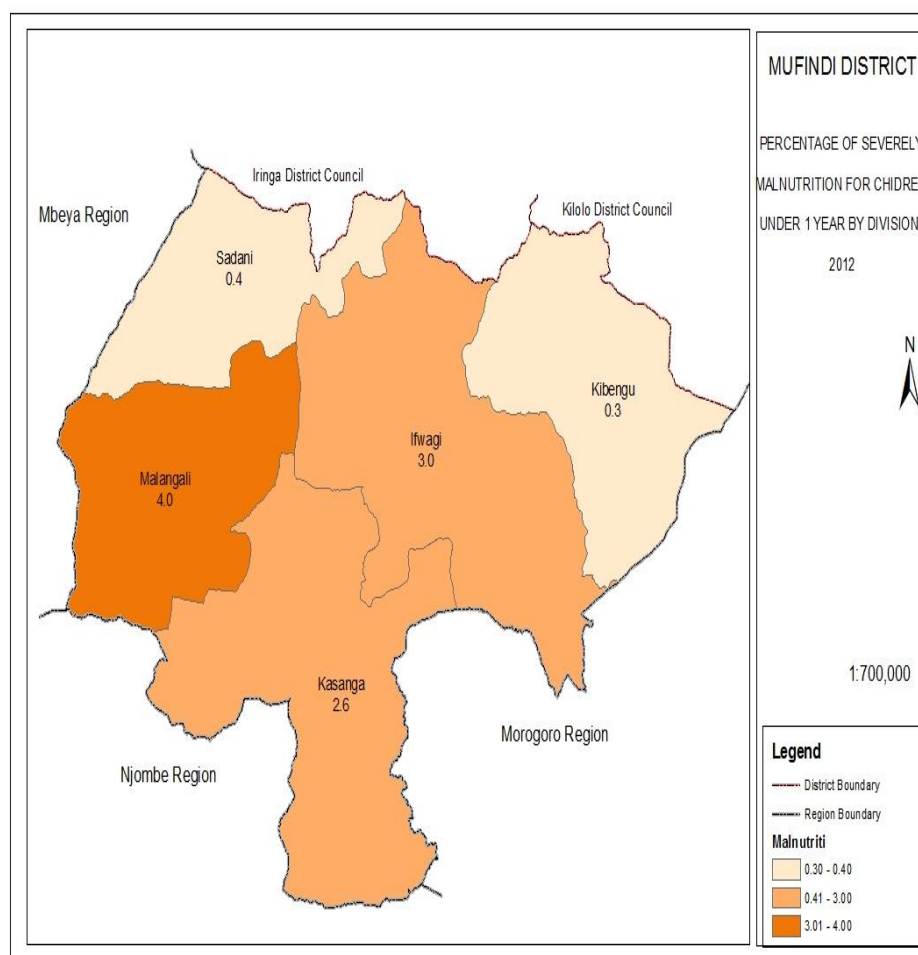
Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.8.1 Child Nutrition

Children from the stage of foetuses to under - five years and their mothers are the most vulnerable group in the society. Therefore, reproductive and child health services are the most vital services in the District. Besides vaccination programme, children are also weighed to reveal how prevalent underweight is among them and hence the extent of child malnutrition. Nutritional food intake is associated with child health and therefore, poor diet can result into severe malnutrition, which in turn manifests itself in high infant and child mortality rates. Table 5.18 reveals that malnutrition is not a big issue in the District. Only two percent of weighed children under one year of age had severe malnutrition while 17.6 percent were moderately underweight in 2010. The percentage of both moderate and severe malnutrition dropped significantly to 7.4 percent and 0.5 percent of weighed children in 2011.respectively In 2012, severe malnutrition dropped slightly to 0.4 percent but moderate malnutrition rose to 11.9 percent. At

division level, Kibengu and Sadani had the least severe malnutrition, while Kasanga had the worst situation since nearly all weighed children in all three years had either moderate or severe malnutrition. This is not good picture of the extent of malnutrition for the District.

Map 4: Showing Percentage of Severely Malnutrition for Chidren under One year by Division; Mufindi District Council; 2012



Source: National Bureau of Statistics, GIS Unit, 2013

Table 5. 18: Percentage of Severe Malnutrition for Children under One Year by Division, Mufindi District, 2010, 2011 and 2012

Division	2010			2011			2012		
	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
Ifwagi	6,666	51.9	1.9	7,092	61.9	2.6	8,272	71.4	3.0
Kibengu	938	0	0.0	998	12	0.2	1,029	12.4	0.3
Malangali	3,719	50.4	2.8	4,955	57.7	3.9	5,251	57.0	4.0
Kasanga	4,657	98.6	2.4	4,787	89.5	2.0	5,125	84.7	2.6
Sadani	768	27.2	0.0	762	35.3	0.7	1,066	49.0	0.4
District	16,748	17.6	2.0	18,594	7.4	0.5	20,743	11.9	0.4

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.8.2 Immunisation Coverage

Reduction of deaths among children and their mothers is attributed to the wide coverage of immunisation campaigns in the District. Table 5.19 reveals that as much as 88.2 percent of targeted 17,322 expectant mothers were vaccinated with TT2 in 2010. In 2011, out of 17,216 expectant mothers targeted (99.3 percent) were vaccinated and 96.9 percent of 16,586 expectant mothers were vaccinated with TT2 in 2012. This is a very good picture for the District on the extent of immunization of expectant mothers.

Table 5. 19: Percentage of Expectant Mother Vaccinated TT2 by Division, Mufindi District, 2010, 2011 and 2012

Division	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ifwagi	2,833	3,386	119.5	2,809	3,888	138.4	2,786	3,768	135.2
Kibengu	1,165	741	63.6	1,161	755	65.0	1,159	741	63.9
Malangali	1,760	1,321	75.1	1,731	1,485	85.8	1,738	1,407	81.0
Kasanga	2,903	2,190	75.4	2,907	2,418	83.2	2,871	2,377	82.8
Sadani	8,661	7,638	88.2	8,608	8,546	99.3	8,554	8,293	96.9
Total	17,322	15,276	88.2	17,216	17,092	99.3	17,108	16,586	96.9

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

The trend of BCG vaccination for children less than one year shows an increase in the number of children vaccinated between 2010 and 2012. At district level the percentages of targeted children under one year vaccinated in 2010 and 2011 were more than 100 percent (113.7 percent and 116.1 percent, respectively). The division with the highest coverage in all three years was Ifwagi (140.0 percent in 2010; 149.1 percent in 2011; and 136.3 percent in 2012). However, Kibengu Division had lowest coverage in all three years. In 2010, coverage was 96.5 percent and dropped to 89.5 percent in 2011 and dropped further to 57.9 percent in 2012 (Table 5.20).

Table 5. 20 : Percentage of Children under One Year Vaccinated BCG by Division, Mufindi District, 2010, 2011 and 2012

Division	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ifwagi	3,238	4,532	140.0	3,236	4,852	149.9	3,247	4,427	136.3
Kibengu	1,252	1,208	96.5	1,244	1,113	89.5	1,233	714	57.9
Malangali	1,780	1,819	102.2	1,751	1,796	102.6	1,738	1,452	83.5
Kasanga	2,391	2,452	102.6	2,423	2,504	103.3	2,402	1,978	82.3
Sadani	1,031	1,012	98.2	1,024	973	95.0	1,020	693	67.9
Total	9,692	11,023	113.7	9,678	11,238	116.1	9,640	9,264	96.1

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

In regard to DPT3, the coverage of immunisation in the District was good. The proportion of vaccinated children increased from 97.2 percent of 10,136 targeted children in 2010 to 98.2 percent of 9,692 children in 2011 but dropped to 80.9 percent in 2012. In 2010, Kibengu had the best coverage (105.0 percent of its target) followed by Sadani (103.0 percent). While Ifwagi division was the best in 2011 by covering 110.5 percent of the 3,238 targeted children, and Kibengu was the worst performer as the coverage was 75.0 percent. The worst division in 2012 was Kasanga which managed to cover only 49.2 percent of targeted children followed by Sadani (76.6 percent).

Table 5. 21: Percentage of Children Under One Year Vaccinated DPT3 by Division, Mufindi District, 2008, 2010 and 2012

Division	2008			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ifwagi	3,607	3,261	90.0	3,238	3,577	110.5	3,181	3,760	118.2
Kibengu	1,209	1,265	105.0	1,252	939	75.0	1,233	1,138	92.3
Malangali	1,668	1,654	99.0	1,780	1,644	92.4	1,738	1,512	87.0
Kasanga	2,606	2,596	99.6	2,391	2,416	101.0	4,401	2,166	49.2
Sadani	1,046	1,075	103.0	1,031	937	90.9	1,020	781	76.6
Total	10,136	9,851	97.2	9,692	9,513	98.2	11,573	9,357	80.9

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

Coverage of the District's under one year children for OPV3 vaccination was 98.0 percent in 2010 but increased significantly to 107.0 percent in 2011 before dropping to 84.1 percent in 2012. At division level, Ifwagi was the best performer in 2010 - 2012. The proportion of children vaccinated in this Division increased slightly from 110.5 percent in 2010 to 115.6 percent in 2011 before decreasing slightly to 101.2 percent in 2012. Ifwagi was followed by Kisanga in 2010, but dropped to third position in 2011 before being the worst performer in 2012 (Table 5.22).

Table 5. 22: Percentage of Children under One Year Vaccinated OPV3 by Ward, Mufindi District, 2010, 2011 and 2012

Division	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ifwagi	3,238	3,577	110.5	3,279	3,791	115.6	3,181	3,220	101.2
Kibengu	1,252	939	75.0	1,244	1,158	93.1	1,233	1,035	83.9
Malangali	1,780	1,644	92.4	1,640	1,796	109.5	1,738	1,290	74.2
Kisanga	2,391	2,405	100.6	2,377	2,541	106.9	2,402	1,658	69.0
Sadani	1,031	937	90.9	1,024	949	92.7	1,020	846	82.9
Total	9,692	9,502	98.0	9,564	10,235	107.0	9,574	8,049	84.1

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

Measles vaccination is performed to protect children against measles. At the district level coverage for 2010 was 114.8 percent but decreased slightly to 104.7 percent in 2011 and again slightly to 89.9 percent in 2012. In 2010 the best performer was Sadani with coverage of 264.4 percent while Ifwagi Division was the best in 2011 and 2012 with coverage of 117.8 percent and 121.7 percent respectively (Table 5.23).

Table 5. 23: Percentage of Children under One Year Vaccinated Measles by Division, Mufindi District; 2010, 2011 and 2012

Division	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Ifwagi	3,254	3,438	105.7	3,190	3,758	117.8	3,262	3,969	121.7
Kibengu	1,252	1,202	96.0	1,244	1,109	89.1	1,243	1,005	80.9
Malangali	1,760	1,480	84.1	1,751	1,796	102.6	1,718	1,432	83.4
Kasanga	2,387	2,262	94.8	2,423	2,501	103.2	2,342	2,171	92.7
Sadani	1,039	2,747	264.4	1,024	922	90.0	1,009	896	88.8
Total	9,692	11,129	114.8	9,632	10,086	104.7	9,574	9,473	98.9

Source: District Executive Director's Office (District Medical's Office), Mufindi District, 2013

5.1.9 Policy Implication on Health Sector

Provision of health services in Mufindi is still of low quality. The district still has inadequate number of practitioners. Inadequate practitioners limit provision of health services in preventive and curative areas such as PMCT, out-patients and in-patients. . However, health services can be improved through formulating strategies and programmes which will motivate and attract health workers to work in rural areas. Likewise, the programmes of constructing dispensaries in every village and one health sector in every ward should be adhered in order to increase accessibility of health services to rural population. Involvement of private sector in the provision of health services is also very important for sector improvement in the District.

5.1.10 Investment Opportunities for Health Sub-Sector

This sub-sector faces many problems including prevalence of diseases such as pneumonia, malaria, diarrhoea, clinical AIDS, e.t.c; shortage of health centres/ dispensaries is a bottleneck for development of the sector. The District Authority has seen these shortcomings and taken them into consideration. To start with, the District Authority should recognise the importance of joint effort in regards to the construction of more health facilities as noted above.

5.2 EDUCATION SECTOR

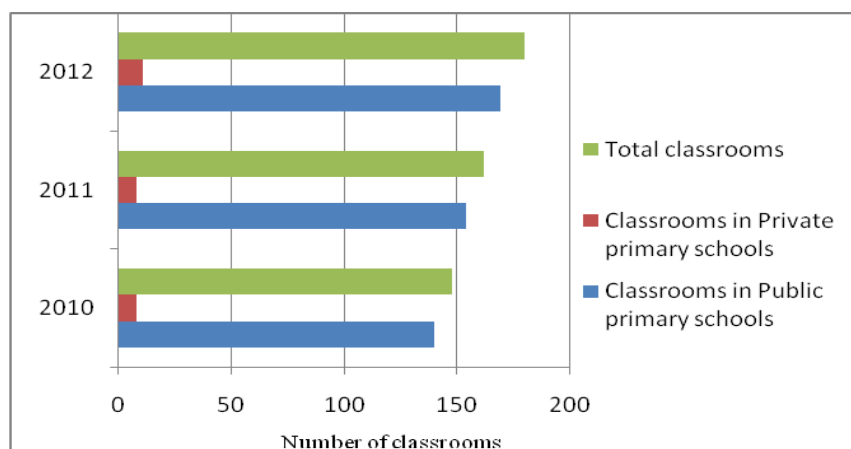
5.2.0 An Overview

The quality of human capital remains the most important asset to propel sustainable development in today's world. Human capital is the stock of skills, competences, knowledge and personality attributes which enhances the efficiency of labour. Human capital development has proven to be a key ingredient in the overall socio-economic development of nations and is one of the key considerations for investors when selecting potential investment locations.

5.2.1 Pre-Primary Education

Pre-school education is of increasing its importance as it prepares children for competitive environment of primary and secondary education. The Government ordered construction of classrooms in each Government primary schools in the country so as to accommodate more children for such education.

A look on Table 5.24 show that pre-primary school classes increased significantly from 148 in 2010 to 163 in 2011 then 182 in 2012. This was equivalent to the increase of 34 classes (23.0 percent) from 148 classes in 2010 to 182 in 2012. The share of private sector in pre-primary school education is very small. Private sector's share was 5.4 percent of the total pre-primary school classes in 2010. The share dropped to 4.9 percent in 2011 and then increased to reach 6.0 percent in 2012. Three wards leading in number of pre-primary school classes were Mtwango, Ifwagi and Mninga. Each of these wards had 6 percent of total classes available in the district. Situation was worse in Mpanda which had only one class and Mpanga Tazara Ward with no class. Therefore, more effort should be directed towards the construction of pre-primary school classes in the two wards thus giving more opportunity to children of pre-primary school going age.

Figure 26 : Number of Pre-primary School Classes in Public and Private Primary Schools, Mufindi District; 2010-2012

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5. 24: Number of Pre-Primary School Classes by Ownership and Ward, Mufindi District; 2010 -2012

S/N	Ward	2010			2011			2012			Percentage
		Pub	Pri.	Total	Pub	Pri.	Total	Pub	Pri.	Total	
1	Boma	4	2	6	4	2	6	5	4	9	4.9
2	Bumilayinga	4	0	4	4	0	4	5	1	6	3.3
3	Idunda	3	0	3	3	0	3	4	0	4	2.2
4	Ifwagi	9	0	9	10	0	10	11	0	11	6.0
5	Igombavanu	6	0	6	7	0	7	7	0	7	3.9
6	Igowole	5	0	5	6	0	6	6	0	6	3.3
7	Ihalimba	5	1	6	6	1	7	6	1	7	3.9
8	Ihanu	6	0	6	7	0	7	7	0	7	3.9
9	Ihowanza	4	0	4	4	0	4	5	0	5	2.7
10	Ikweha	4	0	4	4	0	4	5	0	5	2.7
11	Isalavanu	4	0	4	4	0	4	5	0	5	2.7
12	Itandula	5	0	5	6	0	6	6	0	6	3.3
13	Kasanga	4	0	4	4	0	4	5	0	5	2.7
14	Kibengu	5	3	8	6	3	9	6	3	9	5.0
15	Kinyanambo	3	0	3	3	0	3	4	0	4	2.2
16	Kiyowela	5	0	5	6	0	6	6	0	6	3.3

Table 5. 24 (ctd): Number of Pre-Primary School Classes by Ownership and Ward, Mufindi District; 2010 -2012

17	Luhunga	6	0	6	7	0	7	7	0	7	3.9
18	Makungu	6	0	6	7	0	7	7	0	7	3.9
19	Malangali	4	0	4	4	0	4	5	0	5	2.7
20	Mapanda	0	1	1	0	1	1	0	1	1	0.6
21	Mbalamaziwa	5	0	5	6	0	6	6	0	6	3.3
22	Mdabulo	5	0	5	6	0	6	6	0	6	3.3
23	Mninga	8	1	9	9	1	10	10	1	11	6.0
24	MpangaTazara	0	0	0	0	0	0	0	0	0	0.0
25	Mtambula	4	0	4	4	0	4	5	0	5	2.7
26	Mtwango	9	0	9	10	0	10	11	0	11	6.0
27	Nyololo	6	0	6	7	0	7	7	0	7	3.9
28	Rungemba	3	0	3	3	0	3	4	0	4	2.2
29	Sadani	4	0	4	4	0	4	5	0	5	2.7
30	Saohill	4	0	4	4	0	4	5	0	5	2.7
Total		140	8	148	153	8	163	171	11	182	100.0
Percentage shares		94.6	5.4	100.0	95.1	4.9	100.0	94.0	6.0	100.0	

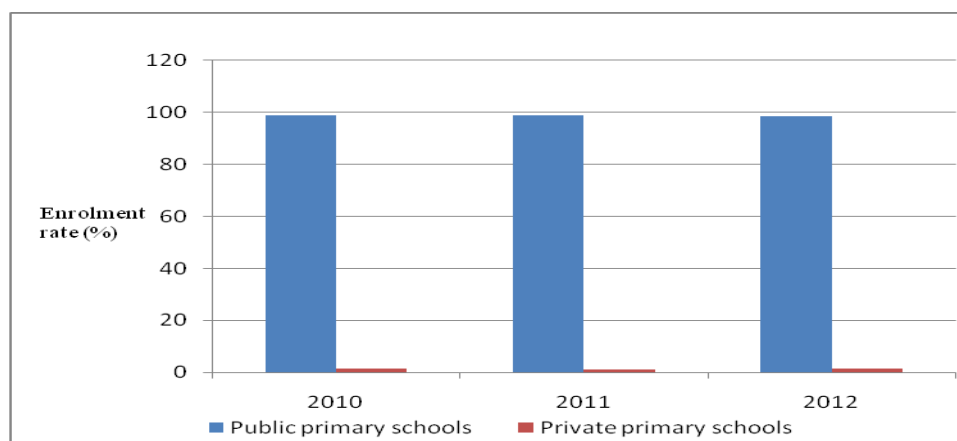
Pub =public

Pri =private

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2.2 Enrolment in Pre-Primary Schools

The share of the private sector in the total enrolment in pre-primary schools once again fluctuated as was the case with the ownership of classes. In 2010 the private sector's share of total enrolment was 1.3 percent after which it dropped to 1.2 percent in 2011 before increasing to 1.4 percent in 2012. The total enrolment increased by 828 pupils from 8,334 pupils in 2010 to 9,162 pupils in the year 2011. This was 9.9 percent increase. However enrolment dropped by 1.4 percent from 9,162 pupils in 2011 to 9,031 pupils in 2012. Enrolment was most impressive in urban wards than in rural wards. In 2012 Boma an urban ward led with a share of 5.9 percent of total pre-primary enrolment. On the other hand, Mpanga Tazara which is a typical rural ward was the most disadvantaged ward. The ward had no pre-primary school classes and hence no pupils enrolled. The district should therefore, work hard to improve enrolment of pre-primary school pupils in rural wards bringing about equitable education development.

Figure 27: Share of Pre-Primary School Enrolment by Public and Private Sector, Mufindi District; 2010 - 2012

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5. 25: Pre-Primary Schools Enrolment by Ownership and Ward, Mufindi District; 2010 - 2012

S/N	Ward	2010			2011			2012			Percent
		Pub	Pri.	Total	Pub	Pri.	Total	Pub	Pri.	Total	
1	Boma	217	50	267	239	66	305	469	60	529	5.9
2	Bumilayinga	165	10	175	182	12	194	188	16	204	2.3
3	Idunda	297	0	297	327	0	327	230	0	230	2.5
4	Ifwagi	331	0	331	364	0	364	451	0	451	5.0
5	Igombavanu	239	0	239	263	0	263	234	0	234	2.6
6	Igowole	412	0	412	453	0	453	413	0	413	4.6
7	Ihalimba	347	0	347	382	0	382	317	0	317	3.5
8	Ihanu	453	0	453	498	0	498	251	0	251	2.8
9	Ihowanza	464	0	464	510	0	510	295	0	295	3.3
10	Ikweha	268	0	268	295	0	295	253	0	253	2.8
11	Isalavanu	211	0	211	232	0	232	318	0	318	3.5
12	Itandula	390	0	390	429	0	429	363	0	363	4.0
13	Kasanga	213	0	213	234	0	234	192	0	192	2.1
14	Kibengu	309	0	309	340	0	340	480	0	480	5.3

Table 5. 25 (ctd): Pre-Primary Schools Enrolment by Ownership and Ward, Mufindi District; 2010 - 2012

S/N	Ward	2010			2011			2012			Percent
		Pub	Pri.	Total	Pub	Pri.	Total	Pub	Pri.	Total	
15	Kinyanambo	123	16	139	135	0	135	354	0	354	3.9
16	Kiyowela	306	0	306	337	0	337	215	0	215	2.4
17	Luhunga	290	0	290	319	0	319	249	0	249	2.8
18	Makungu	291	0	291	320	0	320	279	0	279	3.1
19	Malangali	157	0	157	173	0	173	174	0	174	1.9
20	Mapanda	0	0	0	0	0	0	348	0	348	3.9
21	Mbalamaziwa	223	0	223	245	0	245	208	0	208	2.3
22	Mdabulo	264	0	264	290	0	290	276	0	276	3.1
23	Mninga	390	20	410	429	36	465	409	48	457	5.1
24	MpangaTazara	462	0	462	508	0	508	0	0	0	0.0
25	Mtambula	0	0	0	0	0	0	367	0	367	4.1
26	Mtwango	486	0	486	535	0	535	421	0	421	4.7
27	Nyololo	279	0	279	307	0	307	432	0	432	4.8
28	Rungemba	127	0	127	140	0	140	152	0	152	1.7
29	Sadani	308	0	308	339	0	339	226	0	226	2.5
30	Saohill	203	13	216	223	0	223	343	0	343	3.8
Total		8225	109	8334	9048	114	9162	8907	124	9031	100.0
Percentage Shares		98.7	1.3	100.0	98.8	1.2	100.0	98.6	1.4	100.0	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Pub = public

Pri = private

5.2.3 Primary Education

The school going age group for primary education is that of 7 to 13 years. To make primary school education a basic right to of every child of that age, the Government of Tanzania introduced the policy of Universal Primary Education (UPE) in 1974. The policy makes primary education compulsory and sets it to improve availability of primary school teachers and also increase infrastructures of such schools.

Table 5.26 reveals that in 2010 there were 170 primary schools in the District increased to 174 in 2011. By the year 2012 there were 175 primary schools. As it was observed in pre-primary education the contribution of the private sector to primary education is also very small. Table 5.26 shows the contribution of public and private sectors.. The contribution of the private sector to primary school ownership was small being 1.8 percent in 2010, 2.3 in 2011 and 1.7 percent in 2012. In 2012, Ifwagi had the largest number of primary schools (11 schools, 6.3 percent of total primary schools). It followed by Mninga and Mtwango wards each with 10 primary schools (5.7 percent). As with the number of pre-primary schools, Mpanga Tazara had the least number of primary schools by having one school in 2012.

Table 5. 26: Number of Primary Schools by Ownership and by Ward, Mufindi District; 2010 – 2012

S/N	Ward	2010			2011			2012			Percent
		Pub	Pri.	Total	Pub	Pri.	Total	Pub	Pri.	Total	
1	Boma	4	1	5	5	2	7	5	1	6	3.4
2	Bumilayinga	4	1	5	4	1	5	4	1	5	2.9
3	Idunda	3	0	3	3	0	3	3	0	3	1.7
4	Ifwagi	11	0	11	11	0	11	11	0	11	6.3
5	Igombavanu	6	0	6	6	0	6	6	0	6	3.4
6	Igowole	5	0	5	5	0	5	5	0	5	2.9
7	Ihalimba	6	0	6	6	0	6	6	0	6	3.4
8	Ihanu	6	0	6	6	0	6	6	0	6	3.4
9	Ihowanza	4	0	4	4	0	4	4	0	4	2.3
10	Ikweha	4	0	4	4	0	4	4	0	4	2.3
11	Isalavanu	4	0	4	5	0	5	5	0	5	2.9
12	Itandula	6	0	6	6	0	6	6	0	6	3.4
13	Kasanga	4	0	4	4	0	4	4	0	4	2.3
14	Kibengu	9	0	9	9	0	9	9	0	9	5.1
15	Kinyanambo	4	0	4	5	0	5	5	0	5	2.9
16	Kiyowela	6	0	6	6	0	6	6	0	6	3.4
17	Luhunga	6	0	6	6	0	6	6	0	6	3.4
18	Makungu	6	0	6	6	0	6	6	0	6	3.4
19	Malangali	4	0	4	4	0	4	4	0	4	2.3

Table 5. 26 (ctd) : Number of Primary Schools by Ownership and by Ward, Mufindi District; 2010 – 2012

S/N	Ward	2010			2011			2012			Percent
		Pub	Pri.	Total	Pub	Pri.	Total	Pub	Pri.	Total	
20	Mapanda	7	0	7	7	0	7	7	0	7	4.0
21	Mbalamaziwa	7	0	7	7	0	7	7	0	7	4.0
22	Mdabulo	6	0	6	6	0	6	6	0	6	3.4
23	Mninga	9	1	10	9	1	10	9	1	10	5.7
24	MpangaTazara	1	0	1	1	0	1	1	0	1	0.6
25	Mtambula	5	0	5	5	0	5	5	0	5	2.9
26	Mtwango	10	0	10	10	0	10	10	0	10	5.7
27	Nyololo	7	0	7	7	0	7	8	0	8	4.6
28	Rungemba	3	0	3	3	0	3	3	0	3	1.7
29	Sadani	5	0	5	5	0	5	5	0	5	2.9
30	Saohill	5	0	5	5	0	5	6	0	6	3.4
Total		167	3	170	170	4	174	172	3	175	100.0
Percentage Shares		98.2	1.8	100.0	97.7	2.3	100.0	98.3	1.7	100.0	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5.26a shows how well the District has managed to expand primary school education at village level. With primary school per village ratio of 1.2, Mufindi District has managed to construct a primary school in each village. At ward level, Mtwango Ward was leading with a primary school per village ratio of 1.7. This means that pupils in Mtwango Ward had better access to primary education by walking shortest distance to school to access education services than pupils of the remaining 29 wards. Moreover, by having the lowest primary school per village ratio of 0.8 pupils in Kasanga and Malangali wards had poor access to primary school education services since they walk the longest distances to access the service than pupils in other wards.

Table 5.26 a: Accessibility of Primary Schools at Village Level, Mufindi District; 2010 – 2012

S/N	Ward	2010			2011			2012		
		Total Primary Schools	No. of village	Primary school per Village	Total Primary Schools	No. of Village	Primary school per Village	Total Primary Schools	No. of Village	Primary school per Village
1	Boma	5	6	0.8	7	6	1.2	6	6	1
2	Bumilayinga	5	4	1.3	5	4	1.3	5	4	1.3
3	Idunda	3	3	1.0	3	3	1.0	3	3	1
4	Ifwagi	11	7	1.6	11	7	1.6	11	7	1.6
5	Igombavanu	6	5	1.2	6	5	1.2	6	5	1.2
6	Igowole	5	4	1.3	5	4	1.3	5	4	1.3
7	Ihalimba	6	5	1.2	6	5	1.2	6	5	1.2
8	Ihanu	6	6	1.0	6	6	1.0	6	6	1
9	Ihowanza	4	4	1.0	4	4	1.0	4	4	1
10	Ikweha	4	4	1.0	4	4	1.0	4	4	1
11	Isalavanu	4	4	1.0	5	4	1.3	5	4	1.3
12	Itandula	6	5	1.2	6	5	1.2	6	5	1.2
13	Kasanga	4	5	0.8	4	5	0.8	4	5	0.8
14	Kibengu	9	6	1.5	9	6	1.5	9	6	1.5
15	Kinyanambo	4	5	0.8	5	5	1.0	5	5	1
16	Kiyowela	6	4	1.5	6	4	1.5	6	4	1.5
17	Luhunga	6	5	1.2	6	5	1.2	6	5	1.2
18	Makungu	6	4	1.5	6	4	1.5	6	4	1.5
19	Malangali	4	5	0.8	4	5	0.8	4	5	0.8
20	Mapanda	7	5	1.4	7	5	1.4	7	5	1.4
21	Mbalamaziwa	7	6	1.2	7	6	1.2	7	6	1.2
22	Mdabulo	6	5	1.2	6	5	1.2	6	5	1.2
23	Mninga	10	5	2.0	10	5	2.0	10	5	2
24	MpangaTazara	1	1	1.0	1	1	1.0	1	1	1
25	Mtambula	5	4	1.3	5	4	1.3	5	4	1.3
26	Mtwango	10	6	1.7	10	6	1.7	10	6	1.7
27	Nyololo	7	5	1.4	7	5	1.4	8	5	1.6
28	Rungemba	3	3	1.0	3	3	1.0	3	3	1
29	Sadani	5	5	1.0	5	5	1.0	5	5	1
30	Saohill	5	5	1.0	5	5	1.0	6	5	1.2
District Total		170	141	1.2	174	141	1.2	175	125	1.2

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

According to Table 5.26b, Mufindi District's had an average of 2.5 schools per 100 sq. kms of land area in 2012 or 2.4 schools within walking distance. In terms of population, the average was 2.4 schools per 1,816 people. At ward level the average number of schools within a walking distance varied from 0.6 schools in Ihanu ward to 37.5 schools in Boma ward. The average population per school ranged from 727 people in Mpanga Tazara to 3,621 people in Boma ward.

Table 5.26 b : Distribution of the Coverage of Primary School among the Land Area and Population by Ward, Mufindi District; 2012

S/N	Ward	Land Area in sq kms	2012 Census Population	No. of Primary Schools	Average No. of Schools per 100 sq.kms	Average Population per School
1	Boma	16	21,723	6	31.3	3621
2	Kinyanambo	20	17,723	5	24.9	3483
3	Saohill	42	12,765	6	14.3	2128
4	Rungemba	178	6,120	3	1.7	2040
5	Ifwagi	291	16,722	11	3.8	1520
6	Mdabulo	213	9,342	6	2.8	1557
7	Luhunga	166	9,568	6	3.6	1595
8	Ihanu	1053	8,540	6	0.6	1423
9	Mtwango	98	17,073	10	10.2	1707
10	Kibengu	538	15,806	9	1.7	1756
11	Ihalimba	327	11,205	6	1.8	1868
12	Mapanda	869	11,693	7	0.8	1670
13	Malangali	133	5,849	4	3.0	1462
14	Nyololo	255	11,979	8	3.1	1497
15	Idunda	67	6,110	3	4.5	2037
16	Ihowanza	80	10,756	4	5.0	2689
17	Bumilayinga	250	6,136	5	2.0	1227
18	Mbalamaziwa	111	8,021	7	6.3	1146
19	Kasanga	154	7,908	4	2.6	1977
20	Mtambula	46	10,477	5	10.9	2095
21	Makungu	251	12,751	6	2.4	2125
22	Igowole	128	13,459	5	3.9	2692
23	Kiyowela	664	7,540	6	0.9	1257
24	Mninga	127	14,799	10	7.1	1480
25	Itandula	77	11,866	6	7.8	1978
26	Mpanga Tazara	22	727	1	4.5	727

Table 5.26 b (ctd): Distribution of the Coverage of Primary School among the Land Area and Population by Ward, Mufindi District; 2012

S/N	Ward	Landa Area in sq kms	2012 Census Population	No. of Primary Schools	Average No. of Schools per 100 sq.kms	Average Population per School
27	Sadani	245	8,585	5	2.0	1717
28	Isalavanu	105	7,483	5	4.8	1497
29	Igombavanu	165	7,101	6	3.6	1184
30	Ikweha	431	8,213	4	0.9	2025
District Total		7,123	317,731	175	2.5	1816

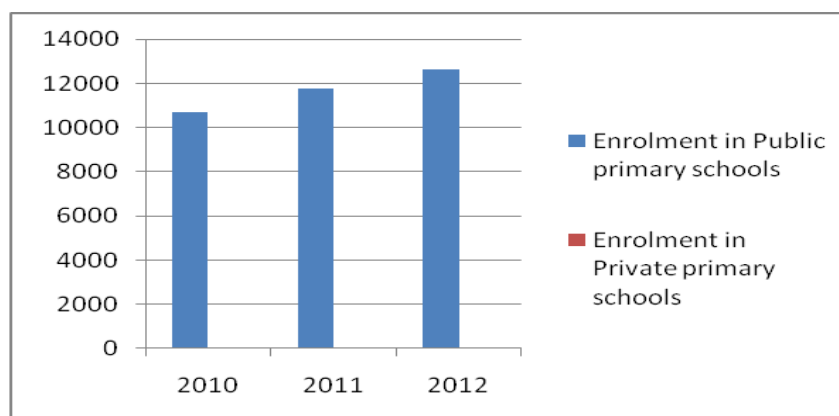
Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5. 2.3.1 Standard One Enrolment



By having primary school in each village, the district managed to have impressive record on STD I enrolment

Due to the increase in number of primary schools, Mufindi District Council showed impressive trend in standard one enrolment. The total of enrolment in standard one was 10,764 pupils in 2010 and 11,853 in 2011. In 2012 the total class one enrolment increased to 12,671. The increase in class one pupil's enrolment was 10.1 percent between 2010 and 2011 and 6.9 percent between 2011 and 2012. Table 5.27 shows that private primary schools had insignificant number of Standard One pupil's as compared to public primary schools. Primary schools in Boma ward had the largest class one enrolments in all three years by registering 550 pupils in 2010, 611 in 2011 and 649 in 2012. On the other hand, there were no pupils enrolled in Mpanga Tazara ward over the period 2010-2012 (Table 5.27).

Figure 28 : Enrolment of Std I Pupils in Public and Private Primary Schools, Mufindi District; 2010 -2012

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5. 27: General Standard I Enrolment in Public and Private Primary Schools by Ward, Mufindi District; 2010-2012

S/N	Ward	2010			2011			2012			Percent
		Pub	Pri.	Total	Pub	Pri.	Total	Pub	Pri.	Total	
1	Boma	517	33	550	569	42	611	609	40	649	5.1
2	Saohill	501	0	501	551	0	551	590	0	590	4.7
3	Kinyanambo	413	0	413	454	0	454	486	0	486	3.8
4	Mapanda	427	0	427	470	0	470	503	0	503	4.0
5	Kibengu	550	0	550	605	0	605	647	0	647	5.1
6	Ihalimba	452	0	452	497	0	497	532	0	532	4.2
7	Ikweha	261	0	261	287	0	287	307	0	307	2.4
8	Sadan	290	0	290	319	0	319	341	0	341	2.7
9	Isalavanu	244	0	244	268	0	268	287	0	287	2.3
10	Igombavanu	261	0	261	287	0	287	307	0	307	2.4
11	Malangali	233	0	233	256	0	256	274	0	274	2.2
12	Mbalamaziwa	439	0	439	483	0	483	517	0	517	4.1
13	Ihowanza	410	0	410	451	0	451	483	0	483	3.8
14	Bumilayinga	199	5	204	219	10	229	234	9	243	1.9
15	Nyololo	390	0	390	429	0	429	459	0	459	3.6
16	Idunda	209	0	209	230	0	230	246	0	246	1.9
17	Mninga	461	15	476	507	19	526	543	15	558	4.4

Table 5. 27 (ctd): General Standard I Enrolment in Public and Private Primary Schools by Ward, Mufindi District; 2010-2012

S/N	Ward	2010			2011			2012			Percent
		Pub	Pri.	Total	Pub	Pri.	Total	Pub	Pri.	Total	
18	Igowole	401	0	401	441	0	441	472	0	472	3.7
19	Kasanga	283	0	283	311	0	311	333	0	333	2.6
20	Itandula	435	0	435	479	0	479	512	0	512	4.0
21	Kiyowela	246	0	246	271	0	271	290	0	290	2.3
22	MpangaTazara	0	0	0	0	0	0	0	0	0	0.0
23	Makungu	363	0	363	399	0	399	427	0	427	3.4
24	Mtambula	474	0	474	521	0	521	558	0	558	4.4
25	Ihanu	347	0	347	382	0	382	408	0	408	3.2
26	Mdabulo	338	0	338	372	0	372	398	0	398	3.1
27	Luhunga	335	0	335	369	0	369	394	0	394	3.1
28	Mtwango	550	0	550	605	0	605	647	0	647	5.1
29	Ifwagi	523	0	523	575	0	575	616	0	616	4.9
30	Rungemba	159	0	159	175	0	175	187	0	187	1.5
Total		10711	53	10764	11782	71	11853	12607	64	12671	100.0
Percentage shares		99.5	0.5	100.0	99.4	0.6	100.0	99.5	0.5	100.0	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Enrolment per primary school indicates the increase in pupils goes hand in hand with the increase in primary schools Table 5.27a shows that in 2010 one primary school in the District on average enrolled 63 Standard One pupils. In 2011, 68 pupils were enrolled and in 2012 were 72 pupils. The increasing trend of standard one enrolment per school is a sign that the population of children of primary school going age of 7-13 years grew at a faster rate than the increase in primary schools. If more primary schools are not constructed there is a possibility of some of children aged 7- 13 years missing admission due to primary schools shortage. In the whole three year period (2010-2012), Mtambula ward had the largest enrolment per school. The enrolment was 474 in 2010, 521 in 2011 and 558 in 2012. However, Mpanga Tazara had the smallest enrolment per school.

5.27 a : Standard I Enrolment per School by Ward, Mufindi District; 2010 - 2012

S/N	Ward	2010			2011			2012		
		Total Enrolment	No.of School	Enrolment per School	Total Enrolment	No.of School	Enrolment per School	Total Enrolment	No.of School	Enrolment per School
1	Boma	550	5	110	611	7	87	649	6	108
2	Saohill	501	5	100	551	5	110	590	5	118
3	Kinyanambo	413	3	138	454	3	151	486	3	162
4	Mapanda	427	11	39	470	11	43	503	11	46
5	Kibengu	550	6	92	605	6	101	647	6	108
6	Ihalimba	452	5	90	497	5	99	532	5	106
7	Ikweha	261	6	44	287	6	48	307	6	51
8	Sadan	290	6	48	319	6	53	341	6	57
9	Isalavanu	244	4	61	268	4	67	287	4	72
10	Igombavanu	261	4	65	287	4	72	307	4	77
11	Malangali	233	4	58	256	5	51	274	5	55
12	Mbalamaziwa	439	6	73	483	6	81	517	6	86
13	Ihowanza	410	4	103	451	4	113	483	4	121
14	Bumilayinga	204	9	23	229	9	25	243	9	27
15	Nyololo	390	4	98	429	5	86	459	5	92
16	Idunda	209	6	35	230	6	38	246	6	41
17	Mninga	476	6	79	526	6	88	558	6	93
18	Igowole	401	6	67	441	6	74	472	6	79
19	Kasanga	283	4	71	311	4	78	333	4	83
20	Itandula	435	7	62	479	7	68	512	7	73
21	Kiyowela	246	7	35	271	7	39	290	7	41
22	MpangaTazara	0	6	0	0	6	0	0	6	0
23	Makungu	363	10	36	399	10	40	427	10	43
24	Mtambula	474	1	474	521	1	521	558	1	558
25	Ihanu	347	5	69	382	5	76	408	5	82
26	Mdabulo	338	10	34	372	10	37	398	10	40
27	Luhunga	335	7	48	369	7	53	394	8	49
28	Mtwango	550	3	183	605	3	202	647	3	216
29	Ifwagi	523	5	105	575	5	115	616	5	123
30	Rungemba	159	5	32	175	5	35	187	6	31
Total		10764	170	63	11853	174	68	12671	175	72

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

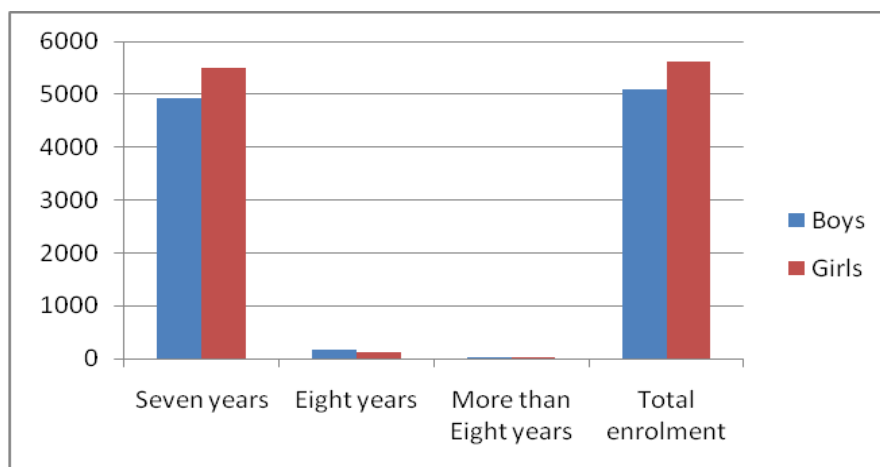
Table 5.28 demonstrates how best the gross enrolment rate (GER) for standard one pupils the district achieved in 2012. By having standard one enrolment rate of 97.2 percent of children aged seven years the district strongly adhered to Universal Primary Education (UPE) which requires children should start standard one at the age of seven years. Table 5.28 further shows that children aged eight years who joined standard one accounted for 3.2 percent and those who joined at the age of more than eight years were at 0.2 percent. By 2012, more girls (5,492, 52.8 percent) than boys (4,917, 47.2 percent) registered into standard one at the age of seven years. At eight years, more boys (165, 57.9 percent) than girls (120, 42.1 percent) were admitted while for those who joined with more than eight years, girls outnumbered boys. Girls were nine (52.9 percent) and boys eight (47.1 percent).

Table 5. 28: Standard I Gross Enrolment by Age Group, Mufindi District; 2012

Sex	Seven Years	Percent Enrolled	Eight years	Percent Enrolled	More than eight years	Percent enrolled	Total
Boys	4917	96.6	165	3.2	8	0.2	5090
Girls	5492	97.7	120	2.1	9	0.2	5621
District Total	10409	97.2	285	2.7	17	0.2	10711

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

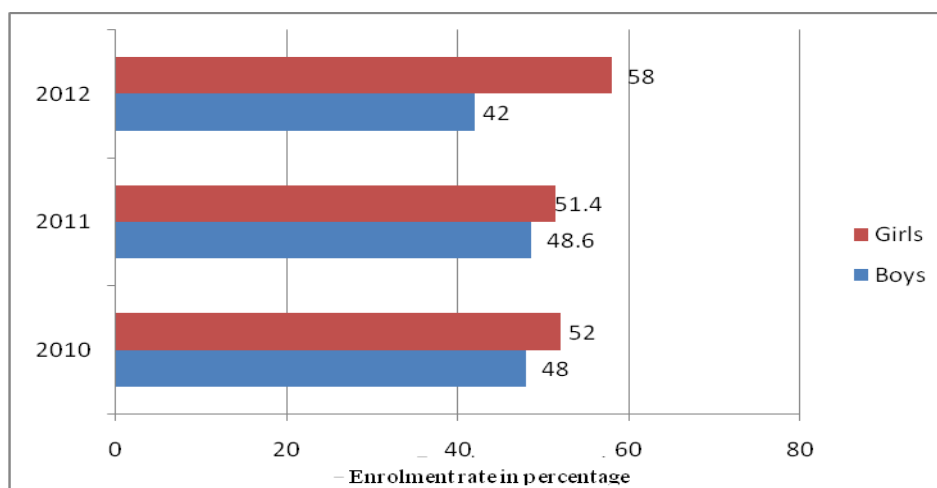
Figure 29: Std I Gross Enrolment by Age Group, Mufindi District; 2012



Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5.29 gives total enrolment in public primary schools in Mufindi District. The enrolment was fluctuating over the three year (2010-2011). From 2010 to 2011, the enrolment decreased remarkably by 5,558 pupils (7.7 percent) while from 2011 to 2012 it increased slightly by 160 pupils equivalent to 0.2 percent increase. In each year enrolment of girls was higher than that of boys. Girls accounted for 52.0 percent of total enrolment in 2010, 51.4 percent in 2011 and 58.0 percent in 2012 while boys accounted for 48.0 of the total enrolment in 2010, 48.6 percent in 2011 and 42.0 percent in 2012. At ward level, primary schools in Mtwango ward enrolled the largest number of pupils in 2010 by having 5.7 percent of total pupils in the district while those in Boma Ward led in 2011 with the share of 5.6 percent. In 2012 primary schools in Mtambula ward came first with 5.7 percent enrolment. Moreover, further analysis of Table 5.29 shows that the largest number of boys enrolled was 2,018 in Mtwango in 2010 and for girls were 2,212 in Mtambula ward in 2012.

Figure 30: Std (I-VII) Enrolment Share in Public Primary Schools, Mufindi District; 2010- 2012



Source: District Executive Director's Office (Education Department), Iringa Rural District, 2013

Table 5. 29: Total (Std I - VII) Enrolment by Sex And by Ward in Public Primary Schools, Mufindi District; 2010 - 2012

Ward	2010			2011			2012			Percent of the Total Enrolment		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	2010	2011	2012
Boma	1430	1533	2963	1846	1923	3769	1363	1883	3246	4.1	5.6	4.8
Bumilayinga	715	750	1465	648	671	1319	485	670	1155	2.0	2.0	1.7
Idunda	697	697	1394	643	667	1310	479	662	1141	1.9	2.0	1.7
Ifwagi	1870	1972	3842	1650	1705	3355	1540	2127	3667	5.3	5.0	5.5
Igombavanu	738	1606	2344	797	893	1690	788	1089	1877	3.2	2.5	2.8
Igowole	1387	1388	2775	1259	1387	2646	1144	1580	2724	3.8	4.0	4.1
Ihalimba	1479	1524	3003	1389	1437	2826	1049	1449	2498	4.1	4.2	3.7
Ihanu	1061	1086	2147	1011	1049	2060	851	1175	2026	3.0	3.1	3.0
Ihowanza	1204	1389	2593	1104	1257	2361	933	1288	2221	3.6	3.5	3.3
Ikweha	893	976	1869	928	862	1790	731	1010	1741	2.6	2.7	2.6
Isalavanu	900	973	1873	808	861	1669	566	781	1347	2.6	2.5	2.0
Itandula	1471	1687	3158	1358	1553	2911	1371	1893	3264	4.4	4.3	4.9
Kasanga	980	982	1962	764	957	1721	743	1027	1770	2.7	2.6	2.6
Kibengu	1673	1858	3531	1646	1838	3484	1455	2010	3465	4.9	5.2	5.2
Kinyanambo	1152	1235	2387	1285	1406	2691	1195	1651	2846	3.3	4.0	4.2
Kiyowela	844	867	1711	887	916	1803	605	836	1441	2.4	2.7	2.1
Luhunga	1166	1202	2368	1034	1040	2074	894	1235	2129	3.3	3.1	3.2
Makungu	1254	1230	2484	1128	1128	2256	1019	1408	2427	3.4	3.4	3.6
Malangali	757	785	1542	686	694	1380	627	867	1494	2.1	2.1	2.2
Mapanda	1293	1436	2729	1226	1280	2506	968	1337	2305	3.8	3.7	3.4
Mbalamaziwa	1150	1197	2347	1047	1056	2103	1096	1514	2610	3.2	3.1	3.9
Mdabulo	1213	1302	2515	1165	1195	2360	910	1257	2167	3.5	3.5	3.2
Mninga	1625	1791	3416	1215	1076	2291	1267	1749	3016	4.7	3.4	4.5
Mpanga Tazara	56	55	111	63	55	118	42	58	100	0.2	0.2	0.1
Mtambula	1434	1574	3008	1300	1672	2972	1601	2212	3813	4.1	4.4	5.7
Mtwango	2018	2087	4105	1706	1929	3635	1110	1532	2642	5.7	5.4	3.9
Nyororo	1340	1393	2733	1236	1322	2558	1231	1699	2930	3.8	3.8	4.4
Rungemba	661	702	1363	677	652	1329	535	738	1273	1.9	2.0	1.9
Sadani	944	925	1869	981	974	1955	822	1134	1956	2.6	2.9	2.9
Saohill	1390	1491	2881	1021	967	1988	756	1043	1799	4.0	3.0	2.7
District Total	34795	37693	72488	32508	34422	66930	28176	38914	67090	100.0	100.0	100.0
Percent by Sex	48.0	52.0	100.0	48.6	51.4	100	42.0	58.0	100			

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5. 2.3.2 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 and completes the primary education cycle irrespective of whether they sit for the final examination or not. Table 5.29a shows that the District somehow managed to control pupils drop outs as out of 10,251 pupils admitted into Standard One in 2005, 8,591 pupils or 83.8 percent managed to complete Standard Seven in 2011. Girls had higher completion rate than boys. Table 5.29a reveals that of the total boys registered into standard one in 2005, 81 percent of them completed standard seven in 2011. For girls, those who completed standard seven in 2011 accounted for 86.3 percent of those registered in 2005. At ward level, Boma ward had the largest proportion (5.4 percent) of pupils who completed standard seven in 2011 and MpangaTazara had the smallest (0.1 percent).

Table 5.29 a : Number of Pupils Enrolled in Std I in 2005 and Completed Std VII in 2011 by Ward, Mufindi District

Ward	2005 to 2011								
	Enrolled 2005			Completed 2011			Completion Rate by Sex		Percent of Total completed
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Boma	147	181	328	215	248	463	146.3	137	5.4
Bumilayinga	94	116	210	61	91	152	64.9	78.4	1.8
Idunda	105	111	216	102	129	231	97.1	116.2	2.7
Ifwagi	298	318	616	198	239	437	66.4	75.2	5.1
Igombavanu	112	151	263	63	85	148	56.3	56.3	1.7
Igowole	121	134	255	117	191	308	96.7	142.5	3.6
Ihalimba	242	263	505	231	196	427	95.5	74.5	5.0
Ihanu	149	160	309	122	154	276	81.9	96.3	3.2
Ihowanza	139	154	293	117	160	277	84.2	103.9	3.2
Ikweha	128	144	272	121	146	267	94.5	101.4	3.1
Isalavanu	146	167	313	105	91	196	71.9	54.5	2.3
Itandula	236	256	492	176	214	390	74.6	83.6	4.5
Kasanga	124	136	260	99	126	225	79.8	92.6	2.6

Table 5.29 a (ctd) : Number of Pupils Enrolled in Std I in 2005 and Completed Std VII in 2011 by Ward, Mufindi District

Ward	2005 to 2011								
	Enrolled 2005			Completed 2011			Completion Rate by Sex		Percent of Total completed
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Kibengu	314	335	649	181	258	439	57.6	77.0	5.1
Kinyanambo	132	146	278	170	182	352	128.8	124.7	4.1
Kiyowela	101	115	216	57	93	150	56.4	80.9	1.7
Luhunga	119	154	273	67	94	161	56.3	61.0	1.9
Makungu	138	181	319	169	158	327	122.5	87.3	3.8
Malangali	112	110	222	132	130	262	117.9	118.2	3.0
Mapanda	204	219	423	144	184	328	70.6	84.0	3.8
Mbalamaziwa	153	186	339	117	148	265	76.5	79.6	3.1
Mdabulo	154	191	345	145	169	314	94.2	88.5	3.7
Mninga	246	261	507	163	248	411	66.3	95.0	4.8
MpangaTazara	10	10	20	5	4	9	50	40.0	0.1
Mtambula	210	251	461	146	224	370	69.5	89.2	4.3
Mtwango	313	348	661	200	207	407	63.9	59.5	4.7
Nyololo	204	216	420	127	162	289	62.3	75.0	3.4
Rungemba	85	94	179	80	66	146	94.1	70.2	1.7
Sadani	127	142	269	132	132	264	103.9	93.0	3.1
Saohill	162	176	338	145	155	300	89.5	88.1	3.5
District Total	4825	5426	10251	3907	4684	8591	81.0	86.3	100.0
Percentage	47.1	52.9	100	45.5	54.5	100		83.8	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Completion rate of primary school pupils in 2012 was lower than it was in 2011. Table 5.29b shows that 82 percent of pupils enrolled in Standard One in 2006 completed standard seven in 2012. This completion rate was slightly lower than 83.8 percent observed in 2011. The sex composition of those who completed was 53.3 percent for girls and 46.7 percent for boys compared to the sex composition of 50.7 percent for girls and 49.3 percent for the boys for those who started Table 5.29b shows that 77.7 percent of total boys who enrolled into Standard One in 2006 completed education cycle and so were 86.2 percent of the girls who enrolled At. 6.3 percent of Boma ward had the largest share pupils who completed

the education cycle in 2012 while MpangaTazara maintained its last position with 0.1 percent of all pupils who completed STD VII in the District.

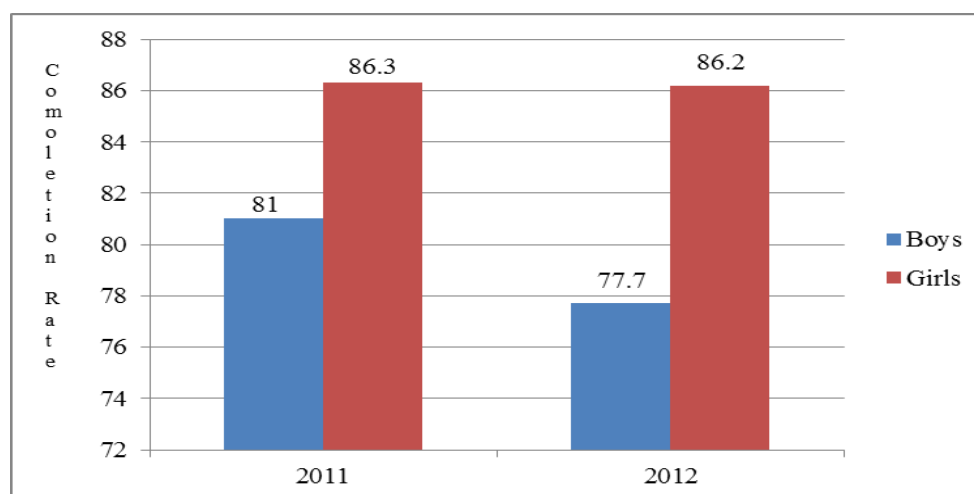
Table 5.29 b : Number of Pupils Enrolled Std I in 2006 and Completed Std VII in 2012 by Ward in Mufindi District

Ward	2006 to 2012								
	Enrolled 2006			Completed 2012			Completion Rate by Sex		Percent of Total Completed
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Boma	280	248	528	263	265	528	93.9	106.9	6.3
Bumilayinga	134	114	248	71	90	161	53.0	78.9	1.9
Idunda	88	80	168	70	73	143	79.5	91.3	1.7
Ifwagi	274	267	541	213	226	439	77.7	84.6	5.2
Igombavanu	139	145	284	113	145	258	81.3	100.0	3.1
Igowole	172	209	381	142	177	319	82.6	84.7	3.8
Ihalimba	202	226	428	155	217	372	76.7	96.0	4.4
Ihanu	145	142	287	117	100	217	80.7	70.4	2.6
Ihowanza	150	164	314	102	104	206	68.0	63.4	2.4
Ikweha	154	145	299	92	127	219	59.7	87.6	2.6
Isalavanu	114	150	264	110	119	229	96.5	79.3	2.7
Itandula	163	197	360	150	194	344	92.0	98.5	4.1
Kasanga	130	177	307	91	122	213	70.0	68.9	2.5
Kibengu	263	307	570	191	228	419	72.6	74.3	5.0
Kinyanambo	141	162	303	155	195	350	109.9	120.4	4.1
Kiyowela	104	102	206	97	123	220	93.3	120.6	2.6
Luhunga	168	156	324	194	200	394	115.5	128.2	4.7
Makungu	175	185	360	136	129	265	77.7	69.7	3.1
Malangali	94	107	201	87	119	206	92.6	111.2	2.4
Mapanda	183	174	357	152	190	342	83.1	109.2	4.1
Mbalamaziwa	171	169	340	92	105	197	53.8	62.1	2.3
Mdabulo	177	181	358	160	183	343	90.4	101.1	4.1
Mninga	258	262	520	161	184	345	62.4	70.2	4.1
MpangaTazara	5	6	11	4	6	10	80.0	100.0	0.1
Mtambula	208	207	415	126	128	254	60.6	61.8	3.0
Mtwango	320	282	602	226	275	501	70.6	97.5	5.9
Nyororo	269	241	510	137	151	288	50.9	62.7	3.4
Rungemba	80	76	156	100	85	185	125.0	111.8	2.2

Table 5.29 b (ctd) : Number of Pupils Enrolled Std I in 2006 and Completed Std VII in 2012 by Ward in Mufindi District

Ward	2006 to 2012								
	Enrolled 2006			Completed 2012			Completion Rate by Sex		Percent of Total Completed
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Sadani	157	160	317	123	133	256	78.3	83.1	3.0
Saohill	155	177	332	112	105	217	72.3	59.3	2.6
District Total	5073	5218	10291	3942	4498	8440	77.7	86.2	100.0
Percentage	49.3	50.7	100	46.7	53.3	100	82.0		

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Figure 31: Rates of Completion of Primary School Education in Mufindi District; 2011 and 2012

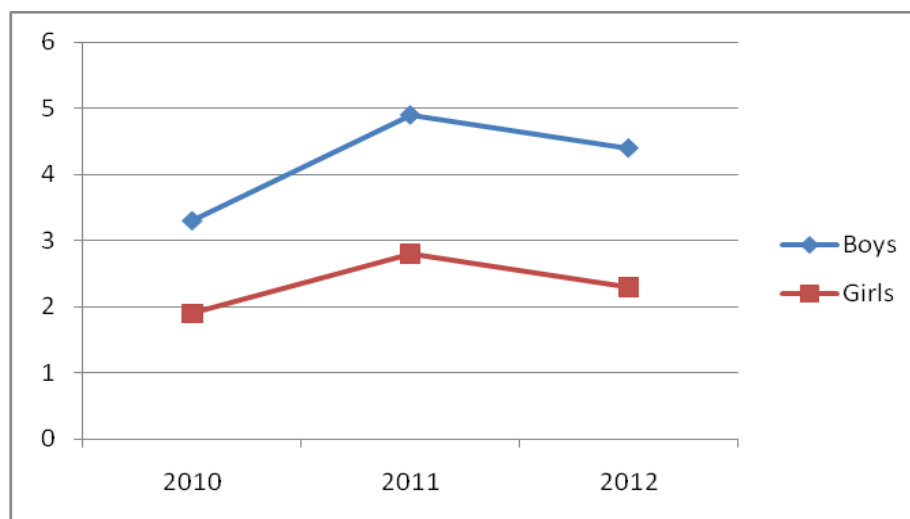
Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5. 2. 2.3 Primary School Dropout rate

Table 5.30 summarizes the situation of primary school pupil's dropout in three consecutive years; 2010, 2011 and 2012 in Mufindi District. Out of a total 206,508 pupils enrolled into standards I-VII in all primary schools in Mufindi in the mentioned three years, 6,546 pupils (equivalent to 3.2 percent of total pupils enrolled) failed to complete Standard Seven due to truancy, pregnancy, death or other reasons. Highest dropouts of 2,554 pupils were recorded in 2011 and the

lowest at 1,874 pupils was in 2010. Total number of dropouts for boys (3,973) was the higher than that of girls (2,574). By being the source of 57.3 percent of the total dropouts, 'other' reasons' which might be due to illness, poverty and so forth happened to be the major cause of primary school pupils dropouts..It was followed by truancy (41 percent) , death (1 percent) and pregnancy (0.8 percent).

Figure 32: Dropouts by Sex in Primary schools, Mufindi District; 2010 - 2012



Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5. 30 : Drop Outs by Reasons, Mufindi District; 2010 - 2012

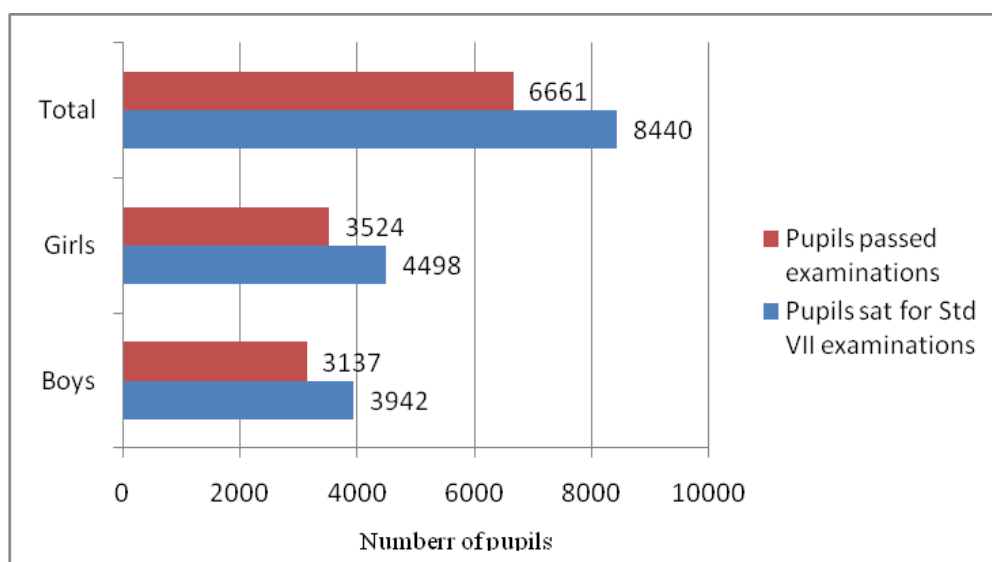
Reason	2010		2011		2012		Total Dropouts						Percentage
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	2010-2012			
										Boys	Girls	Total	
Truancy	482	291	773	624	393	1017	529	364	893	1635	1048	2683	41.0
Pregnancy	0	14	14	0	19	19	0	18	18	0	51	51	0.8
Death	11	7	18	15	10	25	12	9	21	38	25	64	1.0
Other	653	416	1069	957	536	1493	689	497	1187	2299	1449	3749	57.3
Total Dropouts	1146	728	1874	1596	958	2554	1231	888	2119	3973	2574	6546	100.0
Total Enrolment	34795	37693	72488	32,508	34,422	66,930	28,176	38,914	67,090	95,479	111,029	206,508	
Percent	3.3	1.9	2.6	4.9	2.8	3.8	4.4	2.3	3.2				

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5. 2. 2.4 Pass Rate in Primary schools

Pass rate refers to the percentage of pupils who passed Standard Seven examinations out of the total pupils who sat for the examinations. Table 5.31 shows that, at district level, in 2012, a total of 8,440 pupils sat for Standard Seven examinations. Among those, 78.9 percent (6,661 pupils) passed the examinations. Girls' at 53.3 percent of all examinees were more than boys (46.7 percent). Likewise, more girls (52.9 percent) than boys (47.1 percent) passed the examinations. Moreover, the study of in Table 5.31 shows that 79.6 percent of boys who were examined passed the examinations. Also 78.4 percent of girls' examinees passed the examinations. At ward level, Boma ward led in the number of both pupils who sat and passed examinations by having 6.3 percent of district's total pupils who sat for the examinations and 7.6 percent of district's total pupils who passed the examinations. MpangaTazara being the most disadvantaged ward in terms of education services had the least number of pupils who sat and passed examinations in Mufindi District at 0.1 percent.

Figure 33: Number of Pupils by Sex who Sat and Passed STD VII Examinations, Mufindi District; 2012



Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5. 31: Number of Pupils Who Sat and Passed STD VII Examinations in Public Primary Schools, Mufindi District; 2012

Ward		Pupils Sat for Std VII Examination				Pupils Who Passed std VII Examination				Percent of Pupils Who Passed examination		
		Male	Female	Total	Percent	Male	Female	Total	Percent	Male	Female	Total
1	Boma	263	265	528	6.3	254	255	509	7.6	96.6	96.2	96.4
2	Kinyanambo	155	195	350	4.1	138	182	320	4.8	89.0	93.3	91.4
3	Saohill	112	105	217	2.6	108	101	209	3.1	96.4	96.2	96.3
4	Rungemba	100	85	185	2.2	81	77	158	2.4	81.0	90.6	85.4
5	Ifwagi	213	226	439	5.2	189	193	382	5.7	88.7	85.4	87.0
6	Mdabulo	160	183	343	4.1	99	124	223	3.3	61.9	67.8	65.0
7	Luhunga	194	200	394	4.7	154	169	323	4.8	79.4	84.5	82.0
8	Ihanu	117	100	217	2.6	95	80	175	2.6	81.2	80.0	80.6
9	Mtwango	226	275	501	5.9	206	248	454	6.8	91.2	90.2	90.6
10	Kibengu	191	228	419	5.0	123	131	254	3.8	64.4	57.5	60.6
11	Ihalimba	155	217	372	4.4	102	134	236	3.5	65.8	61.8	63.4
12	Mapanda	152	190	342	4.1	127	139	266	4.0	83.6	73.2	77.8
13	Malangali	87	119	206	2.4	44	64	108	1.6	50.6	53.8	52.4
14	Nyololo	137	151	288	3.4	118	119	237	3.6	86.1	78.8	82.3
15	Idunda	70	73	143	1.7	25	25	50	0.8	35.7	34.2	35.0
16	Ihowanza	102	104	206	2.4	71	66	137	2.1	69.6	63.5	66.5
17	Bumilayinga	71	90	161	1.9	54	75	129	1.9	76.1	83.3	80.1
18	Mbalamaziwa	92	105	197	2.3	80	92	172	2.6	87.0	87.6	87.3
19	Kasanga	91	122	213	2.5	74	102	176	2.6	81.3	83.6	82.6
20	Mtambula	126	128	254	3.0	86	98	184	2.8	68.3	76.6	72.4
21	Makungu	136	129	265	3.1	116	95	211	3.2	85.3	73.6	79.6
22	Igowole	142	177	319	3.8	129	168	297	4.5	90.8	94.9	93.1
23	Kiyowela	97	123	220	2.6	85	106	191	2.9	87.6	86.2	86.8
23	Mninga	161	184	345	4.1	145	155	300	4.5	90.1	84.2	87.0
25	Itandula	150	194	344	4.1	106	137	243	3.6	70.7	70.6	70.6
26	MpangaTazara	4	6	10	0.1	3	6	9	0.1	75.0	100.0	90.0
27	Sadani	123	133	256	3.0	76	94	170	2.6	61.8	70.7	66.4
28	Isalavanu	110	119	229	2.7	80	81	161	2.4	72.7	68.1	70.3
29	Igombavanu	113	145	258	3.1	90	111	201	3.0	79.6	76.6	77.9
30	Ikweha	92	127	219	2.6	79	97	176	2.6	85.9	76.4	80.4
District-Total		3942	4498	8440	100.0	3137	3524	6661	100.0	79.6	78.4	78.9
Percent		46.7	53.3	100.0		47.1	52.9	100.0				

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5.31a shows that in 2012 all standard VII examinees in public primary schools who passed examinations managed to join Form One in public secondary schools. This is a proof that the district had enough classrooms in public secondary schools to accommodate all pupils who passed standard VII examinations. Further to that, Table 5.31a shows that higher number of girls (3,524, 52.9 percent) than boys (3,137, 47.1 percent) sat for the examinations as well as who joined form one. Pupils who joined Form One accounted 52.9 percent for girls and 47.1 percent for boys. Primary schools in Boma Ward led in number of both pupils who passed examinations and who joined form one by having 7.6 percent of District's total pupils who sat for examinations and also who joined from one. As usual, MpangaTazara ward had the lowest number of pupils in each of the two cases.

Table 5.31 a: Number of Pupils Who Joined Form I by Sex in Public Secondary Schools, Mufindi District; 2012

Ward		Pupils Passed Std VII Examinations				Pupils Joined Form I				Percent of Pupils Who Passed Std VII Examinations and Joined Form I		
		Male	Girls	Total	Percent	Male	Girls	Total	Percent	Male	Female	Total
1	Boma	254	255	509	7.6	254	255	509	7.6	100	100	100
2	Kinyanambo	138	182	320	4.8	138	182	320	4.8	100	100	100
3	Saohill	108	101	209	3.1	108	101	209	3.1	100	100	100
4	Rungemba	81	77	158	2.4	81	77	158	2.4	100	100	100
5	Ifwagi	189	193	382	5.7	189	193	382	5.7	100	100	100
6	Mdabulo	99	124	223	3.3	99	124	223	3.3	100	100	100
7	Luhunga	154	169	323	4.8	154	169	323	4.8	100	100	100
8	Ihanu	95	80	175	2.6	95	80	175	2.6	100	100	100
9	Mtwango	206	248	454	6.8	206	248	454	6.8	100	100	100
10	Kibengu	123	131	254	3.8	123	131	254	3.8	100	100	100
11	Ihalimba	102	134	236	3.5	102	134	236	3.5	100	100	100
12	Mapanda	127	139	266	4.0	127	139	266	4.0	100	100	100
13	Malangali	44	64	108	1.6	44	64	108	1.6	100	100	100
14	Nyololo	118	119	237	3.6	118	119	237	3.6	100	100	100
15	Idunda	25	25	50	0.8	25	25	50	0.8	100	100	100
16	Ihowanza	71	66	137	2.1	71	66	137	2.1	100	100	100
17	Bumilayinga	54	75	129	1.9	54	75	129	1.9	100	100	100
18	Mbalamaziwa	80	92	172	2.6	80	92	172	2.6	100	100	100
19	Kasanga	74	102	176	2.6	74	102	176	2.6	100	100	100
20	Mtambula	86	98	184	2.8	86	98	184	2.8	100	100	100

Table 5.31 a (ctd): Number of Pupils Who Joined Form I by Sex in Public Secondary Schools, Mufindi District; 2012

Ward	Pupils Passed Std VII Examinations				Pupils Joined Form I				Percent of Pupils Who Passed Std VII Examinations and Joined Form I		
	Male	Girls	Total	Percent	Male	Girls	Total	Percent	Male	Female	Total
21 Makungu	116	95	211	3.2	116	97	213	3.2	100	100	100
22 Igowole	129	168	297	4.5	129	168	297	4.5	100	100	100
23 Kiyowela	85	106	191	2.9	85	106	191	2.9	100	100	100
23 Mninga	145	155	300	4.5	145	155	300	4.5	100	100	100
25 Itandula	106	137	243	3.6	106	137	243	3.6	100	100	100
26 MpangaTazara	3	6	9	0.1	3	6	9	0.1	100	100	100
27 Sadani	76	94	170	2.6	76	94	170	2.6	100	100	100
28 Isalavanu	80	81	161	2.4	80	81	161	2.4	100	100	100
29 Igombavanu	90	111	201	3.0	90	111	201	3.0	100	100	100
30 Ikweha	79	97	176	2.6	79	97	176	2.6	100	100	100
District-Total	3137	3524	6661	100.0	3137	3526	6663	100	100	100	100
Percent	47.1	52.9	100.0		47.1	52.9	100.0				

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5. 2.2.5 Primary School Facilities

A teacher may be the single most important factor in the development of primary education. But after the teacher, comes the primary school facilities. School facilities include but are not confined to classrooms, toilet facilities, teachers' houses, desks, teachers' offices, and miscellaneous school furniture and water tanks.

i) Classrooms

The national standard is that one classroom should accommodate 45 pupils/students in primary or secondary schools. The reason of setting this standard is to make comfortable learning environment for pupils/students and also make it easy for teachers to manage classrooms.

Table 5.32 shows there were overall classroom pupils' ratio (CPR) of 1:50 which indicates that the district had a shortage of primary school classrooms in year 2012. This shortage obligates the district to provide 1,507 classrooms to clear the deficit of 174 classrooms. Of the total 30 wards the district has, only primary schools in ten wards, Mninga, MpangaTazara, Mtwango, Saohill, Bumilayinga, Ifwagi, Ihanu, Isalavanu, Mapanda and Malangali met the national standard CPR

of 1:45. Twenty wards which had CPR greater than the required standard are considered to have had a shortage of classrooms. Primary schools in Mtambula ward with CPR of 1:91 had the highest deficit while those primary schools in Kiyowela Ward with CPR of 1:46 had the lowest classroom deficit.



With Pupils Classroom Ratio of 1:50 the Mufindi District had Classroom shortage in 2012

Table 5. 32: Availability of Classrooms in Public Primary Schools by Ward, Mufindi District; 2012

S/N	Ward	Number of Schools	Total Pupils	Available Classrooms	Classroom pupils Ratio(CPR)	Required Classrooms	Deficit of classrooms	
							Number	Percent
1	Boma	5	3246	58	1:56	73	15	21
2	Bumilayinga	4	1155	31	1:37	26	-5	-20
3	Idunda	3	1141	24	1:48	26	2	8
4	Ifwagi	11	3667	83	1:44	82	-1	-2
5	Igombavanu	6	1877	38	1:49	42	4	10
6	Igowole	5	2724	43	1:63	61	18	30
7	Ihalimba	6	2498	47	1:53	56	9	17
8	Ihanu	6	2025	46	1:44	45	-1	-3
9	Ihowanza	4	2221	27	1:82	50	23	46
10	Ikweha	4	1741	33	1:53	39	6	16
11	Isalavanu	5	1347	37	1:36	30	-7	-23
12	Itandula	6	3264	57	1:57	73	16	22
13	Kasanga	4	1770	39	1:45	40	1	3
14	Kibengu	9	3465	69	1:50	78	9	12
15	Kinyanambo	5	2846	41	1:69	64	23	36
16	Kiyowela	6	1441	31	1:46	32	1	3
17	Luhunga	6	2129	44	1:48	48	4	8
18	Makungu	6	2427	48	1:51	54	6	11
19	Malangali	4	1494	35	1:43	34	-1	-3
20	Mapanda	7	2305	53	1:43	53	0	0
21	Mbalamaziwa	7	2610	45	1:58	58	13	22
22	Mdabulo	6	2167	46	1:47	49	3	6
23	Mninga	9	3016	75	1:40	68	-7	-10
24	MpangaTazara	1	100	6	1:17	3	-3	-100
25	Mtambula	5	3813	42	1:91	85	43	51
26	Mtwango	10	2642	72	1:37	59	-13	-22
27	Nyororo	8	2930	48	1:61	66	18	27
28	Rungemba	3	1273	22	1:58	29	7	24
29	Sadani	5	1956	38	1:51	44	6	14
30	Saohill	6	1799	55	1:33	40	-15	-36
District Total		172	67090	1333	1:50	1507	174	12

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

ii) Pitlatrine



More pitlatrines are needed in Mufindi primary schools to alleviate a shortage

According to Tanzania Ministry of Education and Vocational Training standard pupil toilet hole ratio (PTR) is 1:20 for girls and 1: 25 for boys. Since Table 5.33 does not show total pupils by sex, PTR calculated gives PTR without considering pupils sex. Table 5.33 shows that, on average, one toilet hole in primary schools in 2012 were used by 28 pupils. This was above the national standard and indicates primary schools in the District had toilet holes deficits. Likewise, Table 5.33 shows that the District had a deficit of 717 toilets holes. Primary schools in Makungu had the largest deficit of 104 toilets holes. On the other hand, primary schools in Mtwango ward had the best PTR of 1:17. Unfortunately, MpangaTazara data seems to be suspicious as it is not possible for 100 pupils to have 161 toilet holes.

Table 5. 33 : Availability of Pit Latrines in Public Primary Schools by Ward, Mufindi District; 2012

S/N	Ward	Total Pupils	Available Toilets Holes	Toilet Pupils Ratio (TPR)	Required Toilets Holes	Deficit of toilet	
						Number	Percent
1	Boma	3246	123	1:26	165	42	25
2	Bumilayinga	1155	54	1:21	61	7	12
3	Idunda	1141	38	1:30	52	14	27
4	Ifwagi	3667	161	1:23	165	4	2
5	Igombavanu	1877	59	1:32	81	22	27
6	Igowole	2724	71	1:38	123	52	42
7	Ihalimba	2498	77	1:32	117	40	34
8	Ihanu	2025	66	1:31	91	25	28
9	Ihowanza	2221	70	1:32	100	30	30
10	Ikweha	1741	48	1:36	78	30	39
11	Isalavanu	1347	64	1:21	75	11	15
12	Itandula	3264	114	1:29	127	13	10
13	Kasanga	1770	64	1:28	80	16	20
14	Kibengu	3465	126	1:28	157	31	20
15	Kinyanambo	2846	96	1:30	129	33	26
16	Kiyowela	1441	52	1:28	74	22	30
17	Luhunga	2129	83	1:26	96	13	14
18	Makungu	2427	6	1:405	110	104	96
19	Malangali	1494	57	1:26	99	42	42
20	Mapanda	2305	59	1:39	106	47	44
21	Mbalamaziwa	2610	44	1:59	112	68	61
22	Mdabulo	2167	98	1:22	92	-6	-7
23	Mninga	3016	62	1:49	136	74	54
24	MpangaTazara	100	161	1:1	140	-156	-3120
25	Mtambula	3813	98	1:39	119	74	18
26	Mtwango	2642	157	1:17	168	11	7
27	Nyororo	2930	90	1:33	120	30	25
28	Rungemba	1273	47	1:27	57	10	18
29	Sadani	1956	84	1:23	88	4	5
30	Saohill	1799	78	1:23	88	10	11
District- Total		67089	2407	1:28	3124	717	23

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

iii) Staff Houses



Staff quarters is among important incentive for the teachers

Teachers' houses are important for teachers' welfare, school security and general efficiency of school services by enabling through teachers to be on site. Table 5.34 shows that in 2012 there were only 900 teachers' houses leaving the District with a substantial deficit of 1067 teachers houses or 54 percent from the required 1,967 houses. If one house is being required to accommodate one teacher, the resulting deficit is 616 houses or 41 percent deficit. All wards had large deficits ranging from 34 percent for Mapanda to 94 percent in Boma ward. Boma ward by having largest number of primary school teachers also had the biggest deficit of number of houses at 90 or 107 (basing HTR). Similarly, MpangaTazara ward had the lowest number of teachers, the ward also had the least deficit of teachers' houses as well as required number of houses.

Table 5. 34 : Availability of Public Primary School Teachers' Houses by Ward, Mufindi District; 2012

S/N	Ward	Available Teachers	Required Houses	Available Houses	Deficit of Houses		Surplus/Deficit Based on HTR	Percent of Deficit Based on HTR
					No.	Percent		
1	Boma	113	96	6	90	94	107	95
2	Bumilayinga	26	39	24	15	38	2	8
3	Idunda	25	32	16	16	50	9	36
4	Ifwagi	99	108	61	47	44	38	38
5	Igombavanu	39	53	27	26	49	12	31
6	Igowole	76	82	23	59	72	53	70
7	Ihalimba	45	72	46	26	36	-1	-2
8	Ihanu	34	61	39	22	36	-5	-15
9	Ihowanza	41	64	25	39	61	16	39
10	Ikweha	27	51	31	20	39	-4	-15
11	Isalavanu	40	54	24	30	55	16	40
12	Itandula	60	84	47	37	44	13	22
13	Kasanga	35	50	32	18	36	3	9
14	Kibengu	59	107	47	60	56	12	20
15	Kinyanambo	87	79	8	71	90	79	91
16	Kiyowela	30	56	30	26	46	0	0
17	Luhunga	36	62	31	31	50	5	14
18	Makungu	40	65	27	38	58	13	33
19	Malangali	38	37	24	13	35	14	37
20	Mapanda	40	64	42	22	34	-2	-5
21	Mbalamaziwa	50	66	31	35	53	19	38
22	Mdabulo	39	69	38	31	45	1	3
23	Mninga	69	89	41	48	54	28	41
24	MpangaTazara	4	7	2	5	71	2	50
25	Mtambula	46	75	24	51	68	22	48
26	Mtwango	83	109	44	65	60	39	47
27	Nyororo	63	82	45	37	45	18	29
28	Rungemba	37	36	20	16	44	17	46
29	Sadani	41	56	23	33	59	18	44
30	Saohill	94	64	22	42	66	72	77
Total		1516	1967	900	1067	54	616	41

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

iv) Furniture(Desks)

The number of desks which were required to serve all primary schools pupils throughout the district in the year 2012 was 33,545. The district deficit was 32 percent or 11,015 desks against 22,670 that were available. There were big differences in percent of deficits among wards. The deficit ranged from 5 percent in Bumilayinga ward to 59 percent for Ihowanza ward. Mninga is a lucky ward by being endowed with abundant wood which also sold at affordable prices. This motivated people living in this ward willingly contribute desks for primary schools and the ward had no desks deficit.

Table 5. 35: Availability of Desks in Public Primary Schools by Ward, Mufindi District; 2012

S/N	Ward	Total Pupils	Available Desks	Desk Pupils Ratio	Required Desks	Deficit of Desks	
						No.	Percent
1	Boma	3246	876	4	1623	747	46
2	Bumilayinga	1155	546	2	578	32	5
3	Idunda	1141	361	3	571	210	37
4	Ifwagi	3667	1617	2	1834	217	12
5	Igombavanu	1877	549	3	939	390	42
6	Igowole	2724	872	3	1362	490	36
7	Ihalimba	2498	926	3	1249	323	26
8	Ihanu	2025	773	3	1013	240	24
9	Ihowanza	2221	455	5	1111	656	59
10	Ikweha	1741	574	3	871	297	34
11	Isalavanu	1347	613	2	674	61	9
12	Itandula	3264	772	4	1632	860	53
13	Kasanga	1770	567	3	885	318	36
14	Kibengu	3465	1026	3	1733	707	41
15	Kinyanambo	2846	878	3	1423	545	38
16	Kiyowela	1441	541	3	721	180	25
17	Luhunga	2129	801	3	1065	264	25
18	Makungu	2427	934	3	1214	280	23
19	Malangali	1494	443	3	747	304	41
20	Mapanda	2305	798	3	1153	355	31

Table 5. 35 (ctd): Availability of Desks in Public Primary Schools by Ward, Mufindi District; 2012

S/N	Ward	Total Pupils	Available Desks	Desk Pupils Ratio	Required Desks	Deficit of Desks	
						No.	Percent
21	Mbalamaziwa	2610	708	4	1305	597	46
22	Mdabulo	2167	688	3	1084	396	37
23	Mninga	3016	1640	2	1508	0	0
24	MpangaTazara	100	40	3	50	10	20
25	Mtambula	3813	864	4	1907	1043	55
26	Mtwango	2642	1200	2	1321	121	9
27	Nyororo	2930	878	3	1465	587	40
28	Rungemba	1273	396	3	637	241	38
29	Sadani	1956	570	3	978	408	42
30	Saohill	1799	764	2	900	136	15
Total		67090	22670	3	33545	11015	32

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

v) Accessibility of Water in Primary Schools



Water is not only important but also necessary for both human being and other living organisms. Availability of water in primary schools is of paramount importance. Schools having water sources within their surroundings provide their pupils with the assurance of water for use and make life easy for the pupils in improving sanitation level of the schools. In addition, availability of water within primary school premises reduces time spent by pupils in fetching water.

Table 5.36 shows that primary schools in Mufindi District had equal number of water sources in both 2011 and 2012. Water wells by accounting for 65.2 percent of the total available water sources were the main source of water for primary schools in Mufindi District. They were followed by tap water at 33 percent and the least source was water tanks (1.8 percent). Primary schools in Saohill ward had the largest number of water sources (14), followed by primary schools in Mbalamaziwa Ward (12), Isalavanu (10), Kibengu and Mninga (each with 7 sources) and Ifwagi and Itandula (6 each). Primary schools in each remaining ward had less than 6 of water sources. Moreover, in 2011 and 2012 tap water and water tanks were the main water sources for primary schools in Saohill ward. Primary schools in Mbalamaziwa and Kasanga wards mostly used water from wells. Primary schools in ten wards had no water and this should be taken as a challenge to the District Council.

Table 5. 36 : Accessibility of Water in Public Primary Schools by Ward, Mufindi District; 2011 and 2012

Ward	2011				2012			
	No. of Pri. Schools with Operating Source			Total No. of Water Sources	No. of Pri. Schools with Operating Source			Total No. of Water Sources
	Water Tanks	Water Wells	Tap Water		Water Tanks	Water Wells	Tap Water	
Rungemba	0	1	1	2	0	1	1	2
Boma	0	0	3	3	0	0	3	3
Mbalamaziwa	0	8	4	12	0	8	4	12
Kinyanambo	0	1	2	3	0	1	2	3
Itandula	0	6	0	6	0	6	0	6
Luhunga	0	0	0	0	0	0	0	0
Malangali	0	0	4	4	0	0	4	4
Ikweha	0	0	0	0	0	0	0	0
Ihanu	0	0	0	0	0	0	0	0
Ihalimba	0	2	0	2	0	2	0	2
Mtambula	0	5	0	5	0	5	0	5
Saohill	2	6	6	14	2	6	6	14
Igowole	0	2	0	2	0	2	0	2
Igombavanu	0	0	0	0	0	0	0	0
Ifwagi	0	6	0	6	0	6	0	6
Kibengu	0	6	1	7	0	6	1	7

Table 5. 36 (ctd) : Accessibility of Water in Public Primary Schools by Ward, Mufindi District; 2011 and 2012

Ward	2011				2012			
	No. of Pri. Schools with Operating Source			Total No. of Water Sources	No. of Pri. Schools with Operating Source			Total No. of Water Sources
	Water Tanks	Water Wells	Tap Water		Water Tanks	Water Wells	Tap Water	
Rungemba	0	1	1	2	0	1	1	2
Boma	0	0	3	3	0	0	3	3
Mbalamaziwa	0	8	4	12	0	8	4	12
Kinyanambo	0	1	2	3	0	1	2	3
Itandula	0	6	0	6	0	6	0	6
Luhunga	0	0	0	0	0	0	0	0
Malangali	0	0	4	4	0	0	4	4
Ikweha	0	0	0	0	0	0	0	0
Ihanu	0	0	0	0	0	0	0	0
Ihalimba	0	2	0	2	0	2	0	2
Mtambula	0	5	0	5	0	5	0	5
Saohill	2	6	6	14	2	6	6	14
Igowole	0	2	0	2	0	2	0	2
Igombavanu	0	0	0	0	0	0	0	0
Ifwagi	0	6	0	6	0	6	0	6
Kibengu	0	6	1	7	0	6	1	7
Bumilayinga	0	4	0	4	0	4	0	4
Ihowanza	0	1	1	2	0	1	1	2
Kasanga	0	8	0	8	0	8	0	8
Mdabulo	0	0	0	0	0	0	0	0
Nyololo	0	1	2	3	0	1	2	3
Mninga	0	6	1	7	0	6	1	7
Makungu	0	1	2	3	0	1	2	3
Isalavanu	0	5	5	10	0	5	5	10
Mtwango	0	2	1	3	0	2	1	3
Kiyowela	0	0	0	0	0	0	0	0
Idunda	0	0	3	3	0	0	3	3
Mapanda	0	0	0	0	0	0	0	0
MpangaTazara	0	1	0	1	0	1	0	1
Sadani	0	1	1	2	0	1	1	2
Total	2	73	37	112	2	73	37	112
Percent	1.8	65.2	33.0	100.0	1.8	65.2	33.0	100.0

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

vi) Teachers

The teacher to pupil ratio is an important indicator which shows the quality of education provided in schools. The national standard is that one teacher should serve a class of 45 pupils (1:45). Table 5.37 shows that overall primary schools in Mufindi District had teachers' pupils' ratio (TPR) of one teacher per 44 pupils (1:44) and thus met the national standard. However, the Table also shows that there were 19 wards which the TPR was more than 1:45.



With Teachers Pupils Ratio of 1:44 Primary schools in Mufindi had no teachers' shortage in 2012

Table 5. 37: Availability of Public Primary School Teachers (Grade A, B, Diploma and Degree) by Ward, Mufindi District; 2012

S/N	Ward	Total Pupils	Required Teachers	Available Teachers	Teacher Pupils Ratio	Deficit	Percent of Deficit
1	Boma	3246	96	113	29	-17	-18
2	Bumilayinga	1155	39	26	44	13	33
3	Idunda	1141	32	25	46	7	21
4	Ifwagi	3667	108	99	37	9	9
5	Igombavanu	1877	53	39	48	14	27
6	Igowole	2724	82	76	36	6	7
7	Ihalimba	2498	72	45	56	27	37
8	Ihanu	2025	61	34	60	27	45
9	Ihowanza	2221	64	41	54	23	36
10	Ikweha	1741	51	27	64	24	47
11	Isalavanu	1347	54	40	34	14	26
12	Itandula	3264	84	60	54	24	28
13	Kasanga	1770	50	35	51	15	30
14	Kibengu	3465	107	59	59	48	45
15	Kinyanambo	2846	79	87	33	-8	-10
16	Kiyowela	1441	56	30	48	26	46
17	Luhunga	2129	62	36	59	26	42
18	Makungu	2427	65	40	61	25	38
19	Malangali	1494	37	38	39	-1	-3
20	Mapanda	2305	64	40	58	24	37
21	Mbalamaziwa	2610	66	50	52	16	24
22	Mdabulo	2167	69	39	56	30	43
23	Mninga	3016	89	69	44	20	23
24	MpangaTazara	100	7	4	25	3	43
25	Mtambula	3813	75	46	83	29	39
26	Mtwango	2642	109	83	32	26	24
27	Nyororo	2930	82	63	47	19	23
28	Rungemba	1273	36	37	34	-1	-3
29	Sadani	1956	56	41	48	15	27
30	Saohill	1799	64	94	19	-30	-46
District Total		67090	1967	1516	44	451	23

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2. 3 Secondary Education

Secondary education is optional. But many parents and students have discovered its value in preparing young people for the future. Hence there has been a dramatic increase in both enrolment and the number of secondary schools throughout the country. The policy of a secondary school for each ward which was introduced in early 2006 under the Government of the President Dr.Jakaya Mrisho Kikwete also played a big role in increasing number of secondary schools and enrolment.

Table 5.38 shows that at the end of 2012 there were 55 secondary schools in the District. As in the case of primary schools, there were more public than private secondary schools. Public secondary schools accounted for 75.9 percent of all the secondary schools in 2010. 75.9 percent in 2011 and 74.5 percent in 2012. The private secondary school were 21.4 percent both in 2010 and 2011 but 25.5 percent in 2012. In 2012 Saohill had the largest share of Secondary schools at 12.7 percent. It was followed by Malangali (7.3 percent), Boma, Mninga and Mtwango wards (each with 5.5 percent). Wards with a share of 1.8 percent also had the smallest number (1) of secondary schools. Saohill was leading in the number of secondary schools (5).

Table 5. 38: Number of Secondary Schools by Ownership and by Ward, Mufindi District; 2010 – 2012

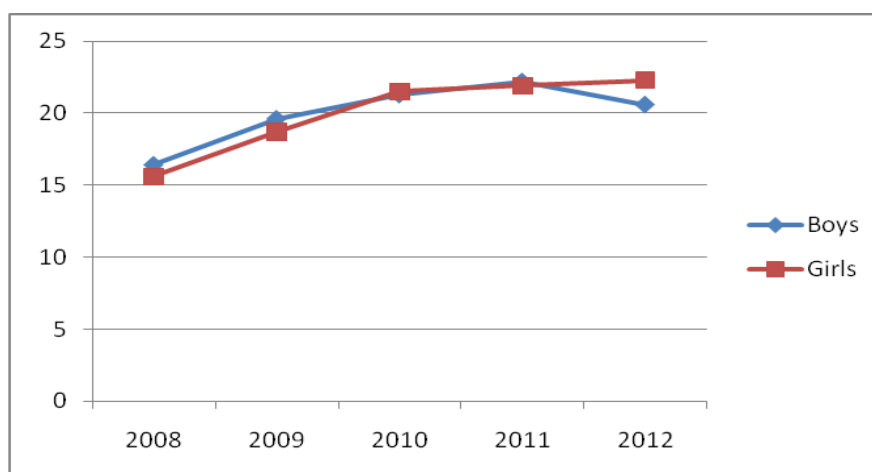
Ward	2010			2011			2012			Percentage
	Public	Private	Total	Public	Private	Total	Public	Private	Total	
Boma	2	1	3	2	1	3	2	1	3	5.5
Bumilayinga	1	1	2	1	1	2	1	1	2	3.6
Idunda	1	0	1	1	0	1	1	0	1	1.8
Ifwagi	2	0	2	2	0	2	2	0	2	3.6
Igombavanu	1	1	2	1	1	2	1	1	2	3.6
Igowole	2	0	2	2	0	2	2	0	2	3.6
Ihalimba	1	0	1	1	0	1	1	0	1	1.8
Ihanu	1	0	1	1	0	1	1	0	1	1.8
Ihowanza	1	0	1	1	0	1	1	0	1	1.8
Ikweha	1	0	1	1	0	1	1	0	1	1.8
Isalavanu	1	0	1	1	0	1	1	0	1	1.8
Itandula	1	0	1	1	0	1	1	0	1	1.8
Kasanga	1	0	1	1	0	1	1	0	1	1.8
Kibengu	2	0	2	2	0	2	2	0	2	3.6
Kinyanambo	1	0	1	1	0	1	1	0	1	1.8
Kiyowela	1	0	1	1	0	1	1	0	1	1.8
Luhunga	1	0	1	1	0	1	1	0	1	1.8
Makungu	2	0	2	2	0	2	2	0	2	3.6
Malangali	3	1	4	3	1	4	3	1	4	7.3
Mapanda	1	0	1	1	0	1	1	0	1	1.8
Mbalamaziwa	1	1	2	1	1	2	1	1	2	3.6
Mdabulo	1	0	1	1	0	1	1	0	1	1.8
Mninga	2	1	3	2	1	3	2	1	3	5.5
Mtambula	1	1	2	1	1	2	1	1	2	3.6
Mtwango	2	1	3	2	1	3	2	1	3	5.5
Nyololo	2	0	2	2	0	2	2	0	2	3.6
Sadani	2	0	2	2	0	2	2	0	2	3.6
Sao hill	2	5	7	2	5	7	2	5	7	12.7
Rungemba	1	0	1	1	0	1	1	1	2	3.6
Mpanga Tazara										
Total	41	13	54	41	13	54	41	14	55	100.0
Percent share	75.9	24.1	100.0	75.9	24.1	100	74.5	25.5	100.0	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2.3.1 Secondary School Enrolment

Table 5.39 indicates that for five years the district experiences steady increase in the total enrolment of secondary school students also by gender. The enrolment of boys increased from 8,420 in 2008 to 10,593 in 2012. Girl's enrolment went up from 7,424 in 2008 to 10,623 in 2012. Although enrolment for boys was a bit higher than of girls, but generally there has been improvement in the enrolment of girls.

Figure 34: Form (I-IV) Enrolment in Public Secondary Schools by Sex, Mufindi District; 2008 - 2012



Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5. 39: Total Form (1-IV) Enrolment in Public Secondary Schools by Sex, Mufindi District; 2008 - 2012

Year	Boys		Girls		Total	Percentage Increase in
	Number	Percent	Number	Percent	Boys and Girls	Total Enrolment
2008	8420	53.1	7424	46.9	15844	
2009	10072	53.0	8925	47.0	18997	19.9
2010	10951	51.6	10272	51.6	21223	11.7
2011	11420	52.2	10472	47.8	21892	3.2
2012	10593	49.9	10623	50.1	21216	-3.1
Total	51456	100.0	47716	100.0	99172	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5.39a shows to what extent secondary schools in the district are populated with students. The number of students per school is helpful in showing if the demands (students available in the district) is proportional to the supply (number of schools available). Table 5.39a shows that the number of students population per school ranged from 386 to 463. The largest students population per school was observed in 2009 at 463 and the smallest was 386 in 2008 and 2012.

Table 5.39 a: Secondary School Students Population per School, Mufindi District; 2008 – 2012

Year	Total Students Enrolled	Total No. of Secondary Schools (Both Public and Private)	Student Population per Secondary School
2008	15844	41	386
2009	18997	41	463
2010	21223	54	393
2011	21892	54	405
2012	21216	55	386

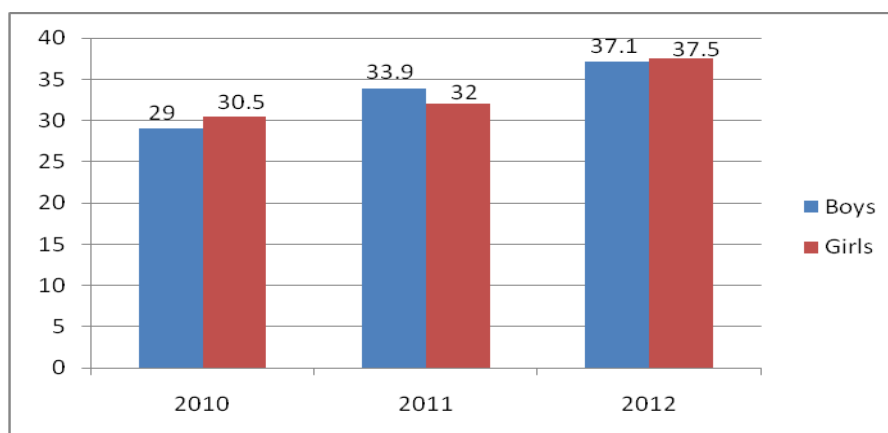
Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5.40 shows the number of students who completed secondary school education by sex in public secondary schools in Mufindi District. A total of 12,266 students completed Form IV education in the three year period. More boys (6,572, 53.6 percent) than girls (5,694, 46.4 percent) from 2010 to 2012 completed that education level. The increase in the number of students completing Secondary education was 11.2 percent in 2011 and 12.8 percent in 2012. Trend-wise, Table 5.40 shows the district enjoyed positive trend of students who completed Form IV education.

Table 5. 40: Students Completed Form IV in Public Secondary Schools by Sex, Mufindi District; 2010 – 2012

Year	Boys		Girls		Total Boys and Girls	Percentage Share		Percentage Increase in Students Who Completed
	Number	Percent	Number	Percent		Boys	Girls	
2010	1907	29.0	1737	30.5	3644	52.3	47.7	
2011	2227	33.9	1824	32.0	4051	55.0	45.0	11.2
2012	2438	37.1	2133	37.5	4571	53.3	46.7	12.8
Total	6572	100.0	5694	100.0	12266	53.6	46.4	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Figure 35: Percentage of students by Sex who completed Form IV in Public Secondary Schools, Mufindi District; 2010-2012

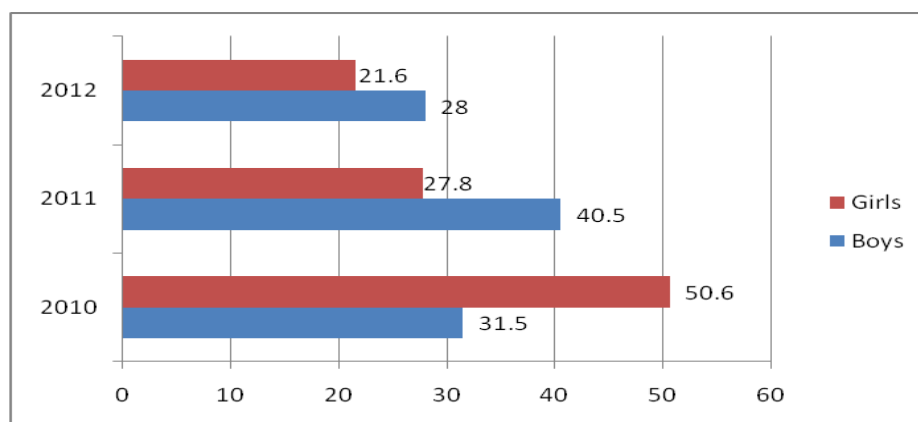
Source: District Executive Director's Office (Education Department), Mufindi District, 2013

In the period of three years from 2010 to 2012 the enrolment of students in high school was the highest in 2011 at 717 and lowest at 506 students in 2012. Unequal proportions of enrolment by sex was also observed with boys accounting for 68.4 percent of all students enrolled in 2010, 83.5 percent in 2011 and 81.8 percent in 2012 and girls accounting for the remaining percentages was highest in 2010 (215, 36.6 percent) while boys enrolment was highest in 2012 (414, 81.8 percent) were only 22.3 percent. Year 2010 encountered with the largest number of girls enrolment (215, 31.6 percent) and more boys were admitted into high school in 2011 at 599 (83.5 percent).

Table 5. 41: Total Form (V-VI) Enrolment by Sex in Public Secondary Schools, Mufindi District; 2010 – 2012

Year	Boys		Girls		Total Boys and Girls	Percentage Increase in Total Enrolment
	Number	Percent	Number	Percent		
2010	465	68.4	215	31.6	680	
2011	599	83.5	118	16.5	717	5.4
2012	414	81.8	92	18.2	506	-29.4
Total	1478	100.0	425	100.0	1903	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Figure 36 : Form (V-VI) Enrolment by Sex in Public Secondary Schools, Mufindi District; 2010 - 2012

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

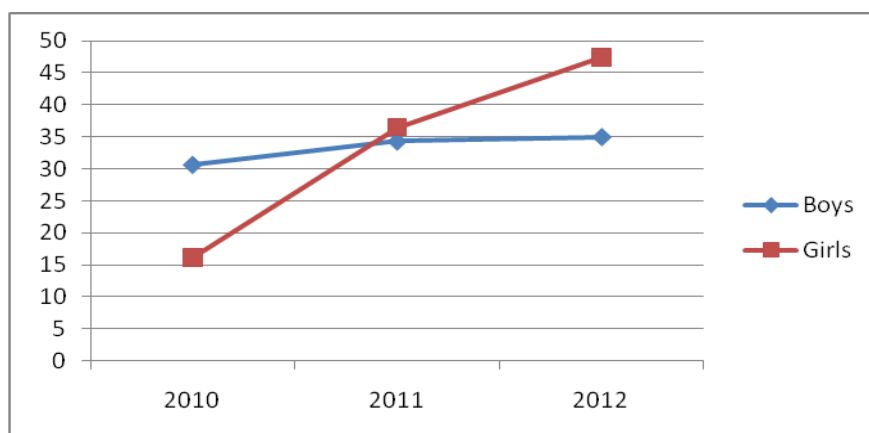
In three years from 2010 to 2012 a total of 1,442 students completed high school in Mufindi District. The number of students completing increased by 176 students (46.2 percent) from 381 students in 2010 to 557 students in 2012. As in the case of ordinary level secondary schools, more boys (1,020, 70.7 percent) than girls (422, 29.3 percent) completed high level education.

Table 5. 42: Number of Students Who Completed 'A'-Level Education in Public Secondary Schools by Sex, Mufindi District; 2010 -2012

Year	Boys		Girls		Total Boys and Girls	Percentage of Share		Percentage Increase in Students Who Completed
	Number	Percent	Number	Percent		Boys	Girls	
2010	313	30.7	68	16.1	381	82.2	17.8	n.a
2011	350	34.3	154	36.5	504	69.4	30.6	32.3
2012	357	35.0	200	47.4	557	64.1	35.9	10.5
Total	1020	100.0	422	100.0	1442	70.7	29.3	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Figure 37: Percentage by Sex of students who completed 'A' Level in Public Secondary Schools, Iringa Rural; 2010-2012



Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2.3.2 Pass Rate in Secondary Schools

Pass rate reflects the quality of secondary education provided in the district. Students are considered to have passed examination when they score division I-IV. Division zero (0) is a failure and no certificates are awarded to failures. Table 5.43 shows the examination performance of Form IV students over the period of three years from 2010 – 2012. The District had a total of 12,215 Form IV students who did the examinations. Students performance was as follows; Division I (70 students, 0.6 percent), Division II (293, 2.4 percent), Division III (687 students, 5.6 percent), Division IV (4,980 students, 40.8 percent) and Division Zero (6,188 students, 50.6 percent). Since those scored Divisions I-IV passed examinations then we can say more boys (3,511 students, 58.2 percent) than girls (2,519 students, 41.8 percent) passed Form IV examinations in those three years. The proportion of failures (those who scored Division Zero) was higher for girls (3,447 students, 57.8 percent) than for boys (2,741 students, 43.8 percent).

Table 5. 43: Students Performance in Form VI Examinations in Public Secondary Schools by Sex, Mufindi District; 2010 – 2012

Division	2010			2011			2012			District Total			Percentage
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
I	28	0	28	13	9	22	18	2	20	59	11	70	0.6
II	62	11	73	100	45	145	68	7	75	230	63	293	2.4
III	153	53	206	205	104	309	138	34	175	496	191	687	5.6
IV	886	734	1620	993	632	1625	847	888	1335	2726	2254	4980	40.8
0	728	920	1648	916	1034	1950	1097	1493	2590	2741	3447	6188	50.6
Total	1857	1718	3575	2227	1824	4051	2168	2424	4592	6252	5566	12,216	100.0
Percent	51.9	48.06	100	55.0	45.0	100	47.2	52.8	100	51.2	48.8	100	

Table 5.43a shows pass rate for form VI students. The pass rate was dominated by Division III which was scored by 622 students' equivalent to 43.5 percent of total students who sat for the examinations in all three years given in Table 5.43. It was followed by Division II (491 students, 34.3 percent), Division I (236 students, 16.5 percent), Division IV (57 students, 4 percent) and division zero was the least (25 students, 1.7 percent). Overall, the pass rate for girls (99.5 percent) was higher than that of boys (92.3 percent).

Table 5.43 a: Students Performance in Form VI Examinations in Public Secondary Schools by Sex, Mufindi District; 2010 – 2012

Division	2010			2011			2012			District Total			Percentage
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
I	122	5	127	58	17	75	12	22	34	192	44	236	16.5
II	116	28	144	107	48	155	122	70	192	345	146	491	34.3
III	73	34	107	170	77	247	174	94	268	417	205	622	43.5
IV	0	0	0	13	8	21	26	10	36	39	18	57	4.0
0	0	0	0	6	1	7	17	1	18	23	2	25	1.7
Total	311	67	378	354	151	505	351	197	548	1016	415	1431	100.0

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2.3.2 Quantity and State of School Facilities

The most common facilities in secondary schools are classrooms, toilets, staff quarters, libraries, laboratories, dormitories, desks and teachers. However, the following discussion only aims at indicating quantitative adequacy of the facilities in the district.

i) Teachers

According to Table 5.44, in year 2012 Mufindi District had a deficit of 288 teachers or 30.2 percent of requirements. Of the wards, Igowole had the most deficit at 12 teachers (63.2 percent). Boma, Itandula and Mtwango wards had no deficit of teachers. In terms of Students Teachers Ratio (STR) the country's standard is that one teacher should teach a classroom of 45 students. Hence, with STR of 1:79 Ihanu ward was the most out of standard.

Table 5. 44: Availability of Public Secondary School Teachers by Ward, Mufindi District; 2012

Ward	Number of students	Required Teachers	Available Teachers	Deficit of Teachers	Pecent of Deficit of Teachers	Students Teachers Ratio
Boma	1407	61	71	-10	-16.4	1:20
Bumilayinga	224	19	17	2	10.5	1:13
Idunda	293	18	7	11	61.1	1:42
Ifwagi	913	41	29	12	29.3	1:32
Igombavanu	430	20	16	4	20.0	1:27
Igowole	1354	70	35	35	50.0	1:39
Ihalimba	619	29	14	15	51.7	1:44
Ihanu	551	18	7	11	61.1	1:79
Ihowanza	377	19	7	12	63.2	1:54
Ikweha	512	23	14	9	39.1	1:37
Isalavanu	416	36	14	22	61.1	1:30
Itandula	897	14	14	0	0.0	1:64
Kasanga	446	18	16	2	11.1	1:28
Kibengu	900	41	27	14	34.1	1:33
Kinyanambo	636	28	17	11	39.3	1:37
Kiyowela	324	17	12	5	29.4	1:27
Luhunga	611	20	12	8	40.0	1:51
Makungu	898	38	28	10	26.3	1:32
Malangali	925	75	49	26	34.7	1:19

Table 5. 44 (ctd): Availability of Public Secondary School Teachers by Ward, Mufindi District; 2012

Ward	Number of students	Required Teachers	Available Teachers	Deficit of Teachers	Pecent of Deficit of Teachers	Students Teachers Ratio
Mapanda	498	18	11	7	38.9	1:45
Mbalamaziwa	516	21	19	2	9.5	1:27
Mdabulo	873	30	23	7	23.3	1:38
Mninga	877	52	31	21	40.4	1:28
Mtambula	473	20	16	4	20.0	1:30
Mtwango	1100	30	30	0	0.0	1:37
Nyololo	778	31	28	3	9.7	1:28
Sadani	927	49	44	5	10.2	1:21
Sao hill	1374	56	44	12	21.4	1:31
Rungemba	314	43	15	28	65.1	1:21
Mpanga	-	-	-	-	-	-
Tazara	-	-	-	-	-	-
Total	20463	955	667	288	30.2	1:31

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

A look on Table 5.45 shows that out of 806 public secondary school teachers which the District had in 2012, teachers holding diplomas were the leading at 397 teachers or 49.3 percent of total teachers. The proportions of the remaining qualification were as follows; certificates holders (20 teachers, 2.5 percent of the total teachers), degree holders (387 teachers, 48 percent) and masters holders (2 teachers, 0.2 percent). At ward level, secondary schools in Boma ward were the most privileged by having the largest number of teachers. Kinyanambo was the only ward having a teacher holding masters degree by the year 2012 in Mufindi District.

Table 5. 45: Availability of Public Secondary School Teachers by Qualification and by Ward, Mufindi District; 2012

Ward	Number of Teachers with					Total	Percent of Teachers
	Certificate	Diploma	Degree	Masters	Others		
Boma	1	26	45	0	0	72	8.9
Kinyanambo	1	17	13	1	0	32	4.0
Sao hill	0	16	28	1	0	45	5.6
Rungemba	1	5	16	0	0	22	2.7
Ifwagi	2	17	17	0	0	36	4.5
Mdabulo	1	5	17	0	0	23	2.9
Luhunga	0	11	6	0	0	17	2.1
Ihanu	0	6	2	0	0	8	1.0
Mtwango	0	23	15	0	0	38	4.7
Kibengu	0	18	12	0	0	30	3.7
Ihalimba	0	13	3	0	0	16	2.0
Mapanda	1	6	6	0	0	13	1.6
Malangali	0	26	42	0	0	68	8.4
Nyololo	0	23	15	0	0	38	4.7
Idunda	0	8	3	0	0	11	1.4
Ihowanza	0	7	4	0	0	11	1.4
Bumilayinga	2	9	8	0	0	19	2.4
Mbalamaziwa	2	13	9	0	0	24	3.0
Kasanga	0	11	5	0	0	16	2.0
Mtambula	1	6	9	0	0	16	2.0
Makungu	1	18	22	0	0	41	5.1
Igowole	0	21	29	0	0	50	6.2
Kiyowela	0	9	4	0	0	13	1.6
Mninga	1	17	17	0	0	35	4.3
Itandula	1	7	10	0	0	18	2.2
Mpanga Tazara	0	0	0	0	0	0	0.0
Sadani	0	21	24	0	0	45	5.6
Isalavanu	3	13	1	0	0	17	2.1
Igombavanu	1	12	2	0	0	15	1.9
Ikweha	1	13	3	0	0	17	2.1
Total	20	397	387	2	0	806	100.0
Percent	2.5	49.3	48.0	0.2	0.0	100.0	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Students majoring in science subjects in the country are few than those taking arts subjects. Among other factors, this is caused by inadequate number of teachers for science subjects. Shortage of these teachers cause students taking science subjects in some secondary schools especially in rural areas stay long without being taught. The shortage of science teachers in Mufindi is evidenced in Table 5.45a. Out of the total of 806 secondary schools teachers only 150 or 18.6 percent were science teachers. The majority of teachers (656 teachers, 81.4 percent) were teaching arts subjects. Secondary schools in Sadani ward were leading in number of science teachers at 14, followed by Boma and Nyololo wards (each with 11 science teachers) and Mtwango (10 science teachers). Secondary schools in Ihanu and Itandula wards each with one science teacher had the smallest number of those teachers.

Table 5.45 a: Number of Science and Arts Teachers in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	Number of Teachers		Total	Percent of Science Teachers
	Teaching Science subjects	Teaching Arts subjects		
Boma	11	61	72	15.3
Kinyanambo	5	27	32	15.6
Sao hill	8	38	45	17.4
Rungemba	2	20	22	9.1
Ifwagi	5	31	36	13.9
Mdabulo	3	20	23	13.0
Luhunga	3	14	17	17.6
Ihanu	1	7	8	12.5
Mtwango	10	28	38	26.3
Kibengu	6	24	30	20.0
Ihalimba	4	12	16	25.0
Mapanda	4	9	13	30.8
Malangali	8	60	68	11.8
Nyololo	11	27	38	28.9
Idunda	4	7	11	36.4
Ihowanza	2	9	11	18.2

Table 5.45a (ctd): Number of Science and Arts Teachers in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	Number of Teachers		Total	Percent of Science Teachers
	Teaching Science subjects	Teaching Arts subjects		
Bumilayinga	4	15	19	21.1
Mbalamaziwa	5	19	24	20.8
Kasanga	5	11	16	31.3
Mtambula	2	14	16	12.5
Makungu	3	38	41	7.3
Igowole	7	43	50	14.0
Kiyowela	3	10	13	23.1
Mninga	8	27	35	22.9
Itandula	1	17	18	5.6
Mpanga		0	0	0.0
Tazara				
Sadani	14	31	45	31.1
Isalavanu	3	14	17	17.6
Igombavanu	3	12	15	20.0
Ikweha	5	12	17	29.4
District- Total	150	656	806	18.6
Percentage	18.6	81.4	100.0	

ii) Administration blocks

Administration blocks give teachers a place they can prepare themselves before going to teach. Hence, availability of administration blocks is important for provision of quality education. Table 5.46 shows that in 2012 Mufindi District had a total of 41 public secondary schools. Among them, only nine schools (22 percent) had administration blocks. The remaining 32 or 78 percent of all secondary schools had no administration blocks.

Table 5. 46: Availability of Administration Blocks in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	No. of Public Sec. Schools with Administration Blocks	No. of Public Sec. schools without Administration blocks	Total no. of Public Secondary Schools (With and without Administration Blocks)	Percent of Public Sec. Schools with Administration Blocks
Boma	0	2	2	0
Kinyanambo	0	1	1	0
Sao hill	1	1	2	50
Rungemba	0	1	1	0
Ifwagi	0	2	2	0
Mdabulo	0	1	1	0
Luhunga	0	1	1	0
Ihanu	0	1	1	0
Mtwango	2	0	2	100
Kibengu	0	2	2	0
Ihalimba	0	1	1	0
Mapanda	0	1	1	0
Malangali	1	2	3	33.3
Nyololo	0	2	2	0
Idunda	0	1	1	0
Ihowanza	0	1	1	0
Bumilayinga	0	1	1	0
Mbalamaziwa	1	0	1	100
Kasanga	0	1	1	0
Mtambula	0	1	1	0
Makungu	0	2	2	0
Igowole	0	2	2	0
Kiyowela	0	1	1	0
Mninga	1	1	2	50
Itandula	0	1	1	0
Mpanga Tazara	0	0	0	0
Sadani	1	1	2	50
Isalavanu		1	1	0
Igombavanu	1	0	1	100
Ikweha	1	0	1	100
Total	9	32	41	22.0
Percentage	22.0	78.0	100.0	

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

iii) Staff Quarters

Teachers' houses are important for teachers' welfare, school security and general efficiency of school services by enabling teachers to be on site. Table 5.47 shows that in 2012 there were only 149 teachers' houses in the district leaving a substantial deficit of 600 or 80.1 percent deficit from the required 749 houses. All wards had large deficits ranging from 5.2 percent in Mapanda to 83.1 percent in Boma ward. Boma being the most urban ward and the headquarters of the district council had the largest number of secondary school teachers houses (72). The ward had the biggest deficit of 64 houses or 10.7 percent of the district's deficit of 600 houses (Table 5.47).

Table 5. 47: Availability of Teachers Houses in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	No. of Schools	Number of Houses			Percent Deficit
		Required	Available	Deficit	
Boma	2	77	13	64	83.1
Bumilayinga	1	23	2	21	27.3
Idunda	1	18	3	15	19.5
Ifwagi	2	33	6	27	35.1
Igombavanu	1	18	4	14	18.2
Igowole	2	46	4	42	54.5
Ihalimba	1	20	4	16	20.8
Ihanu	1	18	4	14	18.2
Ihowanza	1	10	3	7	9.1
Ikweha	1	15	6	9	11.7
Isalavanu	1	20	4	16	20.8
Itandula	1	24	9	15	19.5
Kasanga	1	16	3	13	16.9
Kibengu	2	30	10	20	26.0
Kinyanambo	1	27	0	27	35.1
Kiyowela	1	12	2	10	13.0
Luhunga	1	10	5	5	6.5
Makungu	2	35	5	30	39.0
Malangali	3	45	8	37	48.1

Table 5. 47 (ctd): Availability of Teachers Houses in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	No. of Schools	Number of Houses			Percent Deficit
		Required	Available	Deficit	
Mapanda	1	8	4	4	5.2
Mbalamaziwa	1	12	2	10	13.0
Mdabulo	1	30	10	20	26.0
Mninga	2	29	3	26	33.8
Mtambula	1	20	3	17	22.1
Mtwango	2	49	11	38	49.4
Nyololo	2	35	5	30	39.0
Sadani	2	46	14	32	41.6
Sao hill	2	23	2	21	27.3
Rugemba	-	-	-	-	-
Mpanga Tazara	-	-	-	-	-
Total	41	749	149	600	80.1

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

iv) Classrooms

Number of classrooms which were required to serve a total of 20,463 public secondary schools students in the year 2012 was 680. With only 592 classrooms, the district had a deficit of 88 classrooms or 12.9 percent of the requirement (Table 5.48). The Table also shows the deficit of classrooms among wards. The percent deficit ranges 2.2 percent in Ihowanza ward from to 39.1 percent in Malangali ward.

The national standard of students' classroom ratio is one classroom per 45 students (i.e SCR of 1:45). With students classroom ratio of 1:35 (i.e SCR of 1:35), the District adhered to the standard and hence no classroom shortage at district level. However, at ward level, the recommended SCR was not met in Itandula with SCR of 1:64 and Mdabulo ward with SCR of 1:55.

Table 5. 48: Availability of Classrooms in Public Secondary Schools by Ward, Urambo District; 2011

Ward	No. of students	Number of Classroom			Percent Deficit	Students Classroom Ratio
		Required	Available	Deficit		
Boma	1407	46	44	2	4.3	32
Bumilayinga	224	16	14	2	4.3	16
Idunda	293	16	13	3	6.5	23
Ifwagi	913	32	28	4	8.7	33
Igombavanu	430	18	14	4	8.7	31
Igowole	1354	41	30	11	23.9	45
Ihalimba	619	16	16	0	0.0	39
Ihanu	551	16	16	0	0.0	34
Ihowanza	377	16	15	1	2.2	25
Ikweha	512	16	14	2	4.3	37
Isalavanu	416	16	14	2	4.3	30
Itandula	897	16	14	2	4.3	64
Kasanga	446	16	16	0	0.0	28
Kibengu	900	32	24	8	17.4	38
Kinyanambo	636	16	15	1	2.2	42
Kiyowela	324	16	16	0	0.0	20
Luhunga	611	16	16	0	0.0	38
Makungu	898	32	32	0	0.0	28
Malangali	925	56	38	18	39.1	24
Mapanda	498	16	13	3	6.5	38
Mbalamaziwa	516	16	16	0	0.0	32
Mdabulo	873	20	16	4	8.7	55
Mninga	877	32	30	2	4.3	29
Mtambula	473	16	18	-2	-4.3	26
Mtwango	1100	32	32	0	0.0	34
Nyololo	778	28	20	8	17.4	39
Sadani	927	34	27	7	15.2	34
Sao hill	1374	37	31	6	13.0	44
Rungemba	314	-	-	-	-	-
Mpanga Tazara Total	20463	680	592	88	12.9	35

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

v) Pit Latrines

Secondary schools in the Mufindi District required 1,087 pitlatrines in 2012 but only 846 were available leaving a shortage of 241 pitlatrines (24 percent deficit) (Table 5.49). The Table further shows that the magnitude of deficit differs among the wards, with some wards having no deficits. Wards which had no pitlatrines deficit were Kinyanamba, Ihalimba, Idunda, Mtambula, Kiyowela, Nyololo, Mbalamaziwa, Itandula and Isalavanu. Moreover, National Standard Students Pitlatrine Ratios (SPR) is that, for boys, one pitlatrine should serve 25 students and for girls one pitlatrine have to serve 20 students. Because in the Table 5.49 the numbers of students are not given by sex it is not possible to calculate the SPR based on the sex of students. Therefore, Table 5.49 gives a rough picture of the pitlatrine situation among secondary schools in Mufindi District.

Table 5. 49: Availability of PitLatrine in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	Required Pitlatrines	Available Pitlatrines	Total Students	Deficit of Pitlatrines	Percent Deficit	Students Pitlatrines Ratio
Boma	114	72	1407	42	36.8	20
Kinyanambo	28	30	636	-2	-7.1	21
Sao hill	68	48	1374	20	29.4	29
Rungemba	29	8	314	21	72.4	39
Ifwagi	51	40	913	11	21.6	23
Mdabulo	38	32	873	6	15.8	27
Luhunga	24	16	611	8	33.3	38
Ihanu	32	26	551	6	18.8	21
Mtwango	47	40	1100	7	14.9	28
Kibengu	37	32	900	5	13.5	28
Ihalimba	-	-	619	0	0.0	0
Mapanda	32	14	498	18	56.3	36
Malangali	79	60	925	19	24.1	15
Nyololo	62	62	778	0	0.0	13
Idunda	14	15	293	-1	-7.1	20
Ihowanza	18	12	377	6	33.3	31
Bumilayinga	17	13	224	4	23.5	17

Table 5. 49 (ctd): Availability of PitLatrine in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	Required Pitlatrines	Available Pitlatrines	Total Students	Deficit of Pitlatrines	Percent Deficit	Students Pitlatrines Ratio
Mbalamaziwa	22	22	516	0	0.0	23
Kasanga	32	20	446	12	37.5	22
Mtambula	19	31	473	-12	-63.2	15
Makungu	37	22	898	15	40.5	41
Igowole	80	58	1354	22	27.5	23
Kiyowela	14	16	324	-2	-14.3	20
Mninga	38	36	877	2	5.3	24
Itandula	25	25	897	0	0.0	36
Mpanga	0	0	0	0	0.0	0
Tazara						
Sadani	56	42	927	14	25.0	22
Isalavanu	24	24	416	0	0.0	17
Igombavanu	26	12	430	14	53.8	36
Ikweha	24	18	512	6	25.0	28
Total	1087	846	20463	241	22.2	24

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

vii) Dormitories

The availability of dormitories help students to solve the problem of walking long distances, give students enough time for self study, reduces truancy as well as help to reduce girls students drop outs due to pregnancies. Table 5.50, shows that in 2012 there were, in Mufindi District only 40 dormitories for public secondary schools leaving a substantial deficit of 63 or 61.2 percent deficit from the requirement of 103 dormitories. All wards had large deficits of dormitories in public schools secondary ranging from 25 percent for Kibengu to 100 percent (biggest deficit) for Luhunga, Mtwango, Ikweha, Kiyowela, Rungemba, Ihanu, Igombavanu, Idunda, Mninga, Ihowanza, Ifwagi, Mtambula and Kasanga wards. Table 5.50 also shows that Mdabulo was the only ward which had the required number of dormitories for its public secondary schools.

Table 5. 50 : Availability of Dormitories in Public Secondary Schools by Ward; Mufindi District; 2012

Ward	Number of Dormitories			Percent of Deficit
	Required	Available	Deficit	
Boma	10	5	5	50
Saohill	8	2	6	75
Bumilayinga	4	1	3	75
Malangali	10	8	2	20
Sadani	6	3	3	50
Mdabulo	5	5	0	0
Nyololo	4	2	2	50
Igowole	8	4	4	50
Ihalimba	2	1	1	50
Makungu	4	2	2	50
Kibengu	4	3	1	25
Itandula	4	2	2	50
Luhunga	2	0	2	100
Mtwango	4	0	4	100
Ikweha	2	0	2	100
Kiyowela	2	0	2	100
Rungemba	2	0	2	100
Ihanu	2	0	2	100
Igombavanu	2	0	2	100
Idunda	2	0	2	100
Isalavanu	2	1	1	50
Mninga	2	0	2	100
Ihowanza	2	0	2	100
Ifwagi	4	0	4	100
Mtambula	2	0	2	100
Mapanda	2	1	1	50
Kasanga	2	0	2	100
Kinyanamba				
Mbalamaziwa	-	-	-	-
Mpanga Tazara	-	-	-	-
Total	103	40	63	61.2

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

viii) Libraries

The library facility is considered essential but not crucial for the development of knowledge and skills of a student. According to the standards set by the Ministry of Education and Vocation Training, every secondary school should have a library to enable students borrow and use supplementary books besides textbooks. Table 5.51 shows that the seven (7) libraries which the District had in 2012 left a deficit of 36 libraries. Percent deficit by ward ranges from 50 percent to 100 percent. Wards with 50 percent deficit had less intensity of the library shortage compared to those with 100 percent. Igowole, Kibengu, Makungu, Malangali, Sadani and Saohill were the wards with less intensity library shortage.

Table 5. 51: Availability of Libraries in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	No. of Schools	Number of Libraries			Percent of Deficit
		Required	Available	Deficit	
Boma	2	3	0	3	100
Bumilayinga	1	1	0	1	100
Idunda	1	1	0	1	100
Ifwagi	2	2	0	2	100
Igombavanu	1	1	0	1	100
Igowole	2	2	1	1	50
Ihalimba	1	1	0	1	100
Ihanu	1	1	0	1	100
Ihowanza	1	1	0	1	100
Ikweha	1	1	0	1	100
Isalavanu	1	1	0	1	100
Itandula	1	1	0	1	100
Kasanga	1	1	0	1	100
Kibengu	2	2	1	1	50
Kinyanambo	1	1	0	1	100
Kiyowela	1	1	0	1	100
Luhunga	1	1	0	1	100
Makungu	2	2	1	1	50
Malangali	3	4	2	2	50

Table 5. 51 (ctd): Availability of Libraries in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	No. of Schools	Number of Libraries			Percent of Deficit
		Required	Available	Deficit	
Mapanda	1	1	0	1	100
Mbalamaziwa	1	1	0	1	100
Mdabulo	1	1	0	1	100
Mninga	2	2	0	2	100
Mtambula	1	1	0	1	100
Mtwango	2	3	0	3	100
Nyololo	2	2	0	2	100
Sadani	2	2	1	1	50
Sao hill	2	2	1	1	50
Mpanga Tazara	-	-	-	-	-
Rugemba	-	-	-	-	-
Total	41	43	7	36	83.7

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

ix) Desks

Being endowed with abundant trees, the District Council requires each student's parent/guardian to have a table and chair made for the students. . Because of cheapness of the sold woods and also tendency of many families to own trees farms; most of the parents/guardians willingly provide their children/students with chairs and tables. This enabled each student to use his/her own chair and table. Hence, Table 5.52 shows a student (chair and table) ratio of 1:1. The Table further shows that some wards had secondary schools with surplus chairs and tables. Those with negative deficit had surplus. MpangaTazara had no secondary school.

Table 5. 52 : Availability of Chairs and Tables in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	Required Chairs and Tables	Available Chairs and Tables	Total Students	Deficit of Chairs and Tables	Ratio of Student with Available (Chairs and Tables)
Boma	1407	1606	1407	-199	1.1
Kinyanambo	636	606	636	30	1.0
Sao hill	1374	1463	1374	-89	1.1
Rungemba	314	321	314	-7	1.0
Ifwagi	913	888	913	25	1.0
Mdabulo	873	870	873	3	1.0
Luhunga	611	329	611	282	0.5
Ihanu	551	616	551	-65	1.1
Mtwango	1100	1273	1100	-173	1.2
Kibengu	900	810	900	90	0.9
Ihalimba	619	570	619	49	0.9
Mapanda	498	509	498	-11	1.0
Malangali	925	1298	925	-373	1.4
Nyololo	778	795	778	-17	1.0
Idunda	293	480	293	-187	1.6
Ihowanza	377	390	377	-13	1.0
Bumilayinga	224	361	224	-137	1.6
Mbalamaziwa	516	635	516	-119	1.2
Kasanga	446	536	446	-90	1.2
Mtambula	473	641	473	-168	1.4
Makungu	898	900	898	-2	1.0
Igowole	1354	1282	1354	72	0.9
Kiyowela	324	520	324	-196	1.6
Mninga	877	1208	877	-331	1.4
Itandula	897	710	897	187	0.8
Mpanga Tazara	-	-	-	-	-
Sadani	927	1142	927	-215	1.2
Isalavanu	416	610	416	-194	1.5
Igombavanu	430	476	430	-46	1.1
Ikweha	512	492	512	20	1.0
Total	20463	22337	20463	-1874	1.1

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

x) Laboratories

A laboratory is a necessary facility for students majoring in science subjects. The directive by the Government is for each school to have at least three laboratories for physics, chemistry and biology subjects. Table 5.53 presents the situation that in 2012 only ten (10) laboratories were available in the district leaving a deficit of 122 laboratories or 91.8 percent deficit. Secondary schools in Malangali by having a total of four laboratories (60 percent deficit) were better off than the remaining wards. Secondary schools in Igowole and Sadani wards each with 66.7 percent deficit somehow managed to reduce the intensity of laboratory deficit followed by Makungu and Mtwango each with a 83.3 percent deficit. The rest of the wards had no laboratories at all.

Table 5. 53: Availability of Laboratories in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	No. of Schools	Number of Laboratories			Percent of Deficit
		Required	Available	Deficit	
Boma	2	7	0	7	100
Bumilayinga	1	3	0	3	100
Idunda	1	3	0	3	100
Ifwagi	2	6	0	6	100
Igombavanu	1	3	0	3	100
Igowole	2	6	2	4	66.7
Ihalimba	1	3	0	3	100
Ihanu	1	3	0	3	100
Ihowanza	1	3	0	3	100
Ikweha	1	3	0	3	100
Isalavanu	1	3	0	3	100
Itandula	1	3	0	3	100
Kasanga	1	3	0	3	100
Kibengu	2	7	0	7	100
Kinyanambo	1	3	0	3	100
Kiyowela	1	3	0	3	100
Luhunga	1	1	0	1	100
Makungu	2	6	1	5	83.3

Table 5. 53 (ctd): Availability of Laboratories in Public Secondary Schools by Ward, Mufindi District; 2012

Ward	No. of Schools	Number of Laboratories			Percent of Deficit
		Required	Available	Deficit	
Malangali	3	10	4	6	60
Mapanda	1	3	0	3	100
Mbalamaziwa	1	3	0	3	100
Mdabulo	1	4	0	4	100
Mninga	2	6	0	6	100
Mtambula	1	3	0	3	100
Mtwango	2	6	1	5	83.3
Nyololo	2	6	0	6	100
Sadani	2	6	2	4	66.7
Sao hill	2	6	0	6	100
Mpanga Tazara	-	-	-	-	-
Rugemba	-	-	-	-	-
Total	41	122	10	112	91.8

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

xi) Electricity

Table 5:54 shows the source of electric power in public secondary schools in Mufindi District. Solar power continues to be a dependable source of electricity especially in areas where electricity is unreliable. Table 5.54 shows that, out of 28 public secondary schools which had access to electricity in 2012, 16 (57.1 percent of total secondary schools having electricity) got electricity from solar power. National grid ranked second by supplying electricity to 10 schools. Furthermore, there were only two (7.1 percent) secondary schools, one in Malangali ward and the other one in Mtambula ward depended on generators as a source of electricity.

Table 5. 54 : Availability of Electricity Power in Public Secondary Schools by Ward and Type of Power, Mufindi District; 2012

Ward	National Grid	Biogas	Solar Power	Generator	Other Sources	Total
Boma	1					1
Kinyanambo						
Sao hill	2					2
Rungemba			1			1
Ifwagi						
Mdabulo	1					1
Luhunga	1					1
Ihanu	1					1
Mtwango	1					1
Kibengu	1					1
Ihalimba			1			1
Mapanda			1			1
Malangali			1	1		2
Nyololo			2			2
Idunda			1			1
Ihowanza						
Bumilayinga			1			1
Mbalamaziwa			1			1
Kasanga						
Mtambula				1		1
Makungu	1					1
Igowole	1		1			2
Kiyowela						
Mninga						
Itandula			1			1
Mpanga Tazara						
Sadani			2			2
Isalavanu			1			1
Igombavanu			1			1
Ikweha			1			1
Total	10		16	2		28
Percent	35.7	0.0	57.1	7.1	0.0	100.0

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2.4 Adult Education

Along with the expansion of primary and secondary education, the district has also expanded adult education using primary schools as centres. Other premises owned by the Government or volunteered by community members at village and ward level, sometimes have been used to accommodate excessive adult learners. The Education Department in Mufindi District Council is the in-charge of adult education campaigns through MUKEJA and MEMKWA programs. Table 5.55 shows that in 2011 and 2012 the District had 172 and 176 centres for MUKEJA and MEMKWA adult education programmes. There is a very big difference between the number of students enrolled in the two programs. Mujeja students were 28,943 in 2011 and 30,277 in 2012 while those of MEMKWA were an insignificant (2) in 2011 and one in 2012. Moreover, the District Council should have regular sensitization campaigns for sustainability of the two programs especially MEMKWA which had insignificant number of students.

Table 5. 55 : Number of Adult Education Centers and Enrolments by Ward, Mufindi District; 2011 and 2012

Ward	Number of Centres*		MUKEJA Centres Enrolment		MEMKWA Enrolment	
	2011	2012	2011	2012	2011	2012
Boma	5	6	32	22	0	0
Bumilayinga	4	4	300	318	0	0
Idunda	3	3	0	0	0	0
Ifwagi	11	11	26	24	0	0
Igombavanu	6	6	296	308	0	0
Igowole	5	5	390	424	0	0
Ihalimba	6	6	0	0	0	0
Ihanu	6	6	990	982	0	0
Ihowanza	4	4	4230	4560	0	0
Ikweha	4	4	0	0	0	0
Isalavanu	5	6	321	302	0	0
Itandula	6	6	152	174	0	0
Kasanga	4	4	342	332	0	0
Kibengu	9	9	1120	1062	0	0

Table 5. 55 (ctd): Number of Adult Education Centers and Enrolments by Ward, Mufindi District; 2011 and 2012

Ward	Number of Centres*		MUKEJA Centres Enrolment		MEMKWA Enrolment	
	2011	2012	2011	2012	2011	2012
Kinyanambo	5	5	4	10	0	0
Kiyowela	6	6	5629	5482	0	0
Luhunga	6	6	5632	6201	0	0
Makungu	6	6	89	73	0	0
Malangali	4	4	714	816	0	0
Mapanda	7	7	54	98	0	0
Mbalamaziwa	7	7	1300	1095	0	0
Mdabulo	6	6	790	867	2	1
Mninga	9	9	0	0	0	0
MpangaTazara	1	1	0	0	0	0
Mtambula	5	5	63	45	0	0
Mtwango	10	10	921	1062	0	0
Nyololo	8	9	4587	5047	0	0
Rungemba	3	3	60	87	0	0
Sadani	5	5	901	886	0	0
Saohill	6	7	0	0	0	0
Total	172	176	28943	30277	2	1

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

=for both MUKEJA and MEMKWA

5.2.5 Special Education

The issue of disability has of late gained recognition worldwide. This is due to the fact that the level of disability appears to be on the increase in most societies. Hence, it is important to prepare programmes for the disabled pupils to get special education according to their type of impairment. Table 5.56 shows that in 2012 the District had 59 disabled pupils in primary schools and 37 in secondary schools. More disabled boys than girls were enrolled in both primary and secondary schools. Table 5.56 shows that, in 2012, 32 disabled boys and 27 disabled girls were enrolled in primary schools while in secondary schools it was 37 boys but no girls. Most of the enrolled disabled pupils in primary schools had intellectual impairment (37), followed by visual impairment (21) and there was only one handicap ped pupil. Most of the disabled/impaired students in secondary

schools (32) were deaf followed by the hand capped (3) and visual impaired students (2). There were no disabled girls in secondary schools. On the other hand, the lower numbers of impaired girls than boys in both primary and secondary schools might indicate that there are parents/guardians who don't want to send their impaired children especially girls to school. Hence, awareness campaigns on the importance of educating impaired children are essential. Nevertheless, sometimes the cost of educating children with disability is higher than unimpaired ones. It would be helpful to parents and disabled children if the Government would consider abandoning fees for pupils and students with disability from primary school to higher education institutions. This may significantly increase the number of disabled pupils/students from primary school to university level.

Table 5. 56: Number of Pupils/Students Enrolled by Type of Impairment; Mufindi District; 2012

Type of Impairment	Number of Pupils Enrolled					
	Primary Schools			Secondary Schools		
	Boys	Girls	Total	Boys	Girls	Total
Visual impairment	11	10	21	2	0	2
Intellectual impairment	20	17	37	0	0	0
Handicap	1	0	1	3	0	3
Deaf	0	0	0	32	0	32
Total	32	27	59	37	0	37
Percentage	54.2	45.8	100.0	100	0	100

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2.6 Colleges and Vocation Training Centres/Schools

Vocational training is important in preparing youths for employment including self employment. Youth participation in production can help fight against income poverty and also contribute significantly to Mufindi District economy. In 2012, Mufindi had four colleges offering a range of courses (Table 5.57). Of the three colleges, Rungemba is the best known and oldest college and had the largest number of students being 250 in 2009/10, 380 in 2010/11 and 480 in 2011/12. On the other hand; Mufindi District has only one vocational training centre located in Boma ward (Table 5.57a). Students at the center increased from 136 in 2009/10 to 204 in 2011/12.

Table 5. 57: List of colleges available in Mufindi District; 2012

Ward	Name of College	Number of Students								
		2009/10			2010/11			2011/12		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Rungemba	Rungemba Community Development Institute	0	250	250	0	380	380	0	480	480
Boma	Mafinga Clinical officer Training centre	35	13	48	39	17	56	34	17	51
Sao hill	Consolata Teachers Training College	21	9	30	38	18	56	25	12	37

Source: District Executive Director's Office (Education Department), Mufindi District, 2013

Table 5.57 a: Vocational Training Centers by Ward, Mufindi District, 2012

Ward	Name of Centre	Number of Students								
		2009/10			2010/11			2011/12		
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Boma	Mafinga Vocation Training Center	128	8	136	158	18	176	164	40	204

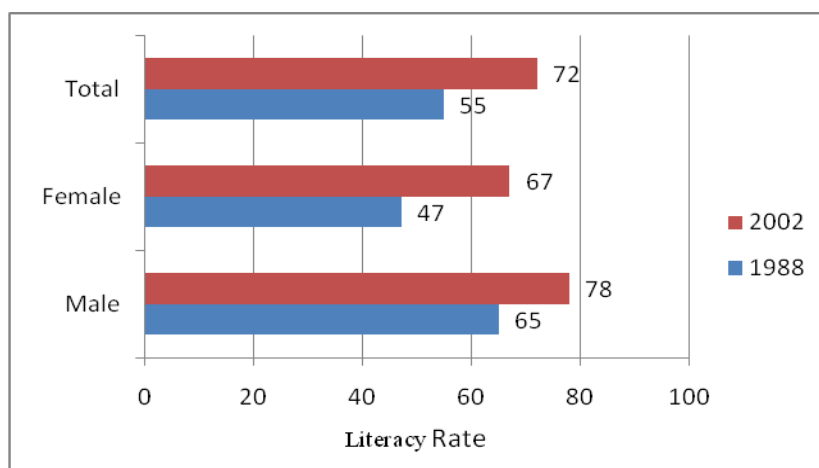
Source: District Executive Director's Office (Education Department), Mufindi District, 2013

5.2.7 Literacy Rate

Literacy is the ability to read and write with understanding a short simple statement on everyday life. It excludes the ability to only write or sign one's own name or write memorized phrases. The ability to read and write may be in any language. There was a significant improvement in the literacy rate in Mufindi District between 1988 and 2002. Tables 5.58 and 5.58a show that in 1988, 55 percent of the population aged 5 years and above was literate while in 2002 the proportion of literacy was 72 percent. Literacy rate was highest for those aged 15 to 19 years in both 1988 (90 percent) and 2002(91 percent). In regard to gender, the literacy rate was lower among the female population than among the male

population In 1988 the literacy rate was 47 percent for females compared to 65 percent for males while in 2002 it was 67 percent for females and 78 percent for males (Figure 38).

Figure 38: Comparison of Literacy Rates by Sex, Mufindi District; 1988 and 2002



Source: 1988 and 2002 Population and Housing Census Report, Mufindi District

Distribution of literacy by age shows the improvement in education sector since the colonial period. Table 5.58 shows that the literacy rates are skewed towards the young population of which the highest rate recorded was 90 percent (15-19 years) before declining gradually towards the old age. The lowest literacy rate (15 percent) recorded is for those aged 80 years and above. Table 5.58a shows that in 2002 the literacy rates are also skewed towards the young age, of which the highest rate recorded was 91 percent of 15-19 years age group before declining gradually towards the old age. The lowest literacy rate (20 percent) recorded is for those aged 80 years and above.

Table 5. 58: Distribution of Population by Age Group, Literacy and Sex, Mufindi District; 1988

Age Group	Population			Literate			Literacy Rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
5 – 9	18952	19344	38296	2472	2903	5375	13	15	14
10 – 14	15866	16451	32317	12613	13548	26161	79	82	81
15 – 19	12118	13051	25169	11121	11497	22618	92	88	90
20 – 24	8345	11364	19709	7790	9110	16900	93	80	86
25 – 29	7458	10573	18031	6617	5121	11738	89	48	65
30 – 34	5155	6995	12150	4291	2541	6832	83	36	56
35 – 39	4414	5768	10182	3425	1686	5111	78	29	50
40 – 44	2773	3875	6648	2013	730	2743	73	19	41
45 – 49	2870	3721	6591	1968	506	2474	69	14	38
50 – 54	2097	3140	5237	1286	311	1597	61	10	30
55 – 59	1862	2222	4084	1051	161	1212	56	7	30
60 – 64	1410	2062	3472	606	114	720	43	6	21
65 – 69	1261	1189	2450	603	62	665	48	5	27
70 – 74	828	1136	1964	292	35	327	35	3	17
75 – 79	615	558	1173	232	2	234	38	0	20
80+	1078	980	2058	299	18	317	28	2	15
Not stated	165	194	359	44	18	62	27	9	17
Total	87267	102623	189890	56723	48363	10508	65	47	55

Source: 1988 Population and Housing Census

Table 5.58 a: Distribution of Population by Age Groups, Literacy and Sex, Mufindi District; 2002

Age Group	Population			Literate			Literacy Rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
5 – 9	22101	23494	45595	8802	10189	18991	40	43	42
10 – 14	21033	20367	41400	18808	18623	37431	89	91	90
15 – 19	13730	12205	25935	12631	10864	23495	93	89	91
20 – 24	9369	13548	22917	8621	11865	20846	93	88	89
25 – 29	9324	12424	21748	8626	10734	19360	93	86	89
30 – 34	7005	9380	16385	6499	7862	14361	93	84	88
35 – 39	5947	7387	13334	5449	5228	10677	92	71	80
40 – 44	4345	5458	9803	3854	2619	6473	89	48	66
45 – 49	3591	4614	8205	3154	1869	5023	88	41	61
50 – 54	2843	4366	7209	2244	1424	3668	79	33	51
55 – 59	2019	2951	4970	1447	805	2252	72	27	45
60 – 64	2089	2500	4589	1397	452	1849	67	18	40
65 – 69	1490	2126	3616	902	339	1241	61	16	34
70 – 74	1178	1693	2871	656	179	835	56	11	29
75 – 79	760	970	1730	367	90	457	48	9	26
80+	983	1302	2285	358	98	456	36	8	20
Total	107807	124785	232592	83815	83240	167055	78	67	72

Source: 2002 Population and Housing Census, Mufindi District Profile

5.2.8 Policy Implication on Education sector

The District has put effort in the implementation of various education policies relating to pre-primary, primary, secondary and adult education. Literacy rates have also increased significantly.

For pre-primary education, the district managed to implement the government call as each primary school have classrooms for pre-primary pupils. This enabled the District in 2012 to have a large number of children aged 3-6 years enrolled into such schools. By requiring each village to have a primary school, the District has managed to expand accessibility of primary education through successful implementation of Universal Primary Education (UPE) policy. However Malangali and Kasanga wards which have the lowest primary school village ratio

of 0.8 need more primary schools in order to improve accessibility of such education services. Enrolment into Standard One was also good in year 2012 with girls' being more than than boys. Also the District succeeded in sensitizing parents to send their children to school at the age of seven years with the result that 97.1 percent of children enrolled into STD I in 2012 were of that age. The District also managed to control droupouts in primary schools as a result of which 79.2 percent of pupils who started primary education in 2005 were able to complete it in 2011. Also, 81.6 percent of those who started primary education in 2006 were able to complete it in 2012. The remaining challenge in primary education is to control boys' dropout rate as it was higher than that of girls. Standard seven pass rate in 2012 was also very good as 78.9 percent of the examined pupils passed the examinations with number of girls being slightly higher than of boys. At secondary level, the District has a challenge of increasing the number of girls who join, complete and pass national Form Four and Six examinations as they are number still lower compared to those of boys. As most schools use water wells as their source of water, efforts should be mad to provide more pupils/students with clean and safe water. Public secondary schools supplied with electricity were few and more schools should be supplied with eletricity to imprve learning. The increase in literacy rate from 55 percent observed in 1988 census to 72 percent in 2002 census shows that education sector is developing in Mufindi District.

5.2.9 Investment Opportunities in Education

Further investment is required in the estsblishment and expansionof both primary and secondary schools so as tofacilitate the provision of quality education is pursued. Private pre-primary, primary and secondary schools are very few. More are needed which together with the available Government schools will cater for the increased population Supply of textbooks, construction of of clean and safe water infrastructures within the schools, construction of dormitories, toilets and libraries are other areas of investment in public primary and secondary schools in Mufindi District.

5.3 WATER SUPPLY AND SANITATION SECTOR

5.3.0 An Overview

Tanzania is a vast country with almost one out of every two persons having no access to safe water supply. Due to the vast geographic dispersion, rural Tanzanians often have to travel long distances, and spend many hours fetching 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 the supply of safe water will reduce the number of girls dropping out of school, general improvements in time savings as a result

of the reduction in time people spent in collection of water. There will also be cost savings as people will spend less on public health and, also, there shall be reduction in the spread of waterborne diseases. However, for Mufindi District, the Water Supply and Sanitation Sector covers rural and urban water supply in terms of water sources, schemes and technology used to supply water. Besides that, staffing situation in this sector is also highlighted.

5.3.1 Water Supply

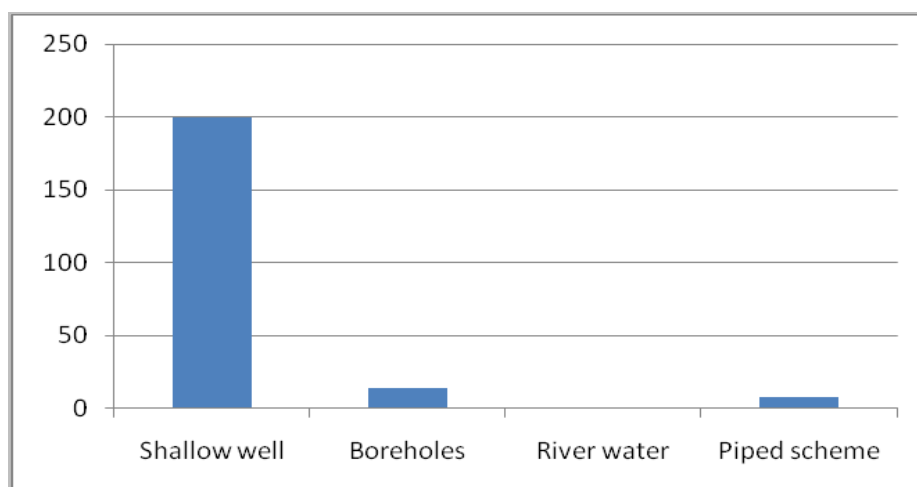
By 2012, access to clean and safe water was still a major problem in most part of Mufindi District. The main dependable source of drinking water was shallow wells (unprotected wells) of which in the year 2012, there were 200. Compared to shallow wells, other water sources thought not used as much were piped schemes, boreholes and water from rivers. The district with much dependence on shallow wells (unsafe water) evidently that District still has a lot to do in implementing the 2006 inaugurated National Rural Water Supply and Sanitation Program (NRWSSP) which was adopted for the period of 2006 – 2025. This program aims for long term development of the rural water supply and sanitation so as to meet the MDG targets and beyond.

5.3.1.1 Rural Water Supply



Shallow wells are the dominant water source for rural population in Mufindi District

As Table 5.59 reveals, in 2012, Mufindi District had a total of 359 rural water schemes (sources) in various stage of operation or non-operation. 216 schemes (sources)(equivalent to 60 percent of total schemes) were operating (working) and the remaining 143 schemes (40 percent) were non operating (not working). Shallow wells was the dominant water source in rural areas as the district had 200 operating or working shallow wells (equivalent to 55.7 percent of district's water sources). Operating bore holes at 14 (3.9 percent) was the second dependable water source, followed by working piped schemes at 8 (2 percent), spring water with 7 sources (1.9 percent) and river water was the least water source as only one permanent river is available. At ward level, Igowole had the highest number of working shallow wells at 36, followed by Mtambula and Isalavanu (each with 14 working shallow wells) and Ifwagi (13).Rungemba was leading in number of working piped schemes at 2. Operating boreholes was the main source of water in Ihowanza ward (4 boreholes), Mtwango (3 boreholes), Kasanga and Mninga ward eah had 2 operating boreholes. Saohill, Nyololo and Idunda each had one operating boreholes. Basing on the facts given in Table 5.59, most of the wards had unreliable water sources. Hence, the district still has long way to go improving availability of safe and clean water to her people.

Figure 39: Number of Working/Operating Main Rural Water sources, Mufindi District; 2012

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

Table 5. 59: Number and Type of Rural Water Sources by Ward, Mufindi District; 2012

Ward	Charco		Springs		Shallow Wells		Rain water Harvest Tanks		Boreholes		River Water		Lake Water	Dam	Piped Scheme	
	W	NW	W	NW	W	NW	W	NW	W	NW	P	S		P	W	NW
Boma			1		3	2	-	-	-	-	1		-	-	1	-
Kinyanambo	-	-	-	-	4		-	-	-	-	-	-	-	-	-	-
Sao hill	-	-	-	-	10	1	-	-	1		-	-	-	1	-	-
Rungemba	-	-	2	-	10	23	1	-		3					2	
Ifwagi	-	-		-	13	23	-	-	-	-	-	-	-	-	-	-
Mdabulo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Luhunga	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ihanu			2		0	0	0	0	0	0	0	0				
Mtwango						0	0	0	3	0	0	0	0	0	0	
Kibengu	0	0	0	0	9	3	0	0	0	0	0	0	0	0	0	
Ihalimba				34	7	0	0	0	0	0	0	0	0	0	0	
Mapanda	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
Malangali	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Nyololo			1	1	2	-	-	-	1		-	-	-	-	1	1
Idunda	1	-	-	-		-	1	-	1	1	-	-	-	-	1	1

Table 5. 59 (ctd): Number and Type of Rural Water Sources by Ward, Mufindi District; 2012

Ward	Charco		Springs		Shallow Wells		Rain water Harvest Tanks		Boreholes		River Water		Lake Water	Dam	Piped Scheme	
	W	NW	W	NW	W	NW	W	NW	W	NW	P	S		P	W	NW
Ihowanza	-	-	-	-	3	-	-	-	4	-	-	-	-	-	-	-
Bumilayinga	-	-	-	-	36	11	-	-	-	-	-	-	-	-	-	-
Mbalamaziwa	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1	1
Kasanga	-	-	-	-	6	8			2						1	
Mtambula	-	-	-	-	14	12	-	-	-	-	-	-	-	-	-	-
Makungu	-	-	-	-	1	4	-	-	-	-	-	-	-	-	-	-
Igowole	-	-	-	-	39	15	-	-	-	-	-	-	-	2	-	-
Kiyowela	-	-	-	-	2		-	-	-	-	-	-	-	-	-	-
Mninga	-	-	-	-	8	11			2	-	-	-	-	-	-	-
Itandula	-	-	-	-	1	0			-	-	-	-	-	-	-	-
Mpanga Tazara	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sadani	-	-	-	-	6	14	1	-	-	-	-	-	-	-	-	1
Isalavanu	-	-	-	-	14	11			-	-	-	-	-	-	-	
Igombavanu	-	-	-	-	12	4			-	-	9	-	-	-	-	-
Ikweha	-	-	-	-		1			-	-		-	-	-	-	-
Total	1	0	7	36	200	143	5	0	14	13	1	0	0	3	8	4

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

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013.

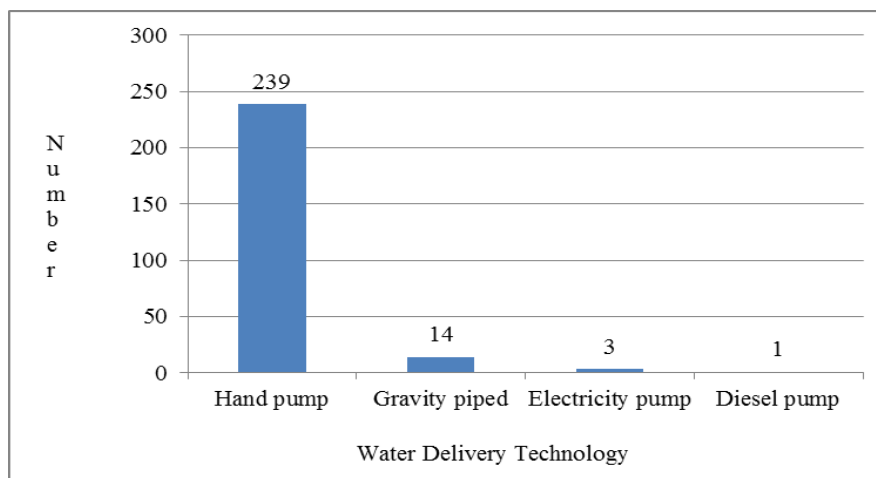
According to Table 5.60, there were 411 water delivery technologies of which, 257 (62.5 percent) were working and 154 (37.5 percent) were not working. Hand pumps were the most popular water delivery technology. They accounted for 93



percent of all working water schemes. Working gravity piped schemes were 14 (5.5 percent) and ranked second among water delivery technologies in rural areas of Mufindi District. Working electricity pump (3, one percent) was the third dependable water delivery technology. There was only one operating diesel pump in the District. Igowole ward which had

largest number of shallow wells also had largest number of hand pumps. The ward had 39 working hand pumps. Mbalamaziwa had largest number of working gravity piped at 6. There were three operating electricity pumps available in the district, one in each three wards (Boma, Kibengu and Sadani) (Table 5.60).

Figure 40: Number of Operating/Working Main Water Delivery Technologies Used in Rural Water Schemes, Mufindi District; 2012



Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

Table 5. 60: Number and Type of Technology Used in Rural Water Schemes by Ward; Mufindi District; 2012

Ward	Type of Technology												Grand Total
	Wind Mill		Electricity Pump		Diesel Pump		Hand Pump		Gravity Piped		Total		
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW	
Boma	0	0	1	0	0	0	3	2	1	0	5	2	7
Kinyanambo	0	0	0	0	0	0	4	0	0	0	4	0	4
Sao hill	0	0	0	0	0	0	11	1	0	0	11	1	12
Rungemba	0	0	0	0	0	0	10	23	2	0	12	23	35
Ifwagi	0	0	0	0	0	0	13	23	0	0	13	23	36
Mdabulo	0	0	0	0	1	0	0	2	0	0	1	2	3
Luhunga	0	0	0	0	0	0	0	0	0	0	0	0	0
Ihanu	0	0	0	0	0	0	0	0	0	0	0	0	0

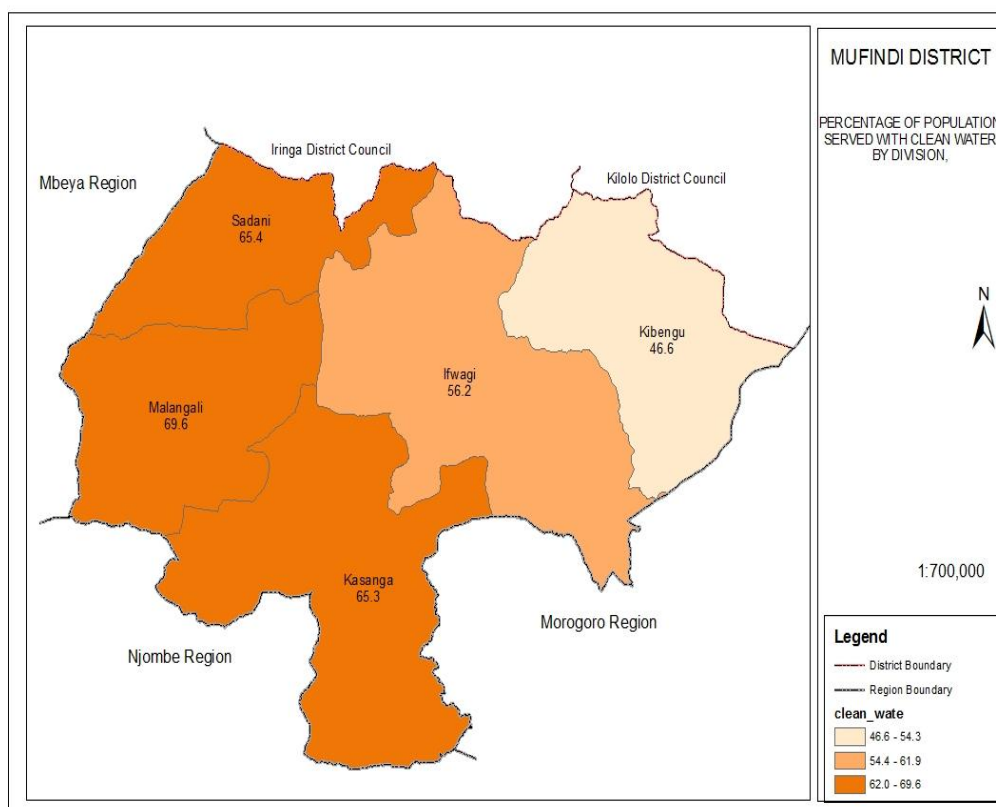
Table 5. 60 (ctd): Number and Type of Technology Used in Rural Water Schemes by Ward; Mufindi District; 2012

Ward	Type of Technology												Grand Total
	Wind Mill		Electricity Pump		Diesel Pump		Hand Pump		Gravity Piped		Total		
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW	
Mtwango	0	0	0	0	0	0	3	0	0	0	3	0	3
Kibengu	0	0	1	0	0	0	9	3	0	0	10	3	13
Ihalimba	0	0	0	0	0	0	34	7	0	0	34	7	41
Mapanda	0	0	0	0	0	0	0	0	0	0	0	0	0
Malangali	0	0	0	0	0	0		0	0	0	0	0	0
Nyololo	0	0	0	0	0	0	3	0	3	3	6	3	9
Idunda	0	0	0	0	0	0	1	1	0	0	1	1	2
Ihowanza	0	0	0	0	0	0	7	0	0	0	7	0	7
Bumilayinga	0	0	0	0	0	0	36	11	0	0	36	11	47
Mbalamaziwa	0	0	0	0	0	0	-	-	6	0	6	0	6
Kasanga	0	0	0	0	0	0	8	8	1	0	9	8	17
Mtambula	0	0	0	0	0	0	14	12	0	0	14	12	26
Makungu	0	0	0	0	0	0	2	2	0	0	2	2	4
Igowole	0	0	0	0	0	0	39	15	0	0	39	15	54
Kiyowela	0	0	0	0	0	0	2	0	0	0	2	0	2
Mninga	0	0	0	0	0	0	8	11	0	0	8	11	19
Itandula	0	0	0	0	0	0	0	0	1	0	1	0	1
Mpanga	0	0	0	0	0	0	0	0	0	0	0	0	0
Tazara													
Sadani	0	0	1	0	0	0	6	14	0	0	7	14	21
Isalavanu	0	0	0	0	0	0	14	11	0	0	14	11	25
Igombavanu	0	0	0	0	0	0	12	4	0	0	12	4	16
Ikweha	0	0	0	0	0	0	0	1	0	0	0	1	1
Total	0	0	3	0	1	0	239	151	14	3	257	154	411
Percentage	0	0	1.2	0	0.4	0	93.0	98.1	5.4	1.9	62.5	37.5	100

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

Drinking water or potable water is water safe enough to be consumed by humans or used with low risk of immediate or long term harm. Over large parts of the Mufindi district especially in rural areas, people have inadequate access to potable water and use sources with unacceptable levels of safety and cleanness. Unprotected shallow wells which are the dominant water source in the District expose the Mufindi people (mostly rural people) to waterborne diseases. Table 5.61 shows that 61.1 percent of rural population in 2012 was accessing clean water. In addition to that, Malangali Division was leading in proportion of population served with clean water at 69.6 percent while Kibengu Division at 46.6 percent had the lowest proportion. At ward level, Rungemba had the highest proportion of people accessing clean water at 97.8 percent while MpangaTazara was the most vulnerable ward in clean water accessibility as up to the end of 2012 there were no people with access to clean water (Table 5.61).

Map 5: Showing Percentage of Population Served with Clean Water by Division, Mufindi District; 2012



Source: National Bureau of Statistics, GIS Unit, 2013

Table 5. 61: Percentage of Rural Population Served with Clean Water by Division/Ward, Mufindi District; 2012

Division	Ward	Total Rural Population	Population Served with Clean Water	Percent Population Served with Clean Water
Ifwagi	Rungemba	6,120	5,984	97.8
	Ifwagi	16,722	11,788	70.5
	Mdabulo	9,342	5472	58.6
	Luhunga	9,568	4312	45.1
	Ihanu	8,540	3289	38.5
	Mtwango	17,073	7047	41.3
	Sub-Total	67,365	37,892	56.2
Kibengu	Kibengu	15,806	5,267	33.3
	Ihalimba	11,205	7885	70.4
	Mapanda	11,693	4878	41.7
	Sub-Total	38,704	18,030	46.6
Malangali	Malangali	5,849	4,755	81.3
	Idunda	6,110	3,627	59.4
	Nyololo	11,979	8,375	69.9
	Ihowanza	10,756	5,622	52.3
	Bumilayinga	6,136	4,795	78.1
	Mbalamaziwa	8,021	6,817	85.0
	Sub-Total	48,851	33,991	69.6
Kasanga	Kasanga	7908	4,567	57.8
	Mtambula	10,477	7,921	75.6
	Makungu	12,751	6,470	50.7
	Igowole	13,459	11,405	84.7
	Kiyowela	7,540	4,374	58.0
	Mninga	14,799	10,262	69.3
	Itandula	11,866	6,938	58.5
	Mpanga Tazara	727	0	0.0
	Sub-Total	79,527	51,937	65.3
Sadani	Sadani	8,585	4,505	52.5
	Isalavanu	7,483	6,286	84.0
	Igombavanu	7,101	6,276	88.4
	Ikweha	8,213	3451	42.0
	Sub-Total	31,382	20,518	65.4
District-Total		265,829	162,368	61.1

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013.

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 form 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 5.62 shows that in 2012 there 15 active and inactive water user groups in Mufindi District. For sustainability of water projects, active water users groups had a total of TShs. 16,880,870 necessary for covering day to day running costs of water projects available in the District. Water user groups in Sadani ward had the largest share of the total funds at 28.9 percent while those groups in Mdabulo had the least share (0.3 percent).

Table 5. 62: Number of Water User Groups (WUGs) and Operation and Maintenance Accounts (O&M) by Ward, Mufindi District; 2012

Ward	WUGs		O&M		Total Funds (TShs) as on 31/12/2012	Percent
	Active	Inactive	Operate	Dormant		
Boma	√		√		Under	
Kinyanambo	√		√		MAUWASA	
					scheme	
Sao hill	√		√		122,300	0.7
Rungemba	√		√		668,570	4.0
Ifwagi	√		√		987,400	5.8
Mdabulo		√		√	55,600	0.3
Luhunga		√		√	155,800	0.9
Ihanu		√		√	-	-
Mtwango	√		√		386,500	2.3
Kibengu		√		√	568,000	3.4
Ihalimba		√		√	120,000	0.7
Mapanda	√		√		125,200	0.7
Malangali	√		√		460,000	2.7

Table 5. 62 (ctd): Number of Water User Groups (WUGs) and Operation and Maintenance Accounts (O&M) by Ward, Mufindi District; 2012

Ward	WUGs		O&M		Total Funds (TShs) as on 31/12/2012	Percent
	Active	Inactive	Operate	Dormant		
Nyololo	√		√		825,000	4.9
Idunda		√		√	173,800	1.0
Ihowanza		√		√	160,400	1.0
Bumilayinga	√		√		728,000	4.3
Mbalamaziwa	√		√		756,150	4.5
Kasanga		√		√	625,700	3.7
Mtambula		√		√	320,650	1.9
Makungu		√		√	-	-
Igowole	√		√		1,351,500	8.0
Kiyowela		√		√	417,200	2.5
Mninga	√		√		816,000	4.8
Itandula		√		√	756,800	4.5
Mpanga		√		√	-	-
Tazara						
Sadani	√		√		4,882,800	28.9
Isalavanu		√		√	521,000	3.1
Igombavanu	√		√		739,500	4.4
Ikweha		√		√	157,000	0.9
Total	15	15	15	15	16,880,870	100.0

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

According to Table 5.63, there were 86 water committees with 536 members in Mufindi District in 2012. Malangali Group Scheme with members from Ifwagi and Malangali divisions had the largest number of members (280 members). Mbalamaziwa Group Scheme though had smallest of members compared of Malangali Group Scheme but was the strongest group financially. The group accounted for 67.2 percent (TShs. 11,344,300) of the total village water funds available in the District. Malangali group scheme had only 32.8 percent of the total village funds. Water committees in Ifwagi ward had the largest number of members (38) while Ihanu ward was lagging behind other wards by

having no village water committee. On the other hand, village water committees in Sadani Ward were the most stable financially by accumulating Tshs. 4,882,800 which was the highest amount than of other committees.

Table 5. 63: Number of Village Water Committees and Village Water Funds by Division, Mufindi District; 2012

Division	Ward	Number of Village Water Committee	Water Committee Members			Village Water Fund (VWF)/Water Users Group (WUG)	Total Funds in TShs
			Male	Female	Total		
Ifwagi	Boma					Malangali Group Scheme	Under MAUWASA
	Kinyanambo						Under MAUWASA
	Saohill	2	6	6	12		122,300.00
	Rungemba	3	10	10	20		668,570.00
	Ifwagi	6	19	19	38		987,400.00
	Mdabulo	1	3	3	6		55,600.00
	Luhunga	4	12	12	24		155,800.00
	Ihanu	0	0	0	0		
	Mtango	4	14	14	28		386,500.00
	Sub Total	20	64	64	128		2,376,170.00
Kibengu	Kibengu	2	6	6	12		568,000.00
	Ihalimba	2	6	6	12		120,000.00
	Mapanda	2	6	6	12		122,200.00
	Sub Total	6	18	18	36		810,200.00
	Idunda	4	12	12	24		173,800.00
	Nyololo	5	15	15	30		825,000.00
	Ihowanza	2	9	9	18		160,400.00
	Bumilayinga	3	10	10	20		728,000.00
	Sub Total	18	58	58	116		2,347,200.00
	Malangali Group scheme	44	140	140	280		5,533,570.00
Kasanga	Total						
	Mbalamaziwa	4	12	12	24	Mbalamaziwa group Scheme	756,150.00
	Kasanga	4	12	12	24		625,700.00
	Mtambula	4	12	12	24		320,650.00
	Makungu	2	8	8	16		-

Table 5. 63 (ctd): Number of Village Water Committees and Village Water Funds by Division, Mufindi District; 2012

	Igowole	2	6	6	12	1,351,500.00
	Kiyowela	2	6	6	12	417,200.00
	Mininga	3	9	9	18	816,000.00
	Itandula	4	12	12	24	756,800.00
	Mpanga Tazara	1	3	3	6	-
Sub Total		26	80	80	160	5,044,000.00
Sadani	Sadani	4	12	12	24	4,882,800.00
	Isalavanu	4	12	12	24	521,000.00
	Igombavanu	4	12	12	24	739,500.00
	Ikweha	4	12	12	24	157,000.00
Sub Total		16	48	48	96	6,300,300.00
	Mbalamaziwa group scheme Total	42	128	128	256	11,344,300.00
District Total		86	268	268	536	16,877,870.00

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

5.3.1.2 Staff Establishment

According to Table 5.64, in 2012, there were 9 staff members in water sector in the District. The distribution of the staff was members as follows, plumbers (5), pump attendants (3) and one technician. In the same year, the District required 13 staff members and there was a deficit of 4 staff member. Basing on unreliable accessibility of clean and safe water in Mufindi, it is therefore important for the government in collaboration with the District Council employ the required number of staff.

Table 5. 64: Staff Establishment in Water Sub-sector, Mufindi District; 2012

Type of Professionals	Requirement	Actual	Deficit/Surplus
Engineers	1	-	1
Technicians	3	1	2
Plumber	5	5	-
Pump attendant	3	3	-
Pump mechanics	1	-	1
District-Total	13	9	4

Source: District Executive Director's Office, Mufindi District, 2013

5.3.2 Urban Water Supplies

Urban areas of Mufindi District covering Boma, Kinyanambo and Saohill wards get better access of clean water than rural wards. This is shown in the 2002 Population and Housing Census Mufindi District Profile Report that 41 percent of urban households used piped water and 21 percent used protected well as their main source of drinking water in 2002. Moreover Table 5.65 reveals that piped schemes were still the dominant water source in urban areas in 2012. In this particular year urban areas had a total of 20 operating/working piped schemes. Operating/working shallow wells (unprotected wells) amounting to 17 were the second dependable water source. Spring and boreholes each with one source were the least dependable water source in Mufindi urban areas.

Table 5. 65: Number and Type of Urban Water Sources by Ward, Mufindi District; 2012

Ward	Charco		Spring		Shallow Well		Rain water Tanks		Bore holes		River water		Lake water		Dam		Piped Scheme		Total		Grand Total
	W	NW	W	NW	W	NW	W	NW	W	NW	P	S			P	S	W	NW	W	NW	
Boma	0	0	1	0	3	2	0	0	0	0	1	0	0	0	0	0	5	0	10	2	12
Kinyanambo	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0	8	0	8
Sao hill	0	0	0	0	10	1	0	0	1	0	0	0	0	0	0	0	11	1	22	1	24
Total	0	0	1	0	17	3	0	0	1	0	1	0	0	0	0	0	20	1	40	3	44
Percentage	0	0	2.5	0	42.5	7.5	0	0	2.5	0	2.5	0	0	0	0	0	50.0	2.5	91	9	100

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

Table 5.66 shows water delivery technologies that were available in urban areas of the District. Hand pump (14) was the main water delivery technology used. Next was gravity piped (2). The non-operating/not working water delivery technologies to large extent contribute to poor water accessibility not only in urban, but also to rural areas of the District. Proper maintenance is urged for improving provision of water services both in rural and urban areas.

Table 5. 66: Number of Water Schemes by Type of Technology by Ward, Mufindi District, 2012

Ward	Type of Technology										Total	
	Wind Mill		Electricity Pump		Diesel Pump		Hand Pump		Gravity Piped			
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW
Boma	0	0	1	0	0	0	3	2	1	0	5	2
Kinyanambo	0	0	0	0	0	0	0	0	1	0	1	0
Sao hill	0	0	0	0	0	0	11	1	0	0	11	1
Total	0	0	1	0	0	0	14	3	2	0	17	3

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

In 2012, 65 percent of urban population was estimated to be covered by clean water supply services. This was achieved through the supply of 2,186 cubic meters per day of clean water (Table 5.67). To meet all urban population with clean water demand, a total of 3,502 cubic meters per day was required in 2012. Boma ward (the headquarters of the district) had most of its population served with clean water (93 percent), followed by Kinyanambo (60 percent). Saohill had the smallest proportion of urban population (43 percent) who accessing clean water.

Table 5. 67: Percentage of Urban Population Served with Clean Water by Ward, Mufindi District; 2012

Ward	Estimated Demand in cubic meters per day	Actual Supply in cubic Meters per day	% Population Served
Boma	1056	986	93
Kinyanambo	1473	614	60
Sao hill	973	586	43
Total	3,502	2,186	65

Source: District Executive Director's Office (Water Supply and Sanitation Department), Mufindi District, 2013

5.3.2.1 Sewage and Sanitation

Human excreta are a very dangerous form of refuse by its capacity to carry many human diseases through contact with food and via water medium. The use of latrines effectively isolates such refuse from contact with the human environment. Hence, it is a Government policy that every household should have access to a latrine within its premises. Up to the end of 2012 Mufindi District Council had no reliable data on number of households with and without latrines.

5.3.5 Policy Implication on Water Sector

Rural water supply in the district has been dominated by shallow wells whose 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 and mainstreaming those initiatives into nationwide program supported with adequate staffing and budgets. There is also need of establishing practicable institutional arrangements and mechanisms to ensure the sustainability of community managed rural water supplies.

For urban areas of the District the big problem is lack of sewage system which results into big problem of sanitation and hygiene to urban population. To alleviate the situation public funds have to be increased for sewerage construction in favor of a pro-poor approach that supports urban household sanitation promotion with public solutions to facilitate better hygiene in urban areas.

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. Construction of sewage system for improving hygienic environment in urban areas is another important area for investment. Promotion of rain water harvest technology as an alternative water source is also recommended.

CHAPTER SIX

Other Development Issues

6.0 Introduction

Other development issues that are not discussed in the above chapters 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 These are going to be discussed in this Chapter.

6.1 Gender Empowerment

Gender empowerment is about giving women an opportunity to perform in various activities that they could not perform because of family and social responsibilities.

In most of African communities' women are the ones who stay with kids at home and are the one who do most of the activities that are not paid like taking care of the sick and aged people.

Women like other people in the community need to participate fully in policy and decision making as well as in economic activities. To make this possible various measures have to be taken including use of family planning, establishment of day care centers, establishment of women economic groups, SACCOS, CBOS and other cooperatives activities.

6.1.1 Day Care Centers

Day care centres are meant for children of age 3 to 4 years before they join pre-primary school. Day care is important because they keep children away from their mothers and hence give mothers opportunity to participate in economic activities and hence improve their social economic status. Unfortunately there are no day care centres in Mufindi District.

6.1.2 Vulnerability

Vulnerability includes children who are orphans and those who are not, Orphans are classified between persons whom both parents, mother and father are dead and those with a single parent, whether father or mother. Table 6.1 reveals that the orphanhood of children aged 0-17 years in Mufindi District was 12.3 percent in 2012. The extent of vulnerability of children of the same age both boys and girls was 13.9 percent. The level of orphanhood among boys was (5.8 percent) compared to 5.7 percent of girls. The highest number of orphans were in Kinyanambo 32.9 percent while the least number of orphans at 4.6 percent were in Mpanga Tazara while most vulnerable children were in Kinyanambo Ward with 32.9 percent followed by Luhunga (22.6 percent).

Table 6. 1: Number of Most Vulnerable Children by Ward, Mufindi District; 2012

Ward	Total Children Aged 0 - 17	Most Vulnerable Children										Number	Percent
		Orphans					Non Orphans						
		No. of Girls	Girls Percent	No. of Boys	Boys Percent	Total	Percent	No. of Girls	No. of Boys	Total	Percent		
Boma	6973	642	9.2	728	10.4	1370	19.6	-	-	171	2.5	1541	22.1
Kinyanambo	4158	128	3.1	92	2.2	1370	32.9	-	-	0	0.0	1370	32.9
Sao hill	3634	126	3.5	112	3.1	238	6.5	-	-	0	0.0	238	6.5
Rungemba	2961	281	9.5	258	8.7	539	18.2	-	-	74	2.5	613	20.7
Ifwagi	8102	320	3.9	349	4.3	669	8.3	-	-	53	0.7	722	8.9
Mdabulo	5108	255	5.0	239	4.7	494	9.7	-	-	186	3.6	680	13.3
Luhunga	4736	508	10.7	488	10.3	996	21.0	-	-	75	1.6	1071	22.6
Ihanu	4232	255	6.0	239	5.6	494	11.7	-	-	69	1.6	563	13.3
Mtwango	8853	771	8.7	690	7.8	1461	16.5	-	-	136	1.5	1597	18.0
Kibengu	8593	400	4.7	444	5.2	844	9.8	-	-	111	1.3	955	11.1
Ihalimba	5901	366	6.2	345	5.8	711	12.0	-	-	51	0.9	762	12.9
Mapanda	5853	228	3.9	244	4.2	472	8.1	-	-	97	1.7	569	9.7
Malangali	3573	65	1.8	109	3.1	174	4.9	-	-	21	0.6	195	5.5
Nyololo	5761	311	5.4	412	7.2	723	12.5	-	-	115	2.0	838	14.5
Idunda	2782	159	5.7	149	5.4	308	11.1	-	-	53	1.9	361	13.0
Ihowanza	4654	129	2.8	125	2.7	254	5.5	-	-	17	0.4	271	5.8
Bumilayinga	3141	251	8.0	251	8.0	502	16.0	-	-	73	2.3	575	18.3
Mbalamaziwa	4579	356	7.8	397	8.7	753	16.4	-	-	73	1.6	826	18.0
Kasanga	4273	288	6.7	345	8.1	633	14.8	-	-	293	6.9	926	21.7
Mtambula	6032	157	2.6	131	2.2	288	4.8	-	-	32	0.5	320	5.3
Makungu	5252	176	3.4	189	3.6	365	6.9	-	-	27	0.5	392	7.5

Table 6. 1 (ctd): Number of Most Vulnerable Children by Ward, Mufindi District; 2012

Ward	Most Vulnerable Children												
	Total Children Aged 0 - 17	Orphans						Non Orphans					
		No. of Girls	Girls Percent	No. of Boys	Boys Percent	Total	Percent	No. of Girls	No. of Boys	Total	Percent	Number	Percent
Igowole	6056	429	7.1	483	8.0	912	15.1	-	-	64	1.1	976	16.1
Kiyowela	3215	289	9.0	272	8.5	551	17.1	-	-	131	4.1	682	21.2
Mninga	7556	458	6.1	412	5.5	870	11.5	-	-	156	2.1	1026	13.6
Itandula	6105	204	3.3	187	3.1	391	6.4	-	-	48	0.8	439	7.2
Mpanga	305	6	2.0	8	2.6	14	4.6	-	-	14	4.6	28	9.2
Tazara													
Sadani	4158	116	2.8	112	2.7	228	5.5	-	-	9	0.2	237	5.7
Isalavanu	3697	269	7.3	266	7.2	535	14.5	-	-	46	1.2	581	15.7
Igombavanu	3669	247	6.7	222	6.1	469	12.8	-	-	94	2.6	563	15.3
Ikweha	3829	247	6.5	257	6.7	504	13.2	-	-	65	1.7	569	14.9
Total	147741	8,437	5.7	8,555	5.8	18,132	12.3	-	-	2354	1.6	20486	13.9

- Data were not found.

Source: District Executive Director's Office Mufindi District, 2013

6.1.3 Women Economic Groups

There were 74 women economic groups in Mufindi District in 2012 with a total of 653 members (Table 6.2). All the 74 groups received loans worthing Tshs 74,000,000 from different institutions. Boma Ward had the largest number of women economic groups at 26. However, some wards at centers have no single economic group These wards are Nyololo and Rungemba Wards, which need encouragement to form small groups for easy access of loans to expand their small scale businesses.

Table 6. 2: Number of Women Economic Groups by Ward, Mufindi District; 2012

	Total No. of Groups	Total Members	No. of Groups Assisted	Loan Received per Group(TShs)
Boma	26	325	26	20,300,000
Kinyanambo	7	53	7	5,000,000
Sao hill	2	10	2	1,000,000
Rungemba	0	0	0	0
Ifwagi	2	10	2	1,400,000
Mdabulo	1	12	1	1,000,000
Luhunga	4	22	4	3,500,000
Ihanu	0	0	0	0
Mtwango	4	31	4	2,800,000
Kibengu	0	0	0	0
Ihalimba	2	10	2	2,000,000
Mapanda	0	0	0	0
Malangali	0	0	0	0
Nyololo	0	0	0	0
Idunda	0	0	0	0
Ihowanza	2	13	2	1,800,000
Bumilayinga	0	0	0	0
Mbalamaziwa	2	26	2	1,600,000
Kasanga	0	0	0	0
Mtambula	1	11	1	700,000
Makungu	0	0	0	0
Igowole	3	19	3	1,500,000
Kiyowela	0	0	0	0
Mninga	3	20	3	2,800,000
Itandula	1	5	1	500,000
Mpanga Tazara	0	0	0	20,000,000
Sadani	8	54	8	7,000,000
Isalavanu	0	0	0	0
Igombavanu	2	10	2	1200000
Ikweha	4	22	4	3,900,000
Total	74	653	74	78,000,000

Source: District Executive Director's Office Mufindi District, 2013

6.3 Women's Participation in Policy and Decision-Making

Table 6.3 reveals that women participation in managerial positions is discouraging. Out of 192 managerial posts only 24 or 12.5 percent were held by women. In political posts women participation was only 28 percent. However, the number of professional/technicians women was encouraging as women held 1373 or 46.6 percent of the post. The ward with the best participation of women in all the posts was Boma with males having 171 or 39.3 percent and females 60.7 percent, of the posts the least participation was in Mpanga Tazara with seven male (77.8 percent) and two female (22.2 percent).

Table 6. 3: Participation in Managerial, Political, Professional and Technical Personnel by gender by Ward, Mufindi District, 2012

Ward	Managerial			Professionals/ Technicians			Politicians (MPs, DC)			Total		Total	Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female		
Boma	1	3	4	169	261	430	1	0	1	171	264	435	14.0
Kinyanambo	1	1	2	20	76	96	1	0	1	22	77	99	3.2
Sao hill	5	0	5	35	60	95	1	0	1	41	60	101	3.2
Rungemba	3	3	6	31	31	62	2	0	2	36	34	70	2.3
Ifwagi	7	1	8	81	78	159	0	1	1	88	80	168	5.4
Mdabulo	6	0	6	58	24	82	1	0	1	65	24	89	2.9
Luhunga	9	0	9	48	22	70	1	0	1	58	22	80	2.6
Ihanu	7	0	7	38	25	63	1	0	1	46	25	71	2.3
Mtwango	5	0	5	69	65	134	1	0	1	75	65	140	4.5
Kibengu	8	0	8	75	42	117	1	0	1	84	42	126	4.1
Ihalimba	6	0	6	59	18	77	1	1	2	66	19	85	2.7
Mapanda	4	0	4	70	15	85	1	1	2	75	16	91	2.9
Malangali	8	0	8	79	44	123	0	1	1	87	45	132	4.2
Nyololo	10	1	11	68	52	120	1	1	2	79	53	132	4.2
Idunda	5	0	5	28	17	45	1	0	1	34	17	51	1.6
Ihowanza	5	1	6	49	28	77	1	1	2	55	30	85	2.7
Bumilayinga	7	1	8	28	23	51	1	0	1	36	24	60	1.9
Mbalamaziwa	7	4	11	47	39	86	0	1	1	54	44	98	3.2

Table 6. 3 (ctd): Participation in Managerial, Political, Professional and Technical Personnel by gender by Ward, Mufindi District, 2012

Ward	Managerial			Professionals/ Technicians			Politicians (MPs, DC)			Total		Total	Percentage
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female		
Kasanga	5	0	5	30	30	60	1	0	1	36	30	66	2.1
Mtambula	7	0	7	45	33	78	1	0	1	53	33	86	2.8
Makungu	7	0	7	60	44	104	1	1	2	68	45	113	3.6
Igowole	3	2	5	54	85	139	1	1	2	58	88	146	4.7
Kiyowela	5	0	5	52	18	70	1	0	1	58	18	76	2.4
Mninga	5	3	8	63	58	121	1	0	1	69	61	130	4.2
Itandula	7	1	8	42	53	95	1	0	1	50	54	104	3.3
Mpanga	2	0	2	4	2	6	1	0	1	7	2	9	0.3
Tazara													
Sadani	6	1	7	59	48	107	1	2	3	66	51	117	3.8
Isalavanu	7	1	8	39	28	67	1	0	1	47	29	76	2.4
Igombavanu	6	1	7	36	30	66	1	0	1	43	31	74	2.4
Ikweha	4	0	4	36	24	60	1	0	1	41	24	65	2.1
Total	168	24	192	1572	1373	2945	28	11	39	1768	1407	3175	100
Percentage	87.5	12.5		53.4	46.6		71.3	28.2		55.7	44.3		

Source: District Executive Director's Office Mufindi District 2013

6.4 Youth Economic Groups

According to Table 6.4, Mufindi had a total of 18 youth economic groups from 12 wards. Out of among 30 wards of the District only youth from 12 wards manage to organise themselves into 18 groups for easy accessibility of loans. All the 18 groups with 185 members got loans totaling Tshs 18,300,000 in 2011. The amount which they managed to recover Tshs 2,762,000 by 31 Dec 2012 and the remaining was not recovered by due date. Youth from the wards of Mtwango, Mapanda, Nyololo, Ifwagi, Ihowanza and Igombavanu did not manage to recover loans for the whole year of 2012. The remaining wards recovered, though, very small.

Table 6. 4: Youth Economic Groups and Total Money Loaned by Ward, Mufindi District; 2012

Ward	Total Number of Registered Groups	Total Members	No. of Groups Got Loans in 2011	Total Loaned 2011 (TShs)	Total 2011 Loans of 2011 Recovered as at 31 Dec. 2012	Total Loans not Recovered as at 31 Dec. 2012
Boma	4	40	4	5,680,000.00	1,322,000.00	4,508,000.00
Saohill	1	10	1	550,000.00	-	550,000.00
Kinyanambo	2	16	2	3,160,000.00	710,000.00	2,700,000.00
Mtwango	2	25	2	1,100,000.00	-	1,100,000.00
Mapanda	2	15	2	1,540,000.00	-	1,540,000.00
Nyololo	1	7	1	550,000.00	-	550,000.00
Ifwagi	1	11	1	660,000.00	-	660,000.00
Ihowanza	1	15	1	660,000.00	-	660,000.00
Igombavanu	1	5	1	660,000.00	-	660,000.00
Makungu	1	14	1	660,000.00	50,000.00	610,000.00
Kibengu	1	12	1	880,000.00	80,000.00	800,000.00
Sadani	1	15	1	2,200,000.00	600,000.00	1,600,000.00
Total	18	185	18	18,300,000	2,762,000	15,938,000

Source: District Executive Director's Office Mufindi District, 2013

6.5 Savings and Credit Cooperative Societies (SACCOS)

Table 6.5 shows that in 2012 a total of 33 active SACCOS were registered in Mufindi District with a total number of 15458 member of whom 7031, were females and male were 8427. Most wards had SACCOS with exception of few wards of Idunda, Mapanda, Mpanga Tazara Bumiyayinga and Ikweha. The total value of shares for all the SACCOS in the District was Tshs 462,490,926 from which loans provided worth Tshs 8,294,634,140 in 2012 out of which the recovered money in the same year was Tshs 6,030,228,893 (72.7 percent). The wards with bigger amount of loan recovery were Kibengu (94.2 percent,) Mtambula (84.6 percent), Mtwango (80.6 percent) and Igowole (80.4 percent,) the wards with the least loan recovery rate were Kinyanambo (12.9 percent) and Igombavanu (18.8 percent). Unlike youth economic groups, the rate of recovering loan in the SACCOS in the District is encouraging.

Table 6.5 : Number of active SACCOS by Ward, Mufindi District, 2012

Ward	No. of SACCOS (Registered)		Total Members			Total Value of Shares (TShs) as at 31.12.2012	Total Money Loaned to Members as at Jan –Dec 2012 (TShs)	Total Loans Recovered from Members Jan –Dec 2012 (TShs)	Percent
	Active	Dormant	Male	Female	Total				
Boma	Active		27	10	37	725,000	9,560,000	7,297,500	76.3
Boma	Active		39	26	65	1,242,070	68,000,000	46,000,000	67.6
Boma	Active		192	301	493	38,970,000	439,000,000	309,000,440	70.4
Boma	Active		899	933	1832	29,201,000	1,190,410,000	946,862,150	79.5
Boma	Active		32	10	42	3,675,000	10,100,000	6,800,000	67.3
Boma	Active		48	48	96	4,456,000	34,700,000	19,425,000	56
Boma	Active		180	54	234	11,300,000	45,800,000	23,000,000	50.2
Boma	Active		30	48	78	703,500	0	0	0
Boma	Active		0	34	34	200,000	0	0	0
Boma	Active		176	52	228	41,530,000	432,000,000	314,356,300	72.8
Boma	Active		27	1	28	1,400,000	0	0	0
Total Boma	11	0	1650	1517	3167	133402570	2229570000	1672741390	75.0
Kinyanambo	Active		20	17	37	2,500,000	0	0	0
Kinyanambo	Active		51	386	437	18,844,243	388,354,283	50,028,073	12.9
Total Kinyanambo	2	0	71	403	474	21344243	388354283	50028073	12.88
Sao hill	Active		78	42	120	8,920,000	22,145,000	10,300,000	46.5
Sao hill	Active		44	37	81	5,200,000	0	0	0
Total Sao hill	2		122	79	201	14120000	22145000	10300000	46.5
Ifwagi	Active		267	131	398	2,915,000	43,310,000	31,700,040	73.2
Ifwagi	Active		88	90	178	36,000,000	62,000,000	41,000,000	66.1
Ifwagi	Active		23	36	59	249,000	5,600,000	1,450	0
Ifwagi	Active		20	16	36	360,000	360,036	0	0
Total Ifwagi	4		398	273	671	39524000	111270036	72701490	65.3
Mtwango	Active		158	142	300	28,293,000	0	0	0
Mtwango	Active		30	12	42	3,500,000	33,700,000	18,700,000	55.5
Mtwango	Active		401	612	1013	39,667,240	820,330,099	669,854,907	81.7
Total Mtwango	3		589	766	1355	71460240	854030099	688554907	80.6
Ihalimba	Dormant		249	167	416	4,842,000.00	182,201,500	136,449,850	74.9
Ihalimba	Active		33	42	75	130,880	0	0	0
Total Ihalimba	1	1	282	209	491	4972880	182201500	136449850	74.9
Rungemba	Active		49	35	84	2,466,000	27,072,000	21,631,120	79.9

Table 6. 5 (ctd) : Number of active SACCOS by Ward, Mufindi District, 2012

Ward	No. of SACCOS (Registered)		Total Members			Total Value of Shares (TShs) as at 31.12.2012	Total Money Loaned to Members as at Jan –Dec 2012 (TShs)	Total Loans Recovered from Members Jan –Dec 2012 (TShs)	Percent
	Active	Dormant	Male	Female	Total				
Mdabulo		Dormant	165	165	330	3,420,000	33,340,000	23,850,000	71.5
Luhunga	Active		707	543	1250	24,560,689.00	687,282,395	484,175,605	70.4
Ihanu	Active		118	42	160	845,000	4,475,000	1,486,400	33.2
Kibengu		Dormant	202	114	316	7,330,000	105,805,000	99,644,420	94.2
Mapanda			0	0	0	0	0	0	0
Malangali	Active		145	176	321	4,509,842.00	30,871,000	16,423,865	53.2
Nyololo	Active		198	141	339	3,128,000	30,240,500	21,945,460	72.6
Idunda			0	0	0	0	0	0	0
Ihowanza	Active		157	84	241	1,513,500	10,931,600	5,378,820	49.2
Mbalamaziwa	Active		95	42	137	1,505,800	5,100,320	3,245,800	63.6
Kasanga	Active		170	65	235	5,925,000	193,334,000	131,609,570	68.1
Mtambula	Active		225	120	345	5,841,500	264,532,775	223,725,554	84.6
Makungu		Dormant	158	32	190	5,466,712	49,948,000	0	0
Makungu		Dormant	1248	1048	2296	53,797,500	1,240,600,000	963,500,000	77.7
Igowole		Dormant	686	574	1260	26,195,000	1,499,287,585	1,205,935,963	80.4
Kiyowela	Active		326	245	571	22,625,500	167,171,700	102,204,420	61.1
Mninga		Dormant	193	102	295	1,913,000	22,622,400	17,135,253	75.7
Itandula			106	56	162	950,000	4,648,000	2,346,600	50.5
Mpanga Tazara			0	0	0	0	0	0	0
Bumilayinga			0	0	0	0	0	0	0
Sadani			228	136	364	3,993,950	123,034,447	74,449,333	60.5
Isalavanu			86	26	112	615,000	2,690,500	0	0
Igombavanu			53	38	91	1,065,000	4,076,000	765,000	18.8
Ikweha			0	0	0	0	0	0	0
Total	33	7	8,427	7,031	15,458	462,490,926	8,294,634,140	6,030,228,893	72.7

Source: District Executive Director's Office Mufindi District, 2013

6.6 Financial Institutions

Mufindi Community Bank (MUCOBA) and NMB were the only banks operating in Mufindi from 2008 to 2011. Due to increasing economic activities, in 2012

other banks, CRDB and NBC started to operate in the District. Therefore, by the end of 2012, Mufindi had four major banks namely, NMB, CRDB and NBC and MUCOBA. Non financial institutions, FINCA and BRAC which are also operating in the district which serve an important economic role through providing loans to small business operators.

Table 6. 6: List of Banks available in Mufindi District, 2008-2012

2008	2009	2010	2011	2012
1. NMB	1.NMB	1. NMB	1. NMB	1. NMB
				2. MUCOBA
2. MUCOBA	2.MUCOBA	2. MUCOBA	2. MUCOBA	3. CRDB
				4. NBC

Source: District Executive Director's Office Mufindi District, 2013

6.7 Bodaboda

Bodaboda has played important role in the employment of youth in most districts in the country including Mufindi. This alternative means of transport not only does it reduce the problem of transport especially in rural parts, but also it has also improves the standard of living of families of the bodaboda operators through significant income they generate. By the end of year 2012, there were a total of 352 bodaboda operators who, on average, earn TShs. 690,000 per month.

6.8 Crime statistics

6.8.1 Introduction

Crime statistics attempt to show the extent of crime in the societies and by so doing lead measures being taken to control to the spread of crime. Given that crime is usually secretive by nature, a measurement of it is likely to be inaccurate since few crimes are normally reported to the police stations.

Development of science and technology, population increase accompanied with growth of towns go hand in hand with the increase of crime. Decrease in erosion of morals among Tanzanians and increase of poverty stimulates the prevalence of crime in the country. Mufindi District being part of Tanzania also shares the same

problem with other part of the country. Although, there are so many crime offences happening in Mufindi district and reported in Iringa regional police office, this profile presents only those concerning violent, property and drug crimes. Besides to that, road accidents and theft cases are also highlighted.

6.8.2 Crime cases reported

Iringa regional police office is responsible for ensuring security of people and their properties in four districts of the region namely Mufindi, Iringa Municipal, Kilolo and Iringa Rural districts. Over the period of January 2010 to December 2012, the Regional Police Office received 4,227 property crimes and 47 drug crimes which happened in Mufindi District. Property crimes were dominant by accounting for 98.9 percent of all total crimes reported. While drug crimes reported were only 47 cases (1.1 percent), There were no violent crimes reported. Of the total property crimes reported, 152 people were jailed. January 2010 to December 2012 is a period of 36 months. This gives an average of 119 crime cases reported in each month with an average of 4 people jailed due to the reported crime cases in each month in Mufindi District.

Table 6. 7: Total number of Crimes happened in Mufindi District as as Reported in Iringa regions' Police Station and Number of People Jailed from January 2010 to December, 2012

Year	Total No. of Police in the District	Total Number of Reported				Total Number of People Jailed due to			
		Violent Crimes	Property Crimes	Drug Crimes	Total Crimes	Violent Crimes	Property Crimes	Drug Crimes	Total Jailed
2010	152	-	1616	15	1631	-	21	-	21
2011	141	-	1430	16	1446	-	46	-	46
2012	170	-	1181	16	1197	-	85	-	85
Total	463		4227	47	4274		152		152
Percent		-	98.9	1.1	100.0	-	100	-	

Source: Iringa Regional Police Head Office, 2013

6.8.3 Road Accidents

In a three years period a total of 174 road accidents occurred in Mufindi District. Number of accidents was at the peak of 75 (43.1 percent of total accidents) in 2012 (Table 6.8). Accidents involving motor vehicles and motor cycles versus

pedestrians were leading with 64 accidents (36.8 percent), followed by motor vehicles versus motor cycles which accounted for 31.6 percent of total accidents. The least number of accidents were due to motor cycles only (5.2 percent). In addition the accidents listed in Table 6.8 victimized a total of 153 people. Most of the victims were died (100 people died equivalent to 65.4 percent of all people involved in road accidents). Injured person were 53 (34.6 percent). Accidents involving motor vehicles and motor cycles against pedestrians killed many people (38) and causes many injured person (19). In 2012 the District had the highest number (44) of people died from road accidents whilst the highest number (22) of injured person was observed in 2010. Taking into account that January 2010 to December 2012 is a period of 36 month. This gives an average of four road accidents happening in the district in each month which kills three people and injuring one person in each month too.

Table 6. 8: Number of Accidents in Mufindi District as Reported in Iringa Regional Police Station and Number of People Injured/Died by Type of Accident from January 2010- December, 2012

Total number of Accidents involving						Total Number of People Died/Injured from Accidents involving										
Year	Motor Vehicles only	Motor Vehicle Versus Motor Cycles	Motor cycles only	Motor Vehicles and Motor cycles versus Pedestrian	Total	Motor Vehicles only		Motor Vehicle Versus Motor Cycles		Motor cycles only		Motor Vehicles and Motor cycles Versus Pedestrian		Sub Total		Total Died/Injured
						D	I	D	I	D	I	D	I	D	I	
2010	16	18	2	20	56	6	7	8	6	2	1	10	8	26	22	48
2011	10	13	3	17	43	7	3	9	3	2	2	12	5	30	13	43
2012	20	24	4	27	75	10	4	14	5	4	3	16	6	44	18	62
Total	46	55	9	64	174	23	14	31	14	8	6	38	19	100	53	153
Percent	26.4	31.6	5.2	36.8	100.0	23	26.4	31	26.4	8	11.3	38	35.8	65.4	34.6	

Note: D: Died, I: Injured. Source: Iringa Regional Police Head Office, 2013

6.8.4 Theft Cases

Table 6.9 shows that a total of 439 thefts occurred in Mufindi District and were recorded by the Iringa regional police head office. According to the Table, theft cases increased. Increased by 83 cases (115 percent increase) from 72 cases in 2010 to 155 cases in 2011. Between 2011 and 2012 there was an increment of 57 cases (36.8 percent increase). Cattle stealing was more than other types of theft. It accounted for 67.4 percent of all reported theft cases in the District, followed by bicycle stealing (19.4 percent), motor cycles stealing (11.6 percent) and motor vehicles (1.6 percent). A total of 43 people were jailed due to theft cases most of them being due to bicycle stealing (62.8 percent) and cattle stealing (23.3 percent).

With a population of 317,731 people and 170 police officers in 2012, one police officer was serving a population of 1,869 people. This was higher than the national average of one police officer serve 1,500 people. Nevertheless, with a total of 170 police officers and 30 wards which the District had in 2012, on average, five police officers during that particular year provided security services to one ward. Further to that, taking into account that the district had a total of 141 villages in 2012, one police officer provided security to one village. Therefore, for the essence of overcoming the increasing theft cases and for general improving security of the people, the highlighted police officers deficit should be taken as a challenge which needs immediate attention.

Table 6. 9: Number of Theft Cases occurred in Mufindi District as Reported to Iringa Regional Police Station and Number of People Jailed for Theft from January 2010-December, 2012

Year	Total no. of Police in the District	Total Number of					Total Number of People Jailed due to stealing of				
		Motor vehicle s stolen	Motor cycles stolen	Bicycle s stolen	Cattle stolen	Total	Motor vehicle s	Motor cycles	Bicycle s	Cattle	Total
2010	152	1	9	20	42	72	-	1	5	1	7
2011	141	4	14	25	112	155	-	2	7	3	12
2012	170	2	28	40	142	212	-	3	15	6	24
Total	463	7	51	85	296	439	-	6	27	10	43
Percent		1.6	11.6	19.4	67.4	100.0	-	14.0	62.8	23.3	100.0

Source: Iringa Regional Police Head Office, 2013

6.5.5 Policy Implication on Other Development Issues

The call by the Government that women should be empowered is practically implemented in Mufindi District. In the District, women are empowered economically through establishment of women economic groups (SACCOS). Presence of Mufindi Community Bank (MUCOBA) and non financial institutions such as FINCA increase the chances for women to access loans. Failure of women to pay back loans due to unsustainable income generating activities, lack of entrepreneurship skills of running businesses as well as high interest rates imposed by financial and non-financial institutions hampered the ability of women to pay back their loans and hence, income poverty still a major problem among women in Mufindi district. In this regards, the Government through Central Bank of Tanzania is advised to put in place a policy which will have control the high interest rates imposed by banks and non-banks financial institutions.

The District also needs to address the problem of unequal proportion of male and female in managerial, professional/technical and political posts so as achieve millennium development goal of providing equal opportunity to females and males in leadership and job recruitment.

In the case of youths, a significant number of youth economic groups have been established. Lack of collateral for securing loans hinders youth from establishing income generating activities. The Government needs to formulate policies which will ease accessibility of loans for people who don't possess collateral. By so doing, the government will manage to reduce youth unemployment and also reduce crime cases not only in Mufindi District, but also in other parts of the country.

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Mufindi District Council

Vision

Mufindi District Council would like to see its people having sustainable and better life.

Mission

Mufindi District Council in collaboration with internal and external stakeholders is committed to facilitate delivery of sustainable good services by considering priorities set by stakeholders through the use of available and expected resources by the year 2025.