



The United Republic of Tanzania

IRINGA REGION

SOCIO-ECONOMIC PROFILE, 2013



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Ministry of Finance,
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Foreword



The goals of Tanzania's Development Vision 2025 are in line with United Nation's Millennium 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, 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 are 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 problems which cannot be ignored.

Our efforts to meet both the new and old challenges are hampered by many factors including ill prepared rural development programs followed by weak implementation, monitoring and their supervision. 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. The availability of reliable, adequate and relevant qualitative and quantitative data and information at

regional level is a prerequisite for the success of the formulating, planning, implementation, monitoring and evaluation of districts' development programs.

The publication of the Iringa Regional Socio-Economic Profile series by the Prime Minister Office, Regional Administration and Local Government Authority (PMO-RALG) in collaboration with the National Bureau of Statistics and Regional Administration Management Team should be viewed as a modest attempt towards finding a solution to the existing problem of data and information gap at regional level.

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

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

I would like to take this opportunity to acknowledge with thanks, UNICEF for their financial support, contribution made by the Iringa Regional Administrative Secretary's Office, National Bureau of Statistics and other staff of Iringa Regional Office who devoted their time to ensure the successful completion of this assignment.



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Acronyms

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/HB3	Diphtheria Pertusis Tetanus 3 rd doze/ Haemoglobin Level
ECF	East Cost Fiver
RVF	Rift Valley Fever
Govt.	Government
HIV	Human Immune Virus
IGAs	Income Generating Activities
IMR	Infant Mortality Rate
MMR	Maternal Mortality Rate
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
WWF	World Wildlife Foundation
WUG	Water User Group

CHAPTER ONE

Land, Climate, Agro-Ecological Zones and People

1.0 An Overview

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



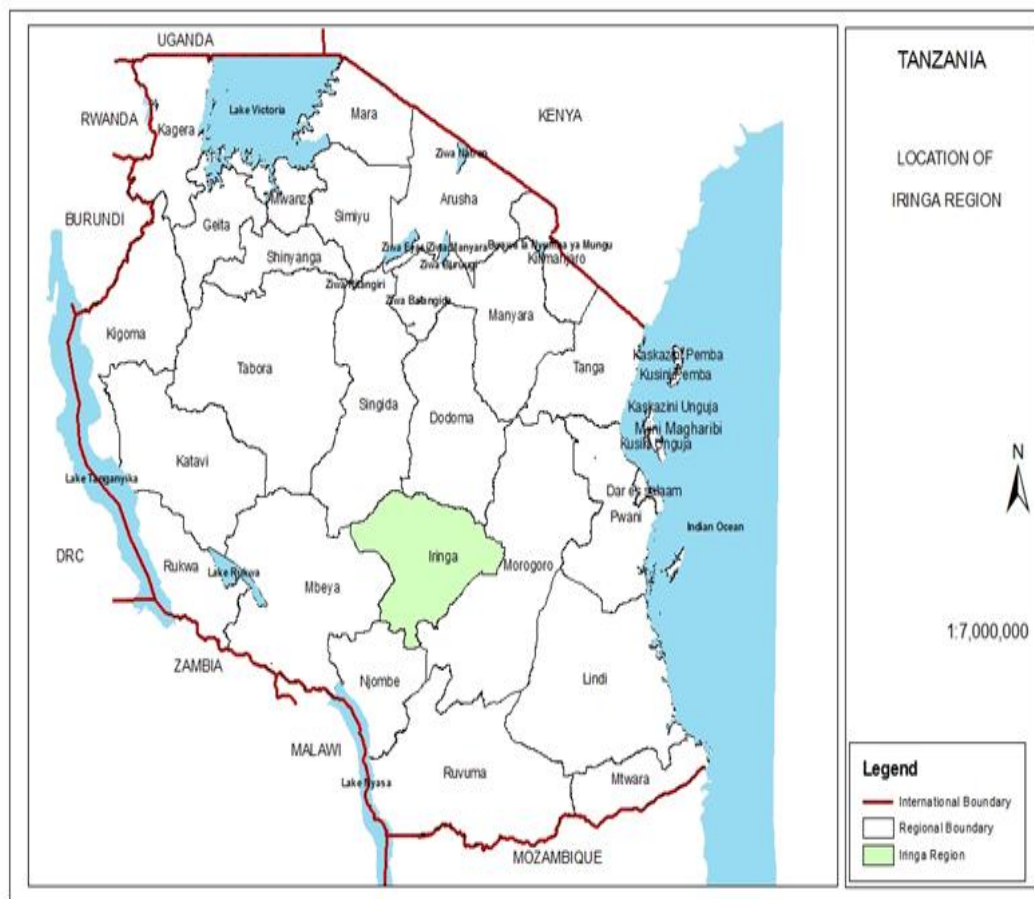
The impact of the monsoonal type of winds is on moisture losses and hence desertification.

Geographically Iringa is in the southern highlands of Tanzania Mainland. It borders five regions namely Morogoro Region in the East, Njombe Region in the South, Dodoma and Singida Regions in the North and Mbeya Region in the West. It is accessible from Northern and Lake Zone regions like Mwanza and Arusha through Dodoma Region; Dar es salaam through Morogoro, Mbeya and Ruvuma through Njombe Region. These connections are passable throughout the year. Consequently Iringa region can look forward to a rosy future.

1.1 Geographical Location

Iringa Region is located in the southern highlands zone of Tanzania, below the equator and between latitudes $6^{\circ} 55'$ and $9^{\circ} 00'$. Longitudinally the region is situated between $33^{\circ} 45'$ and $36^{\circ} 55'$ east of Greenwich. To the north, it shares borders with Singida and Dodoma Regions; Morogoro Region to the east, Mbeya Region to the west while Njombe Region lies on the south as indicated in the map below.

Map 1 : Map of Tanzania showing location of Iringa Region; 2012



Source: National Bureau of Statistics, GIS unit, 2013

1.2 Land Area, Land Use Pattern and Administrative Units



Livestock keeping is practiced by many residents of Iringa region

Iringa Region has a total surface area of 35,743 sq. kms out of which 2,704.2 sq.kms or 7.6 percent is covered by water bodies of Mtera Dam, the Little and Greater Ruaha Rivers. The remaining 33,038.8 sq.km is land area. Iringa Region is deemed to be neither a small nor a big region. It is the 13th largest region occupying about 4.1 percent of Tanzania Mainland's total area of 881,289sq.km.

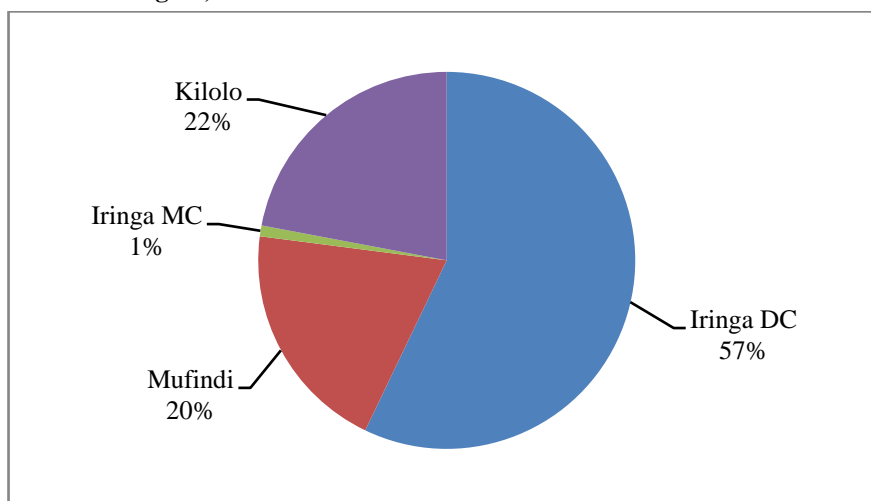
Table 1.1 and Figure 1 show that distribution of the region's area among the districts is largely in favour of Iringa District Council which covers 57.1 percent of total area of the region followed by Kilolo (22.0 percent), and Mufindi (20.0 percent). Iringa Municipal has the smallest area and account for only 0.9 percent of the total area.

Table 1. 1: Distribution of Surface Area, Land Area and Water Area by Council, Iringa Region, 2012

Council	Land Area		Water Area		Total Area	
	Sq. Km	Percent	Sq. Km.	Percent	Sq. Kms.	Percent
Iringa DC	19,735.48	59.7	678.50	25.1	20,413.98	57.1
Mufindi	6,177.00	18.7	946.00	35	7,123.00	20
Iringa MC	329.7	1.0	1.70	0.1	331.40	0.9
Kilolo	6,796.62	20.6	1,078.00	39.9	7,874.62	22
Total	33,038.80	100	2,704.20	100	35,743.00	100 0

Source: Iringa Regional Commissioner's Office, 2013

Figure 1: Percentage Distribution of Total Surface Area by Council, Iringa Region, 2012

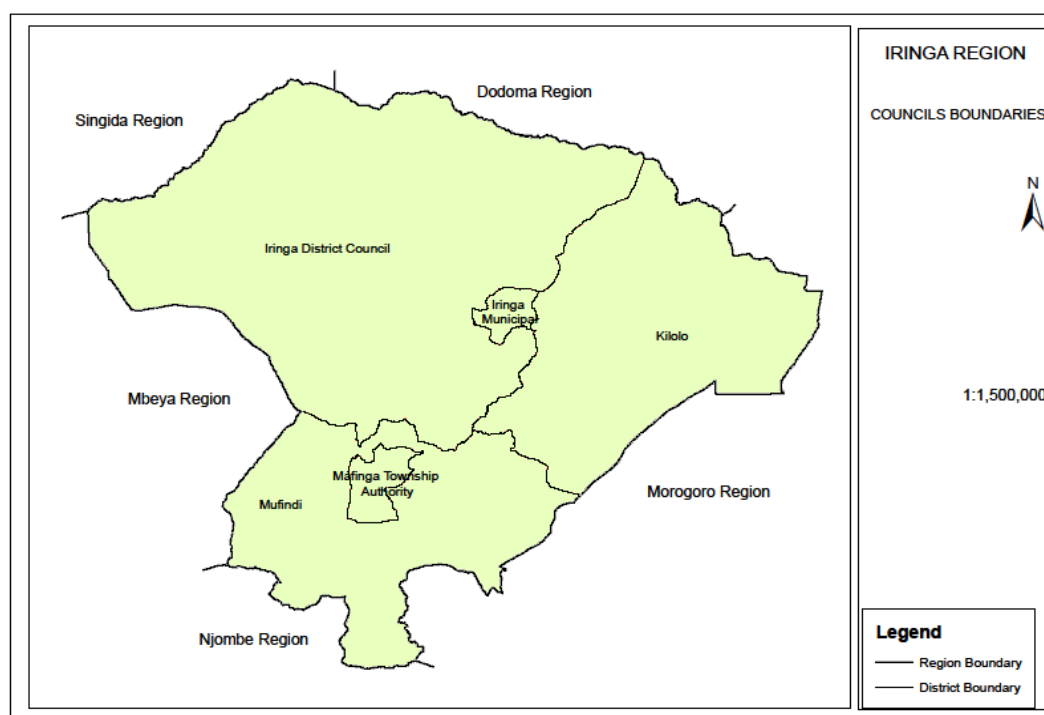


Source: Iringa Regional Commissioner's Office, Land Natural Resources and Environment Department, 2013

Administratively, Iringa region is divided into 3 districts namely: Iringa, Mufindi, and Kilolo with 4 Councils namely: Iringa District Council, Mufindi District Council, Kilolo District Council and Iringa Municipal Council. Moreover, Iringa Region is further sub divided into divisions, wards, villages/hamlets and streets. Table 1.2 shows that though the number of divisions and wards among councils differ slightly, the number of villages and

hamlets differ very significantly, ranging from 7 to 125 for villages and 31 to 608 for hamlets.

Map 2 : Map of Iringa Region showing Councils Boundaries; 2012



Source: National Bureau of Statistics, GIS unit, 2013

Table 1.2: Area and Administrative Units by Council, Iringa Region, 2012

Council	Area Sq. Kms.	Divisions	Wards	Villages	Hamlets	Streets
Iringa DC	20,413.98	6	25	123	718	0
Mufindi	7,123.00	5	28	125	608	0
Iringa Municipal	331.40	1	16	7	31	149
Kilolo	7,874.62	3	22	106	555	0
Total	35,743.00	15	91	361	1,912	149

Source: Iringa Regional Commissioner's Office, 2013

Table 1.3 shows that the average area per ward in Iringa Region is 384.3 sq. kms, ranging from 20.7 sq kms per ward in Iringa Municipal to 816.9 sq. kms in Iringa District Council. At village level, the average area per village in Iringa Region is 99.0 sq kms, but varying from 57.0 sq. kms per village in Mufindi to 166.0 sq. kms per village in Iringa District Council for rural councils only.

In Iringa Region, the average population per ward was 10,343 persons. The average population per ward varied from 9,459 in Iringa Municipal to 10,951 persons in Mufindi District Council. At regional level, the average population was 2,601 persons ranging from 2,058 people per village in Kilolo District to 2,542 people per village in Mufindi District Council for the rural district councils.

Table 1.3: Distribution of Area and Population among Wards and Villages by Council, Iringa Region, 2012

Council	Area (sq. kms)	Total Population	Wards			Villages		
			Number	Average area per ward (sq.kms.)	Average Population per ward	Number	Average area per village (sq.kms.)	Average Population per village
Iringa DC	20,413.98	254,032	25	816.6	10,161	123	166.0	2,065
Mufindi	7,123.00	317,731	30	237.4	10,591	125	57.0	2,542
Iringa MC	331.4 0	151,345	16	20.7	9,459	7	47.3	21,621
Kilolo	7,874.62	218,130	22	357.9	9,915	106	74.7	2,058
Total	35,743.00	941,238	93	384.3	10,121	361	99.0	2,607

Source: Iringa Regional Commissioner's Office, and the 2012 Population and Housing Census, Vol. I Population Distribution by Administrative Units, 2013

1.3 Climate, Soil and Topography

1.3.1 Climate

Temperature and rainfall are two key features that show the climate of Iringa Region. The region along with Njombe and Mbeya regions form what is called

the Southern Highlands as distinct from the Northern Highlands of Kilimanjaro and Arusha regions in the far north of Tanzania. The Southern Highlands experience long rainfall and short dry seasons which more often are cool with fairly moderate winds. Total rainfall ranges from 500mm to 1,600mm per annum with high geographical, seasonal and annual variation. There is one rather well defined rainy season starting from November to May followed by a dry and cold season which lasts from June to September.

Altitude, topography and vegetation influence the climate greatly, resulting in micro climate in specific areas and macro climate in larger areas. The climate in Iringa is influenced by several factors resulting in the formation of three distinctive climatic zones. These are the Highlands Zone, the Midlands Zone and the Lowlands Zone.

The temperatures in the region vary according to altitude but generally range from about 10° C in May/June to 25° C during the month of October. Moreover, temperature differences can be observed between day and night and may be high with hot afternoons going up to 28° C and chilly evenings and nights going down to 10° C.

Winds follow a monsoonal pattern being north-easterly during the months of May to October and south-easterly for the rest of the year. In May to October, the winds are usually dry and sometimes dusty.

1.3.2 Soil

In Iringa region, two major superficial geological deposits are identified. These are the red/yellow, well drained and highly weathered and the leached clay soils in the high altitude areas. Intermediate clay soils which are characterized by

being moderately drained and leached are found in the midlands while the lowlands are occupied by red brown loams which are highly fertile. Most of the farmlands are on sandy loams with some black cotton soils which characteristically host Acacia woodland.



The central parts of these alluvial deposits commonly have a surface layer of black soil or “mbuga”.

1.3.3 Topography

Iringa Region occupies the northern part of the southern plateau of Tanzania which has elevations ranging from 900m to 2,300m above sea level. Surrounding the region on all side is a major scarp of up to 800 meters high which is the eastern part of the Great Rift Valley. A prominent feature of the land escarpment in Iringa District Council/Municipal and Kilolo District is the massive outcrops or rocky peaks (tors) of granite and metamorphic rocks. These outcrops, alternatively known as inselbergs, are remnants of ancient land surfaces which in the adjacent areas have been eroded to form an extensive gently undulating pen plain. The region is generally dominated by the Udzungwa Mountains separating Iringa and Morogoro regions in the east. The

northern parts of the region are relatively flat, high plains cut by the eastern arm of the Great Rift Valley in which the Great Ruaha River flows. The region is further characterized by the presence of a big plateau portion which forms the common landform of the region. The only permanent rivers in the region are the Little and Great Ruaha and Lukosi.

1.4 Vegetation:

The vegetation of Iringa region varies from miombo woodlands, savanna and mountain forest. The western slopes are woodland, giving way to grassland patches at 2200 m and moist forest on the wetter eastern slopes and rivers draining eastwards into the Ruaha. The forest is upper montane at high altitudes with montane forest below. There are large areas of secondary forest following logging and extensive areas of rock outcrops which are covered in lithophytic lichens and orchids. Buffalo occur and occasionally elephants.

1.5 Agro – Ecological zones (AEZ)

Climatic conditions as well as geological features have been the base of identifying different agro-ecological zones in Iringa Region. Basically the Region has three distinctive agro-ecological zones.

1.5.1 The Highlands Zone

The zone is characterized by moderately high rainfall with annual mean precipitation ranging from 1,000mm to 1,600mm falling in single season from November through April or sometimes May. The dry and cold season occurs after the rainy season and lasts from June to September. The zone is generally mountainous with plains dissected by many seasonal streams. The zone covers the eastern parts of Iringa District Council, Kilolo and Mufindi district councils.

The soils are red/yellow, well drained and highly weathered and leached clay soils. Crops grown are mainly maize, bananas, peas, tea, wheat, sweet and Irish potatoes, temperate fruits and beans. Livestock keeping is largely includes dairy cattle, pigs and sheep. Fishing activities are confined to Mtera Dam.



Livestock keeping is largely practiced and oxenization is generally very popular.

1.5.2 The Midlands Zone

This zone lies at an altitude of 1,200 to 1,600 meters above sea level. The temperatures range from 15⁰ C to 20⁰ C. The zone enjoys moderate rainfall with annual precipitation from 600mm to 1,000mm. The area is characterized by a gently undulating plateau with isolated hills, rock outcrops and dissected by many streams in the central parts of Iringa Region covering Mufindi District, Iringa District Council and Kilolo District. The Midlands areas are occupied by intermediate clay soils, which are characteristically are moderately drained and leached. Crops grown here are mainly maize, cowpeas, sweet potatoes, beans, and fruits. Livestock keeping includes cattle and dairy farming, sheep, pigs and goats.

1.5.3 The Lowlands Zone

The zone is predominantly undulating, flat and broken by occasional small hills and rock outcrops and has a fair rainfall regime ranging between 500mm and 600mm annually. It has an altitude of 900 meters to 1,200 above sea level. This zone covers the low lying northern parts of the Iringa District Council along the Ruaha River. The temperatures vary between 20⁰ C and 25⁰ C. The Lowlands are dominated by red/brown loams which are highly fertile. There is considerable soil erosion. The zone is suitable for growing drought resistant crops like sorghum, millet and cassava; groundnuts, paddy, bananas, vegetables and fruits. The zone is free from tsetse flies and hence livestock keeping (cattle, goats, sheep and donkeys) is practiced.



The zone is predominantly undulating, flat and broken by occasional small hills and rock outcrops.

1.6 Drainage System

Iringa Region is generally dominated by the Udzungwa Mountains which separate Iringa and Morogoro regions in the east. The northern parts of the region are relatively flat. These high plains are cut by the eastern arm of the Great Rift Valley, through which the Great Ruaha River runs. The region is further characterized by the presence of a big plateau portion, which forms the

common landform. Iringa Region forms part of the Indian Ocean drainage zone. The Great and Little Ruaha rivers join the Rufiji River outside the region to form part of the Rufiji River Basin. The central plateau of the region divides the catchment into northern drainage and southern drainage. The rivers draining north all merge into the Great Ruaha and those draining south join the Rufiji and the Kilombero rivers.

1.7 Population

1.7.1 Ethnic Groups

The main indigenous ethnic group is the Hehe. Others who form significant minorities are the Bena, Kinga, Barbaig, Pangwa, Chaga, Nyakyusa, Gogo, Ngoni, Maasai, Wanji, Sukuma, Safwa and the Sagala (Table 1.4). The Hehe, Bena and Kinga are the majority in all the councils while the Pangwa, Chaga, Nyakyusa and Ngoni are mainly in Iringa Municipal Council where they mostly do business. The Barbaig and Maasai on the other hand are in Iringa Municipal, Iringa District Council and Kilolo District and are predominantly herders though to some extent they engage farming.



The Barbaig are one of the ethnic groups in Iringa region

Table 1.4: Number of Major Ethnicity Groups by Council, Iringa Region, 2012

Council	Number of Ethnicity Group	Major Ethnicity Groups
Iringa DC	9	Hehe, Bena, Kinga, Pangwa, Barbaig and Maasai.
Mufindi	3	Hehe, Bena and Kinga.
Iringa MC	9	Hehe, Bena, Kinga, Pangwa,
Kilolo	7	Hehe, Bena, Kinga, Maasai, and Sagala.

Source: Regional Commissioner's Office, Iringa, 2013

1.7.2 Population Size and Growth

Like most regions in Tanzania mainland, the population of Iringa region has experienced a significant growth. Table 1.5 shows that the region had 941,238 people in 2012 compared to 840,404 inhabitants counted in the 2002 Population Census, resulting in a significant increase of 100,834 people (12.0 percent) during the intercensal period. The region accounts for 2.2 percent of the total population of Tanzania Mainland.

When compared with other regions in the Mainland, Iringa Region comes out as the 4th least populous region followed by Lindi, Njombe and Katavi at the bottom as can be seen in Table 1.5.

Table 1.5. Distribution of Population and Growth Rates by Region; 2002 and 2012

Region	Population		Increase 2002 – 2012		
	2002	2012	Increase	Rate (percent)	Average annual rate (percent)
Iringa	837,847	941,238	103,391	12.3	1.1
Dodoma	1,692,025	2,083,588	391,563	23.1	2.1
Arusha	1,288,088	1,694,310	406,222	31.5	2.7
Kilimanjaro	1,376,702	1,640,087	263,385	19.1	1.8
Tanga	1,636,280	2,045,205	408,925	25	2.2
Morogoro	1,753,362	2,218,492	465,130	26.5	2.4
Pwani	885,017	1,098,668	213,651	24.1	2.2
Dar es salaam	2,487,288	4,364,541	1,877,253	75.5	5.6
Lindi	787,624	864,652	77,028	9.8	0.9
Mtwara	1,124,481	1,270,854	146,373	13	1.2
Ruvuma	1,113,715	1,376,891	263,176	23.6	2.1
Mbeya	2,063,328	2,707,410	644,082	31.2	2.7
Singida	1,086,748	1,370,637	283,889	26.1	2.3
Tabora	1,710,465	2,291,623	581,158	34	2.9
Rukwa	729,060	1,004,539	275,479	37.8	3.2
Kigoma	1,674,047	2,127,930	453,883	27.1	2.4
Shinyanga	1,249,226	1,534,808	285,582	22.9	2.1
Kagera	1,791,451	2,458,023	666,572	37.2	3.2
Mwanza	2,058,866	2,772,509	713,643	34.7	3
Mara	1,363,397	1,743,830	380,433	27.9	2.5
Manyara	1,037,605	1,425,131	387,526	37.3	3.2
Njombe	648,464	702,097	53,633	8.3	0.8
Katavi	408,609	564,604	155,995	38.2	3.2
Simiyu	1,317,879	1,584,157	266,278	20.2	1.8
Geita	1,337,718	1,739,530	401,812	30	2.6
Tanzania					
Mainland	33,461,849	43,625,354	10,163,505	30.4	2.7

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

Table 1.6 shows that Iringa Region is among the regions with a low growth rate. Other regions are Njombe and Lindi. Iringa Region has maintained a lower growth rate than the Mainland over the period 1978 - 2012, for example, in the inter – censal period 1988 - 2002 the growth rate for Iringa Region was 1.6 percent as compared to 2.8 percent for the Mainland. Iringa Region has the third lowest growth rate of 1.1 percent after Lindi (0.9 percent) and Njombe (0.8 percent).

Table 1.6: Average Annual Rates of Population Increase for the Inter-censal Periods 1978-1988, 1988-2002 and 2002-2012, by Region, Tanzania Mainland.

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

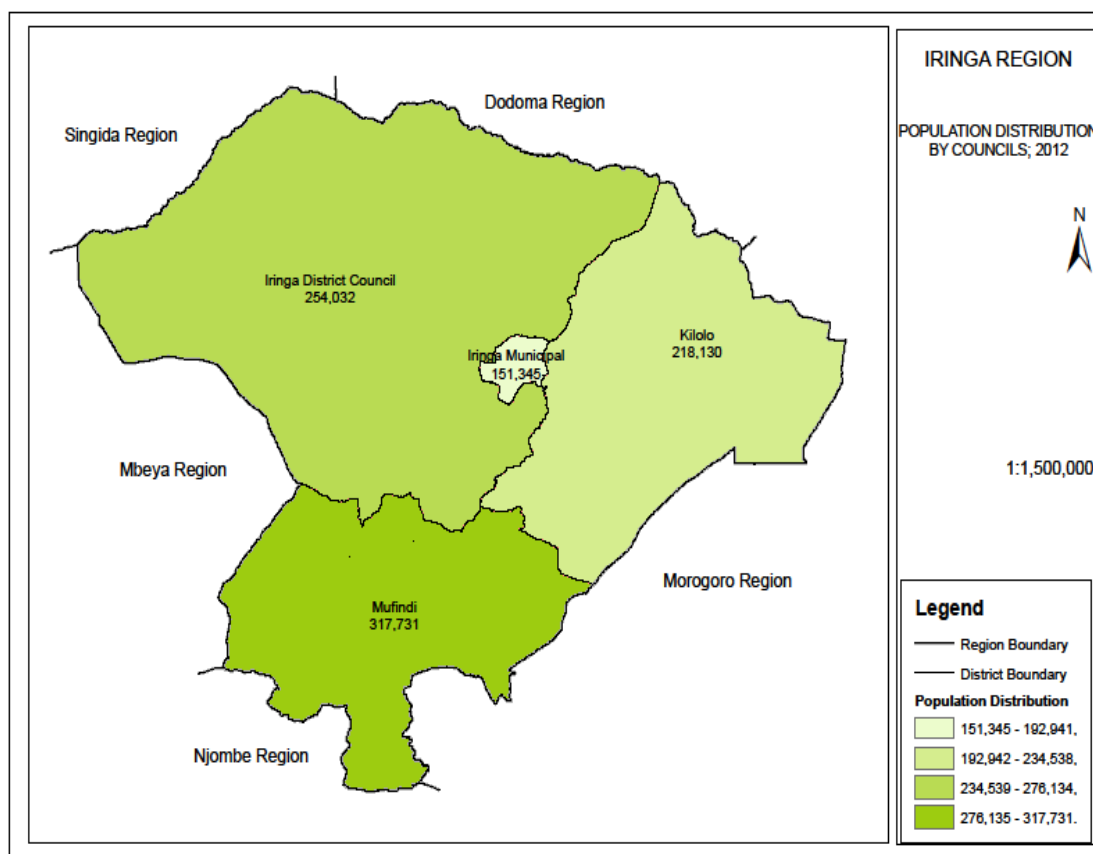
(1) Is difference in growth rates from the period 1988-2002 and that of 1978-1988.

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

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

Table 1.7 shows population size and growth of Iringa Region by council according to the 1988, 2002 and 2012 censuses. It may be observed from the two past censuses data that the population is uneven distributed among the councils in the region. Mufindi is the most populous council throughout this period followed by the Iringa District Council. Iringa Municipal was the least populous council followed by Kilolo.

Map 3 : Map of Iringa Region showing Population Distribution by Councils; 2012 Census



Source: National Bureau of Statistics, GIS unit, 2013

Table 1.7: Population Size and Growth by Council, Iringa Region, 2002 and 2012 Census

Council	Land Area (sq. kms.)	2002 Pop. Census		2012 Pop. Census		Growth Rate	
		Number	Percent	Number	Percent	1988 - 2002	2002 - 2012
Iringa DC	19,735.48	245,033	29.2	254,032	27.0	1.6	1.1
Mufindi	6,177.00	282,071	33.7	317,731	33.8	1.5	0.9
Iringa Urban	329.70	106,371	12.7	151,345	16.1	1.7	1.5
Kilolo	6,796.62	204,372	24.4	218,130	23.2	n.a	1.1
Total	33,038.80	837,847	100.0	941,238	100.0	1.6	1.1

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

Iringa Region's population grew at an average of 1.6 percent per annum between 1988 and 2002. From 2002 and the year 2012 the growth rate decreased to an average of 1.1 percent per annum. Although the regional growth rate for the period 1988-2002 was 1.6 percent, it varied at district level. Iringa Municipald had the fastest rate followed by Iringa District Council and Mufindi District Council. Data for Kilolo District Council is not available as at that time it was part of Iringa District Council. The district growth rates data for 2002 and 2012 are not out yet but the projected rates can be seen in the Tables 1.7 and 1.8.

Table 1.8: Annual Population Growth Rates by Council, Iringa Region, 1967/78 to 2002/2012.

Council	Percentage intercensal annual population growth			
	1967-78	1978-88	1988-2002	2002-2012***
Iringa DC	2.3	2.2	1.6	1.1
Mufindi	3.5	2.8	1.5	0.9
Iringa Municipal	7	4	1.7	1.5
Kilolo	n.a	n.a	n.a	1.1
Total	2.7	2.6	1.6	1.1

Source: Compiled from 1967 to 2002 population census reports

Table 1.9 shows that the population of Iringa Region has reached 941,238 in 2012 from 837,847 in 2002. This is an increase of about 12.3 percent in ten years. Mufindi continues to lead followed by Iringa District Council while Iringa Municipal remains the least populous council throughout the 2002 to 2012 period.

Table 1.9: Population Distribution by Council, Iringa Region, 1988, 2002 and 2012
Censuses

Council	1988	2002	2012
Iringa DC	362,137	245,033	254,032
Mufindi	229,259	282,071	317,731
Iringa Municipal	84,860	106,371	151,345
Kilolo	*	204,372	218,130
Total	676,256	837,847	941,238

*Kilolo was part of Iringa district council

Source: compiled from 1988, 2002 and 2012 Censuses.

Table 1.10 shows that Iringa Municipal's share of the regional population, like other urban councils, has been on the increase from 12.5 percent in 1988 to 16.1 percent in 2012. While Mufindi has remained almost constant at 34 percent, the share of Iringa and Kilolo district councils decreased and reached about 27 and 23 percent respectively in 2012.

Table 1.10: Percentage Share of Regional Population by District Council, Iringa Region, 1988, 2002, and 2012.

Council	Percentage share of regional population					
	1988	2002	2005	2007	2008	2012
Iringa DC	53.6	29.2	28.8	28.4	28.3	27
Mufindi	33.9	33.7	33.5	33.3	33.2	33.8
Iringa Municipal	12.5	12.7	13.9	14.6	14.9	16.1
Kilolo	*	24.4	23.9	23.7	23.6	23.2
Total	100	100	100	100	100	100

Source: Compiled from Table 1.10

Compared to other regions of Tanzania Mainland, Iringa Region is neither the biggest nor smallest in terms of either land area or population according to the 2002 Census results. In fact it was one of the five least populous regions of Tanzania Mainland. However, according to the 2012 Population and Housing Census, Iringa region was among the four least populous regions in the country and contributed only 2.2 percent of the Mainland population. Between 2002 and 2012 the region was the 23rd in average annual rate of increase and had an average annual growth rate of 1.1 percent compared to the mainland growth rate of 2.7 percent. Nevertheless, Table 1.11 shows that the share of the region has been on the decline and has reached at about 2.2 percent in the year 2012 while in comparison; Iringa region occupies 3.7 percent of total area of Tanzania Mainland.

Table 1.11: Iringa Region's Percentage Share of Tanzania Mainland Population in 1967, 1978, 1988, 2002 and 2012

Year	Total population				
	1967	1978	1988	2002	2012
Mainland	11,958,654	17,036,499	22,455,207	33,461,849	43,625,354
Iringa	371,094	521,443	676,256	840,404	941,238
Percent Share	3.1	3.1	3	2.5	2.2

Source: Compiled from the 1967, 1978, 1988, 2002 and 2012 Census Data.

1.7.3 Population Density

Iringa region, with an average population density of 23 persons per sq. km in 2002 is considered to be a moderate densely populated region compared to other regions of Tanzania Mainland. In 2012 Iringa Region has a total population of about 941,238 and therefore a density of 26 people per square kilometer. The region does not reflect any sort of land pressure compared to regions like Kilimanjaro or Dar es Salaam.

The Mainland population density in 2002 was 38 people per sq. km. Iringa Region was placed at number 14 in terms of population density among other Mainland regions. Dar es Salaam led with 1,786 people per sq. km followed by Mwanza 150 and Kilimanjaro (103). The least densely populated regions were Lindi (12), Rukwa (17) and Ruvuma (18 people per sq. km.).

The national average population densities as presented in Table 1.12 were 1978 (19), 1988 (26), and 2002 (38) and 2012 (50). The table also compares the Mainland regions' population densities. Iringa region's population density is low compared to many of the other regions. In 2012, Iringa Region ranked 18 out of the former 21 regions of Tanzania Mainland and in 2012 it ranked fourteenth.

Table 1. 12: Population Density by Region and Ranking, Tanzania Mainland, 1978, 1988, 2002 and 2012 Censuses.

Region	Land Area Sq. kms.	Density (Persons per Sq. Kms.)				Rank	
		1978	1988	2002	2012	2002	2012
Iringa	33,039	16	21	26	26	14	18
Dodoma	41,311	24	30	41	50	10	9
Arusha	34,516	13	20	35	49	11	10
Kilimanjaro	13,309	68	83	103	123	3	3
Tanga	26,808	39	48	61	76	7	6
Morogoro	70,799	13	17	25	31	15	13
Pwani	32,407	16	20	27	34	13	12
Dar es salaam	1,393	605	977	1786	3133	1	1
Lindi	66,046	8	10	12	13	21	21
Mtwara	16,707	46	53	67	76	6	7
Ruvuma	63,498	9	12	18	22	19	19
Mbeya	60,350	18	24	34	45	12	11
Singida	49,341	12	16	22	28	18	17
Tabora	76,151	7	14	22	30	20	16
Rukwa	68,635	11	10	17	15	16	20
Kigoma	37,037	18	23	45	57	9	8
Shinyanga	50,781	26	35	55	30	8	15
Kagera	28,388	36	46	71	87	4	5
Mwanza	19,592	74	96	150	142	2	2
Mara	19,566	37	48	70	89	5	4
Manyara	45,820	11	13	23	31	16	14
Njombe	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Katavi	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Simiyu	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Geita	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Total Mainland	881,289	19	26	38	50		

Source: 2002 Population and Housing Census General Report and Population Projections

Table 1.13 gives the population density at the district council level for the census years of 1988, 2002 and 2012. For the rural district councils, in 1988 Mufindi district council with a population density of 32 persons per sq. km was the most densely populated district council, followed by Iringa district council accounting to 18 persons per sq. km.

In 2002, Mufindi was the most densely populated rural district (46 persons per sq.km.) while Iringa District Council was the least (12 persons per sq. km.) densely populated council in the region (Table 1.13). In 2012, Mufindi with population density of 51 persons per sq. km was again the most densely populated council followed by Kilolo with a population density of 32 persons.

Table 1.13: Population Density by Council, Iringa Region, 1988, 2002 and 2012

Council	Land Area (sq. kms).	1988 population	2002 Population	2012 Population	Population Density (Persons per Sq. Km.)		
					1988	2002	2012
Iringa DC	19,735.48	362,137	245,033	254,032	18	12	12
Mufindi	6,177.00	229,259	282,071	317,731	32	40	45
Iringa MC	329.7	84,860	106,371	151,345	255	319	454
Kilolo	6,796.62	*	204,372	218,130	*	26	28
Total	33,038.80	676,256	837,847	941,238	19	23	26

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

1.7.4 Population Change

Table 1.14 shows that from 2002 to 2012 the region's population increased slightly from 837,847 in 2002 to 941,238 in 2012. However, at the council level there were significant differences in the nature and level of population change with one council registering population increase of more than 40 percent while in another the population increase was only 3.7 percent. No council showed a decline in the population.

Table 1.14: Population by Council, Iringa Region, 2002 and 2012

Council	Land Area (sq. km)	Population		Population Increase: 2002 to 2012	
		2002	2012	Number	Percentage
Iringa DC	19,735.48	245,033	254,032	8,999	3.7
Mufindi	6,177.00	282,071	317,731	35,660	12.6
Iringa MC	329.7	106,371	151,345	44,974	42.3
Kilolo	6,796.62	204,372	218,130	13,758	6.7
Total	33,038.80	837,847	941,238	103,391	12.3

Source: Computed Data from 2002 and 2012 Population Censuses Reports.

1.7.5 Dependency Ratio

The Dependency Ratio is a measure which shows the load the economically active population has in supporting the young and the old populations who are termed as dependants. The Age Dependency Ratio therefore gives the number of persons aged 0 – 14 years and those aged 65 years and above who are the dependants to every 100 persons aged 15 – 64 years. Table 1.15 shows that, the number of dependants in Iringa Region increased from 406,413 in 2002 to 440,616 in 2012. In 2012, the dependency ratio was highest in Iringa District Council where it was 97.2 dependants per 100 of the active population and lowest in Iringa Municipal with 59 dependants per 100 active persons. Nevertheless, Iringa and Mufindi district councils have still a long way to go since their dependency ratios are above the regional average of 88 persons and national average of 93 persons.

Table 1.15 : The Dependency Ratios by Council, Iringa Region, 1988 and 2002

Council	2002 Population			2012 Population		
	Number of		Dependency Ratio	Number of		Dependency Ratio
	Dependants	Economically Active		Dependants	Economically Active	
Iringa DC	121,489	123,544	98	125,207	128,825	97
Mufindi	139,893	142,177	98	153,074	164,657	93
Iringa MC	42,710	63,661	67	56,302	95,043	59
Kilolo	102,321	102,051	100	106,033	112,097	95
Total	406,413	431,433	94	440,616	500,622	88

Source: Computed Data from 1988 and 2002 Population Censuses Reports.

1.7.6 Population Distribution by Sex and Age

The 2002 and 2012 population censuses showed that females were more than males in Iringa region and all its districts. At regional level, in 2002 and 2012, for every 100 females there were 92 males (Table 1.16). In 2002, the districts with the highest sex ratio of 95 males for every 100 females were Iringa District Council and Kilolo. In 2012 the same districts had the highest sex ratio but this time the ratio was 94 males for every 100 females. Mufindi and Iringa Municipal had the lowest ratios in both 2002 and 2012 (Table 1.16).

Table 1. 16 : Population Distribution by Sex and Sex Ratio by District council, Iringa Region, 2002 and 2012

Council	2002				2012			
	Males	Females	Total	Sex ratio	Males	Females	Total	Sex Ratio
Iringa DC	119,082	125,951	245,033	95	123,243	130,789	254,032	94
Mufindi	133,150	148,921	282,071	89	151,021	166,710	317,731	91
Iringa MC	49,719	56,652	106,371	88	71,932	79,413	151,345	91
Kilolo	99,756	104,616	204,372	95	105,856	112,274	218,130	94
Total	401,707	436,140	837,847	92	452,052	489,186	941,238	92

Source: Calculations based on data from the 2002 and 2012 Censuses

Furthermore, the 2012 population of Iringa region as depicted by Table 1.17, is considered as young population, made up of children under 18 years who were 455,631 (228,202 males and 227,429 females) or 48.4 percent of the total population, followed by the young population aged between 18 – 29 years accounted for 193,648 persons (91,480 males and 102,168 females) or 20.6 percent of total population. Persons aged 61 years and above were 50,669 (21,395 males and 29,274 females) or 5.4 percent of the total population. Table 1.17 also shows the 2012 population of Iringa Region distributed by broad age groups.

Table 1. 17: Population distribution by broad age group and by sex, Iringa region, 2002

Age Group	Sex				Total	Percent of Total
	Male	Percent	Female	Percent		
0 – 17	228,202	50.1	227,429	49.9	455,631	48.4
18 – 29	91,480	47.2	102,168	52.8	193,648	20.6
30 – 44	72,027	46.8	81,793	53.2	153,820	16.3
45 – 60	38,948	44.5	48,522	55.5	87,470	9.3
61+	21,395	42.2	29,274	57.8	50,669	5.4
Total	452,052	48.0	489,186	52.0	941,238	100.0

Source: 2002 Population and Housing Census Report

1.7.7 Households and Household Size

Kilolo was the second district council to have the smallest number of households perhaps due to its geographical characteristic and population size, with a population of 204,372 given in the 2002 census, there were 45,710 private households, equivalent to 23.6 percent of the total 193,329 private households of Iringa Region.

In 2012, three out of four districts had an average household size of 4.2 persons. Only Kilolo District had a slightly higher household size of 4.3 persons per household. Table 1.18 shows that during the intercensal period, there was a decrease in average household size in three of the districts.

Table 1.18 also gives the distribution of households by district based on the 2002 and 2012 census data. In 2012 Mufindi District had the largest number of households (75,650) followed by Iringa District (60,484) and Kilolo (50,728). The 2002 data give us a similar picture, that Mufindi District was the first, Iringa District Council the second followed by Kilolo District while Iringa Municipal had the smallest number of household (24,601).

Table 1.18: Distribution of Households and Average Households Size by Council, Iringa Region, 2002 and 2012

Council	2002 Census				2012 Census	
	Total Population	Number of Households	Average Household Size	Total Population	Number of Households	Average Household Size
Iringa DC	245,033	56,355	4.3	254,032	60,484	4.2
Mufindi	282,071	66,663	4.2	317,731	75,650	4.2
Iringa MC	106,371	24,601	4.3	151,345	36,035	4.2
Kilolo	204,372	45,710	4.5	218,130	50,728	4.3
Region	837,847	193,329	4.3	941,238	222,897	4.2

Source: Computed Data from 2002 and 2012 Population Censuses Reports.

1.7.8 Rural and Urban population

According to Table 1.19, urbanization has been depicted as an increasing problem in all councils of Iringa region for the 2002 to 2012 Censuses. According to the Table, urban population of Iringa region increased from 18.9 percent of 2002 census to 21.7 percent of 2012. At council level, the Table shows that urbanization is more significant in Iringa Municipal in which 93.8

percent of its population was urbanized in 2002, followed by Mufindi (12.1 percent), Kilolo (8.3 percent) and Iringa DC (2.9 percent). However, in 2012 all population (100 percent) of the people in Iringa Municipal was urbanized as compared to 93.8 percent in 2002. Moreover, Table 1.19 further shows that urban population in Iringa DC, Mufindi and Kilolo District Councils counted during 2012 census were lower than that of 2002 census. For Iringa DC decreased from 2.9 percent of 2002 to 6.8 percent in 2012 census, Mufindi (dropped from 12.1 percent of 2002 to 7.6 percent in 2012 census) and for Kilolo District Council decreased from 8.3 percent of 2002 to 5.4 percent in 2012 census.

Table 1.19: Distribution of Urban Population and Percentage by Council, Iringa Region, 2002 and 2012 Census

Council	2002			2012		
	Total population	Urban population	Percent urbanization	Total population	Urban population	Percent urbanization
Iringa DC	245,033	7,196	2.9	254,032	17,155	6.8
Mufindi	282,071	34,144	12.1	317,731	24,159	7.6
Iringa MC	106,371	99,723	93.8	151,345	151,345	100.0
Kilolo	204,372	17,065	8.3	218,130	11,787	5.4
Total	837,847	158,128	18.9	941,238	204,446	21.7

Source: National Bureau of Statistics Population Census data 1988 and 2002

1.7.9 Migration

Factors affecting change in the population of an area are births, deaths and migration. Migration is one of the most complex the demographic variables. Like deaths it occurs at any time. Migration can affect the growth of population directly, and by influencing fertility and mortality of the area of origin and destination. The measurement and analysis of migration are important in the

preparation of population estimates and projections of a region. Furthermore, it is of particular significance for manpower and regional planning.

Table 1.20 shows that Iringa is one of the regions in the country that experience persistent negative net migration. Other regions are Dodoma, Kilimanjaro, Tanga, Pwani, Lindi, Mtwara, Ruvuma, Singida, Kigoma, Mwanza and Mara. There are several reasons that make negative net migration to these regions. Among them are lack of strong industrial and commercial base, large scale plantations and looking for greener pastures.

The 1988 and 2002 population censuses reveal among many things that Iringa Region had the second highest negative net life time migration of -120,198 and -223,266 respectively. This means that the number of people who came to live in Iringa Region were less than those who left the Region. The high negative net migration figure is a testimony to the fact that more people out-migrated.

Table 1.20: Migration Status and Net migration by Region, Tanzania Mainland, 1988 and 2002

Region	1988			2002		
	In migration	Out migration	Net migration	In migration	Out migration	Net migration
Iringa	49,282	169,480	-120,198	80,129	303,395	-223,266
Dodoma	89,900	190,985	-101,085	139,978	324,088	-184,110
Arusha	218,427	76,703	141,724	267,747	184,014	83,733
Kilimanjaro	93,040	217,423	-124,383	148,016	416,038	-268,022
Tanga	98,747	150,915	-52,168	131,961	299,142	-167,181
Morogoro	172,393	141,956	30,437	288,492	212,553	75,939
Pwani	103,804	207,716	-103,912	189,286	239,190	-49,904
Dar es salaam	651,246	150,625	500,621	1,229,839	238,423	991,416
Lindi	95,200	145,031	-49,831	100,545	177,785	-77,240
Mtwara	46,299	144,988	-98,689	53,727	189,172	-135,445
Ruvuma	66,442	81,661	-15,219	86,637	138,794	-52,157
Mbeya	160,377	113,378	46,999	238,624	173,247	65,377
Singida	86,651	130,531	-43,880	104,699	256,643	-151,944
Tabora	241,729	175,359	66,370	351,712	244,767	106,945
Rukwa	87,599	49,294	38,305	114,210	74,938	39,272
Kigoma	26,795	129,718	-102,923	84,721	239,344	-154,623
Shinyanga	288,210	281,447	6,763	449,512	64,966	384,546
Kagera	103,713	109,693	-5,980	203,623	177,014	26,609
Mwanza	270,142	303,646	-33,504	420,113	437,666	-17,553
Mara	75,982	115,865	-39,883	108,531	301,583	-193,052
Manyara	*	*	*	276,222	55,872	220,350
Total Mainland	3,025,978	3,086,414	-60,436	5,068,324	4,748,634	319,690

Source: 2002 Population and Housing Census, Tanzania National Profile Volume V (A)

CHAPTER TWO

The Regional Economy

2.0 Introduction

This Chapter describes the economy of Iringa Region. The economic indicators used include Gross Domestic Product (GDP), Per Capita Gross Domestic Product and main source of income for the residents. The non-income poverty indicators cover demographic characteristics, health, and education status, access to drinking water, food security and housing condition.

Iringa Region's economy continues to be dominated by the agriculture sector. Both commercial and peasantry farming are carried out, with the latter dominating. According to the results of the 2007/08 Iringa Region Agriculture Sample Census Report, the crop and livestock sub-sectors engaged about 98 percent of the economically active population in the region. Agriculture contributes most of the Region's cash income mainly from tea, beans, maize, ground nuts, Irish potatoes, paddy and sunflower production. It accounts close to 85 percent of the region's GDP. Generally the crop sub-sector's performance has been adequate to ensure good food security. Poor performance of this sub-sector in some years has been attributed to the heavy dependence on variable climatic conditions in the form of rainfall. Thus, the relatively high growth rates in some years reflect the availability of favourable rainfall in those years.

Trade and repairs is the second most important economic area after agriculture, contributing about 7.1 percent of the Region's GDP. The livestock sub-sector comes third in economic contribution to the Region's GDP. It is estimated that the livestock sub-sector contributes roughly 4.5 percent of the GDP. The large

cattle population in the region disappointingly matches poorly with its low share of the region's economy. Transport, manufacturing and other sectors account for well over 1 and 2 percent respectively. The relatively poor performance of the manufacturing sector results from a combination of factors. These include increased competition from imported manufactured goods (e.g. cooking oil) in wake of trade liberalization and inefficiency of import substitution, inadequate working capital and high production costs.

2.1 Regional Gross Domestic Product

Iringa Region's economic performance from 2000 to 2010 is shown in Table 2.1. The Iringa Region's GDP stood at TShs 1,340,065 million at current prices in 2008. The regional economy grew by 19.3 percent between 2007 and 2008 but the growth rate dropped to 9.7 percent in 2009 before increasing to 15.8 percent in the year 2010. In 2010 Iringa Region's share of the national GDP was 5.3 percent which is equivalent to TShs. 1,702,430 million (Table 2.1). With this percentage contribution/share to the national Gross Domestic Product ranks Iringa Region at rank fifth among Mainland regions (Table 2.2).

Table 2. 1: GDP and Per Capita GDP at Current Prices, Iringa Region ; 2000 – 2011

Year	GDP at Current Prices in (Tshs million)	Percent change of GDP over the Previous Year	Average Percent Contribution to National GDP	Per Capita GDP at Current Prices in TShs. and USD			
				TShs.	Exchange Rate		USD
					TShs. to 1 USD	Percent Change of over Previous year	
2000	437,360	...	5.4	263,852	808	...	327
2001	506,779	15.9	5.6	296,583	876	8.4	338
2002	583,569	15.2	5.6	390,261	979	11.8	399
2003	669,390	14.7	5.5	443,007	1050	7.2	422
2004	748,910	11.9	5.4	488,254	1101	4.9	443
2005	867,482	15.8	5.4	558,444	1139	3.4	490
2006	953,806	10	5.3	589,607	1252	9.9	471
2007	1,123,318	17.8	5.4	681,130	1233	-1.5	552
2008	1,340,065	19.3	5.4	797,739	1196	-3	667
2009	1,469,720	9.7	5.2	859,875	1320	10.4	651
2010r	1,702,430	15.8	5.3	979,882	1409	6.7	695
2011p	1,985,708	16.6	5.3	1,125,503	1557	10.5	723

r= revised, p= provisional

Source: National Accounts of Tanzania 2000- 2011, Statistical Abstract 2011and Tanzania in Figures 2012 National Bureau of Statistics, Dar es Salaam.

2.2 Regional Per Capita GDP

The Per capita income of the residents of Iringa Region was TShs. 979,882 (equivalent to US \$ 695) in 2010. This amount is greater than that of Tanzania Mainland which was estimated at Tshs. 770,464 (equivalent to US\$ 547) in 2010. The average annual per capita income of the residents of Iringa Region increased slightly from TShs 797,739 in 2008 to TShs 979,882 in 2010. This is an increase of 22.8 percent. However, in terms of US Dollars the increase was from US\$ 667 in 2008 to US\$ 695 in 2010 an increase of 4.2 per cent (Table 2.1).

Table 2.2 shows that Iringa Region ranked fifth among regions in the contribution to the National GDP in 2010. In 2010, Iringa's contribution to the national GDP was 5.3 percent just below Shinyanga, Mbeya, Mwanza and Dar es Salaam regions and above the remaining 16 regions of Tanzania Mainland.

Table 2. 2: Regional GDP at Current Prices, Percentage and Ranking among the Regions at Current Prices, Tanzania Mainland, 2010

Region	GDP (Tshs million)	Percentage	Rank
Iringa	1,702,430	5.3	5
Dodoma	1,024,651	3.2	16
Arusha	1,573,945	4.9	7
Kilimanjaro	1,438,637	4.5	9
Tanga	1,501,150	4.6	8
Morogoro	1,574,261	4.9	6
Pwani	608,288	1.9	21
Dar es Salaam	5,428,503	16.8	1
Lindi	621,676	1.9	20
Mtwara	927,074	2.9	17
Ruvuma	1,191,028	3.7	12
Mbeya	2,376,978	7.4	3
Singida	661,753	2	19
Tabora	1,242,423	3.8	11
Rukwa	1,092,300	3.4	14
Kigoma	906,042	2.8	18
Shinyanga	1,959,401	6.1	4
Kagera	1,260,688	3.9	10
Mwanza	2,958,739	9.2	2
Mara	1,171,243	3.6	13
Manyara	1,072,269	3.3	15
Total Mainland	32,293,479	100	

Source: National Accounts of Tanzania, National Bureau of Statistics, Dar es Salaam

Table 2.3 shows that in 2010 Iringa had the second largest per capita income. The first region was Dar es Salaam.

Table 2.3: Regional Per Capita Income and their Ranking among the Regions at Current Prices, Tanzania Mainland, 2002 and 2010

Region	2002		2010	
	Per Capita Income (TShs)	Rank	Per Capita Income (TShs)	Rank
Iringa	390,260	2	979,882	2
Dodoma	214,743	18	485,211	20
Arusha	364,950	3	945,437	3
Kilimanjaro	306,222	7	879,432	5
Tanga	279,363	13	763,203	9
Morogoro	282,353	12	744,234	10
Pwani	235,023	17	572,466	15
Dar es Salaam	708,046	1	1,740,947	1
Lindi	270,559	14	673,096	13
Mtwara	354,934	4	700,436	12
Ruvuma	294,210	9	866,191	6
Mbeya	290,861	10	892,877	4
Singida	247,783	16	483,922	21
Tabora	207,270	19	528,832	16
Rukwa	295,299	8	726,658	11
Kigoma	152,248	21	499,428	18
Shinyanga	289,934	11	510,023	17
Kagera	193,400	20	491,713	19
Mwanza	345,714	5	829,647	7
Mara	253,501	15	642,528	14
Manyara	319,682	6	772,364	8
Tanzania Mainland	310,991		770,464	

Source: National Accounts of Tanzania, National Bureau of Statistics, Dar es Salaam

Table 2.4 shows the GDP estimates by district in Iringa Region. It can be observed that Mufindi district contributed about half the region's GDP in 2006. The trend remained the same for the three years consecutive. On the other hand, Iringa Municipal's share in the GDP was very little in all the three years.

2.3 Poverty Indicators

As stated earlier, besides GDP and per capita GDP, there are a number of indicators that indicate poverty levels in the region. These indicators include gini coefficient, poverty gap, and percent of households below basic needs poverty line, main source of cash income, food security, food consumption patterns, net enrolment, adult literacy rate, health indicators, and access to drinking safe water. They also include housing conditions in terms of type of toilet, roofing material, and source of energy for lighting as well as for cooking.

2.3.1 Income Poverty Rate, Poverty Gap and Gini Coefficient

According to the 2005 Poverty and Human Development Report, the number of poor per square kilometer in Iringa Urban is the highest (132) among districts of Iringa Region. The report indicates that the number of poor per square kilometer in Iringa District Council was only 4 while it was 7 in Kilolo District Council. Looking at the poverty line, the report shows that Mufindi District Council was highest with 32 percent of the households living below the basic needs poverty line. The best district in the region was Iringa Municipal where only 18 percent of the households lived below the poverty line followed by Kilolo District Council (29 percent) and Iringa District Council (31 percent) as shown in Table 2.4.

With respect to rate of poverty gap, Table 2.4 shows that Mufindi again with 9 percent was the worst district council in Iringa Region followed by Iringa

District Council (8 percent), Kilolo District Council (7 per cent) and Iringa Municipal (5 percent).

Regarding the Gini Coefficient Rate, the results portray that two districts in Iringa Region had almost the same level. At 35 percent, Iringa Municipal and Mufindi District Council were leading on uneven distribution of wealth followed closely by Iringa District Council with 32 percent and then Kilolo District Council with 31 percent.

Table 2.4 : Selected Poverty Indicators by District Council, Iringa Region, 2005

Council	Percentage of Households below Basic Needs Poverty Line	Percentage of Poverty Gap	Gini Coefficient Rate	Number of Poor per Sq. Km
Iringa DC	31	8	32	4
Mufindi	32.3	9	35	11
Iringa Municipal	18.2	5	35	132
Kilolo	29	7	31	7

Source: Poverty and Human Development Report, 2005

Table 2.5 shows the selected health indicators by district council in Iringa Region. The orphanage rate according to the 2002 Census is 2.58 percent. Iringa municipality has the highest rate of 3.81percent followed by Mufindi District Council (2.8 percent) while Kilolo District Council has the least rate of 1.82 percent. As for the infant mortality rate, Iringa municipal has the smallest rate of 83 percent. This is not surprising as there are more health facilities in the Municipal than in other councils.

Table 2.5: Selected Health Indicators by District Council, Iringa Region, 2002

Indicator	Iringa DC	Mufindi	Iringa Municipal	Kilolo	Regional Average
Orphaned Rate (percent) (Census 2002)	2.23	2.8	3.81	1.82	2.58
Widowed Rate (percent) (Census 2002)	7.01	6.2	5.3	5.6	6.5
Infant Mortality Rate (IMR) (Census 2002)	114	98	83	103	102
Children Under Five Mortality Rate (U5MR) (Census 2002)	191	160	133	170	166
HIV/AIDS Prevalence Rate (percent) (THMIS 2011/12)	9.1	9.1	9.1	9.1	9.1
Doctor/Population Ratio	21,169	15,887	4,324	18,178	11,914
Hospital Bed/Population Ratio	1,660	1,199	294	2,272	916

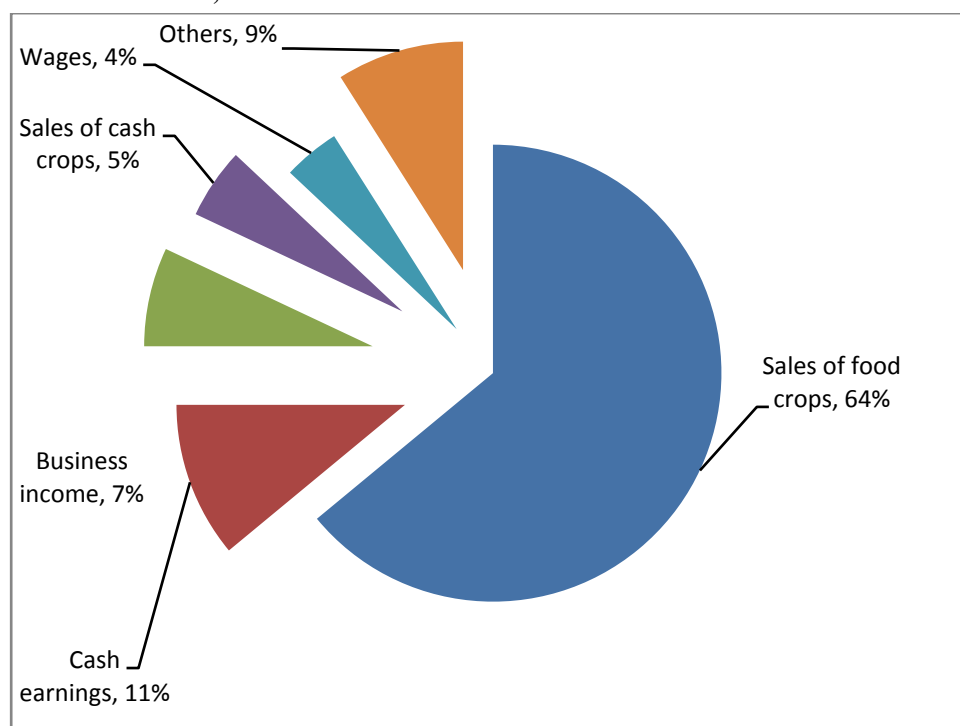
Source: NBS, Population Census Reports, 2002, District Socio-Economic Profiles.

2.3.2 Main Source of Cash Income

The 2007/08 National Sample Census of Agriculture Report shows that the main source of cash income for the households in Iringa Region was the sale of food crops (64 percent of small holder households) followed by cash earnings (11 percent), business income (7 percent), sales of cash crops (5 percent), and wages (4 percent).

Moreover, less than ten percent of smallholder households reported cash remittance, sales of forest products, sales of livestock and livestock products, fishing and others as their main source of income (Figure 2).

Figure 2: Percentage Distribution of the Number of Households by Main Source of Income, 2007/08



Source: National Sample Census of Agriculture 2007/08 Volume Vn: Regional Report Iringa Region

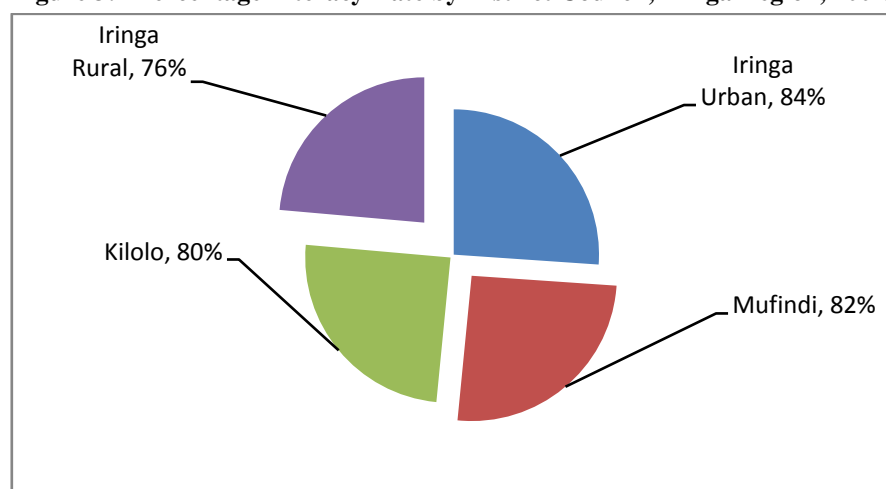
2.3.3 Literacy Rate and Level of Education

According to the National sample Census of Agriculture 2007/08, Iringa Region had a total literacy rate of 79.5 percent. The highest literacy rate was found in Iringa Municipal (84 percent), followed by Mufindi District Council (82 percent), Kilolo District Council (80 percent) and Iringa District Council (76 percent). The literacy was 85 percent for males and 53 percent for females.

The 2002 Population and Housing Census show that 72 percent of all persons aged five years and above were literate. It further shows that, literacy rate was higher among males (77 percent) than females (68 percent).

The extent of literacy was much higher in urban areas (84 percent) than in the rural areas (70 percent). Comparison between 1988 and 2002 results show that, the status of literacy has improved quite substantially from 58 percent to the current one (72 percent) and again literacy rates among males and among females have also increased from 66 percent to 77 percent for males and from 50 percent to 68 percent for females.

Figure 3: Percentage Literacy Rate by District Council, Iringa Region, 2007/08



Source: National Sample Census of Agriculture 2007/08 Volume Vn: Regional Report: Iringa Region

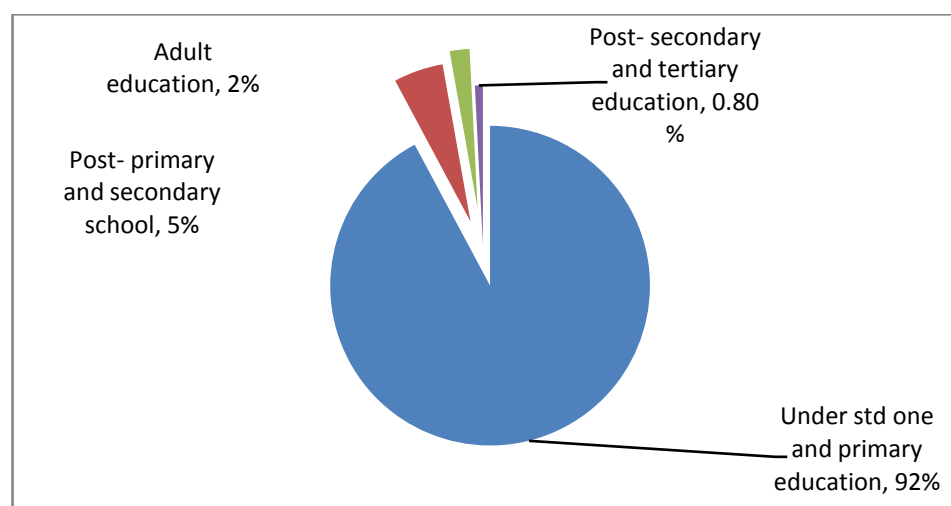
The National Sample Census of Agriculture 2007/08 collected information from individual agricultural households. The results show that 41 percent of the regional population aged 5 years and above had completed different levels of education and 38 percent were still attending school. Those who have never attended school were 21 percent.

Agricultural households in Kilolo District Council had the highest percentage (46.2 percent) of population aged 5 years and above who had completed different levels of education. This was followed by Iringa District Council (43.2

percent) then Iringa Urban (41.9 percent) and the least proportion was in Mufindi District Council (40.2 percent).

The number of heads of agricultural households with formal education in Iringa Region was 513,563 (97.9 percent), those without formal education were 1,152 (0.2 percent) and those with only adult education were 9,935 (1.9 percent). The majority of heads of agricultural households (92 percent) had primary level education five percent had post primary education; about two percent had adult education whereas only 0.8 percent had post- secondary and tertiary education.

Figure 4: Percentage Distribution of Heads of Households by Education Attainment, Iringa Region, 2007/08



Source: National Sample Census of Agriculture 2007/08 Volume Vn: Regional Report: Iringa Region

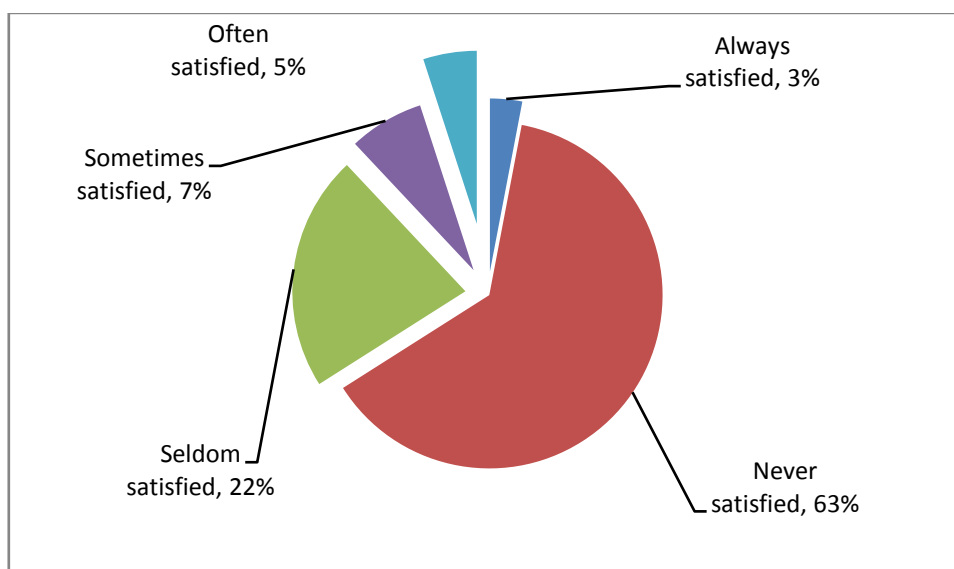
2.3.4 Food Security and Food Consumption Patterns

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

2.3.4.1 Food Security

According to the 2007/08 National Sample Census of Agriculture, in Iringa Region, 193,176 households (63 percent of the total agricultural households in the region) said they have never been satisfied with the food situation. However, 22 percent said they seldom get satisfied, seven percent said they sometimes get satisfied and five percent often. About 3 percent of the agricultural households said they did not experience any food sufficiency problems.

Figure 5: Percentage of Households Reporting Experienced Food problems, Iringa Region 2007/08



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

2.3.4.2 Number of Meals per Day

The National Sample Census of Agriculture 2007/08 reveals that the majority of rural agricultural households in Iringa Region normally had 2 meals per day (53 percent). This was followed by 3 meals per day (46 percent) and 1 meal per day (one percent). None of the households have 4 meals per day.

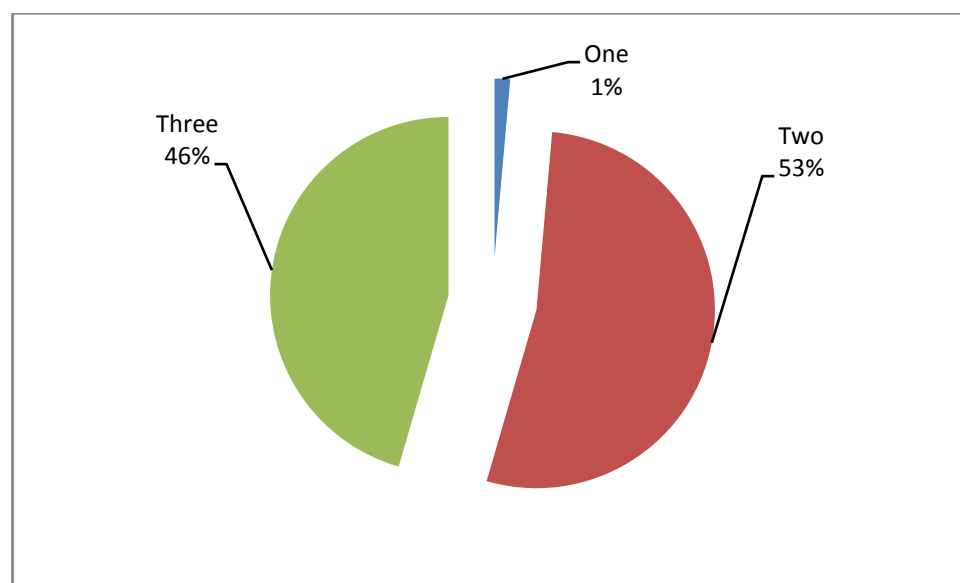
Kilolo District had the largest percentage of households eating one meal per day whilst Mufindi district had the highest percentage of households eating 3 meals per day as indicated in Table 2.5 below.

Table 2. 5: Number of Households by Number of Meals Consumed per Day and Council, Iringa Region, 2007/08

Council	One		Two		Three		Total
	Number	Percent	Number	Percent	Number	Percent	
Iringa DC	278	11.9	29,888	33.9	26,134	34.6	56,300
Mufindi	477	20.4	29,898	33.9	33,873	44.8	64,248
Iringa Urban	47	2	713	0.8	636	0.8	1,396
Kilolo	1,531	65.6	27,770	31.5	14,978	19.8	44,279
Total	2,333	100	88,269	100	75,621	100	166,223

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

Figure 6: Percentage of Households by Number of Meals the Household Consumed per Day, Iringa Region, 2007/08



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

2.3.4.3 Protein (Meat and Fish) Consumption Frequencies

The National Sample Census of Agriculture 2007/08 further reveals that the number of agricultural households that consumed meat during the week preceding the census. The frequency of eating meat was as follows: once a week (45 percent of the households, twice a week (24 percent) and three or more times a week (7 percent). The household that did not eat meat were 24 percent.

The observation was different regarding fish consumption and the frequencies were as follows; once a week (42 percent of the households, twice a week (16 percent), three times a week (6 percent) and four or more times a week (2 percent). However, 34 percent of the households did eat fish at all during the week.

2.3.5 Access to Drinking Clean Water

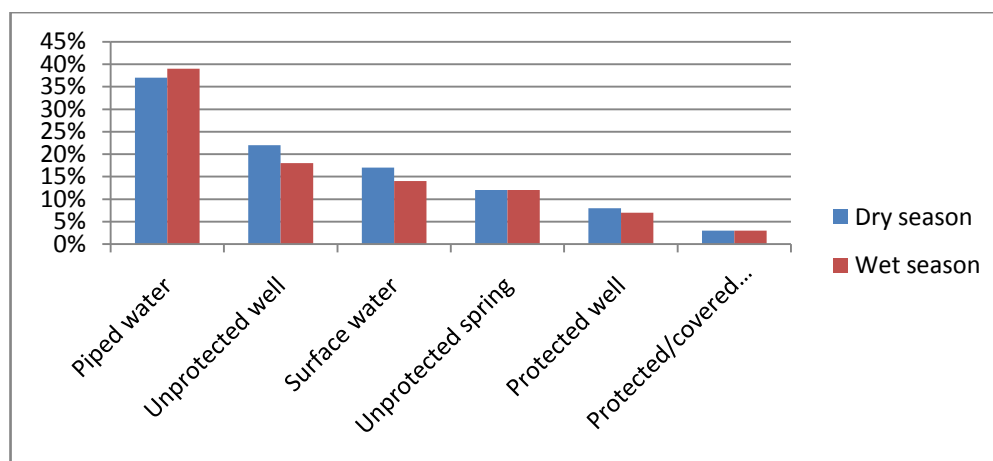
According to the National Sample Census of Agriculture 2007/08 results, the main source of drinking water for rural agricultural households in Iringa Region was piped water. About 37 percent of households use this source in both seasons followed by unprotected well (22 percent). About 17 percent of the households use surface water while 12 percent use unprotected spring. Protected wells are used by had eight percent of the households whereas three percent use protected/covered spring.

The results of the 2002 Population and Housing Census at the district level show that the main source of drinking water in Iringa District Council, Iringa Municipal and Kilolo District Council was piped water while in Mufindi District Council it was unprotected well. In the rural areas of Mufindi District Council, unprotected wells were used by 31 percent of the households while in urban areas they were used by 15 percent of all households.

In Iringa District Council unprotected wells were used by 29 percent of the households in the rural areas while in the urban areas they used by 21 percent. In Kilolo District Council, unprotected wells were the main source of drinking water for 19 percent of the households in the rural areas while in the urban areas it was the main source for 3 percent of the households. Iringa Municipal, unprotected wells were used by 36 percent of the households in the rural areas while in the urban areas the situation was better as only 3 percent of the households used unprotected well as the main source of drinking water.

About 83 percent of the rural agricultural households in Iringa Region obtained drinking water within a distance of less than one kilometer during wet season compared to 74 percent of the households during the dry season. However, 16 percent of the agricultural households obtained drinking water from a distance of one or two kilometers during wet season compared to 23 percent of households in the dry season. About 10 percent obtained water more than two kilometers away.

Figure 7: Percentage of Households by Type of Water Source during Wet and Dry Seasons, Iringa Region, 2007/08



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

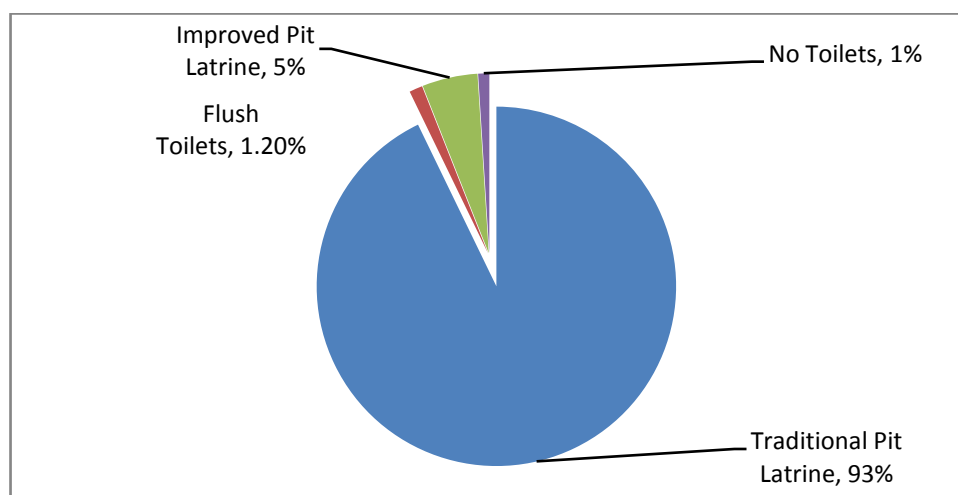
2.3.6 Types of Toilets

With respect to availability of toilets, the 2007/08 National Sample Census of Agriculture show that a large number of rural agricultural households (284,343 households, 93 percent of all households) use traditional pit latrines followed by improved pit latrine (16,858 households, 5 percent) and flush toilets (3,698 households, 1.2 percent). About 1,730 households (one percent of the households) had no toilet facilities.

The distribution of the households without toilets within the region indicates that 58 percent of them were found in Mufindi District Council followed by Kilolo District Council (30 percent), Iringa Municipal (12 percent) and Iringa District Council (zero percent).

At the District Council level according to the 2002 Population and Housing Census, the picture is almost the same. The results show that in the districts the most common toilet facility was the traditional pit latrine which was used as follows: Kilolo District Council (99 percent of the households), Mufindi District Council (98 percent), Iringa District Council (96 percent) and Iringa Municipal (76 percent). About one percent of the total households in Iringa District Council had no toilet facility while Iringa Municipal, Kilolo and Mufindi District Councils, households without toilet facility were less than one percent.

Figure 8: Percentage of Households by Type of Toilet Facility, Iringa Region 2007/08

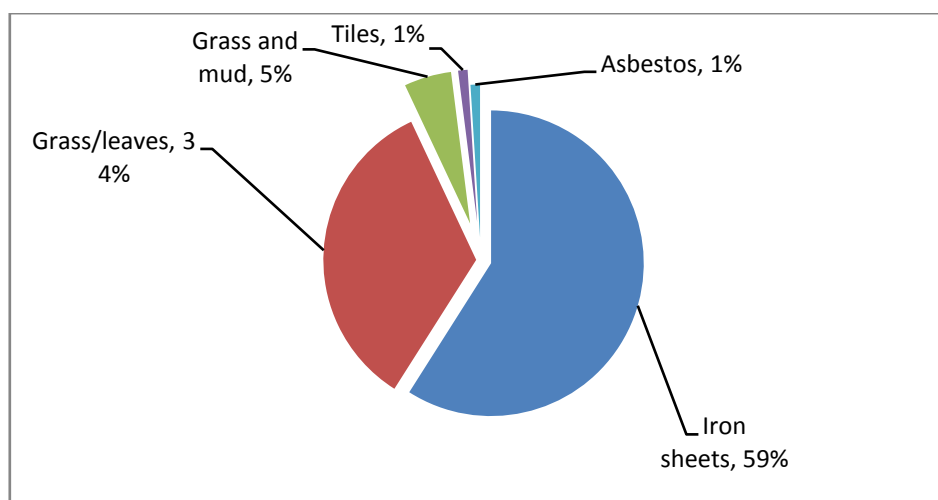


Source: NBS, National Sample Census of Agriculture, Iringa Region, 2007/08.

2.3.7 Roofing Materials

The National Sample Census of Agriculture 2007/08 showed that grass and leaves are the most common roofing materials in rural areas in the country. However, the situation is different in Iringa Region where the most common roofing material for the main dwelling are iron sheets which are used by 59 percent of the rural agricultural households. These are followed by grass and leaves (34 percent), grass and mud (five percent), asbestos (one percent) and tiles (one percent) (Figure 9).

Figure 9: Percentage of Households by Type of Roofing Materials, Iringa Region, 2007/08



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

Looking at the district level, Mufindi District Council had the highest percentage of households with iron sheets roofing (38 percent) and was followed by Iringa District Council district (36 percent), Kilolo District Council (25 percent) and Iringa Municipal (one percent). The 2002 Population and Housing Census shows that grass was the most popular roofing material in Mufindi, Iringa District Council and Kilolo District Council while in Iringa Municipal iron sheets were the most popular roofing material accounting for 95 percent of the households.

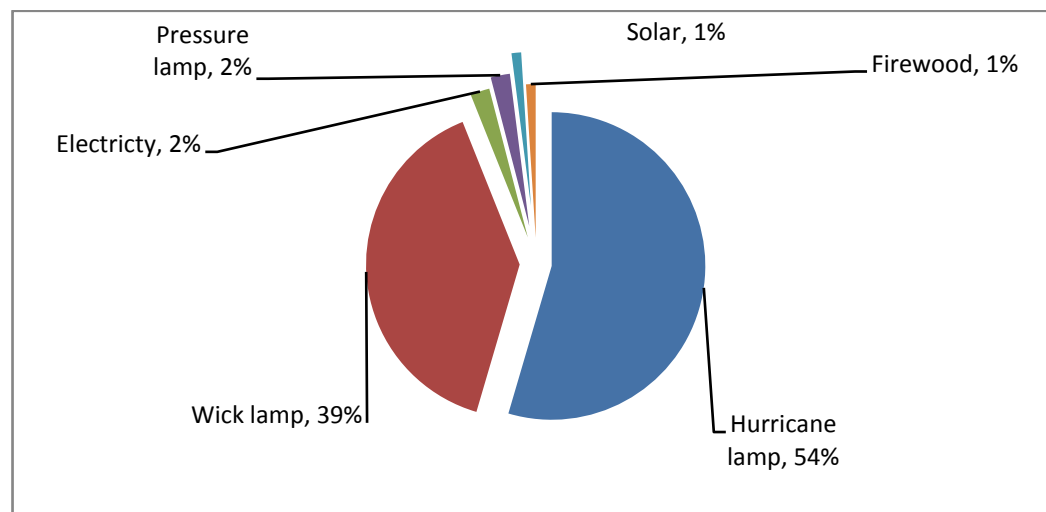
2.3.8 Source of Lighting Energy

According to the 2007/08 Agriculture Sample Census, hurricane lamp was the most common source of lighting energy in the Region with 54 percent of the rural households using this source of energy, followed by wick lamp (39 percent), electricity (two percent), pressure lamp (two percent), solar and firewood one percent each.

According to the 2002 Population and Housing Census the main source of lighting was wick lamp with a share of 51 percent of the total private households. In urban areas, the main source was hurricane lamp (45 percent) followed by electricity (33 percent) and wick lamp (18 percent). In rural areas, the main source was wick lamp (58 percent) followed by hurricane lamp (34 percent) and firewood (5 percent).

At the district level, the report shows that wick lamp was the main source of lighting in Mufindi District Council (58 percent), Iringa District Council (56 percent), Kilolo District Council (57 percent) and Iringa Municipal (47 percent). Looking at the urban areas, the main source of lighting in all districts except Iringa Urban (electricity) was hurricane lamps while for the rural areas it was wick lamp in all the districts.

Figure 10: Percentage of Households by Main Source of Energy Used for Lighting, Iringa Region, 2007/08



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

2.3.9 Source of Energy for Cooking

The 2002 population and housing census results show that for the most of the private households, the main source of energy for cooking was firewood (88 percent). While in urban areas charcoal was the most used source (47 percent), in the rural areas the main source was firewood (98 percent) followed by charcoal (one percent).

At the district level the main source of energy for cooking was firewood for all districts with the exception of Iringa municipal which used charcoal as the main source of energy for cooking. In the urban areas the main source for cooking in Kilolo, Iringa District Council and Mufindi District Councils was firewood while for Iringa municipal it was charcoal.

On the other hand, the National Sample Census of Agriculture 2007/08 results revealed that the most prevalent source of energy for cooking was firewood, which was used by 97 percent of rural agricultural households in Iringa Region. This is followed by charcoal (one percent). The rest of energy sources accounted for two percent. These were solar energy, mains electricity, paraffin/kerosene, bottled gas, crop residuals and livestock dung.

2.3.10 Land Development

The demand for surveyed land plots has been great in recent times. Land use planning is a key aspect of development in both urban and rural areas of every region. The land needs in urban areas are dominated by the demand for building plots for residential, commercial, institutional and industrial purposes. In rural areas agricultural and other production activities are the major needs for land.

2.3.10.1 Village Land use Planning.

In the planning of farms, grazing areas and human settlements in rural areas, village is the first step. Table 2.6 shows that out of 361 villages in Iringa Region, about 91.7 percent have been surveyed and demarcated. Mufindi district is leading with 99.2 percent of its villages surveyed and demarcated. It is followed by Kilolo (91.5 percent) and Iringa District Council (89.4 percent).

Table 2.6 : Villages Surveyed and Land Use Planning by Council, Iringa Region, 2012

Council	Number of Wards	Total Number of Villages	Number of Villages Surveyed	Percent of Villages Already Surveyed and demarcated	Village with land use plan	Percentage of village with land use plan
Iringa DC	25	123	110	89.4	54	43.9
Mufindi	30	125	124	99.2	36	28.8
Iringa Municipal	16	7	0	0.0	0	0
Kilolo	22	106	97	91.5	26	24.5
Total	93	361	331	91.7	116	32.1

Source: District Executive Directors Offices –Land, Natural Resources and Environment Department, 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

Iringa region in 2012 had a total of 941,238 people with 80 percent of the economically active population in the region dependant on agriculture and livestock for subsistence and income. The agricultural sector generates much of the region's GDP. However, this sector has been declining in its performance in the region due to several factors such as frequent use of inferior agricultural implements, the application of out-dated agricultural methods, pest problems, soil exhaustion (e.g. Isimani and Pawaga divisions, etc), and sometimes, low purchasing power of the people tends to discourage the use of modern agricultural inputs or implements. In addition, marketing arrangements for most crops are inadequate coupled with poor transport system and lack of credit facilities for peasant farmers.

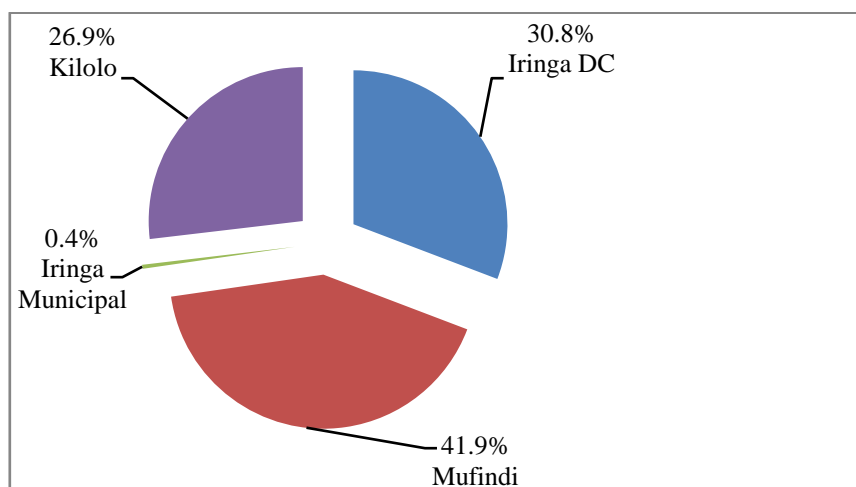
In the period between the agricultural sample censuses of 2002/03 and 2007/08, the number of agricultural households in Iringa Region increased by 16,031 (10.7 percent) from 150,191 in 2002/03 to 166,222 in 2007/08. In both censuses, Mufindi had the largest number of such households. It had 56,766 in 2002/03 and 64,248 in 2007/08. The second was Iringa DC 52,714 and 56,300, Kilolo the

third at 39,549 and 44,279 as well as Iringa municipal had the lowest number of 1,162 and 1,395 households. Since arable land in the Region was the same at 1,557,465 hectares in 2002/03 and 2007/08, the average arable land per household involved in agriculture was 10.4 hectares in 2002/03 which decreased to reach 9.4 hectares in 2007/08. Moreover, the lower average arable land per agriculture household observed in 2007/08 was a consequence of increasing population in Iringa Region.

3.1.2 Distribution of Arable Land

Of the total hectares highlighted in Table 3.1, 1,556,465 ha (47.1 percent of total area) are suitable for agricultural production and livestock rearing. But the land currently under cultivation is only 577,235 ha, being just 37.1 percent of the arable land in the whole region.. The remaining arable land of 979,231 ha or 62.9 percent of the regional total arable land is still idle or used for other activities such as human settlements, natural forests, etc. Moreover, by utilizing less than half (37.1 percent) of its total arable, agriculture land in the region is not under pressure and still there is adequate arable land for crops farming. Table 3.1 further shows that Mufindi district council had the largest share of region's total arable land at 41.9 percent, followed by Iringa DC (30.8 percent), Kilolo (26.9 percent) and Iringa Municipal had the least portion only at 0.4 percent. In terms of arable land already put under crops cultivation, Mufindi had the biggest share (45.7 percent of the Region's total arable land under cultivation). Next was Iringa DC (32.0 percent), Kilolo district council (22.2 percent) and the last was Iringa Municipal (0.2 percent). On the other hand, Iringa Municipal due to its urban characteristics, arable land for crops cultivation is so scarce.

Figure 11: Percentage Proportion of Arable Land by Council, Iringa Region; 2012



Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Table 3.1: Distribution of Total Arable Land by Council, Iringa Region; 2012

Council	Total land	Arable	Percentage	Land under cultivation	
	Area (ha)	Area (ha)		Area (ha)	Percent
Iringa DC	1,973,548	479,158	24.3	184,465	32.0
Mufindi	617,100	652,630	105.8	263,552	45.7
Iringa Municipal	32,970	6,500	19.7	1,328.5	0.2
Kilolo	679,662	418,177	61.5	127,889	22.2
Regional Total	3,303,280	1,556,465	47.1	577,235	100.0
Percentage of Regional Land Area		47.1		17.5	

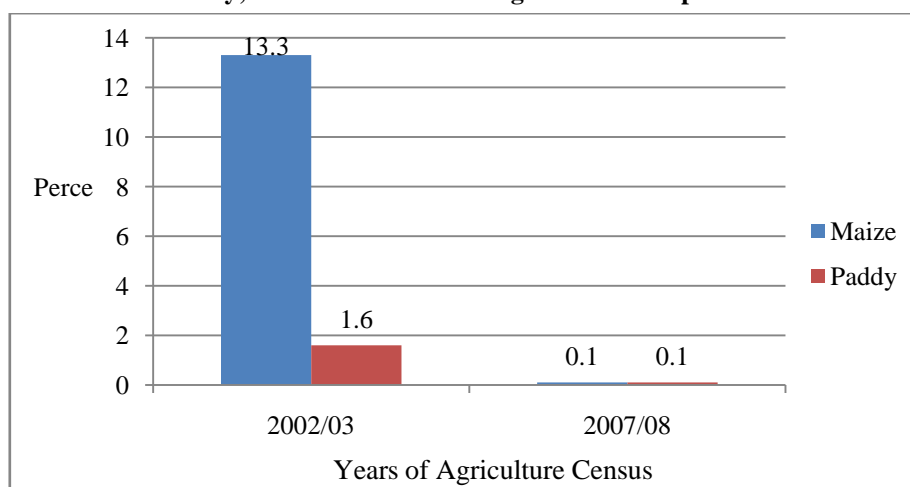
Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

3.1.3 Contribution of the Region to the National Main Staple Food Crops Production



Maize and paddy are the main cereal crops and regarded as the country's staple food. Since these crops are also main staple food of the Iringa Region, Table 3.2 shows the extent to which the Region contributes to their total production. According to the Table, contribution of the region to the national staple food decreased dramatically from 13.3 percent in 2002/03 to 0.1 percent in 2007/08 for maize. Likewise, contribution decreased from 1.6 percent in 2002/03 to 0.1 percent in 2007/08 for paddy. By taking cumulative numbers, the regional total contribution of maize and paddy to national decreased from 10.9 percent in 2002/03 to 0.1 percent in 2007/08 respectively. However, the Regional Authority should regard this as a challenge and find out why this happened.

Figure 12: Percentage contribution of the Region's production of Maize and Paddy to the Country; 2002/03 and 2007/08 Agriculture Sample Census Years



Source: NBS, National Agriculture Sample Censuses Reports, 2002/03 and 2007/08

Table 3.2: Region's Contribution to the National Production of Major Staple Food Crops during 2002/03 and 2007/08 Agriculture Censuses

Crop	National Production (tonnes)		Iringa Regional Production (tonnes)		Percentage Contribution of the Region to the National Production	
	2002/03	2007/08	2002/03	2007/08	2002/03	2007/08
Maize	2,002,450	1,033,934	265,946	1,238	13.3	0.1
Paddy	503,525	330,995	8,098	222	1.6	0.1
Total	2,505,975	1,364,929	274,044	1,460	10.9	0.1

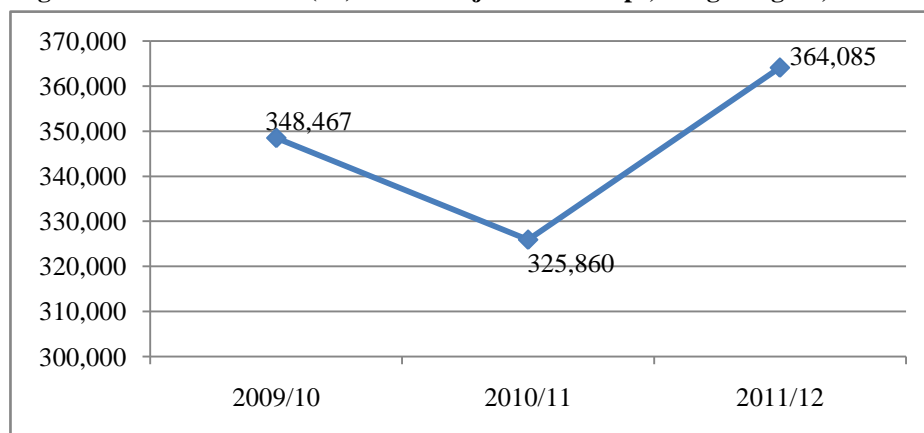
Source: NBS, National Agriculture Sample Censuses Reports, 2002/03 and 2007/08

3.1.4 Land under Cultivation

3.1.4.1 Area under Major Food Crops Cultivation

Table 3.3 shows major food crops grown in Iringa Region. Over the three year, areas planted with major food crops fluctuated. The total area decreased by 6.5 percent (22,607 ha) from 348,467 in 2009/10 to 325,860 ha in 2010/11 and then increased by 11.7 percent (38,225 ha) from 325,860 in 2010/11 to 364,085 ha in 2011/12. Nevertheless, area planted with food crops averaged annually at 346,137.4 ha. By being planted in an annual average area of 244,933.7 ha (70.8 percent) maize was the predominant food crop, followed by beans (55,722 ha, 16.1 percent) and paddy (14,009.7 ha, 4 percent). The list of other food crops with their average annual planted areas is as shown in Table 3.3. Figure 13 shows trend of Area under major food crops cultivation on which 2011/12 had the lowest planted area.

Figure 13: Trend of Area (ha) under Major Food Crops, Iringa Region; 2009/10-2011/12



Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Table 3.3: Estimated Area (ha) under Major Food Crops; Iringa Region; 2009/10 – 2011/12

Crop	2009/10	2010/11	2011/12	Yearly Average	Percent	Rank
Maize	247,363	232,105	255,333	244,933.7	70.8	1
Paddy	12,192	13,636	16,201	14,009.7	4.0	3
Irish potatoes	6,491	6,479	7,632	6,867	2.0	5
Sweetpotatoes	2,013	2,088	2,092	2,064.3	0.6	8
Beans	53,831	52,897	60,438	55,722.0	16.1	2
Wheat	4,897	6,204	6,295	5,798.7	1.7	7
Sorghum	11,052	3,109	5,753	6,638.0	1.9	6
Finger millet	674	470	306	483.3	0.1	10
Cassava	1,473	942	1,371	1262.0	0.4	9
Sunflower	8,481	7,930	8,664	8358.3	2.4	4
Regional Total	348,467	325,860	364,085	346,137.3	100.0	

Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Maize

Is both a major food staple and the most important marketed crop in the Region (in volume terms). Thus, maize is of vital importance to the Region and also an important determinant of the national maize surplus. According to Table 3.3 above, from 2009/10 –2011/12 maize planted on the average area of 244,933.7 ha annually. This was equivalent to 70.8 percent of the average annual area planted with major food crops. The best year was 2011/12 which had largest area of 255,333 ha whilst the worst year was 2010/11 when 232,105 ha were planted. Although, it is possible to cultivate maize in all areas of the Region, some parts are better than others due to varying climatic conditions.

Beans

Have a long tradition in the region both as cash and food crop. In terms of planted area, beans is the second dominant food crop after maize (Table 3.3). Over the period, 2009/10-2011/12, the average planted area per year was 55,722

ha or 16.1 percent of the average hectares planted with major food crops in the Region. The crop is grown in all councils but Iringa Municipal Council due to its urban characteristics has least area planted with beans.

Paddy

Is the second staple food after maize but is also sold as cash crop. It is dependent on rain fed floods and hence it is grown entirely in low lying mbuga lands commonly known as 'Majaruba'. Also it is a labour intensive crop and which needs high moisture regime during the entire growth period. The crop is normally transplanted in December and March. According to Table 3.3, paddy is the third major food crop in terms of area planted. The crop accounted for four percent of the region's average annual area of 346,137.3 ha under major food crops. The principal paddy growing areas are the Ruaha plains in Iringa DC and Sadani in Mufindi district council.

Sunflower

It is an oil seed crop which serves both as food and cash crop. It is grown in all four councils of the Region though with big variation in regard to planted area. Table 3.3 shows that from 2009/10-2011/12 sunflower was planted on an annual average area of 8,358.3 ha (2.4 percent) and was the fourth major food crop in the Region.

Irish Potatoes

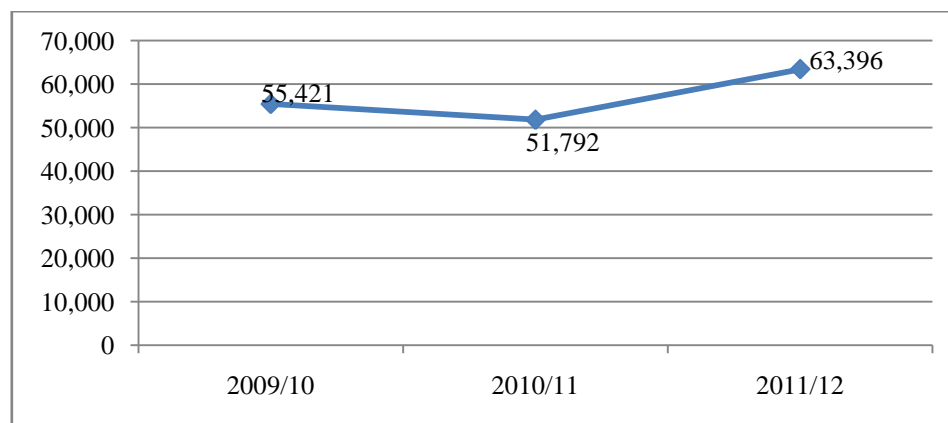
Is another important crop in the Region. The crop is also grown for food and cash earning. Over the period under consideration, the lowest planted area was 6,479 ha in 2010/11 but its annual average planted area was 6,867.3 ha (2 percent of the area planted with major food crops). In terms of the land size planted with Irish potatoes, the crop ranked fifth among major food crops in the

Region. Table 3.3 also shows other major food crops grown in the Region with their respective planted area and rank.

3.1.4.2 Area under Major Cash Crops Cultivation

In Iringa Region the main cash crops grown are tobacco, tea, pyrethrum, sunflower, groundnuts, onion, tomatoes and coffee. Table 3.4 shows the average area planted with cash crops per year was 56,869.6 ha. This average area is equivalent to 3.6 percent of the Region's total arable land of 1,557,465 ha and also equivalent to 9.8 percent of the Region's total arable land of 577,235 ha already put under both food and cash crops cultivation. In addition, Table 3.3 further reveals that the season of 2011/12 was the best year as the region had the laggest area of 63,396 ha planted with all major cash crops whilst 2010/11 was the worst as it had the lowest planted area of 51,792 ha.

Figure 14: Trend of Area (ha) under Major Cash Crops Cultivation, Iringa Region; 2009/10-2011/12



Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Table 3. 4: Estimated Area (ha) Under Major Cash Crops, Iringa Region; 2009/10 – 2011/12

Crop	2009/10	2010/11	2011/12	Yearly Average	Percent	Rank
Tobacco	1,739	2,240	2,466	2,148.3	3.8	5
Tea	5,997	5,756	6,065	5,939.5	10.4	2
Pyrethrum	137	100	178	138.3	0.2	8
Sunflower	39,499	34,367	45,918	39,927.8	70.2	1
Groundnuts	1,909	2,486	2,637	2,344	4.1	4
Onion	677	1,231	1,376	1,094.7	1.9	6
Tomatoes	5,065	5,207	4,402	4,891.3	8.6	3
Coffee	398	405	354	385.7	0.7	7
Regional Total	55,421	51,792	63,396	56,869.6	100	

Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Sunflower

This is both food and cash crop. In terms of area planted with cash crops (Table 3.4), it is the leading cash crop. From 2009/10-2011/12 the average area planted per year was 39,927.8 ha which was equivalent to 70.2 percent of the region's average annual area of 56,869.6 ha put under cash crops. In 2011/12 sunflower covered the laggest area of 45,918 ha and the lowest land size under sunflower cultivation was 34,367 ha in 2010/11. The crop is grown in all four councils of the Region but with varying planted areas. However, Iringa Municipal Council because it is urban, usually has the smallest area under sunflower cultivation.

Tea

In terms of planted area, tea is the second important cash crop. The crop accounted for 10.4 percent of the Region's annual average area of 56,869.6 ha under cash crops (Table 3.4). The smallest land area of 5,756 ha in 2010/11 was below the crop annual average area by 183.5 ha (3.1 percent) and the highest planted area of 6,065 ha in 2011/12 was above the annual average area by 125.5

ha or 2.1 percent. Tea is grown in only two councils, Mufindi where it is grown in large scale and Kilolo under small scale farming.

Tomatoes

It is the most cultivated vegetable crop in the Region and ranked third in terms of planted area (Table 3.4). According to Tanzania National Agriculture Sample Census of 2007/08, the crop occupied 6,036 hectares which represented 37 percent of the area under fruits and vegetables in Iringa Region. According to Table 3.4, over the period of 2009/10-2011/12 the area under tomatoes cultivation was 4,891.4 ha on average per year which represents 8.6 percent of the whole Region's annual average area put under cash crops farming. Moreover, the crop is planted in all four councils led by Kilolo followed by Mufindi, Iringa DC and Iringa Municipal Council (Tanzania National Agriculture Sample Census of 2007/08).

Groundnuts

It is an oil bearing crop. Table 3.4 shows an increasing trend of the area planted with groundnuts annually. It increased by 728 ha or 38.1 percent from 1,909 ha in 2009/10 to 2,637 ha in 2011/12. By accounting for 4.1 percent of the Region's annual average area planted with cash crops, groundnuts ranked fourth. Kilolo is leading in groundnuts cultivation followed by Mufindi, Iringa DC and the last is Iringa Municipal Council.

Tobacco

This is an annual crop and the fifth important crop in terms planted area over the 2009/10-2011/12 period. The bigger increase of 501 ha (28.8 percent) was between the crop season of 2009/10 and 2010/11 and the lowest increase of 266

ha (10.1 percent) was observed between 2010/11 and 2011/12 (Table 3.4). Tobacco is mainly grown in Iringa DC and Mufindi.

Onion

Is another vegetable crop for both food and cash Table 3.4 shows that the crop accounted for 1.9 percent of the Region's annual average area of 56,869.6 ha under cash crops. It was ranked sixth in terms of planted area. Its planted area increased from 677 ha in 2009/10 to 1,231 ha in 2010/11 then reached 1,376 ha in 2011/12.

Coffee

It is another cash crop grown in the Region though in small quantities compared to what is produced in Kagera, Kilimanjaro and Mbeya regions. Table 3.4 indicates that coffee had an average annual planted area of 385.7 ha or 0.7 percent of the region's annual average area under cash crops. Over the period under consideration, coffee was planted in the largest area of 405 ha in 2010/11 and in the smallest area of 354 ha in 2011/12. The geographical location and climate of Mufindi has made it the only council in the Region growing coffee.

Pyrethrum

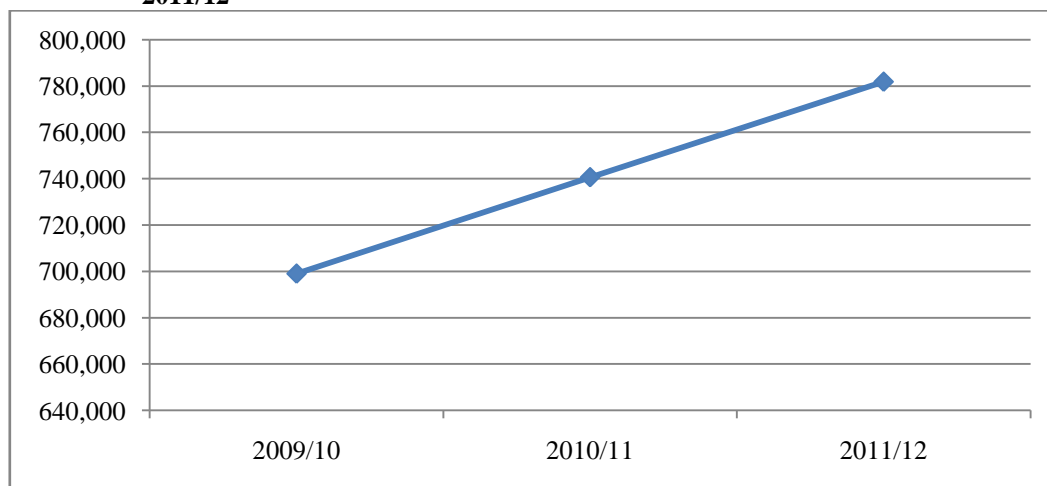
Among the cash crops listed in Table 3.4, pyrethrum had the smallest yearly average planted area of 138.3 ha equivalent to 0.2 percent of the region's average annual area under cash crops. Topography and soil texture of Mufindi and Kilolo favor the growth of pyrethrum and make them the only two councils growing the crop.

3.1.5 Crop Production

3.1.5.1 Major Food Crops Production

For three years, 2009/10-2011/12, the region produced a total of 2,221,493 tonnes of major food crops (Table 3.5). The average annual tonnage was 740,497.6. Production increased from 698,977 tonnes in 2009/10 to 740,634 in 2010/11 and then reached 781,882 in 2011/12. The highest production of 781,882 tonnes attained in 2011/12 was above the Regional average annual production of 740,497.6 tonnes by 41,384 tonnes or 5.6 percent. However, maize dominated production by accounting for 68.4 percent of the average total tonnage produced while fingermillet made the least contribution of 0.5 percent.

Figure 15: Production Trend (in Tonnes) of Major Food Crops, Iringa Region; 2009/10-2011/12



Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Table 3.5: Estimated Production in Tonnes of Major Food Crops, Iringa Region; 2009/10 – 2011/12

Crop	2009/10	2010/11	2011/12	Total	Yearly Average	Percent	Rank
Maize	473,379	522,444	522,843	1,518,666	506222.0	68.4	1
Paddy	30,567	29,074	50,730	110,371	36790.3	5.0	4
Irish potatoes	70,836	57,262	80,713	208,811	69603.7	9.4	3
Sweetpotatoes	19,655	18,730	19,655	58,040	19346.7	2.6	5
Beans	70,616	77,105	79,061	226,782	75594.0	10.2	2
Sorghum	11,043	9,668	4,209	24,920	8306.7	1.1	8
Finger millet	3,414	4,662	2,169	10,245	3415.0	0.5	9
Cassava	9,130	7,235	10,354	26,719	8906.3	1.2	7
Sunflower	10,337	14,455	12,147	36,939	12313.0	1.7	6
Regional Total	698,977	740,634	781,882	2,221,493	740497.6	100.0	
Percent	31.5	33.3	35.2	100.0			

Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Maize

Maize is the dominant cereal crop in the region due to producing more tonnage than any other food crop. According to Table 3.5, over the 2009/10-2011/12 period, the Region produced 1,518,666 tonnes of maize which averaged annually to 506,222 tonnes. However, the contribution of maize to the regional production of major food crops was at 68.4 percent and the highest. Iringa DC was leading in maize production followed by Mufindi, Kilolo and Iringa Municipal Council.

Beans

Beans dominate the production of pulse crops in the region. In terms of production, beans ranked second in the Region accounting for 10.2 percent of the Region's average annual production of major food crops (Table 3.5). The lowest production of 70,616 tonnes observed in 2009/10 and the highest

production of 79,061 tonnes was recorded in 2011/12. Beans are produced in all four councils with Mufindi leading.

Irish potatoes

It is another important food root tuber crop in the Region and ranked third in terms of quantity produced (Table 3.5). The highest production of Irish potatoes was in 2011/12 at 80,713 tonnes and the lowest (57,262 tonnes) in 2010/11. The crop is mainly produced in Mufindi, Iringa DC and Kilolo district councils.

Paddy

Is the second dominant cereal after maize in the Region and is mainly grown in low land areas along Ruaha plains. Table 3.5 shows that over the period of three years, 2009/10-2011/12, a total of 110,371 tonnes of paddy were harvested in the region. The highest production of paddy was in 2011/12 at 50,730 tonnes which was above its average annual production by 13,939.7 tonnes or 37.9 percent. Iringa DC is leading in paddy production in the Region followed by Mufindi, Kilolo and Iringa Municipal.

Sweetpotatoes

A root tuber crop whose share of the Region's total tonnage of major food crops was 2.6 percent and ranked fifth in terms of production (Table 3.5). In three seasons 2009/10-2011/12, sweetpotatoes produced a total of 58,040 tonnes. It is produced in all four councils though in different quantities.

Sunflower

Is among the source of income for peasant farmers. Table 3.5 shows production of sunflower hit the pick at 14,455 tonnes in 2010/11 and production was the

lowest at 10,337 tonnes in 2009/10. Moreover, sunflower is grown in all councils in Iringa Region.

Cassava

Is another root and tuber crop grown in some parts of the region especially in dry areas. In the three years given in Table 3.5, the Region produced a total of 26,719 tonnes of cassava with an average production of 8,906.3 tonnes per year. The Table also shows that 2011/12 had the highest production of cassava at 10,354 tonnes while the lowest quantity of 7,235 tonnes was harvested in 2009/10.

Sorghum

Like cassava, sorghum is another drought resistant crop which according to Table 3.5, its share of the regional total production was 1.1 percent. The crop ranked eighth in terms of quantity produced. The Region's sorghum production over the period given in Table 3.5 shows a decreasing trend. The production decreased from 11,043 tonnes in 2009/10 to 9,668 in 2010/11 and decreased further to 4,209 tonnes in 2011/12.

Finger millet

Is a cereal crop with the longest tradition in the region and is grown as a food and cash crop. Based on Table 3.5, its annual production averaged at 3,415 tonnes equivalent to 0.5 percent of the region's total production of major food crops over the given period. Moreover, the crop is labour intensive and demands a good soil fertility level. It is grown during rainy season especially in Iringa DC.

3.1.5.1.1 Production per Hectare of Major Food Crops

Table 3.6 gives production per hectare of major food crops in the region. However, the use of inferior agricultural inputs associated with poor extension services contributed to the low yield per hectare of the most of major food crops. Irish potatoes was leading in yield in 2009/10 and 2011/12 at 10.9 and 10.6 tonnes/ha respectively while finger millet had the highest yield of 9.9 tonnes/ha in 2010/11. In addition the region experienced the lowest yield of one tonne per hectare in 2009/10 for sorghum, 1.5 tonnes/ha in 2010/11 for beans and sorghum again in 2011/12 with a yield of 0.7 tonnes/ha. Moreover, maize and paddy which are important staple food in the Region had yield which below the required standard of 6.5 tonnes/ha for maize and 8 tonnes/ha for paddy. Therefore, the regional authority should take this as a challenge and find a way to improve the yield.

Table 3. 6: Production per Hectare of Major Food Crops, Iringa Region; 2009/10 – 2011/12

Crop	2009/10			2010/11			2011/12		
	Planted Area (ha)	Production (tonnes)	Yield (t/Ha)	Planted Area (ha)	Production (tonnes)	Yield (t/Ha)	Planted Area (ha)	Production (tonnes)	Yield (ton/Ha)
Maize	247,363	473,379	1.9	232,105	522,444	2.3	255,333	522,843	2.0
Paddy	12,192	30,567	2.5	13,636	29,074	2.1	16,201	50,730	3.1
Irish potatoes	6,491	70,836	10.9	6,479	57,262	8.8	7,632.30	80,713	10.6
Sweetpotatoes	2,013	19,655	9.8	2,088	18,730	9.0	2,092.00	19,655	9.4
Beans	53,831	70,616	1.3	52,897	77,105	1.5	60,438.00	79,061	1.3
Sorghum	11,052	11,043	1.0	3,109	9,668	3.1	5,753	4,209	0.7
Finger millet	674	3,414	5.1	470	4,662	9.9	306	2,169	7.1
Cassava	1,473	9,130	6.2	942	7,235	7.7	1,371	10,354	7.6
Sunflower	8,481	10,337	1.2	7,930	14,455	1.8	8,664	12,147	1.4
Regional Total	343,570	698,977	2.0	319,656	740,634	2.3	357,790	781,882	2.2

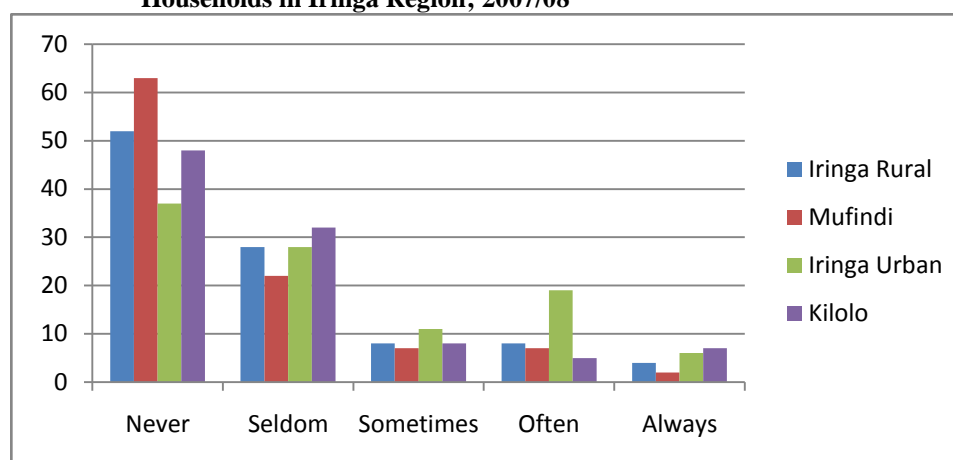
Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

3.1.5.2 Food Satisfaction/Adequacy

Majority of the population in Iringa region depends largely on grains for their staple food. Grains account for about 85 percent of starch foods available for consumption. Root crops mainly Irish potatoes, sweet potatoes and cassava take the remaining 15 percent. Food crops are also sold as cash crops in different proportions. Food adequacy according to FAO means access to sufficient food (both in terms of quantity and quality) for all people at all times to support an active and healthy life. Undernourishment significantly lowers physical ability, cognitive development and learning achievement, resulting in lower productivity. Unfortunately, Table 3.7 just indicates food satisfaction status quantitatively without considering nutrients aspects.

According to the Iringa Regional Agricultural Report of the 2007/08, Table 3.7, a total of 166,223 households (55 percent of the agricultural households in Iringa Region) reported to have never experienced problems in satisfying their households with food, followed by those who experienced the problem seldomly (44,284 households, 27 percent), sometimes (12,783 households, 8 percent), often (11,053 households, 7 percent) and always (6,933 households, 4 percent). However, through Table 3.7 food satisfaction status for each council in the Region can also be known.

Figure 16: Proportion in Percentage of Food Satisfaction Problems for Agricultural Households in Iringa Region; 2007/08



Source: NBS, Iringa Region Agriculture Census Report, 2007/08

Table 3.7: Number of Agricultural Households by Whether They Experienced Food Shortage during 2007/08 Agricultural Year by Council, Iringa Region

Council	Never		Seldom		Sometimes		Often		Always		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Iringa DC	29,054	52	15,847	28	4,726	8	4,309	8	2,363	4	56,300	100
Mufindi	40,394	63	13,836	22	4,294	7	4,294	7	1,431	2	64,248	100
Iringa Urban	512	37	388	28	155	11	264	19	78	6	1,395	100
Kilolo	21,210	48	14,213	32	3,608	8	2,187	5	3,061	7	44,279	100
Total	91,169	55	44,284	27	12,783	8	11,053	7	6,933	4	166,223	100

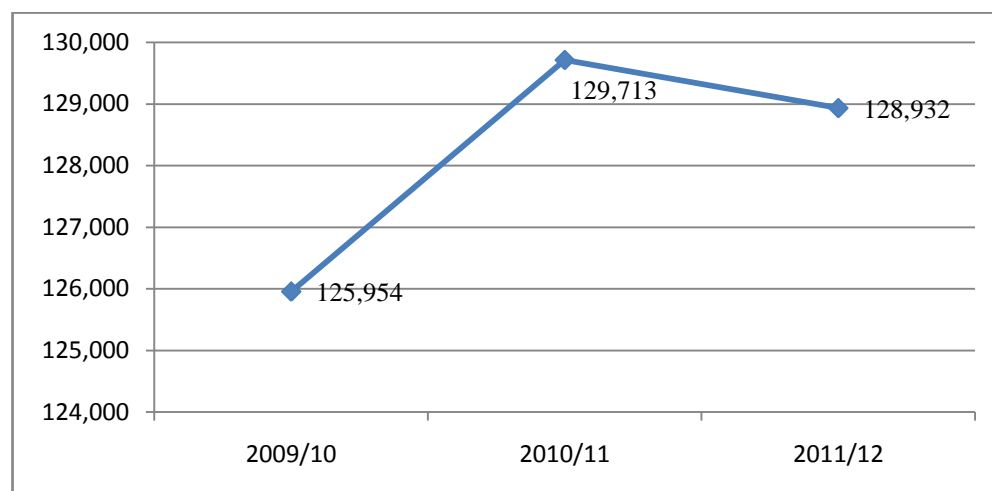
Source: NBS, Iringa Region Agriculture Census Report, 2007/08

3.1.5.3 Major Cash Crops Production

Table 3.8 gives production in tonnes of major cash crops over a three years period from 2009/10 to 2011/12. A total of 384,599 tonnes were produced at an average of 128,199.8 tonnes per year. Because most agricultural activities in the region are carried out by peasants farmers using outdated farm implements, inadequate inputs and are dependent on rain fed agriculture; the quantities harvested are not proportional to input costs and also show a big variation

among the years. Moreover, Table 3.8 shows that from 2010/11 the tonnage of major cash crops decreased by 781 tonnes (0.6 percent).

Figure 17: Production Trend (in Tonnes) of Major Cash Crops, Iringa Region; 2009/10-2011/12



Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Table 3. 8: Estimated Production in Tonnes of Major Cash Crops, Iringa Region; 2009/10 – 2011/12

Crop	2009/10	2010/11	2011/12	Total	Yearly Average	Percent	Rank
Tobacco	1,542	1,739	1,322	4,603	1,534.3	1.3	5
Tea	18,112	18,215	18,225	54,552	18,184.0	9.9	3
Coffee	204.4	108	237	549.4	183.1	0.1	6
Pyrethrum	4,079	2820	307.96	7,207	2,402.3	2	4
Tomatoes	83,375	86,467	79,760	249,602	83,200.7	68.1	1
Sunflower	18,642	20,364	29,080	68,086	22,695.3	18.6	2
Regional Total	125,954	129,713	128,932	384,599	128,199.8	100	
Percent	32.7	33.7	33.5	100.0			

Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

Tomatoes

This crop is in the fruits and vegetable group. In terms of production, it is the leading cash crop in the Region. From 2009/10 to 2011/12, 249,603 tonnes of tomatoes were harvested giving an average production of 83,200.7 tonnes per year. With the exception of 2011/12 when the production was 3,441 tonnes below the annual average, production of tomatoes for the remaining two years was above the annual average by 174 tonnes in 2009/10 and 3,266 tonnes in 2010/11. Tomatoes are produced in all four councils of the Region.

Sunflower

Is an oil seed crop which ranked second in terms of production in the Region (Table 3.8). From 2009/10 to 2011/12, 68,086 tonnes of sunflowers were harvested at a yearly average of 22,695.2 tonnes. The best year for production was 2011/12 when 29,080 tonnes produced were above the average annual production by 6,385 tonnes (28.1 percent). The worst year was 2009/10 when the lowest production of 18,642 tonnes was below the average annual production by 4,053 tonnes (17.8 percent). Sunflower is produced in all four councils in the Region but Iringa Municipal had the least production.

Tea

Tea is among the crops which make a significant contribution to the regional economy. It is mainly grown on large farms owned mostly by foreign investors in Mufindi District Council. Table 3.8 shows that a total of 54,522 tonnes were produced over a three year period at an average annual production of 18,184 tonnes. Tea ranked third among cash crops in terms of production. Mufindi is the only council producing tea in Iringa Region.

Pyrethrum

Two percent of the Region's total tonnage of cash crops was from pyrethrum (Table 3.8). It is ranked fourth and its total tonnage in three years was 7,207 with an average annual production of 2,402.3 tonnes. Pyrethrum is produced in Mufindi and Kilolo district councils with Mufindi leading.

Tobacco

In terms of production, the crop ranked fifth in the Region (Table 3.8). A total of 4,603 tonnes of tobacco were harvested in the region over the 2009/10 to 2011/12 period. The crop had an average production of 1,534.3 tonnes. Its best production of 1,739 tonnes was in 2010/11 and the worst at 1,322 tonnes in 2011/12. Tobacco is produced in Mufindi and Iringa District Councils in the Region.

Coffee

Coffee ranked sixth and was the last crop in terms of production in the region (Table 3.8). Its production was 0.1 percent of the region's total tonnage of cash crops produced. In three crop seasons from 2009/10 to 2011/12 the Region produced 549.4 tonnes of coffee at an average of 183.1 tonnes per year. In the Region, Mufindi is the main producer of coffee.

3.1.5.3.1 Production per Hectare of Major Cash Crops

Table 3.9 shows yield per hectare of major cash crops in the region. The highest yield per hectare attained was 29.8 tonnes/hectare in 2009/10 and 28.2 tonnes/hectare in 2010/11 for pyrethrum and of 18.1 tonnes/hectare for tomatoes in 2011/12. On the other hand, the lowest yields were 0.5 tonnes/hectare for coffee in 2009/10, 0.3 tonnes/hectare for coffee in 2010/11 and 0.5 tonnes/hectare for tobacco in 2011/12.

Table 3. 9 : Production per Hectare of Major Cash Crops, Iringa Region; 2009/10 – 2011/12

Crop	2009/10			2010/11			2011/12		
	Planted Area (ha)	Production (tonnes)	Yield (ton/ha)	Planted Area (ha)	Production (tonnes)	Yield (ton/ha)	Planted Area (ha)	Production (tonnes)	Yield (ton/ha)
Tobacco	1,739	1,542	0.9	2,240	1,739	0.8	2,466	1,322	0.5
Tea	5997	18,112	3	5,756.4	18215	3.2	6,065	18,225	3
Coffee	398	204.4	0.5	405	108	0.3	354	237	0.7
Pyrethrum	137	4,079	29.8	100	2820	28.2	178	307.96	1.7
Tomatoes	5,065	83,375	16.5	5,207	86,467	16.6	4,402	79,760	18.1
Sunflower	39,499	18,642	0.5	34,366.50	20,364	0.6	45,918	29,080	0.6
Regional Total	52,835	125,955	2.4	48,075	129,713	2.7	59,383	128,932	2.2

Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

3.1.5.3.2 Large Scale Farming of Food and Cash crops

Iringa Region endowment of large arable land suitable for cultivating different food and cash crops has attracted both local and foreign investors to establish large scale farms. The large scale farming to a large extent help the region maintains food security and also have surplus. The surplus food sold together with the cash crops significantly contribute to the regional GDP. Also it helps in reducing income poverty of the residents of Iringa Region as well as improves their social welfare.

Table 3.10 highlights large scale farms available in the Region. Unfortunately, Iringa DC and Mufindi were the only councils in the Region which have significant numbers of large scale farms. Table 3.10 shows that by the end of 2012 Iringa DC and Mufindi cumulatively had a total of 11,081 ha for large scale farming. Of this, 6,380 hectares were in Iringa DC and 4,071 ha were in Mufindi. In Iringa DC, George Fliakos Farm at 744 hectares dominated other farms. Msungulika farm of 53 hectares owned by a local investor, Mr. Joseph

Mungai had the smallest size. Moreover, Pawaga Prison with 344 hectares was the only large scale farm managed by the government. Large scale farms owned by Christian institutions possessed a total of 1,017 hectares (15.9 percent of combined total hectares of large scale farms in Iringa DC). Investors of foreign origin occupied a total of 2,155 hectares (33.8 percent of large farms in Iringa DC). Local investors possessed largest portion of the land put under large scale farms shown in Table 3.10. They cumulatively owned a total of 3,208 hectare equivalent to 50.3 percent of total hectares. Likewise, soil texture and favorable weather for tea growing has made Mufindi District council be the only district in the Region having large scale farms of tea. In this district, Unilever Tanzania Limited has largest farm of tea (Table 3.10).

Table 3. 10: Large scale farmers: Farmers with over 50 hectares, Iringa Region; 2012

S/N.	Farm name	Crop cultivated	Location	Area (Hactor)	Distance from Iringa town (Km.)	Propriator
Iringa DC						
1.	Selous Farming Ltd	Maize,Barly, Beans	Ifunda	612	39	Mark Myatt Taylor
2.	Kikongoma farm	Tobbaco and Tomato	Mangalali	278	25	George Emanuel
3.	John Rosous Farm	Tobbaco and Tomato	Nzihi	135	28	John Rosous
4.	George Fliakos Farm	Tobbaco and Tomato	Kidamali	744	33	George Fliakos
5.	K.T. Kalogeres Farm	Tobbaco and Tomato	Nyamihuu	196	38	K.T. Kalogeres
6.	Steria paplos Farm	Tobbaco and Tomato	Nzihi	252	28	Steria Paplos
7.	Vasilikakis castor Farm	Tobbaco and Tomato	Magubike	216	41	Vasikakis
8.	Charles Mungai Farm	Maize and Coffee	Muwimbi	180	44	Charles Mungai
9.	Ulete parish Farm	Maize and Beans	Muwimbi	126	42	Consolatha sisters.
10.	Kisolanza Farm	Maize Beans Flowers and Vegetables	Kibena	100	48	Mrs. Ghau
11.	Ihemi youth centre	Maize and	Ihemi	278	35	UVCCM

S/N.	Farm name	Crop cultivated	Location	Area (Hactor)	Distance from Iringa town (Km.)	Propriator
12.	Kibebe Dairy Farm	Beans Maize and Beans	Wangama	479	11	Phillips
13.	Consolatha F.Farm	Maize and Beans	Mgongo	140	14	Consolatha Sisters.
14.	Asas Dairy Farm	Maize and Bananas	Igingilanyi	480	18	ASAS
15.	Materu Farm	Maize and Beans	Mfukulembe	78	59	Mr. Materu
16.	Msungulika Farm	Maize and Beans	Muwimbi	53	47	Joseph Mungai
17.	Idete Dayosisi Farm	Maize and Beans	Tosamaganga	58	16	Tosa Parish
18.	Consolatha Fathers Farm	Maize and Beans	Ihemi	99	36	Consolatha Fr.
19.	African brothers Farm	Maize and Beans	Ihemi	248	16	African brothers
20.	Mhekwa Farm	Maize and Beans	Mfukulembe	108	59	Mhekwa Ebrahim
21.	FAMARI Dairy Farm	Maize and Beans	Igingilanyi	580	19	F.M. Abri
22.	Pawaga Prison Farm	Paddy, Cassava and Bananas	Itunundu	344	87	Magereza
24.	Consolatha sisters Farm	Maize and Beans	Makombe	86	64	Consolatha sisters
25.	Diocese of Iringa Farm	Maize and Beans	Igangidungu’	260	72	Bishop
25.	Salehe Farm	Maize and Beans	Ihemi	250	36	Salehe Malipula
Sub- Total				6,380		
Mufindi District						
26	MTC	Tea	Ifwagi	901	120	MTC
27	Unilever Tanzania Ltd	Tea	Mtwango	3620	130	Unilever Tanzania Ltd
28	Malenda farm	Tea	Kasanga	180	130	Ng’umbi Family
29	Sub-Togtal			4,701		
Grand-Total		11,081				

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

3.1.6 Agricultural Inputs

3.1.6.1 Introduction

Reducing rural poverty by delivering appropriate agricultural inputs and improving output markets for Tanzanian farmers are among the objectives of "Kilimo Kwanza" (Agriculture First) policy in Tanzania. In Kilimo Kwanza, priority is given to transforming traditional agriculture which depends on hand hoe to mechanised agriculture and improving agriculture extension services through employing more extension officers. Moreover, distribution of chemical fertilizers including establishing credit facilities for farmers, and setting up storage through a warehouse receipt system were introduced to reinforce crops production.

Since there is no tangible evidence (statistical data) that show the impact of 'Kilimo Kwanza' policy in improving availability of agricultural inputs/implements and increasing food and cash crops yield in the Region, hypothetically, 'Kilimo Kwanza' policy adds significantly on the availability of agricultural inputs/implements in the Region. Moreover, opportunity is available for researchers to investigate the extent to which the said policy has improved inputs/implements availability and also how far the yield has increased.

3.1.6.2 Chemical/Inorganic Fertilizers

Soil infertility, plant pests and diseases are among factors which limit agricultural production in Iringa Region. The Region's soils have for many years depended on application of chemical fertilizers for optimum crop harvests. Crop such as maize demand the use of chemical fertilizers for optimum harvests. Likewise, horticultural crops such as tomatoes require the use of pesticides for control of insect infestation and plant diseases. According to Agriculture Sample Census of 2007/08, Mufindi district had the highest number of agricultural

households who used chemical fertilizers during long rainy season at 64,089 equivalents to 38.8 percent of the region's total agricultural households (165,148) using chemical fertilizers. It was followed by Iringa DC (55,744 households, 33.8 percent), Kilolo district (43,951 households, 26.6 percent) and Iringa Municipal had the lowest number (1,364 households, 0.8 percent). The agricultural households mostly purchase fertilizers from local markets/trade stores. UREA, CAN and DAP are the mostly used chemical fertilizers in the region.

3.1.6.3 Fungicides, Pesticide and Herbicides

Fungicides prevent crops from fungus. Pesticides are chemicals used for controlling insects and diseases, while herbicides are used to control weeds.

Fungicides: Of the 11,688 agricultural households who were using fungicides in the Region during 2007/08, 39.5 percent were in Mufindi which was the leading district council. The second district council was Kilolo (37.4 percent) followed by Iringa DC (22.6 percent) and Iringa Municipal Council had the smallest percentage (0.5 percent). Redomil, Bravo and sumithon were the common used fungicides in the Region.

Pesticides: Based on Agricultural Sample Census of 2007/08, the Iringa Region (excluding districts in new Njombe Region) had 74,948 agricultural households who were using pesticides. Of these, Mufindi District Council had the highest percentage (60.5 percent). It was followed by Kilolo (22.2 percent), Iringa DC (17.2 percent) and Iringa municipal (0.1 percent). Moreover, Actellic, Dicosulv, Dursban and Thionex were the most common pesticides.

Herbicides: In the Region (excluding districts in new Njombe Region), there were 1,864 agricultural households who were using herbicides during long rainy crop farming season (Agricultural Sample Census of 2007/08). Mufindi District had the highest proportion of users at 68.2 percent. The next district council was Kilolo (23.4 percent), Iringa DC (7.5 percent) and Iringa Municipal (0.9).

3.1.6.4 Improved Seeds

The use of improved seeds has contributed to the increased production of food and cash crops in the region. There were 37,939 agricultural households using improved seed in the Region in 2007/08. Of these, Mufindi had 45.7 percent of the total households and was leading. It was followed by Iringa DC (31.9 percent), Kilolo (21.9 percent) and Iringa Municipal was the last at 0.5 percent. On the other hand, Agricultural Sample Census Report of 2007/08 (Iringa Region) indicated that 34,683 hectares (excluding hectares in new Njombe region) were planted with improved seeds of which Mufindi had the largest area (12,396 ha, 35.7 percent). It was followed by Iringa DC (11,898 ha, 34.3 percent), Kilolo (10,235 ha, 29.5 percent) and Iringa Municipal had the smallest area of 154 ha (0.4 percent). Improved seeds with the highest demand are those of maize followed by paddy.

3.1.6.5 Agro- Mechanisation

Agricultural implements are necessary for efficient production. According to the Agricultural Sample Census Report of 2007/08 (Iringa Regional Report), basic agricultural tools remain the hand held hoe and panga as few families own oxen, tractors or ploughs in Iringa Region (including new Njombe Region). Thus, the use of these modern implement in Iringa Region is very minimal. Only 2.6 percent of the household had ox-cart. The proportions of households owning other implements were as follows; tractor (0.2 percent), harrow (0.9 percent)

thresher (0.2 percent) power tillers (0.2 percent) and rigger (0.4 percent). The hand hoe was the most used equipment. It was used by 44 percent of all households followed by swords (43 percent), oxploughs (6 percent), Handsprayers (6 percent), grater, chipper, oil press and oil mill (1 percent).

3.1.7 Crop Extension Services

Government was the main provider of crops extension services through extension officers working in different wards in the Region. Spacing followed by the use of inorganic fertilizer and improved seeds were the top most three extension advices provided by the government. Mufindi district was leading on the proportion of households receiving extension services from the government at 42 percent. It was followed by Iringa DC (30 percent), Kilolo (27 percent) and Iringa Municipal (1 percent).

3.1.8 Irrigation



Based on 2007/08 National Agriculture Sample Census Report, the most common source of water for irrigation in the country is the river which was used by an estimated 53 percent of households that applied irrigation in the country. Iringa being endowed with many rivers, the river was the main source of water for irrigation in the Region. Dams are also used for irrigation in some parts of the region (e.g Iringa DC). Of the 441,974 households using irrigation in the country in 2007/08, 7.4 percent were in Iringa Region. The Region ranked third in terms of the number of households using irrigation in the country. The first was Kilimanjaro region (17.1 percent of total households) and Mbeya (10.8 percent) was the second.

Table 3.11 shows that at the end of 2011/12 agricultural year the Region had an estimated 54,446 ha that were suitable for irrigation. Out of these, 25,575 ha (47 percent) were already under irrigation leaving the remaining 28,871 ha or 53 percent of estimated potential area unutilized. Iringa DC had the biggest unutilized area at 20,800 ha equivalent to 47.6 percent of its potential area and 72 percent of the Region's total unutilized area of 28,871 ha. It was followed by Kilolo (3,839 ha, 13.3 percent) and Mufindi (3,770 ha, 13.1 percent). Due to its urban characteristics dominated by human settlement and off farm economic activities Iringa Municipal had the smallest unutilized area for irrigation of 462 ha (1.6 percent). Since the region still has vast unutilized irrigable land and also keeping in mind that even the already irrigated area is under utilized due to dominance of traditional irrigation, it is an opportunity for the large investors to make use.

Table 3. 11: Irrigation Prospects by Council, Iringa Region; 2011/12

Council	Potential Area		Irrigated Area		Irrigated Potential (Percentage)	Unutilized Potential Area	
	(ha)	Percentage share	(ha)			(ha)	Percentage share
Iringa DC	43,700	80.3	22,900	89.5	52.4	20,800	72.0
Mufindi	4,570	8.4	800	3.1	17.5	3,770	13.1
Iringa Municipal	527	1.0	65	0.3	12.3	462	1.6
Kilolo	5,649	10.4	1,810	7.1	32.0	3,839	13.3
Regional Total	54,446	100.0	25,575	100.0	47.0	28,871	100.0

Source: Iringa Region, Compiled Data from Districts Councils (Agriculture Departments), 2013

3.1.9 Crop Marketing

Apart from cash crops, food crops are also sold in significant quantities. Cereal crops especially maize and paddy are the leading food crops sold. In addition to that fruits and vegetables like tomatoes and beans together with Irish and sweet potatoes add significantly to the income of the people of Iringa Region. Agricultural Sample Census Report of 2007/08-Iringa Regional Report shows that Mufindi District Council was leading in having the largest number of crops growing households selling crops followed by Kilolo, Iringa DC and Iringa Municipal.

3.1.10 Policy Implication in Agriculture

Agriculture sector performance in terms of food crops production does not indicate a bright future on the status of food security of the region. This is because contribution of the region to the country's major staple food crops (maize and paddy) decreased from 10.9 percent in 2002/03 to 0.1 percent in 2007/08. Likewise, yield of 2 tonnes/ha for maize and 3.1 tonnes/ha for paddy observed during the crop season of 2011/12 are far below the expected yield.

Limited access to agricultural inputs especially for peasant farmers, low price of agricultural produces against production costs, poor agricultural practices as well as adverse weather condition are other factors attributes to the poor performance of agriculture sector in the region. To revive the sector, the region needs to stick on Kilimo Kwanza policy and guidelines on improving extension services and ensure reliable supply of agricultural inputs through improving implementation procedures of National Agricultural Input Voucher Scheme (NAIVS) policy in the region. Nevertheless, the region can improve its food production through making effective use of the available 54,446 hectares for irrigation. Improving irrigation will reduce dependence on rain fed agriculture.

3.1.11 Investment Opportunities in Agriculture sector

With about 979,231 ha (Table 3.1) of arable land that is unutilized including nearly 29,000 ha (Table 3.11) that are suitable for irrigation but unused, the region has a big opportunity of investing large scale food and cash crops production. With the exception of Iringa Municipal which has limited land area for large scale farming, the remaining three district councils, Iringa DC, Mufindi and Kilolo have adequate land for large scale farming. Moreover, further investment is needed in development and use of existing irrigation capacity that could increase crop production and reduce rural income poverty through the sale of produce. Supply of agriculture inputs such as chemical fertilizers, insecticides, improved seeds, farm implements (i.e power tillers and tractors) at affordable prices as well as increasing number of storage facilities for agriculture products during and after harvests are other investment opportunities.

3.2 Livestock

3.2.1 Introduction

Livestock are important for subsistence by providing meat and milk to enrich diet. Livestock keeping is one of the two major economic activities in Iringa Region. The other is crop production. According to the 2007/08 Agriculture Sample Census, the total number of cattle in the Region was 475,031 and it ranked fifteenth in the Mainland and had 2.2 percent of the total cattle population. The number of indigenous cattle in Iringa Region was 459,275 (96.7% of the total number of cattle in the Region), improved dairy cattle (14,258 cattle, 3%) and beef cattle (1,498 cattle, 0.3%).

3.2.2 Livestock Population

Table 3.12 gives estimated livestock population by district in Iringa Region in 2012. Of the big livestock, cattle at 311,954 were dominant livestock followed by goats (156,042) and pigs (100,955). Sheep (52,362) and donkeys (5,346) had the least numbers. Iringa DC had the largest number of each type of livestock highlighted in Table 3.12 while Iringa Municipal had the smallest number.

Table 3.12 : Estimated Population of Livestock by Type and Council, Iringa Region; 2011/12

Council	Cattle	Goats	Sheep	Donkeys	Pigs	Poultry
Iringa DC	152,441	103,429	36,760	2,796	36,159	573,648
Mufindi	89,401	15,306	4,942	325	26,418	494,996
Iringa Urban	6,245	3,263	1,015	88	4,031	82,896
Kilolo	63,867	34,044	9,645	2,137	34,347	365,872
Total	311,954	156,042	52,362	5,346	100,955	1,517,412

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

3.2.3 Cattle Population



Table 3.13 shows that indigenous, improved dairy cattle and improved beef cattle were the type of cattle found in Iringa Region in 2012. The district with the largest number of cattle was Iringa DC. It accounted for 48.9 percent of total cattle population in the Region. Mufindi was the second at 28.7 percent followed by Kilolo (20.5 percent) and Iringa Municipal at 2 percent had the lowest proportion of cattle.

Table 3. 13: Distribution of Cattle Population by Type and Council; Iringa Region; 2012

Council	Indigenous Cattle	Improved Dairy Cattle	Improved Beef Cattle	Total cattle	Percent
Iringa DC	144,609	6,579	1,253	152,441	48.9
Mufindi	80,971	7,794	636	89,401	28.7
Iringa Urban	2,876	3,369	0	6,245	2.0
Kilolo	61,191	2,076	600	63,867	20.5
Total	289,647	19,818	2,489	311,954	100.0
Percentage by Type	92.8	6.4	0.8	100.0	

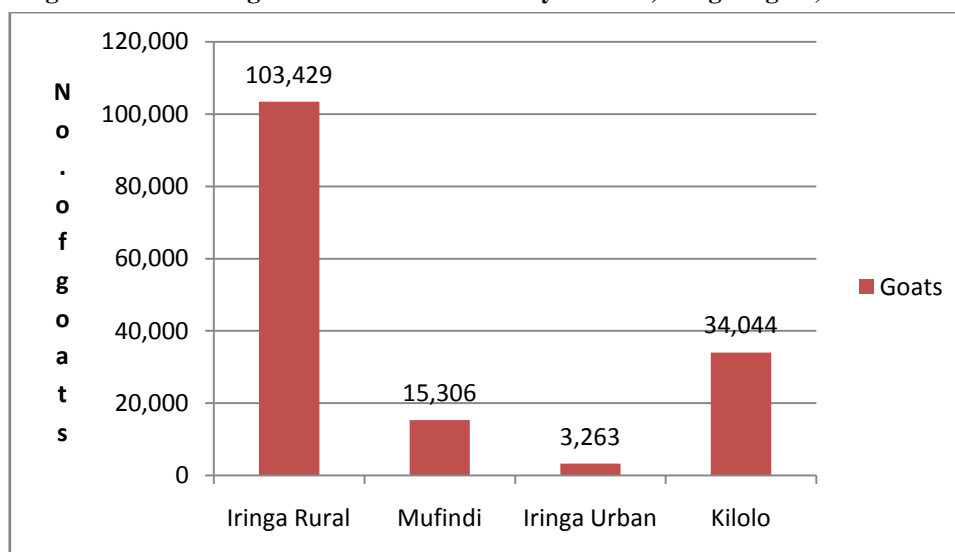
Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

3.2.4 Goat population

Goat rearing was the second most important livestock keeping activity in Iringa Region. Table 3.12 above shows that, the council with the largest number of goats was Iringa DC which had about 66.3 percent of the total goats in the Region. This was followed by Kilolo district council (21.8 percent) and Mufindi (9.8 percent). Iringa Urban was the last with only 2.1 percent (Figure 18 and Table 3.12).

The 2007/08 Agricultural Sample Census results shows that, goat husbandry in the Municipal was dominated by the indigenous breeds which constituted 97.2 percent of the surveyed total goats in the Region, while Improved dairy goats accounted for 2.8 percent.

Figure 18: Percentage Distribution of Goats by Council, Iringa region, 2012

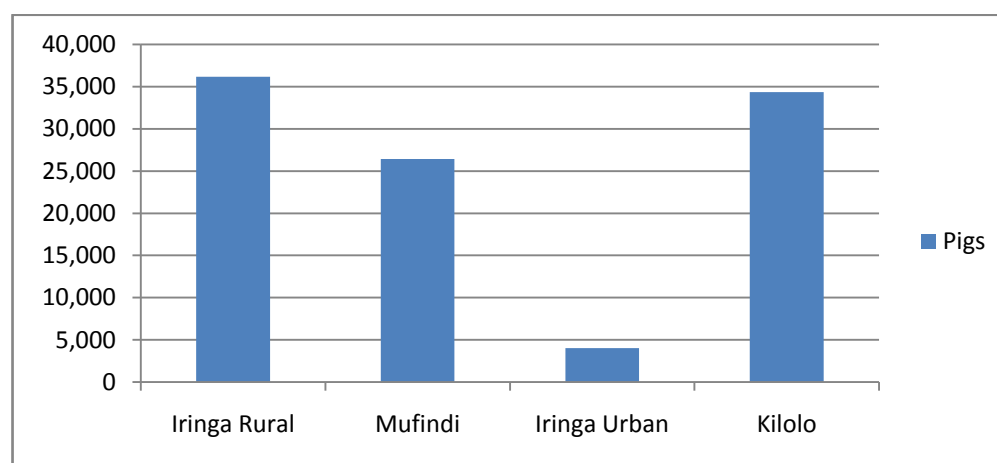


Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

3.2.5 Pig Production

Pigs were the third most important livestock in the Iringa Region after cattle and goats. The council with the largest number of pigs was Iringa DC with 35.8 percent of the total pigs population in the region, followed by Kilolo 34.0 percent, Mufindi 26.2 percent, and Iringa Urban with 4.0 percent (Table 3.12 above and Figure 19).

Figure 19: Percentage Distribution of Pigs by Council, Iringa Region; 2012



Source: Director's Office, (Livestock Department), Iringa Municipal, 2013

3.2.6 Poultry farming



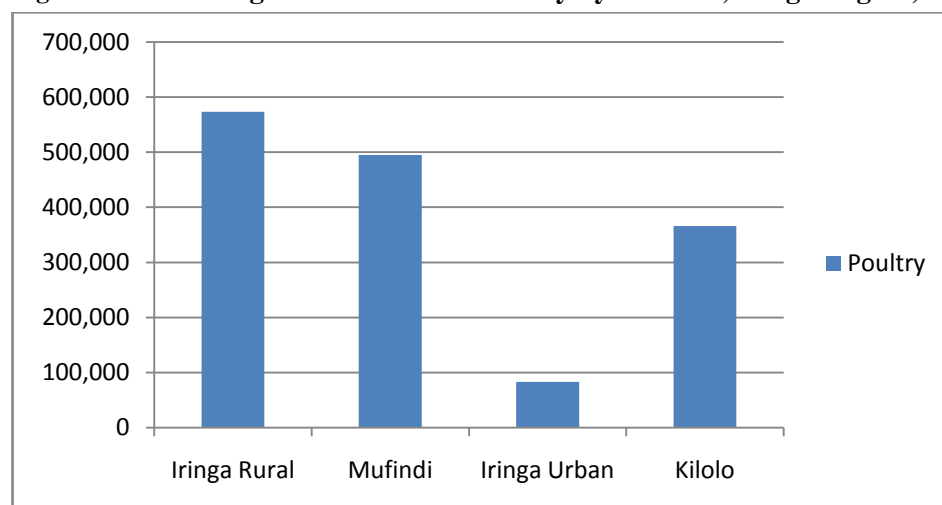
Poultry is by far the largest livestock group and they are estimated to be about 14 000 million, consisting mainly of chickens, ducks and turkeys in the world (FAO 1999). In total, poultry products (eggs and meat) constitute 30 percent of all animal protein consumed worldwide. Within the last 10 years, this proportion has increased from 20 percent to 30 percent of all animal protein and is predicted to increase to 40 percent before the year 2015 (IFPRI 2000).

Poultry farming plays a significant role in rural and urban people's life and contributes significantly to poverty alleviation and improvement of food security with high nutrition. In Iringa region, poultry farming is an emerging industry and hygienic poultry production can pave way to better income and sustainable development. Moreover, growth of this industry involves a lot of women and thus provides a strong base for women empowerment in this area. Due to poverty, high population density and many landless people, special effort is required to reach the poor and landless. Simple changes in the management of villages, chickens can significantly improve production and the living conditions of many rural families in terms of enhanced nutrition and income generation through the

sale of surplus chickens or eggs. The poultry sector in Iringa Region was dominated by chicken production.

In 2011/12, the district with largest number of chicken was Iringa DC with 573,648 chickens (37.8 percent of the total chicken in the Region) followed by Mufindi District Council (494,996 chicken, or 32.6 percent), Kilolo District Council (365,872 chickens, or 24.1 percent) and Iringa Urban (82,896 chicken, or 5.5 percent) as shown (Table 3.12 above and figure 20).

Figure 20: Percentage Distribution of Poultry by Council , Iringa Region; 2012



Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

3.2.7 Grazing Land Area

Grazing land is defined as the land that is available for the grazing needs of livestock. It excludes all tsetse fly infested areas, all wildlife and forest reserves also tree plantations, but it includes game controlled areas. In many cases it overlaps arable land and areas for 'other use'. Iringa Region has a total of 279,790 hectares of land suitable for grazing. Out of this 255,019 hectares (91.1 percent) were in use. Due to its urban characteristic, Iringa Municipal has is a

serious shortage of grazing land and hence zero grazing is the only way of keeping livestock. In the remaining three councils, grazing land is also under pressure as all of them utilized 80 percent or more of their grazing land and Mufindi utilizes all the grazing land (Table 3.14).

Table 3.14: Estimated Area for Grazing by Council, Iringa Region; 2012

Council	Land Fit for Grazing (ha)	Land Used for Grazing (ha)	Proportion of Grazing land used (Percent)	Tsetse Fly Infected Area (ha)
Iringa DC	99,172	97,200	98.0	64,800
Mufindi	66,224	66,224	100.0	0
Iringa Urban	0	0	0.0	0
Kilolo	114,394	91,595	80.1	0
Total	279,790	255,019	91.1	64,800

Source: District Executive Directors Offices (Livestock Development), Iringa, 2013

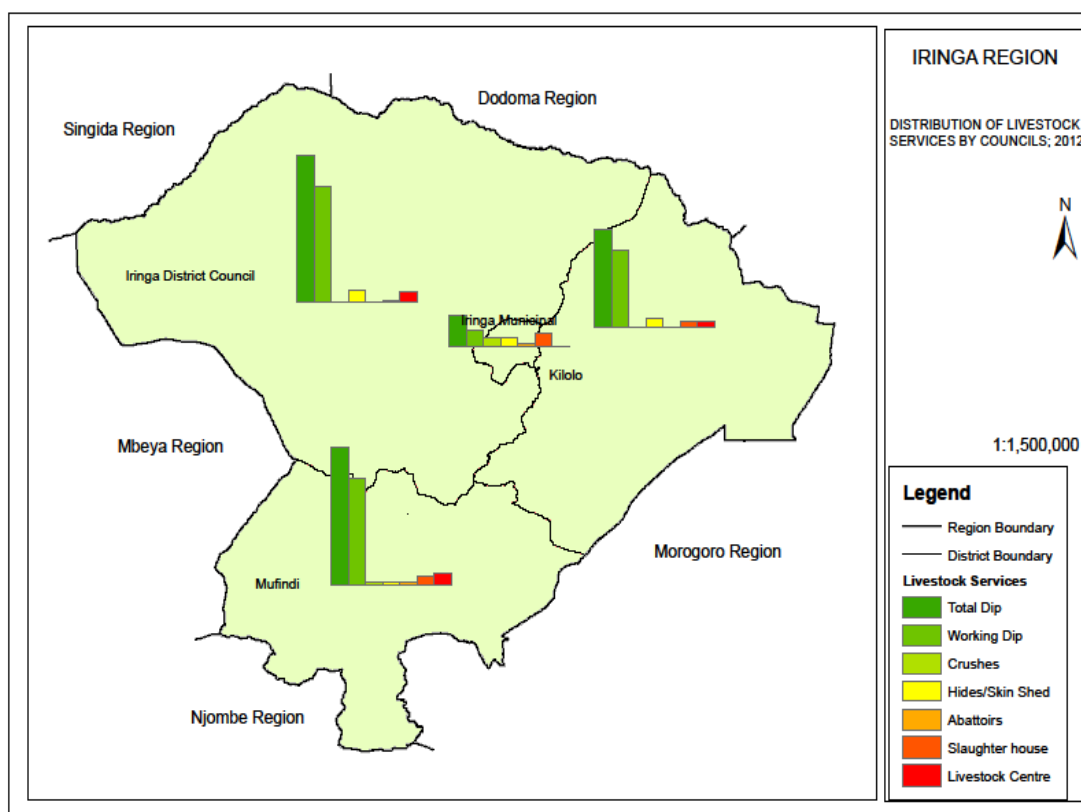
3.2.8 Livestock Infrastructure



Improvement of Livestock quality is limited due to difficulties in accessing facilities capable of controlling or preventing animal diseases. Diseases affect animal health and reduce both meat and milk production in terms of quality and quantity and in some cases causes death to the animals affected. Delivery of

livestock health services depends on facilities such as dips, veterinary health centres and water sources. Table 3.15 shows livestock infrastructure in Iringa Region in 2012. Dips were the most common infrastructure available in the region with Iringa DC having the largest number (56) and Iringa Urban the smallest number (12).

Map 4: Map of Iringa Region showing Distribution of Livestock Services by Councils; 2012



Source: National Bureau of Statistics, GIS Unit, 2013

Table 3.15 : Distribution of Livestock Infrastructure by Council, Iringa Region; 2012

Council	Total Dips	Working Dips	Crushes	Hides/Skins Sheds	Abattoirs	Slaughter Houses	Livestock Development Centres
Iringa DC	56	44	0	5	0	1	4
Mufindi	52	40	1	1	1	3	4
Iringa Urban	12	6	3	3	1	5	0
Kilolo	37	29	0	3	0	2	2
Total	157	119	4	12	2	11	10

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

3.2.9 Marketing Livestock and their Products

Increased private sector participation in marketing of livestock and their products in recent years has increased marketing channels for the livestock sub-sector. Due to high demand and good transportation infrastructure, urban areas provide reliable marketing place for livestock and their products than rural areas.

Table 3.16 and Figure 21 gives number and value of livestock marketed in the Region in 2011 and 2012. The Region earned a total of TShs. 46,800 million from selling of cattle, goats, pigs and poultry in the period of two years, 2011 to 2012. Highest earnings were from Iringa Urban at TShs. 17,949 million which was equivalent to 38.4 percent of total revenue earned from selling of livestock in the Region. It was followed by Iringa DC (Tshs. 12,798 million or 27.3 percent) and Mufindi (TShs. 9,189 million or 19.6 percent). Kilolo earned the least amount of money which was TShs. 6,864 million or 14.7 percent. Moreover, during the same period one dairy cattle was sold at an average price of TShs. 1,018,925 in Iringa Urban while in Iringa DC it was TShs 850,000 and in Mufindi it was TShs 700,000. A goat was sold at TShs. 86,010 in Iringa Urban, it fetched TShs. 38,500 in Iringa DC, TShs. 50,000 in Kilolo and TShs. 70,000 in Mufindi. The price for a pig was Tshs. 250,000 in Iringa Urban, TShs.

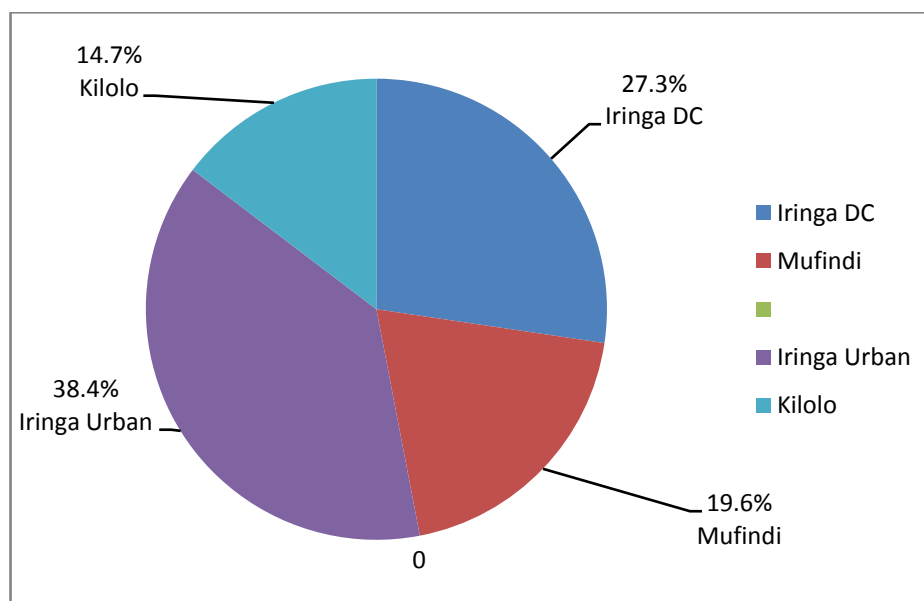
125,000 in Iringa DC, TShs. 75,000 in Kilolo while it fetched TShs. 100,000 in Mufindi. The price of sheep was TShs 85,825 in Iringa Urban, TShs. 60,000 in Iringa DC, TShs. 50,000 in Kilolo while in Mufindi the price was TShs. 100,000.

Table 3.16: Marketed Livestock by Type (Official Markets) and Revenue Earned; Iringa region; 2011 and 2012

Council	Total Number of livestock Marketed		Revenue Collected in T. Shs. Million			Percentage
	2010/11	2011/12	2010/11	2011/12	Total	
Iringa DC	20,019	14,025	4,381	8,417	12,798	27.3
Mufindi	324,646	358,729	6,375	2,814	9,189	19.6
Iringa Urban	66,429	109,811	6,456	11,493	17,949	38.4
Kilolo	35,520	33,940	3,166	3,698	6,864	14.7
TOTAL	446,614	516,505	20,378	26,422	46,800	100.0

Source: Director's Office, (Livestock Department), Iringa Municipal, 2013

Figure 21 : Percentage Revenue Earned from Marketed Livestock by Council (Official Markets); Iringa Region; 2011 and 2012



Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

3.2.10 Milk Production

Milk is an important livestock product which contributes significantly to the income of both urban and rural population. It is by knowing the contribution of milk to health improvement and reduction of poverty, that the Government of Tanzania always emphasizes the keeping of dairy cattle for increased milk production. According to Table 3.17, Iringa DC was the major producer of milk than the other councils in the region. The production of milk in Iringa DC was 74.1 and 66.8 percent of the regional production in 2011 and 2012. The table also reveals that milk production stood at 23,070,014 litres in 2011 and increased to 27,020,519 litres in 2012. Revenue collected in 2012 increased by 23.6 percent from Tshs. 15,463,507,386n 2011 to 19,116,691,405 in 2012. Price per litre averaged at Tshs. 670.3 in 2011 and reached Tshs. 707.5 in 2012 with Iringa Municipal having the highest price per litre in each year.

Table 3.17: Number of Litres of Milk Marketed and Value by Council, Iringa Region; 2011 and 2012

Council	2011			2012		
	Total Number of Litres	Total Revenue in T. Shs. (Million)	Average Price per Liter (TShs)	Total Number of Litres	Total Revenue in TShs. (Million)	Average Price per Liter (TShs)
Iringa DC	17,104,210	10,905	638	18,060,339	11,836	655
Mufindi	3,218,633	2,575	800	4,885,763	3,909	800
Iringa Urban	674,556	631	935	1,885,822	1,886	1000
Kilolo	2,072,642	1,353	653	2,188,595	1,486	679
TOTAL	23,070,041	15,464	670	27,020,519	19,117	708

Source: District Executive Directors Office, (Livestock Department), Iringa region, 2013

3.2.11 Major Livestock Diseases

The livestock industry is extremely important to the economy of Iringa Region and includes not only commercial producers of meat or milk, but also purebred

breeders and small producers with a few animals. The success of any type of livestock operation is closely related to the disease level of the animals.

3.2.11.1 Cattle Diseases

Table 3.18 shows that, East Coast Fever (ECF), Anaplasmosis, Foot Mouth Diseases (FMD), Helminths and Black quarter (BQ) were the main sources of cattle illnesses and deaths in the Region. According to the Table 3.18, 55,158 morbidity cases reported caused death to 10,475 cattle which was equivalent to 19 percent of the reported morbidity cases. . Morbidity and mortality cases reported picked at 22,761 and 3,994 respectively in 2010. Due to various interventions taken by the councils in controlling cattle illnesses in 2012, morbidity and mortality cases were at their lowest then at 15,416 and 3,030 cases respectively. Data in Table 3.18 also shows that in Iringa DC, East Coast Fever (ECF) was the main source of cattle illnesses and deaths. Helminthiasis and East Coast Fever were the causes of cattle illnesses and deaths in Mufindi and Iringa Urban. In Kilolo, Helminthiasis happened to be the main source of cattle illnesses while trypanosomiasis was the main killer disease for cattle.

Table 3.18: Five Major Cattle Diseases which Caused Morbidity and Mortality by Council, Iringa Region; 2010 to 2012

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Iringa DC								
East Coast Fever (ECF)	2,813	2,619	1,917	7,349	2,081	1,862	1,567	5,510
Anaplasmosis	1,873	1,663	1,616	5,152	874	778	719	2,371
Foot and Mouth Disease (FMD)	755	764	744	2,263	269	255	187	711
Lumpy skin disease	357	277	218	852	98	73	51	222
Black quarter (BQ)	2,118	1,872	1,813	5,803	379	274	268	921
Sub-Total	7,916	7,195	6,308	21,419	3,701	3,242	2,792	9,735

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Mufindi								
East Coast Fever (ECF)	2739	1872	872	5483	174	98	43	315
Anaplasmosis	1937	909	807	3653	18	11	12	41
Foot and Mouth Disease (FMD)	67	75	32	174	11	9	0	20
Helminths	4532	2544	1030	8106	0	0	0	0
Black quarter (BQ)	42	45	22	109	7	3	0	10
Sub-Total	9317	5445	2763	17525	210	121	55	386
Iringa Urban								
East Coast Fever (ECF)	171	154	58	383	22	24	12	58
Anaplasmosis	145	152	122	419	2	9	8	19
Foot and Mouth Disease (FMD)	40	32	75	147	6	4	3	13
Mastitis	31	28	32	91	0	0	0	0
Helminths	1,335	1,055	1,242	3,632	0	15	0	15
Sub-Total	1,722	1,421	1,529	4,672	30	52	23	105
Kilolo								
East Coast Fever (ECF)	699	847	1055	2601	9	8	41	58
Anaplasmosis	972	611	1359	2942	13	17	56	86
Trypanosomiasis	741	507	987	2,235	31	11	63	105
Helminths	1394	955	1415	3764	0	0	0	0
Black quarter (BQ)	0	0	0	0	0	0	0	0
Sub-Total	3806	2920	4816	11,542	53	36	160	249
Regional Total	22,761	16,981	15,416	55,158	3,994	3,451	3,030	10,475

Source: District Executive Directors' Offices, (Livestock Department), Iringa Region, 2013

3.2.11.2 Goat Diseases

With reference to Table 3.19 Caprine Contagious Preuropneumonia (CCP), Pneumonia and Footrot contributed a lot to poor health and even deaths of goats in the entire Region. A total of 35,572 morbidity and 6,670 mortality cases pertaining to goats were reported. Ratio of total mortality and morbidity cases indicates that on average, one goat died in every five morbidity cases reported in the three year period. By causing illness to 11,122 goats and deaths to 4,118 goats, CCP was the most dangerous goat disease during the period under review. At the district level, Iringa DC had more cases of morbidity as well as mortality cases. Other councils and Iringa urban had the least number of goat's morbidity and mortality cases. Iringa DC should take serious measures to control goats diseases and deaths.

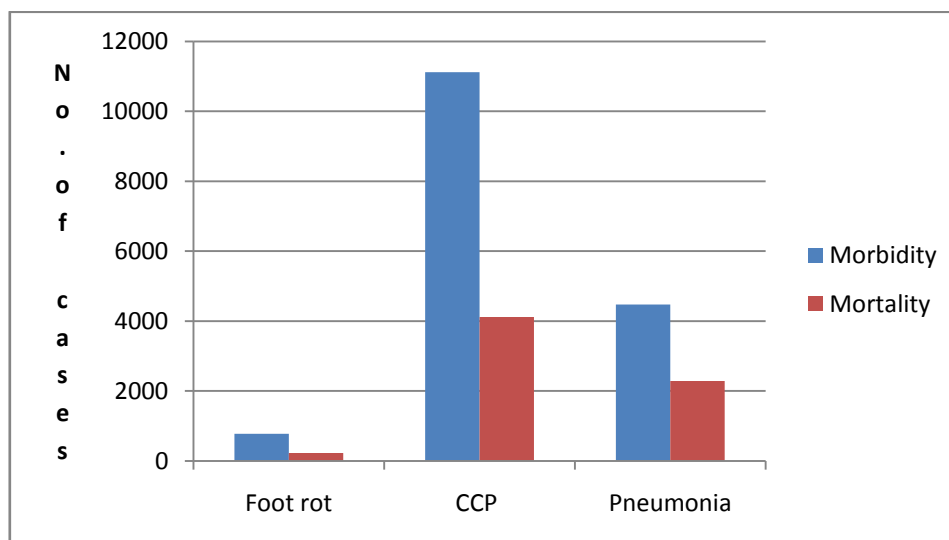
Table 3.19: Three Major Goat Diseases which Caused Morbidity and Mortality by Councils; Iringa Region; 2010-2012

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Iringa DC								
Footrot	268	256	235	759	79	83	71	233
Caprine Contagious Preuropneumonia	2,931	2,918	2,834	8,683	1,477	1,379	1,228	4,084
Pneumonia	1,557	1,468	1,379	4,404	761	774	753	2,288
Sub-Total	4,756	4,642	4,448	13,846	2,317	2,236	2,052	6,605
Mufindi								
Heart Water	57	79	102	238	3	10	11	24
Helmenthis Preuropneumonia	775	685	392	1852	5	0	0	5
Pneumonia	42	12	18	72	0	0	0	0
Sub-Total	874	776	512	2162	8	10	11	29
Iringa urban								
Footrot	0	10	8	18	0	0	0	0

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Caprine Contagious Preuropneumonia	0	4	0	4	0	4	0	4
Helminths	0	96	514	610	0	2	0	2
Sub-Total	0	110	522	632	0	6	0	6
Kilolo								
Mange	1,139	8,84	4,555	5,694	0	0	0	0
Caprine Contagious Preuropneumonia	1,189	535	711	2,435	2	7	21	30
Helminths	1354	1,716	7,733	10,803	0	0	0	0
Sub-Total	3,682	2,251	12,999	18,932	2	7	21	30
Regional Total	9,312	7,779	18,481	35,572	2,327	2,259	2,084	6,670

Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

Figure 22: Goats Diseases, Morbidity and Mortality Cases Reported, Iringa Region; 2010-2012



Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

3.2.11.3 Sheep Diseases

Table 3.20 shows that CCP, Pneumonia and Helminthiasis are the common diseases for sheep in Iringa Region. The Table further reveals that morbidity cases which amounted to 4,003 caused deaths to 430 sheep in three year period (2010 – 2012). Most of the sheep illnesses were due to CCP but mortality were due to Pneumonia in the whole period of three years. At council level, although morbidity was highest in Kilolo District Council (2,211 cases) mortality was highest in Iringa DC (370 cases). Initiatives taken by the Livestock Department in Kilolo District managed to reduce sheep mortality to zero but morbidity was the highest.

Table 3.20: Two Major Sheep Diseases which Caused Morbidity and Mortality; Iringa Region; 2010/11 to 2011/12

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Iringa DC								
Pneumonia	524	497	487	1508	98	118	154	370
CCP	0	0	0	0	0	0	0	0
Helminthiasis	0	0	0	0	0	0	0	0
Sub-Total	524	497	487	1508	98	118	154	370
Mufindi								
Pneumonia	4	14	9	27	11	7	1	19
Heart Water	45	36	11	92	5	10	0	15
Helminthiasis	12	22	42	76	9	8	3	20
Sub-Total	61	72	62	195	25	25	4	54
Iringa urban								
Foorot	0	8	5	13	0	0	0	0
Helminthiasis	0	40	36	76	0	6	0	6
Sub-Total	0	48	41	89	0	6	0	6
Kilolo								
CCP	374	867	642	1,883	0	0	0	0

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Helminthiasis	137	119	72	328	0	0	0	0
Sub-Total	511	986	714	2,211	0	0	0	0
Regional Total	1,096	1,603	1,304	4,003	123	149	158	430

Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

3.2.11.4 Poultry Diseases

Development and sustainability of poultry industry in Iringa Region is under threat due to a number of reasons. Of these, diseases are leading. Based on Table 3.21, New castle, Salmonellosis, Coccidiosis, Fowl Typhoid and Infectious Coryza were the five poultry diseases identified in the four councils of Iringa Region. In the period from 2010--2012 about 207,697 and 89,068 poultry morbidity and mortality cases respectively were reported in the whole Region. New Castle disease by causing morbidity to 185,760 poultry and mortality to 83,034 poultry was the most dangerous poultry disease followed by Fowl Typhoid and Infectious Coryza, Coccidiosis and Salmonellosis. Figure 23 also portrays poultry diseases in the Region.

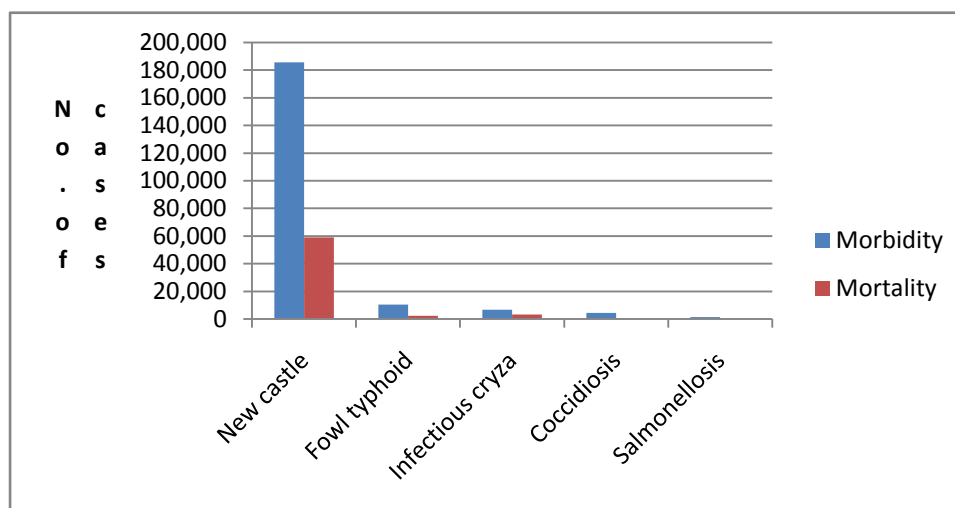
Table 3.21: Three Major Poultry Diseases which Caused Morbidity and Mortality, Iringa Region; 2012

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Iringa DC								
New castle	24,713	21,875	18,881	65,469	22,845	19,778	16,187	58,810
Fowl typhoid	1,512	1,583	1,445	4,540	723	685	679	2,087
Infectious Coryza	2,174	2,317	2,263	6,754	1,229	918	1,224	3,371
Sub-Total	28,399	25,775	22,589	76,763	24,797	21,381	18,090	64,268
Mufindi								
New Castle	95	42	6	143	15	17	5	37
Infectious Coryza	11	9	15	35	24	11	0	35

Council/Disease	Morbidity Reported				Mortality Reported			
	2010	2011	2012	Total	2010	2011	2012	Total
Coccidiosis	123	147	234	504	37	26	18	81
Sub-Total	229	198	255	682	76	54	23	153
Iringa Urban								
New castle	n.a	114	81	195	n.a	114	81	195
Coccidiosis	n.a	1,213	1,021	2,234	n.a	60	40	100
Salmonellosis	n.a	552	723	1275	n.a	51	51	102
Sub-Total	na	1,879	1,825	3,704	na	225	172	397
Kilolo								
New castle	72,142	47,811	Na	119,953	14,429	9,563	Na	23,992
Fowl typhoid	1,148	4,267	433	5,848	188	47	Na	235
Coccidiosis	Na	Na	747	747	Na	Na	23	23
Sub-Total	73,290	52,078	1180	126,548	14,617	9,610	23	24,250
Regional Total	101,918	79,930	25,849	207,697	39,490	31,270	18,308	89,068

Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

Figure 23: Poultry diseases with morbidity and mortality cases reported in Iringa Region; 2011-2012



Source: District Executive Directors Offices, (Livestock Department), Iringa region, 2013

Initiatives taken by the livestock department in the respective districts managed to reduce chicken morbidity by 29.6 percent between 2010 and 2011 and also by 67.7 percent between 2011 and 2012. Mortality was reduced by 20.8 percent between 2010 and 2011 while between 2011 and 2012 it was 41.5 percent.

3.2.12 Investment Opportunities in Livestock Sub Sector

Investment in this sub sector can focus on dairy farming and livestock processing industries such as milk processing, leather tanning and meat canning. Precisely, the region needs to look at the following possibilities:

- 1. Meat processing:** The Region needs to have modern abattoirs in its districts. The abattoirs can be used for slaughtering and meat processing. They can also act as local markets for livestock keepers.
- 2. Animal feeds:** Supplement feeds can be manufactured and sold to farmers. Fodder can also be grown on the land that is lying idle and the selling of hay or seeds that can improve range land in whole Region.
- 3. Animal services and pharmaceuticals:** Animal veterinary shops and veterinary centres where qualified veterinary and livestock officers can offer consultancy services especially in sub-urban areas of the Region.

3.3 Natural Resources Products

Land and forest resources are the main natural endowments of Iringa Region hence economic activities comprise of forestry, hunting, beekeeping, fishing, minerals and wildlife. Among others, forestry sub sector plays an important role in maintaining ecological balance, protect soils from erosion and conserve water and wildlife. Forests are also a source of domestic energy and industrial raw

materials and provide useful non-wood products mainly honey and bee-wax. Unfortunately, though the government has imposed protection measures against forest depletion, the Region is suffers from illegal harvesting of wood trees and encroachment due to land demand for agricultural activities. Concerted and determined efforts at afforestation are the only way to save these forests, lives of wildlife species and ensure sustainable supply of fuel wood.

As regards the allocation of natural resource staff within the Region, in 2012, the Region had a total of 45 staffs of whom 22 were forest personnel located at Mufindi (10 staff), Kilolo (6 staff), Iringa DC (5 staff) and Iringa Urban (one staff) as shown in Table 3.22. Beekeeping sub-sector had 6 staff unevenly located to Mufindi (2 staff), Iringa DC (3staff), Kilolo (onestaff) and Iringa Urban had no staff. A total of six fisheries staff were llocated at Mufindi (3 staff), Iringa DC (3 staff) while Kilolo and Iringa Urban had no staff. Wildlife sub-sectors had 11 staff llocated at Mufindi (2 staff), Iringa DC (9 staff) and Iringa Urban and Kilolo had no staff. Table 3.22 also reveals that of the 45 staff available, 34 were males and 11were females.

Table 3. 22: Availability of Natural Resource Staff by Sex and by Council, Iringa Region; 2012

Council	Forest		Beekeeping		Fisheries		Wildlife		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Iringa DC	3	2	3	0	3	0	4	5	20
Mufindi	8	2	2	0	2	1	2	0	17
Iringa Urban	1	0	0	0	0	0	0	0	1
Kilolo	6	0	0	1	0	0	0	0	7
Total	18	4	5	1	5	1	6	5	45

Source: Compiled Data from District Socio-economic Profiles of Iringa Region, 2013

3.3.1 Forestry



Tree seedlings raising has reduced deforestation in Iringa Region

Iringa Region is one of the best forest cover in the country though there is at great risk of forest depletion due to the demand for fuel wood and other human activities as the population increases. As a percentage it occupies 15.5 percent of the total land area. Until 2012, out of 3,303,280 hectares of the Regional land area, about 363,828 hectares is covered by 98 forest reserves owned by the district councils and villages (Table 3.23). However, percentage of encroachment was severe in Mufindi and fair in Kilolo District Council. Forest cover is more significant in Iringa DC (45.4 percent of the region's total land area covered with forests) followed by Kilolo (37.3 percent) and Mufindi (17.3 percent). Forest cover for Iringa Urban is insignificant since is an urban council.

Table 3. 23 : Status of Forest Reserves and Percentage of Encroachment by Council, Iringa Region; 2012

Council	Land Area (ha)	No. of Forest Reserves	Area (Ha)	Percentage Of Area	Status of Illegal Harvesting	Size of Encroached Area (Ha)	Percent Encroached
Iringa DC	1,973,548	22	165,184	45.4	Fair	0	0
Mufindi	617,700	60	62,878	17.3	Insignificant	1,607	93.0
Iringa Urban	32,970	1	233	0.1	n.a	n.a	na
Kilolo	679,662	15	135,533	37.3	Severe	121	7.0
Total	3,303,280	98	363,828	100.0		1,728	100

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

Apart from natural forests, the Region is also covered with forest plantations. The people of Iringa Region have developed a habit of planting trees where by various groups have been involved in raising and planting trees. These groups include the Central Government, the district council, village governments, individuals, schools, defence forces, Non-Government Organisations and local and international forest companies. The Region raised about 113,717,141 tree seedlings between 2009/10 and 2011/2012 of which 18,442,000 seedlings were raised in 2009/2010, 39,582,189 in 2010/11 and 55,692,952 in 2011/12 (Table 3.24). Most of the seedlings (66.4 percent) were raised by Mufindi District Council followed by Kilolo (31.5 percent) and Iringa DC (1.2 percent). Iringa Urban had the lowest percentage of seedlings (0.8 percent).

Table 3.24 : Number of Tree Seedlings Raised by Council, Iringa Region; 2009/10 – 2011/2012

Council	2009/10	2010/11	2011/12	Total	Percent
Iringa DC	n.a	716,776	694,714	1,411,490	1.2
Mufindi	18,370,000	25,426,000	31,754,500	75,550,500	66.4
Iringa Urban	72,000	580,418	251,200	903,618	0.8
Kilolo	n.a	12,858,995	22,992,538	35,851,533	31.5
Total	18,442,000	39,582,189	55,692,952	113,717,141	100.0

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

(i) Forest Products



Timber is a main forest product in Iringa Region

Iringa is one of the few regions in Tanzania producing most of the forest products including timber, wood logs and wood fuels such as fire wood and charcoal. Unfortunately, the district authorities fail to get reliable data on the production of forest products and their values due to the ban on tree cutting in the from natural forests which results in not reporting the production done illegally.

Table 3.25 gives indicative figures of the quantity of timber and charcoal sold and their values in 2012. A total of 87,103 cubic metres of timbers were sold and fetched about Tshs 27.6 billion with the highest sale being in Mufindi district council followed by Kilolo and Iringa DC. Table 3.25 also indicates that Kilolo district was the major producer of charcoal in the Region. Out of 63,285 bags produced in 2012, 56,600 bags were produced by Kilolo District followed by Mufindi (6,333 bags) and Iringa DC (352 bags). Due to scarcity of heavy forests, Iringa Urban does not earn revenue from timber and charcoal. Of the revenue from all forest products, revenue from charcoal is the only one that benefits the councils.

Table 3. 25: Revenue Collected from Timber and Chacoal by Council, Iringa Region, 2012

Council	Volume of Timber Sold (Cubic metre)	Total Values @350,000 Tshs	Number of Charcoal Bags Sold	Total Value@ 3500 Tshs
Iringa DC	n.a	n.a	352	1,232,000
Mufindi	78,376	27,431,600,000	6,333	22,165,500
Iringa Urban	n.a	n.a	n.a	n.a
Kilolo	8,727	204,442,500	56,600	198, 100,000
Total	87,103	27,636,042,500	63,285	221,497,500

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

3.3.2 Beekeeping



The use of modern beehives was among contributing factors for the increase of beekeeping products in the Region

Though the region is endowed with planted and natural forestry, little has been done so far to adequately exploit this resource through bee-keeping. Inadequate knowledge, lack of motivation towards beekeeping, use of traditional methods and unreliable markets are among the factors contributing to the poor performance of this sub-sector in the Region. However, production of honey and wax has increased in the last two years due to mass campaigns done by government and private sectors on the importance of beekeeping in the Region

and country as whole, usage of modern bee hives and community awareness towards beekeeping as also a potential economic venture for their livelihood.

Table 3.26 shows an improvement in bee-keeping for all districts of Iringa Region. The number of traditional beehives increased from 15,263 in 2010 to 19,676 (equivalent to 28.9 percent) in 2012. With a total of 14,257 beehives Iringa DC was leading in traditional beehives in 2012 followed by Kilolo (3,539 beehives) and Mufindi (1,876 beehives). Iringa Urban had the least number of traditional beehives (4). Number of modern beehives also increased from 4,028 in 2010 to 6,174 (equivalent to 53.3 percent) in 2012. Again Iringa DC had largest number of modern beehives (2,649) in the Region followed by Kilolo (2,145) and Mufindi (1,156), while Iringa Urban had the smallest number (224) of modern beehives in 2012.

Table 3. 26: Number of Traditional and Modern Beehives by Council; Iringa Region; 2011 and 2012

Council	Traditional			Modern		
	2010	2012	Percentage Increase	2010	2012	Percentage Increase
Iringa DC	10,724	14,257	32.9	1,242	2,649	113.3
Mufindi	1,791	1,876	4.7	977	1,156	18.3
Iringa Urban	0	4	na	132	224	69.7
Kilolo	2,748	3,539	28.8	1,677	2,145	27.9
Total	15,263	19,676	28.9	4,028	6,174	53.3

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

Table 3.27 indicates that over a three year period, beekeeping sub sector produced a total of 138,220 litres of honey and 10,530 kgs of bee-wax, valued at a total of TShs 680,982,000. Data given in the Table is evidence that bee-keeping industry could contribute significantly to the regional economy if initiatives are taken to promote this subsector. Moreover, bee-keeping

production levels could be raised if bee-keepers are given assistance to enable them move from traditional to modern beehives through provision of micro-credits as seed money and extension services.

Table 3.27 : Trend of Beekeeping Products and Revenue Received (TShs), Iringa Region; 2010 – 2012

Year	Honey			Bee-wax			Total Collected Revenue
	Litre	T.Shs.	Percentage Increase (Litre)	Kg	T.Shs.	Percent Increase (Kg)	
2010	40,679	158,036,000		3,072	9,029,000		167,065,000
2011	55,504	272,310,000	36.4	3,470	10,326,500	13.0	282,636,500
2012	42,037	217,014,000	-24.3	3,990	14,267,000	15.0	231,281,000
Total	138,220	647,360,000		10,532	33,622,500		680,982,500

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

Table 3.28 shows that most of honey and bee-wax were produced in Iringa DC and Mufindi districts due to the presence of both natural and planted forestry. Out of 440,679 litres of honey produced in 2010, about 34,000 litres were produced in Iringa DC and 6,012 litres in Mufindi, while Iringa Urban produced no honey. Similar trends were observed in other years under review. Again Iringa DC and Mufindi were major producers of bee-wax in the reference period. While Iringa Urban district was the least producer of bee-wax as in the case of honey (Table 3.28).

Table 3.28 : Beekeeping Products (Honey and Bee-Wax) by Council, Iringa Region; 2010 – 2012

Council	Honey (Litres)			Bee-Wax (Kg)			Total	
	2010	2011	2012	2010	2011	2012	Honey (litres)	Bee-Wax (kg)
Iringa DC	34,000	48,216	32,250	2,770	3,130	3,550	114,466	9,450
Mufindi	6,012	5,078	5,062	185	191	216	16,152	592
Iringa Urban	0	802	1,017	0	6	15	1,819	21
Kilolo	667	1,408	3,708	115	143	209	5,783	467
Total	40,676	55,504	42,037	3,070	3,470	3,990	138,220	10,530

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

3.3.3 Fishery



Pond in Igowole ward is used for different purposes including fishing

Fishing is not a big economic activity in Iringa Region due to the limited number of water bodies. Most of the fish consumed in the Region are imported from Dar es Salaam, Mwanza, Ifakara and Ludewa. Small scale fishing is carried out at Migoli, Kitwiru, Igowole, Ukwega, Idete and Ruahambuyuni wards in waterbodies of Mtera dam, the Great Ruaha, Little Ruaha and fish ponds.

Dropping of water level of Mtera dam which started in 2008/09, to large extent affected fishing industry as well as revenue of the region.

Table 3.29 gives indications of the magnitude of the fishing industry in the region, of which a total of 9 wards are officially identified and have 1,305 registered fishermen using 970 fishing licenses and 1,020 vessels. It was estimated that, in 2012 a total of 1,803,891kgs of fish valued at TShs.5,391,046,000 were harvested and sold at an average price of TSHs 2,986 per kg. District wise, Migoli Ward in Iringa DC is the major fishing site in the Region, at which 1,781,590 kgs (98.8 percent of all fish) were harvested in 2012. Other fishing centres harvested 1.2 percent of the fish (Table 3.29).

Table 3. 29: Fishery Resources and Production by Council, Iringa Region, 2012

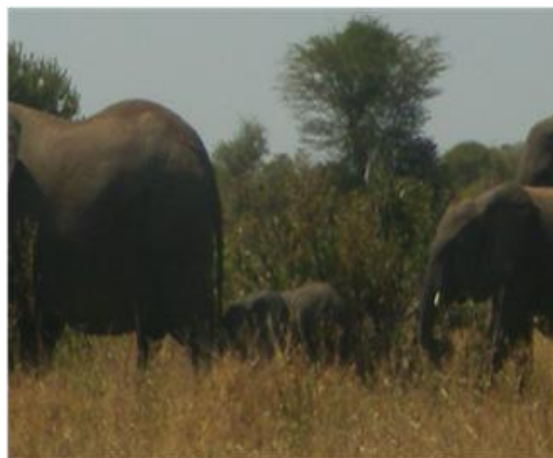
Council	Fishing Site (Ward)	No. of Fishermen	No. of Fishing Licenses	No. of Registered Fishing Vessels	Fish Harvested	
					Wight (kg)	Value (TShs)
Iringa DC	Migoli	975	925	975	1,781,590	5,344,770,000
Mufindi	Igowole	123	45	45	14,345	46,276,000
Iringa Urban	Kitwilu	19	0	0	240	n.a.
Kilolo	Ukwega, Mahenge, Mtitu, Idete, Ruahambuyuni and Dabaga	188	n.a	n.a	7,716	n.a.
Total	9	1,305	970	1,020	1,803,891	5,391,046,000

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

3.3.4 Wildlife



Uniqueness of Ruaha National Park is the presence of Kudu. This animal is only available in this national park in Tanzania

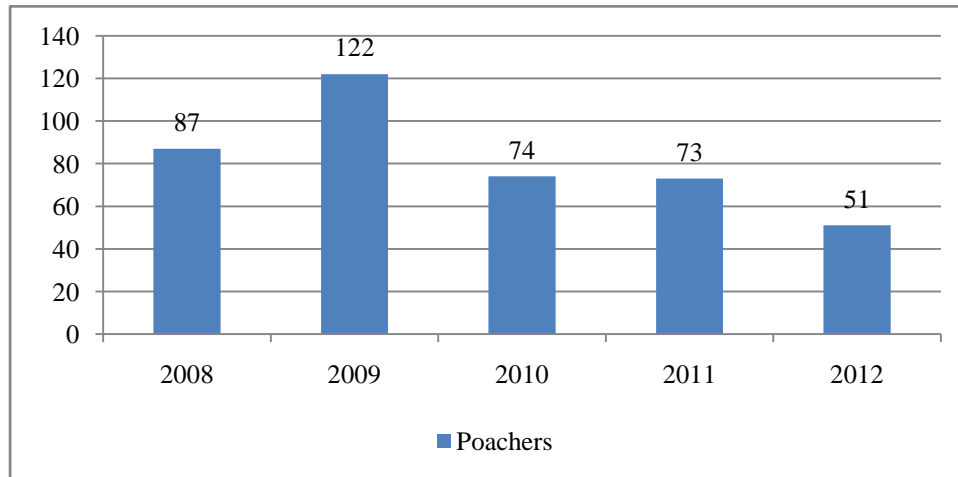


Elephants moving in large groups is another unique feature of Ruaha National Park

Iringa is the luckiest region in the country by being endowed with many and fairly large wildlife conservation areas that support a diversity of wildlife species. Ruaha National Park, Runda Mkwambi Game Controlled Area and forest reserves are the home of a wide range of wildlife species in the Region. Apart from elephant, buffalo and lions, KUDU happens to be the most unique wildlife animal found only in Ruaha National Park. Photographic tourism, researching and camping are permitted activities in these national parks. While hunting is only permitted in game controlled and reserve areas outside national parks.

Poaching is a major problem for the sustainability of wildlife resources in these areas since they kill minority wildlife species especially elephant for trophies, giraffe and kudu. Figure 24 gives the number of poachers caught in the last five years. A total of 407 poachers were caught in the Region between 2008 and 2012. The highest percentage (30.0 percent) of poachers was caught in 2009 and the least (12.5 percent) in 2012.

Figure 24: Number of Poachers caught in Iringa Region; 2008 -2012



Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

3.3.5 Tourism

3.3.5.1 Wildlife Tourism



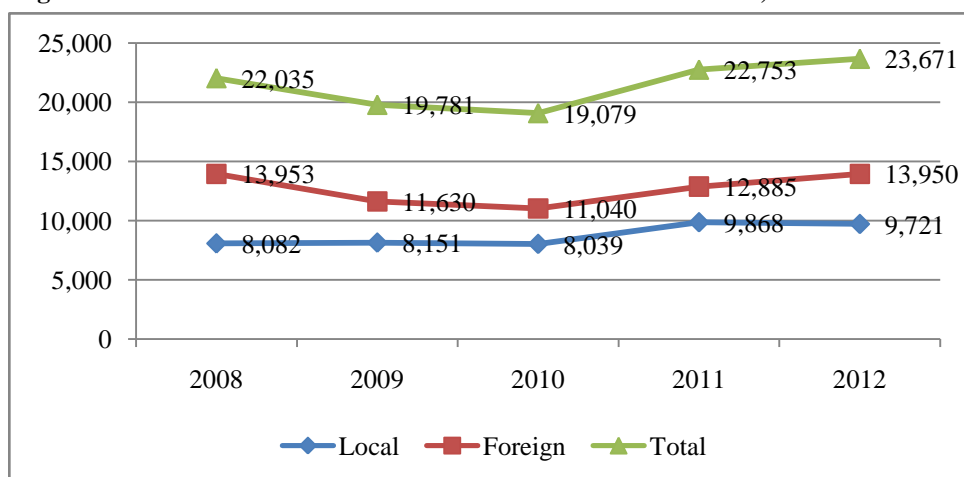
Ruaha National Park is also a home of various birds

Iringa Region has a national park namely Ruaha National Park, the largest national park in Africa, covering an area of about 22,000 sq. km. It is located in the middle of Tanzania about 130 km from the centre of Iringa Municipality. The park is part of a more extensive ecosystem which includes Rungwa Game

Reserve, Usangu Game Reserve and several other protected areas. The park is very famous for its large population of 10,000 elephants roaming in the park, a true birdwatchers paradise with 436 identified species of birds. The different species are Hornbills, Kingfishers and Sunbirds together many migrants like the White Stork. Other special animals in Ruaha include kudu, lion, buffalo, the African wild dog and Sable Antelope. The best time to visit for predators and large mammals is during the dry season (May–December) and for birds and flowers, the wet season (January–April).

Figure 25 shows the number of tourists both local and foreign who visited the Ruaha National Park between 2008 and 2012. From 2008 to 2012 a total of 107,319 tourists visited the Park. Number of tourists fluctuated with the largest number of tourists at 23,671 visiting in 2012 and the lowest number (19,079) in 2010.

Figure 25 : Number of Tourists who Visited Ruaha National Park; 2008-2012



Source: Ruaha National Park Management; May 2013

3.3.4.5.2 Historical Site viewing Tourism



Chief Muniyigumba Grave yard

Historical places are other tourists' attractions which make Iringa DC attract many local and foreign tourists. The district has a number of historical places to visit such as the Ismila Stone Age Site, Kalenga, Kikongoma, Mlambalasi and Tosamaganga.

Ismila Stone Age Site: The site lying about 20 km (12 miles) to the SouthWest of Iringa DC headquarters has astonishing free-standing natural rock pillars formed by millions of years of weathering, this is one of Africa's most important sites for exploring the relics of the Acheulean Age (about 300,000 years ago) and the site is littered with hand axes, hammers, cleavers and stone picks. Also the site contains archeological artifacts, particularly stone tools, from human habitation many years ago.

Kalenga, Kikongoma and Mlambalasi: These historical sites are linked with the Hehe's Chief Mkwawa. He was the chief who several times fought the

German colonial authorities. The Hehe's Chief built eight km long and 12 meter high stockade in an attempt to fight off the advance of German colonization.

Kalenga Museum: It was built in 1954 during British colonialism in Kalenga Village. It is in this museum where the skull of Chief Mkwawa is kept after being repatriated back to the then Tanganyika Territory in 1954 during the British colonial rule. Mkwawa's skull now forms one of the main exhibits of the Mkwawa Memorial. Furthermore, letters which Mkwawa wrote to Germany authorities, spears and other traditional weapons and a few rifles which Mkwawa and his soldiers had used can also be observed in this museum. Besides that, there are traditional tools and medicines which the Chief Mkwawa had used as 'satellite' for watching enemies as well as monitoring the behavior of his 62 wives if they happened to cheat on him.

Kikongoma: It is the hamlet within Mangalali Village. This hamlet is famous for two main things. First it is the place where the mother of Chief Mkwawa killed herself. She killed herself after had caught by Mkwawa enemies and forced to disclose the traditional whichcraft which made his son (Chief Mkwawa) powerful. She refused, and threw herself in Ruaha River at a place where it was believed to be more than 50 metres deep. Secondly, Kikongoma is famous for having 'Gold Bridge' or natural built bridge. Below the huge stones Ruaha River flows. Through stepping on the huge stones people can cross the river even during long rainy seasons.

Mlambalasi: This is a place where Chief Mkwawa killed himself in 1898 after successfully managed to escape from German forces.

Chanunu and Uole Cave: This cave located in Malangali ward was a hiding place for Chief 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 Mkwawa family. The Region is in the process of making arrangements for these sites to be among other tourist sites.

Table 3.30: Historical Sites Potential for Tourism in Iringa Region, 2012

Type of Historical Heritage Available	Village	Ward
Chanunu Cave	Itengule	Malangali
Chamumbwi An Gelman Old Fort	Ihowanza	Ihowanza
Kisupo cha Mkwawa	Sawala	Mtwango
Uole Caves	Bumilayinga	Bumilayinga
Mnyigumba's Grave yard and Boma	Rungemba	Rungemba
Kirufi Worshipping	Ihomasa	Kasanga
Gangilonga Stone	Gangilonga	Gangilonga
Common Wealth Graves	Gangilonga	Gangilonga
First world war Icon	Gangilonga	Gangilonga
German building	Gangilonga	Gangilonga
Igeleke Paints	Igeleke	Mtwivila
Kitanzini	Kitanzani	Kitanzini
Itamba Pillars	Itamba	Mkwawa
Manyafifi caves	Kitwiru	Kitwiru
Ruaha river	Ipogolo	Ruaha
Igumbiro Pillars	Igumbiro	
Kitasengwa Pillars	Mkoga	Isakalilo
Pillars and Caves	Kigonzile, Mgongo and Nduli	Nduli

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

Udekwa, Dabaga and Irole Caves:



This is among the unique caves with a total of 8 rooms. It is found in Udekwa ward 143 km from the headquarters. There are also other caves found at Dabaga 45 km and Irole caves 63 km from headquarters all of these caves have similar traditions and beliefs. The cave has been used by local natives as hideout against enemies. It has been used also by local community as a sacred site which reflects cultural belief of the indigenous community of Hehe where sacrifices of goats and cows were given to gods to stop curse erupting in the community.

Ukumbi Swamp



The swamp was used by the community for two purposes; spiritual and medical. For spiritual purposes, sacrifices of goats and cows were given to gods to stop problems erupting in the community. For medical purposes, water from the swamp and herbs growing in the swamp were mixed with other traditional medicines to cure epilepsy, leprosy and mental diseases. The water was only fetched by a select person. The swamp is at Ukumbi ward 47 kms from the headquarters.

Kihesa-Mgagao Stone



This is among the huge stones covering a total of 12 acres at an altitude of 2,500 m above sea level. It is used for two major activities which are spiritual and medicinal. For spiritual purposes, sacrifices of goats, and cows were given to gods to stop problem erupting in the community and sacrifice giving depended on the nature of the problem meaning the bigger the problem the bigger the sacrifice to be given. For medicinal purposes, herbs growing on top of the stone which scientifically are called *syzigium* spp, and by Hehe language are called Mafwelefwenzi are mixed with other traditional medicines to cure asthma and coughing diseases. Also there are two rivers which flow nearby at a site called Ifwenga and Mtitu. The stone is found at the border of two villages of Kihesa-

Mgagao (Ng'uruhe ward) and Masege (Ukumbi ward) 42 kms from headquarters.

Nyundo Grave



It is popularly referred to as 'Nyundo Grave' or 'Zelewisky Grave' reflects cultural conflict between two ethnic groups of Germans and Hehe. This is a monument where 300 Germany soldiers had been buried after being killed by Mkwawa soldiers in 1898. This grave is located at Irole 63 kms from headquarters.

3.3.4.5.3 Eco Tourism



Ruaha River Lodge in the Ruaha National Park is among the preferred lodge by foreigners

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, regional authorities should continue to encourage the private sector to build more hotels, camp sites and lodges to accommodate ever increasing tourists in the Region. The existing hotels lodgings and camp sites in Iringa Region include the MR Hotel, Hilltop Hotel, Lutheran Lodge Centre and New Ruaha International Guest House, Tandala Tented Camps, Mwangusi Safari Camp, Mdonya Old River Camp, Ruaha River Lodge, Kwihale and Jongomero Camp. Cotage Lodge is the property of the National Park (i.e government property) and is the most affordable lodge. The remaining lodges are owned by investors and their price is higher than the one owned by the government.

Banking services and bureau de changes together with telecommunication services especially mobile phone coverage are also very important for tourism industry in Iringa Region. Besides that, road network towards all tourists attractions are good and passable throughout a year.

3.3.6 Investment Opportunities in Natural Resources

(i) Agro-forestry

Sustainable agro-forestry is an area the Region can take advantage of. Afforestation programmes can be established for environmental conservation in the Region.

(ii) Beekeeping

Availability of abundant natural forests such as miombo woodlands provides the Region with a great range of beekeeping potentials. People organized in groups can make beekeeping a part-time activity and an alternative source of income for low income earners in the Region. However, investments in this sub-sector can be made as follows:

Medium scale investors; these are private companies or individuals with adequate resources who can invest profitably in this sub sector by using modern technology. These kind of investors should be encouraged so as to tap the full potential of this sector; and

Small scale bee keepers; these include individual households in the district. They could be developed by being trained in modern bee-keeping, a practice which involves the use of modern beehives instead of the traditional ones which are currently predominant in the Region. Likewise, the Government and other development stakeholders in the

Region should think of introducing micro-credit schemes to bee-keepers so as to enable them purchase modern beehives and other necessary gear for this important economic activity.

(iii) Tourism: Wildlife and Historical sites

The presence of Ruaha National Park, game reserves and historical sites in Iringa Region is an important opportunity to create employment within the sector and increase income of the people.

(iv) Eco Tourism

Availability of national parks and historical sites create an opportunity for the Region to construct quality infrastructures including accommodation facilities, telecommunication services, roads, banking/bureau de change services and tour operators in order to create competitive tourism facilities.

(v) Environmental conservation

Investment in the planting and supply of seedlings is essential in the district in order to balance the state of afforestation and deforestation that is going on in the Region. Iringa Region faces 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.

(vi) Fisheries

People in fishing sites in the Region have a very good opportunity of increasing their income by involving in fishing. Therefore, dynamic and well-funded fisheries programs are needed for fishers in Iringa Region to transform the income and nutrition status of those households.

3.4 Mining Sector

The Region has yet to play a significant role in mineral production, though there are number of mineral deposits. Kilolo District is the only district endowed with lime in Ilula Ward, aggregates in Uhambingeto Ward, and fine sand in Ihimbo Ward. Nevertheless, little is known about the actual potential of the minerals in these sites. As a result, its contribution to the regional economy is still negligible compared to agriculture and livestock activities. Table 3.31 shows mineral potentials in Kilolo District.

Table 3. 31: Distribution of Mineral Deposits and Scale of Mining at Kilolo District, Iringa Region, 2012

Council	Type of Mineral Deposit	Small Scale	Medium Scale
Ilula	Lime	-	1
Uhambingeto	Aggregates	1	-
Ihimbo	Fine sand	1	-
Total	3	2	1

Source: District Executive Director's Office (Mining Department) Kilolo District, 2013

3.5 Industrial Sector

Industrial sector is very important in the economy. It is a foreign exchange earner and the main source of employment, especially in urban areas. Table 3.32 shows that in 2012 the Region had a total of 289 small scale industries in operation. Iringa Urban District had the largest number of industries (235) followed by Mufindi (26) and Iringa DC (16). Kilolo District had the smallest number of industries as it has only 12 industries. The leading type of industrial activity was grain milling at 33.6 percent, followed by carpentry (22.5 percent) and oil processing (12.1 percent).

Table 3.32 : Number of Small Scale Industries by Council and Type of Industry - Iringa Region; 2012

Council	Bakery	Carpentry	Garage	Grain Milling	Oil Processing	Poultry Feed	Tailoring	Total
Iringa DC	0	0	0	1	15	0	0	16
Mufindi	0	3	17	5	1	0	0	26
Iringa Urban	4	58	38	91	17	1	26	235
Kilolo	0	4	3	0	2	1	2	12
Total	4	65	58	97	35	2	28	289
Percent	1.4	22.5	20.1	33.6	12.1	0.7	9.7	100.0

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

Apart from small-scale industries, Iringa Region also had medium-scale industries which were concentrated in Iringa Urban (12). Other districts had few industries as follows: Iringa DC and Mufindi (1) and Kilolo District (2) (Table 3.33). The percentage distribution of medium industries was Iringa Urban (75 percent) Kilolo (12.5 percent) and Iringa DC and Mufindi (6.3 percent each).

Table 3. 33: Number of Medium Scale Industries by Council and Type, Iringa Region, 2012

Industry	Iringa DC	Mufindi	Iringa Urban	Kilolo	Total	Percent
Bakery	0	0	1	0	1	6.3
Biscuit Processing	0	0	1	0	1	6.3
Charcoal	0	0	1	0	1	6.3
Confectionary			2		2	12.5
Crispo	0	0	1	0	1	6.3
Fruit and Vegetable Canning	0	0	2	1	3	18.8
Milk Processing	0	0	1	0	1	6.3
Bottle Manufacturing	1	1	2	1	5	31.3
Tank Manufacturing	0	0	1	0	1	6.3
Total	1	1	12	2	16	100.0
Percent	6.3	6.3	75.0	12.5	100	

Source: Compiled Data from District Socio-economic Profile of Iringa Region, 2013

Factors responsible for rapid growth of the industrial sector and all of which are available in Iringa Region include:

Reliable Infrastructure/Tarmac Roads

Iringa Region is linked with the biggest commercial city in Tanzania (Dar es Salaam) by a good tarmac road. Moreover, the Region is also linked with other big cities/towns in Tanzania like Mbeya, Morogoro and Songea by tarmac roads.

Easy Accessibility of Resources

The Region is endowed with a diversity of natural resources and its geographical location enables easy access of resources in other places in the country. Raw materials can be transported from other regions in the country to the region through the tarmac highways/roads.

Availability of Markets

Availability of improved or modern technology makes it easy to produce goods of high quality that can compete in both local and foreign markets.

3.6 Investment Opportunities in Trade and Industries

Iringa is among the fast developing regions in the country. It has a relatively well developed infrastructure and financial services that support a wide range of economic activities. The Region has better investment opportunities through an enabling environment that has been created through support of private sector operators. Potential areas for investment which can be exploited by the region itself or in collaboration with the private sector include:

Construction of “Logistic Centre Houses” which could be used for quality control of the products imported into the Region.

Construction of the “Re Export Centre” for the products acquired within the Region and those imported so as to export to the other nearby regions.

Construction of warehouses for whole sale trade so that whole sellers can manage to buy and re sale the products to retailers; this will double increase the revenue within the Region.

CHAPTER FOUR

Economic Infrastructure

4.0 Introduction

Chapter Four explains the existing economic infrastructure in Iringa Region. It covers the road network development in terms of road classification, type of road surface and passability. Others include railway, air services, postal services including radio calls and television facilities. In the energy sector developments in regards to hydro-electricity, biogas, solar energy, fuel wood and fossil fuels are discussed.

Iringa Region has the privilege of having frontier with five regions. These regions include Dodoma, Singida, Morogoro, Njombe and Mbeya. Landlocked countries of Malawi, Zambia and even Democratic Republic of Congo (DRC) also depend to some extent on the efficiency of Iringa's roads. Iringa Region has a well developed transport network system connected to these other regions. With the exception of Iringa to Morogoro and Iringa to Njombe and Mbeya roads which are tarmac, the roads connecting Iringa with other regions are not in good condition. The roads network in Iringa Region is about 4,450 km (Table 4.1).

4.1 Road network

Table 4.1 shows that the trunk roads account for 8.3 percent of the regional network; regional roads are about 18.1 percent while district roads are 52.2 percent and the feeder roads are 21.4 percent of the network.

Iringa region total road length is 4,452.3 kilometers of which 414.6 kilometers belong to Iringa Municipality, 1,580.4 kilometers to Iringa DC, 1,573.3

kilometers to Mufindi and 884kilometers to Kilolo district. Thus, Iringa DC owns 35.5 percent of the network followed by Mufindi at 35.3 percent, Kilolo 19.9 percent and Iringa Municipal 9.3 percent.

Table 4.1 : Road Network by Types and by Council, Iringa Region, 2012

Council	Type (Km)				
	Trunk	Regional	District	Feeder	Total
Iringa DC	152	268	825.4	335	1,580.4
Mufindi	95	399	680.3	399	1,573.3
Iringa Municipal	23	28	363.6	0	414.6
Kilolo	100	111	455	218	884
Regional Total	370	806	2,322.80	952	4,452.3
Percent	8.3	18.1	52.2	21.4	100.0

Source: Iringa Regional Commissioner's Office 2013

4.1.1 Road network classification



60.2 percent of total road network of the region is earth road

Table 4.2 below shows that 314 km (7.1 percent of the road network) is tarmac. The 1,456.3 km (32.7 percent) are gravel road and the remaining 2,682 km (60.2 percent) are earth roads. Tarmac and gravel roads make up 39.8 percent of the network and since there is a close affinity between road worthiness and

tarmac/gravel surfaces it can generally be said that 39.8 percent of the region's road network is passable throughout the year. Iringa DC has the longest kilometers of tarmac and gravel roads at 786.7 km followed by Mufindi at 514.5 km. Mufindi also has the largest earth roads (1,058.8 km) which are impassable during the rainy season.

Table 4.2 : Road Network Surface condition by Council, Iringa Region, 2012

Council	Surface Condition (Km)			
	Tarmac	Gravel	Earth	Total
Iringa DC	72	714.7	793.7	1,580.4
Mufindi	95	419.5	1,058.8	1,573.3
Iringa Municipal	58	106.1	250.5	414.6
Kilolo	89	216	579	884
Regional Total	314	1,456.3	2,682	4,452.3
Percent	7.1	32.7	60.2	100.0

Source: Iringa Regional Commissioner's Office 2013

4.2 Railway Transport

The TAZARA railway line to Mbeya and Kapingimposhi passes through Iringa Region. Kiyowela and Mpanga Tazara are the two railway stations in the region which serve as a gateway for handling bulky goods and services intended for the region. However, due to the poor road network between the stations and the Iringa- Mbeya Highway, very few goods pass through the two stations.

Moreover, the TAZARA line is currently facing some constraints in regard to capitals, equipments and other resources for it to run properly. The services will be better once the constraints are solved.

4.3 Air Transport facilities

There is only one airport which is located in Iringa Municipal but because there are no scheduled flights there are no passengers embarking and disembarking at that airport. In addition there are two airstrips in Mufindi District which serve the district's non-scheduled air traffic for medical, tourist and other services. These airstrips are located at Mafinga JKT (Sao Hill) and Ngwazi in Igowole Ward. No data were available on the number of people served by the airstrips.

Table 4. 3: Air Services by Council, Iringa Region, 2012

Council	Air Services		
	No. of Airports	No. of Air Strips	No. of Passengers
Iringa DC	0	0	0
Mufindi	0	2	0
Iringa Municipal	1	0	0
Kilolo	0	0	0
Regional Total	1	2	0

Source: Regional Commissioner's office Iringa, 2013

4.4 Telecommunication Services

Information and communication technology (ICT) implementations in the region target at investments in capacity building and promoting effective application and use of ICT in business and in enhancing community participation in development activities. E-Government is the use of ICT to enhance the delivery of Government services in terms of improving service quality, broadening service availability to more people, and innovating new types of services. The regional ICT strategies uses the framework set aside by the national ICT policy that will enable ICT to contribute towards achieving development goals and to transform the region into knowledge based society through the application of ICT.

ICT services are still not fully utilized. Few ICT services are still confined in urban areas; rural areas are largely without ICT service. Many initiatives and projects are proposed to be implemented with the aim of spreading the use of ICT in Iringa region. The ultimate goal of ICT use in the region is to have improved efficient way of conducting transactions between Government to Government (G2G), Government to its citizens (G2C), and Government to its Employees (G2E) and Business communities (G2B) as well as within the public administration itself, thereby bringing many types of Government services closer to citizens.

4.5 Energy

Iringa Region uses various sources of energy for lighting, cooking as well as for running machines. These sources include hydroelectricity, gas, paraffin, charcoal, firewood and others. However there were no up to date data on the number of users of the different kinds of energy. More reliable data will be available after the completion of the analysis of the 2012 Population and Housing Census.

Table 4.4 below shows the demand and supply of electricity energy for two zones of Iringa Region. The Table shows that the demand for electricity in Iringa Region in 2011 was slightly higher than that of 2012 but the supply in 2011 was lower than that of 2012. While there were 28,470 customers in 2011 in Iringa Region, in 2012 the number increased to 31,724 an increase of about 11.4 percent. The increase was higher in Iringa Zone (12.8 percent) than in Mafinga Zone (2.9 percent).

Table 4. 4: Electricity Demand and Supply by Zone, Iringa Region; 2011 and 2012.

Council	2011			2012		
	Demand (MW)	Supply (KWH)	No. of Customers	Demand (MW)	Supply (KWH)	No. of Customers
Iringa Zone	8.3	47,411,102	22,459	8.0	48,698,667	25,536
Mafinga Zone	5.0	41,374,200	6,011	5.0	41,914,196	6,188
Total	13.3	88,785,302	28,470	13.0	90,612,863	31,724

Note: Iringa zone = Iringa DC, Iringa urban and Kilolo districts,
Mafinga zone = Mufindi district.

Source: TANESCO Regional office, Iringa, 2013

CHAPTER FIVE

Social Services

5.0 Introduction

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

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

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

5.1 Health Sector



Regional hospital is the highest Referral hospital in Iringa Region providing specialized Health services

5.1.1 Health Facilities

The status of health services in any region can be easily visualised through the health infrastructure, availability and commitment of health practitioners, implementation of preventive and curative measures and availability of medicine and medical supplies. The main objective of any local government authority and the nation as a whole is to ensure provision of quality health service to the community. The available data in terms of health infrastructure in the region shows that, the number of facilities increased from 128 in 2002 to 150 in 2008 and reached 231 in 2012. As a result, Region has managed to raise its ratio of facilities per ward from 1.4 in 2002 to 2.5 in 2012 (Table 5.1).

Table 5.1 also indicated that Iringa Rural District had the best ratios of health facilities per ward in both 2002 (1.7 facilities per ward) and 2012 (3.1 facilities) and Mufindi was the second district in having best ratios (1.4 facilities in 2002 and 2.4 facilities in 2012), while Iringa Urban was the worst by having 1.0 facilities per ward in 2002 and 1.8 facilities per ward in 2012.

Table 5.1: Growth Status and Distribution of Health Facilities by Council, Iringa Region, 2002, 2008 and 2012

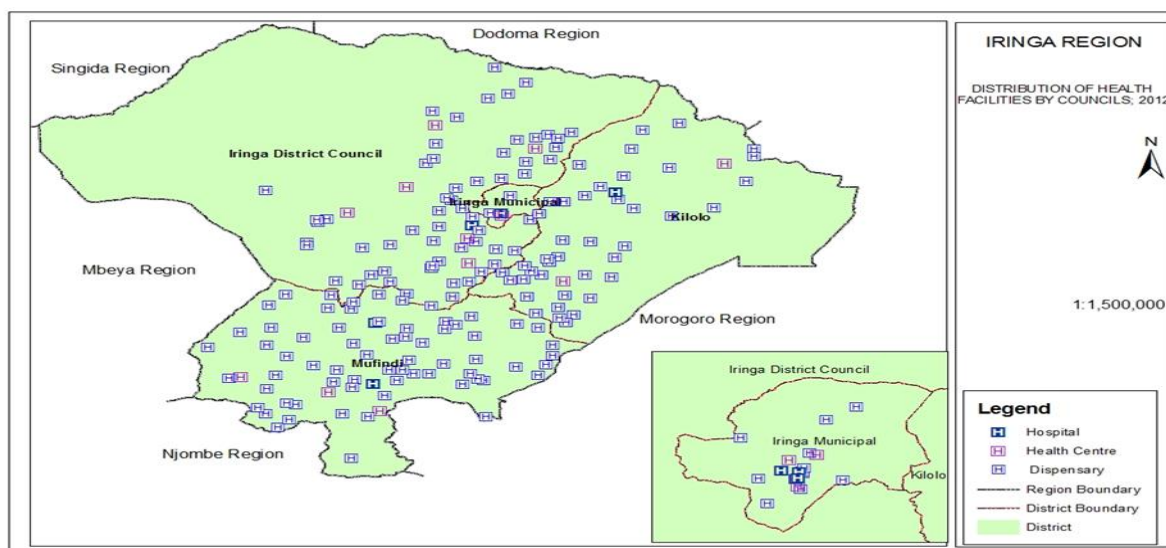
Council	Wards	Number of Health Facilities			Facilities per Ward		
		2002	2008	2012	2002	2008	2012
Iringa Rural	25	38	47	77	1.7	1.9	3.1
Mufindi	30	39	48	71	1.4	1.7	2.4
Iringa Urban	16	16	21	29	1.0	1.3	1.8
Kilolo	22	31	34	54	1.4	1.5	2.5
Total	93	128	150	231	1.4	1.6	2.5

Source: Compiled data from District Socio-economic Profiles of Iringa Region, 2013

Table 5.2 show the distribution of health facilities by district. There were 7 hospitals (3 public and 4 private), 22 health centres (13 public and 9 private) and 208 dispensaries (162 public and 46 private) in 2012. Regional Hospital was designated as the Region referral hospital receiving patients from district hospitals within the Region. Iringa Urban district had the best health infrastructure consisting of 3 hospitals, 4 health centres and 22 dispensaries followed by Mufindi (2 hospitals, 8 health centres and 67 dispensaries), while Kilolo district had poor health infrastructure with one hospital, two health centres and 51 dispensaries.

Inspite of the efforts made, the Region still has shortages of health centres and dispensaries which cause unnecessary loss of peoples' lives through preventable diseases. The Health Policy, of having a dispensary in each village, a health centre in each ward, has not yet been attained.

Map 5: Map of Iringa Region showing Distribution of the Selected Health Facilities by Council; 2012



Source: National Bureau of Statistics, GIS Unit, 2013

Table 5.2: Availability of Health Facilities by Ownership and by Council, Iringa Region, 2012

<i>Council</i>	Public Health Facilities			Private Health Facilities		
	Hospital	Health Centres	Dispensary	Hospital	Health Centres	Dispensary
Iringa Rural	0	4	56	1	4	12
Mufindi	1	5	59	1	3	8
Iringa Urban	2	3	12	1	1	10
Kilolo	0	1	35	1	1	16
Total	3	13	162	4	9	46

Source: Compiled data from District Socio-economic Profiles of Iringa Region, 2013

In order to serve the ever growing population in the Region village health posts were established to complement the existing official health infrastructure. These centres are operated by village health workers (VHWs) assisted by traditional birth attendants (TBAs) under supervision of village health committees (VHCs). Table 5.3 shows that by 2012, the Region had 315 trained tradition birth attendants, 690 village health workers and 236 village health committees.

Table 5.3 also shows that the number of trained traditional birth attendants per village in the year 2012 was one and village health workers were 1.9. Table 5.3 also shows that Kilolo district had the best ratio of health carders per village. It was 1 for TBAs and 2 for VHWs (Table 5.3).

Table 5.3: Distribution of Complementary Rural Health Facilities by Council, Iringa Region, 2012

Council	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)
Iringa DC	123	139	1	224	1.8	112	15
Mufindi	125	64	0	246	1.9	78	158
Iringa Urban	7	0	0	8	1.1	0	0
Kilolo	106	112	1	212	2.0	46	16
Total	368	315	1	690	1.9	236	189

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.2 Population per Health Facility

The Region managed to reduce the mean number of persons per facility from 6,546 people in 2002 to 4,075 people in 2012. The reduction was due to the increase of health facilities from 128 in 2002 to 231 in 2012. In regard to health facilities per 10,000 people, the ratio increased from 1.5 in 2002 to 2.5 in 2012.

At district level, Table 5.4 shows that more pressure of population on health facilities in 2002 was experienced in Mufindi and Iringa Urban at 7,233 and 6,648 persons per facility respectively, while Iringa Rural District had minimum ratio of 5,834 persons per facility. Table 5.4 also shows that in 2012 Iringa Urban had the highest pressure of 5,219 persons per health facility followed by Mufindi (4,475) and Kilolo (4,039). Like in 2002, Iringa Rural had minimum pressure of 3,299 persons per facility.

Table 5. 4: Relating Health Facilities to the Population by Council, Iringa Region, 2012

Council	2002				2012			
	Total Population	Total Number of h.f.s	Mean Average Population Per h.f.s	H.f.s/ 10,000 people	Total Population	Total Number of h.f.s	Mean Average Population Per h.f.s	H.f.s /10,000 people
Iringa Rural	245,033	42	5,834	1.7	254,032	77	3,299	3.0
Mufindi	282,071	39	7,233	1.4	317,731	71	4,475	2.2
Iringa Urban	106,371,	16	6,648	1.5	151,345	29	5,219	1.9
Kilolo	204,372	31	6,593	1.5	218,130	54	4,039	2.5
Total	837,847	128	6,546	1.5	941,238	231	4,075	2.5

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.3 Population per Doctor Ratio



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

Table 5.5 indicates that the Region had a serious problem of practitioners though Government had increased them significantly. In 2002, the Region had only 23 practitioners to the Region population of 837,847, with an average of 36,428 persons per practitioner. Kilolo was the worst district with 68,1124 persons per doctor followed by Iringa DC (49,007 persons per doctor) and Mufindi (31,341 persons per doctor). However, Iringa Urban was the best district with a ratio of 17,729 persons per doctor.

Table 5. 5: The Number of Persons per Doctor by Council, Iringa Region, 2002 and 2012

Council	2002			2012		
	Total Population	Total Doctors	Average Population per Doctor	Total Population	Total Doctors*	Average Population per Doctor
Iringa DC	245,033	5	49,007	254,032	10	25,403
Mufindi	282,071	9	31,341	317,731	21	15,130
Iringa Urban	106,371	6	17,729	151,345	92	1,645
Kilolo	204,372	3	68,124	218,130	8	27,266
Total	837,847	23	36,928	941,238	131	7,185

Refers Doctor, Medical Officers (MO), Assistant Medical Officers (AMO) and Clinical Officers

Source: Compiled data from District Socio-economic Profiles of Iringa Region, 2013

5.1.4 Population per Hospital Bed Ratio

Table 5.6 shows the number of persons per hospital bed. Involvement of private sector in the provision of health services in Iringa Region has increased the hospital beds from 742 in 2002 to 1,379 in 2012. The increase of beds has reduced the number of persons per bed from 1,129 in 2002 to 683 in 2012 (Table 5.6). In 2012, Kilolo District had the worst access to the hospital bed at 1,124 persons per bed followed by Iringa DC which had 879 persons per bed, while Iringa Urban (341 persons per bed) had the best access due to the number of beds in a Region hospital and health centres.

Table 5. 6: The Number of persons per Hospital Bed by Council, Iringa Region, 2002 and 2012

Council	2002			2012		
	Total Population	Total Number of Beds	Average Population per Bed	Total Population	Total Number of Beds	Average Population per Bed
Iringa DC	245,033	248	988	254,032	289	879
Mufindi	282,071	238	1,185	317,731	452	703
Iringa Urban	106,371	156	682	151,345	444	341
Kilolo	204,372	100	2,044	218,130	194	1,124
Total	837,847	742	1,129	941,238	1,379	683

Source: Compiled data from All District Socio-economic Profiles of Iringa Region

5.1.4 Status of Health Personnel

The quality of a health facility depends on, among others, the availability of qualified practitioners, hospital equipment and medicines. Table 5.7 shows that the availability of medical personnel for the 2012 was uneven and in favour of females. Out of 1,258 medical staff, 70.4 percent were females with more of them in nursing and medical attendant cadres. The Region had shortage of specialist doctors, dental surgeons, assistant dental surgeons and radiologists in

2012. The ratio is more telling when computed for specialist doctors, medical doctors and radiographers since the region had no such specialists.

Table 5.7 : Number of Medical Personnel by Type and Sex, Iringa Region, 2012

Type	Sex		
	Male	Female	Total
Specialist Doctors	4	0	4
Medical Officer	17	0	17
Ass. Medical Officers	28	9	37
Clinical Officers	129	51	180
Ass. Clinical Officers	33	11	44
Dental officer	3	0	3
Ass. Dental Officer	2	1	3
Dental Therapist	6	8	14
Pharmacists	6	1	7
Pharmaceutical Technologist	5	4	9
Pharmaceutical Assistant	3	2	5
Laboratory Technicians	12	12	24
Laboratory Assistants	18	17	35
Physiotherapist	1	0	1
Nutritionist	3	0	3
Assistant Environmental Health Officer	6	5	11
Nursing Officers	10	68	78
Trained Nurse/NM/PHN	16	333	349
Assistant Nurse Officer	0	18	18
Medical Attendants	20	319	339
Assistant social Welfare Officer	16	8	24
Health Assistants	5	3	8
Health Secretaries	5	3	8
Other Medical Carders	24	13	37
Total	372	886	1258
Percent	29.6	70.4	100.0

Source: Compiled data from District Socio-economic Profiles of Iringa Region, 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 Tables 5.8 and 5.9.

5.1.5.1 Out-patients

Out of 504,597 out patients recorded in 2010, 80.4 percent were suffering from one or the other of the first five illnesses. ARI ranked first as a cause of morbidity in the Region. Malaria ranked second and the third disease in ranking was diarrhoea. The fourth and fifth diseases were pneumonia and intestine worms respectively.



ARI was ranked first cause of morbidity in Region Region Region

Observations made in 2012 were almost similar to those of 2010 in regard to the first five diseases except the number of reported cases. The report again reveals

that ARI ranked first with a total of 131,032 (32.7 percent) of out - patients, followed by Malaria (27.4 percent of out - patients) and pneumonia (9.5 percent) ranked third. The fourth and fifth diseases were skin infection and diarrhoea (7.4 percent of cases) and (6.8 percent of cases) respectively (Table 5.8).

Table 5. 8: List of the Ten Most Commonly Reported Causes of Morbidity (Out Patients Only), Iringa Region, 2010 and 2012

S/N.	2010			2012		
	Disease	No. of Cases	Percent Share	Disease	No. of Cases	Percent Share
1	ARI	165,296	32.8	ARI	131,032	32.7
2	Malaria	88,631	17.6	Malaria	109,811	27.4
3	Diarrhoea	56,030	11.1	Pneumonia	38,267	9.5
4	Pneumonia	52,319	10.4	Skin infection	29,559	7.4
5	Intestine Worms	43,232	8.6	Diarrhoea	27,154	6.8
	Sub Total	405,508	80.4		335,823	83.8
6	Skin infection	35,748	7.1	Intestine Worms	21,003	5.2
7	Minor Surgery	30,028	6.0	Minor Surgery	17,208	4.3
8	Eye Infection	12,480	2.5	UTI	13,796	3.4
9	UTI	10,761	2.1	Eye Infection	7,688	1.9
10	Non Infection Gastro	10,072	2.0	Genital Discharge	5,234	1.3
	TOTAL	504,597	100.0		400,752	100.0

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 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 32,462 in patients recorded in 2010, 91.8 percent were suffering from one of the first five illnesses. In 2012 the first five causes of morbidity accounted for 84.9 percent of 11,891 in-patients. Moreover, the health data for in-patients in 2010 reveals that malaria illness ranked first, pneumonia second, anaemia third while and diarrhoea ranked forth

and ARI fifth cause of morbidity in Iringa Region, while the first five diseases that caused morbidity in 2012 were malaria, pneumonia, diarrhoea, ARI and clinical AIDs (Table 5.9). Anaemia and TB diseases which were ranked third and ninth causes of morbidity in 2010, dropped to sixth and tenth positions respectively in 2012 indicating a decline of their prevalence in the Region.

Table 5.9 : List of the Ten Most Commonly Reported Causes of Morbidity (In-Patients Only), Iringa Region, 2010 and 2012

S/No	2010			2012		
	Disease	No of Cases	Percent Share	Disease	No. of Cases	Percent Share
1	Malaria	19,742	60.9	Malaria	3,068	25.8
2	Pneumonia	3,635	11.2	Pneumonia	3,266	27.5
3	Anemia	2,813	8.7	Diarrhoea	2,294	19.3
4	Diarrhoea	2,231	6.9	ARI	873	7.3
5	ARI	1,355	4.2	Clinical AIDs	591	5.0
		29,776	91.8		10,092	84.9
6	Clinical AIDs	922	2.8	Anemia	587	4.9
7	UTI	753	2.3	Pregnancy Complication	318	2.7
8	Pregnant Complication	385	1.2	Fracture	357	3.0
9	Tuberculosis	352	1.1	Hypertension	289	2.4
10	Poisoning	238	0.7	Tuberculosis	248	2.1
	Total	32,426	100.0		11,891	100.0

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.6 Mortality

The dominant causes of mortality for inpatients of all ages in 2010 were Pneumonia and HIV/AIDs (Table 5.10). Table 5.10 shows that out of 1,222 reported deaths in 2010, 79.2 percent were caused the first five diseases, of which pneumonia accounted for 24.8 percent, followed by clinical AIDS (20.2

percent), malaria (13.5 percent), diarrhoea (11.0 percent) and cardiac failure (9.7 percent).

In 2012, mortality for inpatients of all ages was clinical AIDS (23.5 percent) followed by pneumonia (18.3 percent), malaria (16.9 percent), diarrhoea (15.4 percent) and cardiac failure (8.0 percent). Lack of information on death toll at grass – root level limit the department’s understanding of the performance of health sector on curative and preventive measures. Therefore, there is a need of strengthening the data collection system at grass-root level by using Village/Mtaa Register.

Table 5. 10: List of the Ten Most Commonly Reported Causes of Mortality in Iringa Region (In Patients Only), 2010 and 2012

S/No.	2010			2012		
	Disease	No of Cases	Percent Share	Disease	No. of Cases	Percent Share
1	Pneumonia	303	24.8	Clinical AIDS	150	23.5
2	Clinical AIDS	247	20.2	Pneumonia	117	18.3
3	Malaria	165	13.5	Malaria	108	16.9
4	Diarrhoea	134	11.0	Diarrhoea	98	15.4
5	Cardiac Failure	119	9.7	Cardiac Failure	51	8.0
	Sub Total	968	79.2	Sub Total	523	82.0
6	Anaemia	77	6.3	Anaemia	50	7.8
7	ARI	75	6.1	Tuberculosis	29	4.5
8	Pregnancy Complications	42	3.4	Peptic Ulcers	12	1.9
9	Tuberculosis	35	2.9	Burn	12	1.9
10	Burn	25	2.0	Respiratory disease	11	1.7
	Total	1,222	100.0	Total	638	100.0

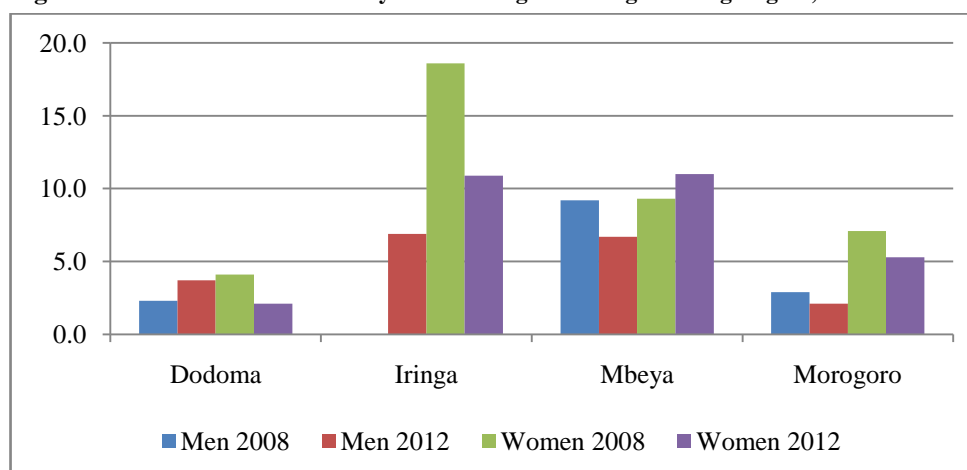
Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.7 HIV/AIDS Infections

The recent health problem of HIV/AIDS is the single most important threat to of the human race. In this, 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 greatest challenge to the health delivery system in the Region and country at large.

Though it is not known when the first HIV/AIDs case was diagnosed, the available data indicate that HIV/AIDs case in Iringa Region was reported in late 1980s. Since then, the number of new AIDS cases being reported each year has been on the increase and were highest in 2008. According to the HIV/AIDS and Malaria Indicator Survey conducted in 2007/8, Iringa Region had the highest HIV prevalence rate of 16 percent in the country, followed by Dar es Salaam and Mbeya (9 percent each); and Mara Region (8 percent) while Pemba and Unguja had less than a percent. Figure 26 shows the prevalence rates of neighbouring regions as reported by the HIV/AIDS and Malaria Indicator Survey conducted in 2007/8. In 2012 survey, Iringa Region dropped to a second position (9.1 percent) after the creation of Njombe Region (14.8 percent) which was formerly a part of Iringa Region. Figure 26 shows HIV/AIDS prevalence among sexes in all neighbouring regions including Iringa itself. It shows that in the years referred to, more women than men were infected.

Figure 26: HIV Prevalence Rates by Sex for Iringa and Neighbouring Region; 2008 and 2012



Source: Compiled Data from 2007/8 and 2011/12 HIV/AIDs and Malaria Indicator Surveys

Though hospital records are not exhaustive since they exclude unreported incidents, they provide indicative information for examining HIV/AIDs prevalence at Region level. Table 5.11 shows that out of 36,248 screened persons from 2009 to 2011, 4,954 (equivalent to 13.7 percent) were found to be HIV positive. Table 5.11 also indicates that HIV infection has been fluctuating, 2,943 out of 16,437 persons tested in 2009, 17.9 percent were positive. The percentage of affected persons dropped to 11.3 percent in 2010 and dropped further to 8.9 percent in 2011. Again, females were more affected than males in the referred to period.

Table 5.11: HIV Infections Among Family Blood Donors, Iringa Region, 2009-2011

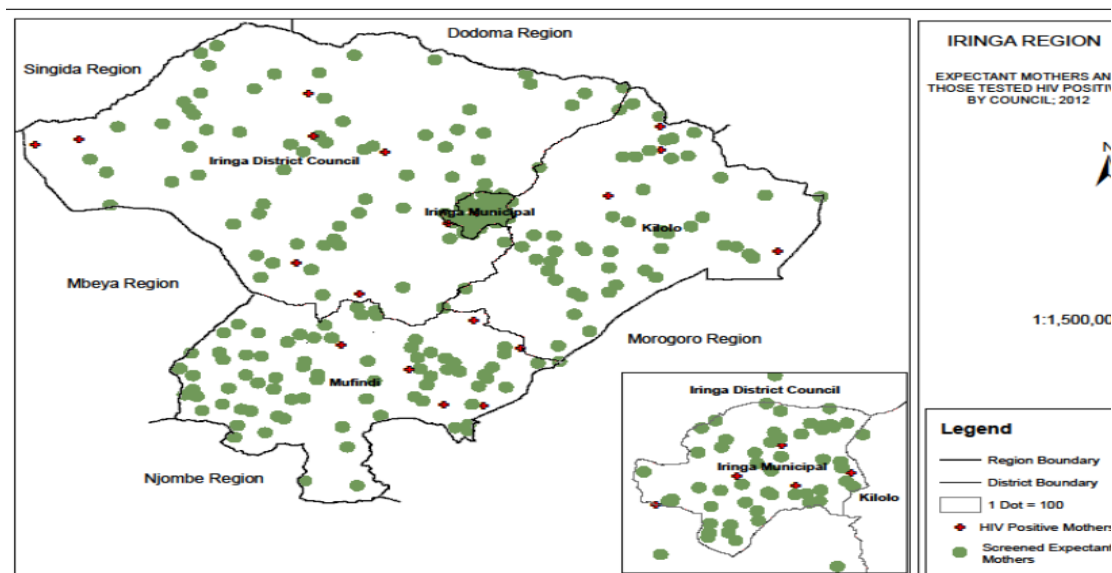
Year	No. of Blood Donors			No. of HIV+			Percentage of HIV+		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
2009	8,866	7,571	16,437	1,391	1,557	2,948	15.7	20.6	17.9
2010	4,270	5,894	10,164	474	675	1,149	11.1	11.5	11.3
2011	4,337	5,310	9,647	351	506	857	8.1	9.5	8.9
Total	17,473	18,775	36,248	2,216	2,738	4,954	12.7	14.6	13.7
Percent	48.2	51.8	100	44.7	55.3	100			

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

The prevalence of HIV/AIDS can also be diagnosed through PMTCT Service. Table 5.12 reveals that out of 24,489 expectant mothers who participated in that service and hence screened, 9.1 percent of them were found to be HIV positive. Iringa DC had the highest rate of infection (11.6 percent) among expectant mothers followed by Iringa Urban (9.5 percent) and Kilolo district (8.0 percent), while Mufindi District had the lowest rate (7.6 percent) of infection.

Table 5.12 also shows that 74.6 percent of HIV positive expectant mothers were given Niverapine in the Region. Mufindi was the best in providing Niverapine (96.9 percent) to the expectant mothers, followed by Iringa DC (94.4 percent) and Kilolo (62.5 percent), while Iringa Urban was the worst with only 27.6 percent of expectant mothers being given Niverapine.

Map 6: Map of Iringa Region showing number of Screened Expectant Mothers and Those Tested HIV positive by Council; 2012



Source: National Bureau of Statistics, GIS Unit, 2013

Table 5.12 : Expectant Mothers who Participated in the PMTCT Service by Council, Iringa Region, 2012

Council	No. of ANC Attendants	No. of Screened	No. HIV+	Percent of HIV+	Effectuated (HIV+) Receiving AZT	Percent Given AZT
Iringa DC	9,822	6,405	745	11.6	703	94.4
Mufindi	8,576	7,727	590	7.6	572	96.9
Iringa Urban	6,611	5,111	486	9.5	134	27.6
Kilolo	7,483	5,246	419	8.0	262	62.5
Total	32,492	24,489	2,240	9.1	1,671	74.6

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

Establishment of VCT services in remote areas to a great provided a reliable source of data on the extent and significance of HIV prevalence in Iringa Region since it based on the willingness of inhabitants to be screened. Table 5.13 shows that out of 54,984 persons screened in 2012, 13.6 percent were affected by HIV/AIDS. Again females were more affected (16.0 percent) than males (11.6 percent).

The most affected district was Mufindi, of which 17.3 percent out of the 15,240 persons screened were HIV positive, followed by Iringa DC (14.9 percent) and Iringa Urban (14.3 percent), while Kilolo had the lowest percentage (6.2 percent) (Table 5.13).

Table 5.13 : Group of VCT Volunteers Who were Screened for HIV by Sex and by Council, Iringa Region, 2012

Council	No. Persons Tested			Persons with HIV+			Percent of HIV+		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Iringa DC	6,030	6,693	12,723	818	1,073	1,891	13.6	16.0	14.9
Mufindi	7,831	7,409	15,240	1,414	1,219	2,633	18.1	16.5	17.3
Iringa Urban	7,776	8,055	15,831	916	1,355	2,271	11.8	16.8	14.3
Kilolo	8,659	2,531	11,190	380	313	693	4.4	12.4	6.2
Total	30,296	24,688	54,984	3,528	3,960	7,488	11.6	16.0	13.6

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

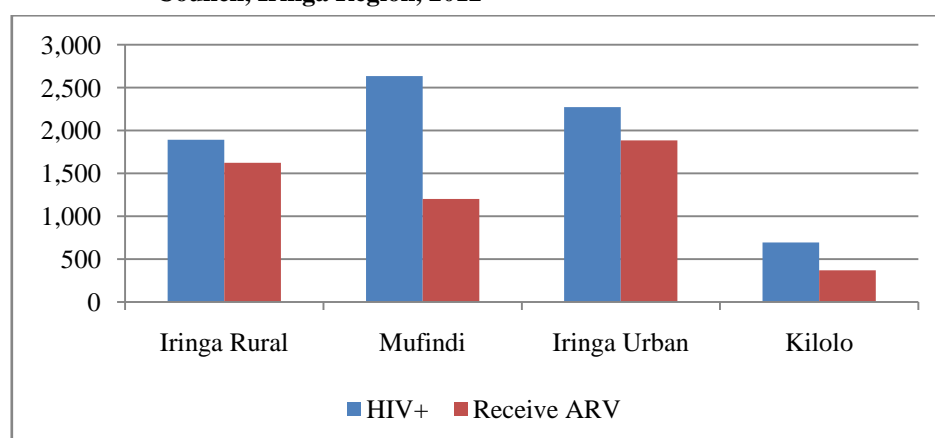
The availability of ARV for affected persons is a major constrain in combating the HIV/AIDS prevalence in Iringa Region. Table 5.14 reveals that only two thirds of the affected people received ARV in 2012. Mufindi was the worst district in the Region since only 45.6 percent of affected people received ARV followed by Kilolo (53.1 percent) and Iringa Urban (82.9 percent). Iringa DC had the highest percentage (85.9 percent of affected persons received ARV). The low percentage of using ARV is also due to tendency of people to use VCT services outside their home district secretly together with those people who living at the boarder decide to use a nearby service of a different region.

Table 5.14 : Percentage of Persons with HIV Positive and Those Receiving ARV by Council, Iringa Region, 2012

Council	Screened	HIV+	Percent HIV+	Receive ARV	Percent Receive ARV
Iringa DC	12,723	1,891	14.9	1,625	85.9
Mufindi	15,240	2,633	17.3	1,200	45.6
Iringa Urban	15,831	2,271	14.3	1,883	82.9
Kilolo	11,190	693	6.2	368	53.1
Total	54,984	7,488	13.6	5,076	67.8

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

Figure 27: Percentage of Persons with HIV Positive Against Those Receiving ARV by Council, Iringa Region, 2012



Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013



CTC building-Iringa Region

5.1.7.1 The Impact of HIV/AIDS

socio-economic assessment of Iringa Region 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 to combat the epidemic. HIV/AIDS is highlighted in this document, because it is a major health problem and a leading cause of mortality mostly for working age group since its advent at the end of 1980s. 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 Region Medical Office (RMO) qualifies the Region as among few with high rate of HIV/AIDS prevalence in country. There are socio-economic factors that account for the rapid spread of the epidemic. Economically, the people of Iringa Region 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, male uncircumcision as well as poverty. The poor, especially young girls who migrate to urban centres end up being domestic workers before resorting to prostitution for survival.

(i) The Increase of Widows

Understanding the status of HIV/AIDS prevalence in Iringa Region 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.

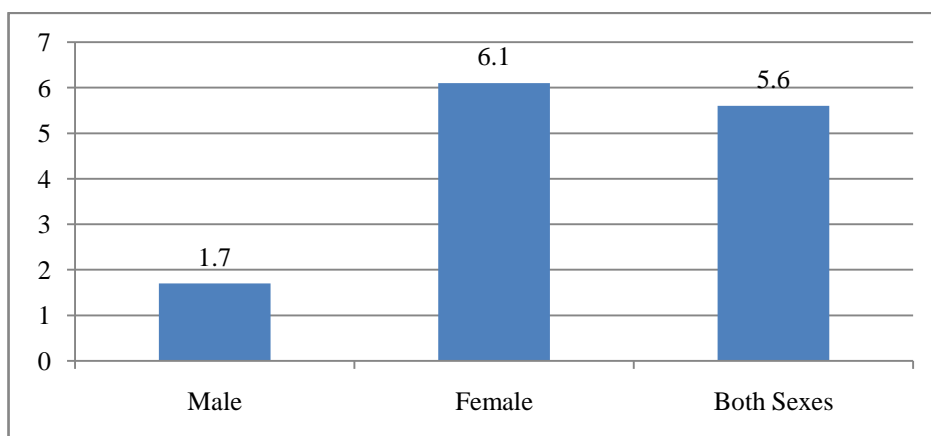
One of the indication of a high prevalence rate in the Region is the increasing number of widows. The data gathered in 1988 and 2002 population censuses show that the number of widowed increased from 4.9 percent in 1988 to 5.6 percent in 2002. The proportion of the widowed is more for women than men and 6.1 percent of the women were widowed compared 1.7 percent of the men and in 2002 (Table 5.15). 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. 15: Total Population 10 Years and Above by Marital Status and Sex, Iringa Region, 2002

Marital Status	Number			Percentage		
	Male	Female	Total	Male	Female	Total
Single/Never Married	134,082	119,176	241,038	55.0	44.6	46.5
Married/Living Together	102,234	126,754	238,181	41.9	47.4	45.9
Divorced/Separated	3,334	6,121	11,096	1.4	2.3	2.1
Widowed	4,239	16,434	29,113	1.7	6.1	5.6
Total	243,809	267,485	518,428	47.0	51.6	100.0

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

Figure 28: The Percentage of Widowed by Sex, Region Region, 2002



Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

(ii) The Increase of Orphaned Children

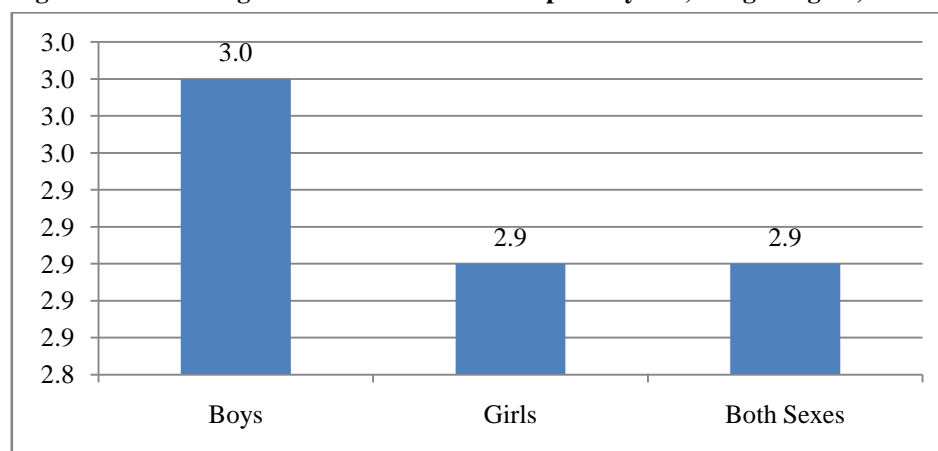


The most vulnerable women and children in the Region is growing fast due to increase of HIV/AIDS Prevalence Rate

Orphans are defined as persons 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 Region as portryed in Figure 29. According to the 2002 data, 2.9 percent of children aged 0 – 17 years were orphans. Comparing sexes, the

incidence of orphanhood was higher among boys (3.0 percent) than girls (2.9 percent) (Figure 29).

Figure 29: Percentage Distribution of Child Orphan by Sex, Iringa Region, 2002



Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

(iii) Child Labour

Since the economy of Iringa Region is dominated by peasant agriculture, most families face hardship and, fail to afford 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 Iringa Region experiences an ever increasing problem of child labour. The studies have identified the causes of child labour as the poverty that persists in the Region especially 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, region authorities should conduct a study/survey to understand the magnitude of child labour and street children who are roaming in urban centres.

5.1.8 Malaria Prevalence

Malaria is a major public health concern for all Tanzanians, especially for pregnant women and children under age five. The disease is a leading cause of morbidity and mortality for outpatient and inpatient admissions. Based on this fact, the government decided to combat malaria along with HIV/AIDS disease.

Iringa Region like other Regions in the country has decided to use tactics used elsewhere to fight against malaria. Data shows the success attained by the Region to reduce malaria prevalence. The Malaria Indicator Survey (MIS) conducted by the Government in 2008 indicates that Iringa was among few Regions with low Malaria prevalence rate (2.6 percent for children under five years in the country). In 2011/12, a similar survey shows a decline of malaria prevalence rate to 0.4 percent.

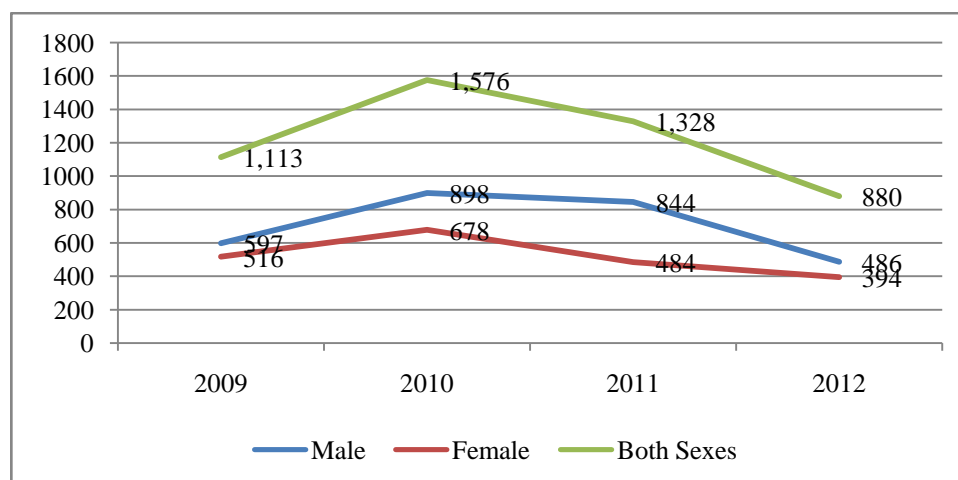
However, medical records from the district authorities show that malaria was still ranked among five diseases that caused morbidity for both outpatient and

inpatient in 2012 (Tables 5.8 and 5.9). Table 5.10 also shows that malaria was included in the first top five diseases which caused deaths in the Region in 2012.

5.1.9 Tuberculosis Prevalence

Tuberculosis is a known disease in Iringa Region, but very few morbidity cases were reported before the advent of HIV/AIDS. The effort of government to combat tuberculosis in the Region has shown success since the available data indicate that the number of new tuberculosis cases has decreased in the last decade. Figure 30 shows that tuberculosis prevalence increased from 1,113 cases in 2009 to 1,576 cases in 2010, but dropped to 1,328 cases in 2011 and further dropped to 880 cases in 2012.

Figure 30: Distributions of New Tuberculosis Cases by Sex, Iringa Region, 2009-2011



Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

The magnitudes of tuberculosis prevalence among sexes were that, males were more affected than females in the reference period (Table 5.16). Data also show that relapse cases increased in 2010 but declined during the rest of the reference period.

Table 5. 16 : Distributions of New Tuberculosis Relapse Cases by Sex in Iringa Region, 2009 - 2012

Year	Male		Female		Total	Change of Cases	
	No.	Percentage	No.	Percentage	No.	No.	Percentage
2009	597	53.6	516	46.4	1,113		
2010	898	57.0	678	43.0	1,576	463	29.4
2011	844	63.6	484	36.4	1,328	-248	-18.7
2012	486	55.2	394	44.8	880	-448	-50.9

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.10 Reportable Communicable Diseases

The epidemic of reportable communicable diseases in Region occurs occasionally especially during rainy seasons. Table 5.17 shows that dysentery was the most common of these diseases followed by rabid animal and typhoid. Dysentery threatened the lives of people mostly in 2009 when 3,742 cases were treated compared to 540 cases in 2005, but dropped to 491 by in 2012. The number of cases of other communicable diseases fluctuated from year to year, but most of them were prevented earlier as indicated in Table 5.17.

Table 5. 17: Number of Reported Cases of Reportable Communicable Diseases in Iringa Region, 2005 and 2008

Disease	Number of cases					
	2005	2008	2009	2010	2011	2012
Dysentery	540	2,108	3,742	2,597	643	491
Rabid animal	395	302	238	236	121	357
Typhoid	155	92	173	410	79	112
Meningitis	19	0	2	0	5	0
Animal Bite	775	737	671	639	437	331

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.11 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 in the related mortality rates for mothers and children by 2002. Infant Mortality rate decline from 152 in 1978 to 130 in 1988 and reached 102 per 1,000 infants in 2002, deaths of children under five years were estimated at 191 per 1,000 children in 2002.

Table 5.18 shows that Kilolo District had managed to reduce infant mortality rate significantly with an average annual reduction rate of 2.2 deaths between 1988 and 2002, followed by Iringa DC (1.5 annual rate) and Mufindi (1.2 annual rate).

Table 5. 18: Trends of Infant Mortality Rates by Council, Iringa Region, 1988 and 2002

Council	IMR		Average Annual Rate of Reduction in IMR 1988 – 2002	Percentage change 1988 - 2002
	1988	2002		
Iringa DC	141	114	1.5	-19.1
Mufindi	116	98	1.2	-15.9
Iringa Urban*	-	83	-	-
Kilolo	141	103	2.2	-27
Region	130	102	2.3	-1.7

*Iringa Urban was a part of Iringa DC, therefore, its **IMR** for 1988 is included in Iringa DC District

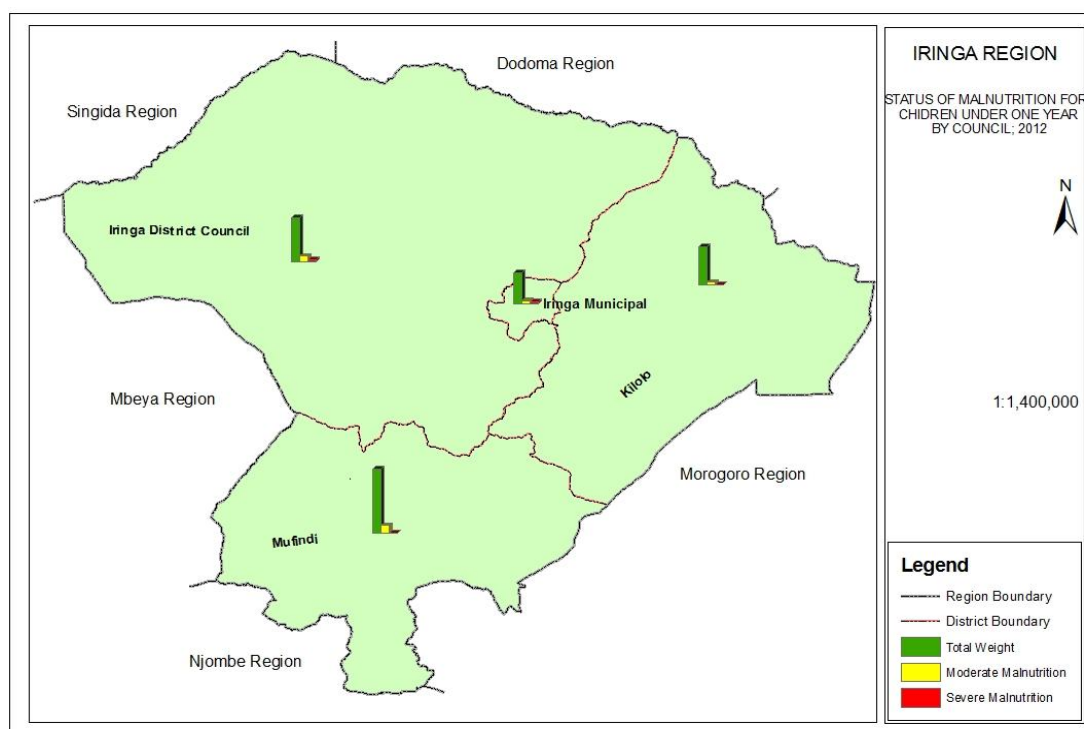
Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.11.1 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 Region. 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 5.19 shows that the Region had managed to reduce moderate malnutrition from 13.7 percent in 2008 to 12.9 percent in 2010 and reached 11.7 percent in 2012. Severe malnutrition increased from 2.2 percent in 2008 to 3.9 percent in 2010 and reached 4.1 in 2012.

Map 7: Map of Iringa Region showing Status of Malnutrition for Children under One Year by Council; 2012



Source: National Bureau of Statistics, GIS Unit, 2013

Table 5 19: Percentage of Severe Malnutrition for Children under One Year by Council, Iringa Region, 2008, 2010 and 2012

Council	2008			2010			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
Iringa DC	7633	13.1	4.9	4416	3.94	2.5	7633	13.1	4.7
Mufindi	10020	24	1.8	3142	3	1	11086	11.9	0.4
Iringa Municipal	4506	5	0.2	5530	8.6	1.4	5327	10	6.1
Kilolo	5828	1.9	0.9	5530	1.4	8.6	6580	7.1	0.3
Regional Total	27987	13.7	2.2	18618	12.9	3.9	30626	11.7	4.1

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.11.2 Immunisation Coverage

Reduction of deaths among pregnant women is attributed to the wide coverage of immunisation campaigns in the Region. Table 5.20 reveals that as much as 76.2 percent of targeted 30,564 expectant mothers were vaccinated with TT2 in 2010. In 2011, out of 31,228 targeted pregnant women 85.0 percent were vaccinated but only 60.3 percent of 31,177 targeted pregnant women were vaccinated with TT2 in 2012. Mufindi had the best coverage in almost all three years, followed by Iringa Urban and Iringa DC, while Kilolo district had worst performance on immunisation of pregnant women which is not a good picture for the district (Table 5.20).

Table 5 20: Percentage of Children Under One Year Vaccinated TT2 by Council, Iringa Region, 2010, 2011 and 2012

Council	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Iringa DC	9,504	6,312	66.4	9,390	7,771	82.8	8,443	6,279	74.4
Mufindi	8,661	7,638	88.2	8,608	8,546	99.3	8,554	8,293	96.9
Iringa Urban	5,911	5,287	89.4	6,638	6,014	90.6	7,357	6,950	94.5
Kilolo	6,488	4,045	62.3	6,592	4,199	63.7	6,823	4,216	61.8
Total	30,564	23,282	76.2	31,228	26,530	85.0	31,177	18,788	60.3

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

Awareness among parents triggered the rapid growth in the number of children under one year who receive BCG vaccination in the Region. The trend of BCG vaccination for children under one year shows an increase in percentage of children vaccinated between 2010 and 2012. At regional level the percentages of targeted children under one year vaccinated in 2010, 2011 and 2012 were more than 100 percent (123.4 percent, 124.6 percent and 123.8 percent, respectively).

The district with the highest coverage in all three years was Iringa Urban (247.9 percent in 2010; 270.0 percent in 2011; and 272.3 percent in 2012 respectively). However, Kilolo district had lowest coverage in the last two years. In 2011, coverage was 90.7 percent dropped to 88.8 percent in 2012 (Table 5.21).

Table 5. 21: Percentage of Children under One Year Vaccinated BCG by Council, Iringa Region, 2010, 2011 and 2012

Council	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Iringa DC	7,234	6,602	91.3	7,554	6,893	91.2	6,593	6,817	103.4
Mufindi	9,692	11,023	113.7	9,678	11,238	116.1	9,640	9,264	96.1
Iringa Urban	4,164	10,323	247.9	3,835	10,355	270.0	4,179	11,380	272.3
Kilolo	6,488	6,087	93.8	6,592	5,978	90.7	6,823	6,260	88.8
Total	27,578	34,035	123.4	27,659	34,464	124.6	27,235	33,721	123.8

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

In regard to DPT3, the coverage of immunisation in the region was good, the growth has not been steady. The proportion of vaccinated children increased from 95.3 percent of 29,933 targeted children in 2010 to 97.5 percent of 28, 847 children in 2011 but dropped to 89.3 percent in 2012. Iringa Urban was the best district in all three years of 2010, 2011 and 2012 (102.2 percent, 113.6 percent and 105.9 percent of its target respectively) followed by Mufindi (97.2 percent and 98.2 percent respectively), while Iringa DC was the second best in 2012 by covering 96.0 percent of the 9,870 targeted children. The worst district in 2012 was Kilolo District which managed to cover only 85.5 percent of targeted children.

Table 5. 22: Percentage of Children Under One Year Vaccinated DPT3 by Council, Iringa Region, 2008, 2010 and 2012

Council	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Iringa DC	9,042	8,077	89.0	9,442	8,810	93.0	8,182	7,870	96.0
Mufindi	10,136	9,851	97.2	9,692	9,513	98.2	11,573	9,357	80.9
Iringa Urban	4,266	4,358	102.2	3,835	4,355	113.6	4,109	4,353	105.9
Kilolo	6,489	6,234	91.6	6,628	6,169	93.5	6,825	5,834	85.5
Total	29,933	28,520	95.3	29,597	28,847	97.5	30,689	27,414	89.3

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

Measles vaccination is performed to protect children against measles. At the regional level coverage for 2010 was 109.3 percent but decreased slightly to 106.1 percent in 2011 and rose slightly to 107.6 percent in 2012. District wise, the best performer was Iringa Urban with coverage of 132.5 percent in 2010, 166.5 percent in 2011 and 177.7 percent in 2012 (Table 5.23).

Table 5. 23: Percentage of Children under One Year Vaccinated Measles by Council, Iringa Region, 2010, 2011 and 2012

Council	2010			2011			2012		
	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage	Total Targeted	Total Vaccinated	Percent Coverage
Iringa DC	8,138	8,541	105.0	8,498	7,696	90.6	7,417	6,685	90.1
Mufindi	9,692	11,129	114.8	9,632	10,086	104.7	9,574	9,473	98.9
Iringa Urban	4,266	5,654	132.5	3,835	6,386	166.5	4,179	7,426	177.7
Kilolo	6,488	5,931	93.8	6,592	6,145	90.5	6,823	6,530	91.7
Total	28,584	31,255	109.3	28,557	30,313	106.1	27,993	30,114	107.6

Source: Compiled data from All District Socio-economic Profiles of Iringa Region, 2013

5.1.12 Policy Implication on Health Sector

Provision of health services in Iringa Region is still of low quality since the Region still has an inadequate number of practitioners. Moreover, inadequate number of practitioners lead to limited provision of health services in preventive and curative areas such as PMCT, out-patients and in-patients. Health services can be improved through implementation of health strategies and programmes which can motivate and attract health workers to work in rural areas. Likewise, the programmes of constructing a dispensary in every village and one health centre in every ward should be adhered to 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 service improvement in the District.

5.1.13 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 Region Authority has seen these shortcomings and taken action. To start with, the Region Authority has identified the 72 villages with no health facilities. Joint effort is needed regarding the construction of more health facilities in the areas identified.

EDUCATION SECTOR

5.2.0 An Overview

Education as it is well known is one of the basic tools for social and economic development. This understanding has been evidenced by steps so far taken by the Government of Tanzania to increase the intake of children to primary schools. Adoption of the Universal Primary School Education in 1974 plays a big role in providing primary education to all children aged 7-13 years. The 2002 census data shows that there has been significant decrease in illiteracy rate in Iringa Region. In 2002, Iringa Region had literacy rate of 72 percent compared to 68.3 percent of 1988.

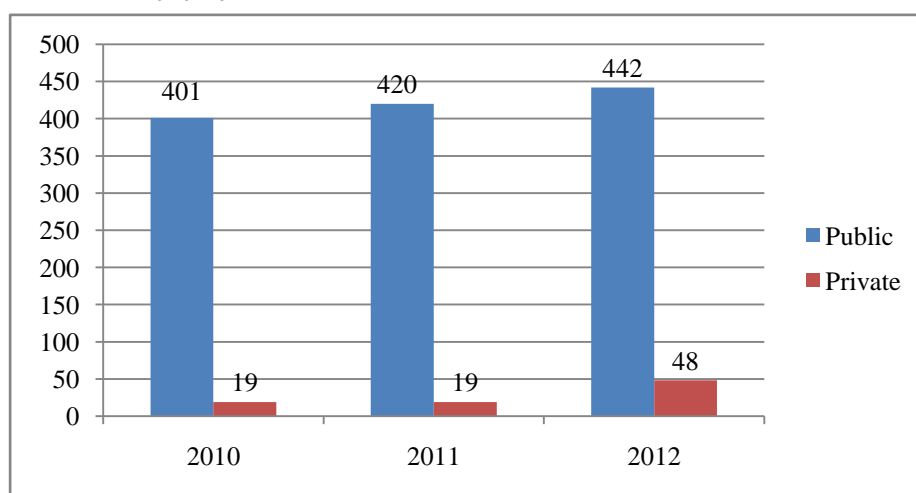
5.2.1 Pre-Primary Education

The availability of nursery schools in the Region is yet another feature distinguishing the level of development of education system from one region to another. Pre-schools are meant for children aged 3-6 years. The condition set by the Ministry of Education and Vocational Training that all children who start standard one must have undergone pre-primary education, accelerated the establishment of pre-primary schools all over the country including Iringa Region. According to the Tanzania Ministry of Education and Vocational Training, each government primary school is supposed to have classes for pre-primary education. By June 2011, Tanzania had a total of 14,529 pre-primary school streams.

According to Table 5.24, by the end of 2012 Iringa Region had a total of 490 classrooms in both public and private pre-primary schools. Mufindi District had the largest number at 180 (36.7 percent of the region's total classrooms) followed by Iringa DC (135 classrooms, 27.6 percent). With 101 classrooms

(20.6 percent) Kilolo District ranked third in number of pre-primary school's classrooms whilst Iringa Municipal had the least number of classrooms (74) which was equivalent to 15.1 percent of all classrooms available in the Region in 2012. The share of the private sector in the ownership of pre-primary school classrooms 2010 (4.5 percent), 2011 (4.3) and 2012 (9.8 percent). The Regional Authority should therefore encourage more individuals or non-government institutions to establish such schools and thus make sure that all children aged 3-6 years in the Region will acquire pre-primay education before joining standard one.

Figure 31: Number of Pre-Primary School Classrooms by Ownership, Iringa Region; 2010-2012



Source: Compiled Data from Districts, Education Departments, 2013

Table 5.24: Number of Pre-Primary School Classrooms by Ownership and Council, Iringa Region; 2010-2012

Council	2010			2011			2012			
	Public	Private	Total	Public	Private	Total	Public	Private	Total	Percent
Iringa DC	135	0	135	135	0	135	135	0	135	27.6
Mufindi	140	8	148	154	8	162	169	11	180	36.7
Iringa Municipal	32	11	43	32	11	43	37	37	74	15.1
Kilolo	94	0	94	99	0	99	101	0	101	20.6
Regional Total	401	19	420	420	19	439	442	48	490	100.0
Percent Share	95.5	4.5	100.0	95.7	4.3	100.0	90.2	9.8	100.0	

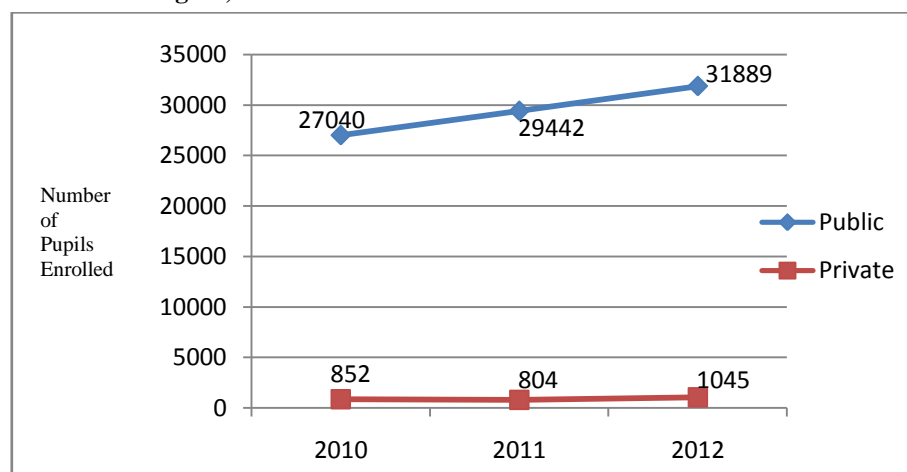
Source: Compiled Data from Districts, Education Departments, 2013

5.2.2 Enrolment in Pre-Primary Schools

Through introducing pre-primary school classrooms in most of its primary schools and with the availability of some private pre-primary schools, the Region has managed to increase enrolment of pre-primary pupils in every year given in Table 5.25. The enrolment increased by 2,354 pupils (8.4 percent) from 27,892 in 2010 to 30,246 in 2011 and then increased by 2,688 pupils (8.9 percent) between 2011 and 2012. Table 5.25 also shows that there was a huge difference in the number of pupils enrolled into public and private pre-primary schools. More of the pupils were enrolled into public than in private pre-primary schools. High school fees imposed in private pre-primary schools as well as few numbers of such schools especially in rural areas of the region might be the reason behind poor total enrolment in private pre-primary schools. At district level, Iringa DC was leading in number of pupils registered into pre-primary schools. The District registered 13,639 pupils in 2012 which was equivalent to 41.4 percent of all pupils registered into pre-primary schools in the region. Next to Iringa DC was Mufindi District with 9,031 pupils (27.4 percent) followed by Kilolo (7,191 pupils, 21.8 percent). Unless deliberate action is taken, Iringa

Municipal will continue to lag behind in number of pupils enrolled into pre-primary schools. The municipal enrolled the lowest number of pupils than any other district (Table 5.25). Figure 32 potrays pre-primary schools owned by the public (government) had the big increase of pupils enrolled in each year than in private owned pre-primary schools.

Figure 32: Trend of Pupils Enrolment in Public and Private Pre-primary Schools, Iringa Region; 2010-2012



Source: Compiled Data from Districts, Education Departments, 2013

Table 5.25 : Pre-Primary Schools Enrolment by Ownership and Council, Iringa Region; 2010 – 2012

Council	2010			2011			2012			
	Public	Private	Total	Public	Private	Total	Public	Private	Total	Percentage
Iringa DC	9895	0	9895	11554	0	11554	13639	0	13639	41.4
Mufindi	8225	109	8334	9048	114	9162	8907	124	9031	27.4
Iringa Municipal	2,093	743	2,836	2,294	690	2,984	2,152	921	3,073	9.3
Kilolo	6827	0	6827	6546	0	6546	7191	0	7191	21.8
Regional Total	27040	852	27892	29442	804	30246	31889	1045	32934	100.0
Percentage share	96.9	3.1	100.0	97.3	2.7	100.0	96.8	3.2	100.0	

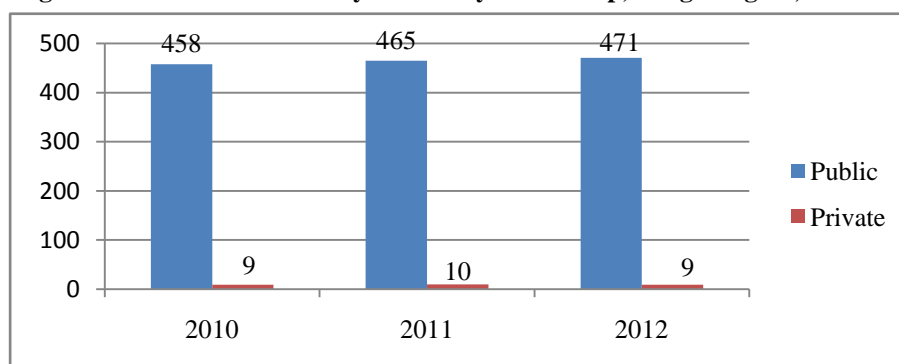
Source: Compiled Data from Districts, Education Departments, 2013

5.2.3 Primary Education

Primary education, everywhere, provides the foundation on which the development of the human resource is based. A sound primary education gives the recipient a good start in this world of competition.

Two milestones are associated with the development of primary education in Iringa Region. The launching of the Universal Primary Education Programme (UPE) in 1974 and efforts made by the government, especially the fourth government under the presidency of Dr. Jakaya Mrisho Kikwete of increasing construction of primary school classrooms through involvement of the community and private sector participation. These efforts enhanced enrolment of pupils and did increase the access of primary education in the country including Iringa Region.

As it may be noted in Table 5.26, by the end of 2012 there were 480 both public and private primary schools in Iringa Region. Public primary schools were 471 and accounted for the share of 98.1 percent compared to nine private schools which accounted for only 1.9 percent of total primary schools available in the Region in 2012. With 175 primary schools (36.5 percent of all primary schools in the Region) Mufindi District had the largest number of primary schools followed by Iringa DC with 145 primary schools (30.2 percent) and Kilolo (111 primary schools, 23.1 percent). As it was in regard to pre-primary schools, Table 5.26 shows that Iringa Municipal had the least number of primary schools at 49 (10.2 percent).

Figure 33: Number of Primary schools by Ownership, Iringa Region; 2010-2012

Source: Compiled Data from Districts, Education Departments, 2013

Table 5. 26: Number of Primary Schools by Ownership and by Council, Iringa Region; 2010-2012

Council	2010			2011			2012			
	Public	Private	Total	Public	Private	Total	Public	Private	Total	Percent
Iringa DC	145	0	145	145	0	145	145	0	145	30.2
Mufindi	167	3	170	170	4	174	172	3	175	36.5
Iringa Municipal	41	6	47	41	6	47	43	6	49	10.2
Kilolo	105	0	105	109	0	109	111	0	111	23.1
Regional Total	458	9	467	465	10	475	471	9	480	100.0
Percent share	98.1	1.9	100.0	97.9	2.1	100	98.1	1.9	100	

Source: Compiled Data from Districts, Education Departments, 2013

5.2.4 Coverage of Primary School Education System

An indicator of “the number of primary schools per village” given in Table 5.26a shows the extent to which Iringa Regional Authority has expanded accessibility of primary education to its villages. At regional level, the primary school village ratio is 0.9 which means that out of each ten villages, nine have a primary school or alternatively that, by the end of 2012, for every ten villages, only one village has no primary school in Iringa Region. At district level, with the exception of Iringa municipal which had poor primary school village ratio of 0.3, the

remaining three districts, Iringa DC, Mufindi and Kilolo managed to have primary school in each village. In that case, pupils in the three districts walk shorter distance to access primary education than in Iringa Municipal.

Table 5.26 a : Distribution of Primary Schools by Council and Its Accessibility at Village Level, Iringa Region; 2012

Council	Number of Primary School (Both Public and Private)	No.of Village/Mitaa	Primary School per Village
Iringa DC	145	123	1.2
Mufindi	175	141	1.2
Iringa Municipal	49	156*	0.3
Kilolo	111	106	1.0
Regional Total	480	526	0.9

Note: * The municipal had 7 villages and 149 mitaa

Source: Compiled Data from Districts, Education Departments, 2013

Table 5.26b highlights further the coverage of primary school education system in Iringa Region. According to the Table, Iringa Region's primary schools in 2012 gave an average of 1.3 schools per 100 sq. kms of land area or 1.3 schools within a walking distance. In terms of population, the average was 1.3 schools per 1,961 people. The range between distances for an average number of schools within walking distances varied from 0.7 schools in Iringa DC to 14.8 schools in Iringa Municipal. This means pupils in Iringa DC walk the shortest distance than in any other district in accessing primary school education while those pupils in Iringa municipal walk the longest distance. Hence, basing on walking distance to/from schools, pupils in Iringa DC in 2012 had the best access to primary education while those pupils in Iringa Municipal had the worst access. Moreover, the average population per school in 2012 in the region ranged from 1,752 people in Iringa DC to 3,089 people in Iringa Municipal. This means population growth in Iringa Municipal does not go hand in hand with primary

school increase hence exert more pressure in such schools. Likewise, by having average population per school of 1,965 which was a bit higher than that of regional average of 1,961, the Kilolo District also has to increase construction of more primary schools to overcome growth of population.

Table 5.26 b : Coverage of Primary Schools by Land Area, Population and Council, Iringa Region; 2012

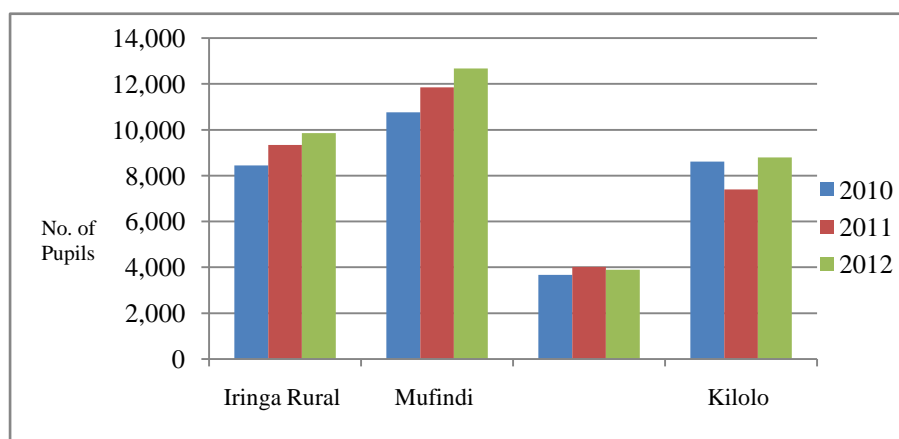
Council	Land Area in sq.kms	Population based on 2012 Census data	Number of Primary Schools (Public and Private)	Average number of schools per 100 sq.kms	Average population
					per school
Iringa DC	20,413.98	254,032	145	0.7	1752
Mufindi	7,123	317,731	175	2.5	1816
Iringa Municipal	331.4	151,345	49	14.8	3089
Kilolo	7,874	218,130	111	1.4	1965
Regional Total	35,742	941,238	480	1.3	1961

Source: Compiled Data from Districts, Education Departments, 2013

5.2.4.1 Standard One Enrolment

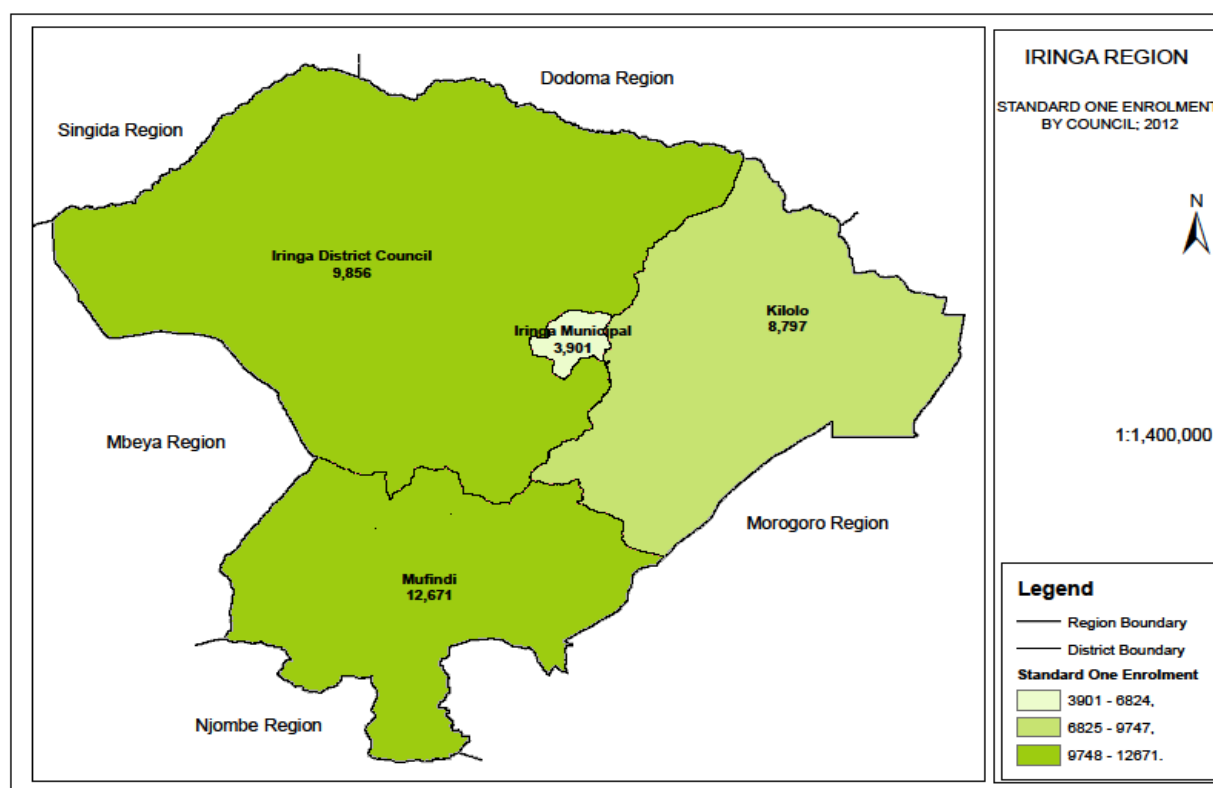
In three years, 2010 – 2012, the number of pupils enrolled into primary schools in the Region showed an increasing trend. It increased by 3.5 percent from 31,496 pupils in 2010 to 32,606 pupils in 2011 and thereafter it increased by 8 percent to 35,225 pupils in 2012 (Table 5.27). Public primary schools with a proportion of 98.2 percent against 0.2 percent for private schools in each of the three years had more pupils than private schools. By enrolling 12,671 pupils equivalent to 36 percent of all pupils enrolled into standard one in the Region in 2012, Mufindi District led in standard one pupils enrolment in 2012. The second district was Iringa DC at 9,856 pupils (28 percent) and the third was Kilolo District (8,797 pupils, 25 percent). The municipal registered the smallest number of pupils (3,901) or 11.1 percent in 2012 respectively.

Figure 34: Standard One Pupils Enrolment by Council, Iringa Region; 2010-2012



Source: Compiled Data from Districts, Education Departments, 2013

Map 8: Map of Iringa Region showing Total Standard One Enrolment by Council; 2012



Source: National Bureau of Statistics, GIS Unit, 2013

Table 5.27: Standard I Enrolment in Primary Primary Schools by Council, Iringa Region; 2010 – 2012

Council	2010			2011			2012			Percent
	Public	Private	Total	Public	Private	Total	Public	Private.	Total	
Iringa DC	8,440	0	8,440	9,336	0	9,336	9,856	0	9,856	28.0
Mufindi	10711	53	10764	11782	71	11853	12607	64	12671	36.0
Iringa Municipal	3,676	0	3,676	4,014	0	4,014	3,901	0	3,901	11.1
Kilolo	8,616	0	8,616	7,403	0	7,403	8,797	0	8,797	25.0
Regional Total	31,443	53	31,496	32,535	71	32,606	35,161	64	35,225	100.0
Percentage shares	99.8	0.2	100.0	99.8	0.2	100.0	99.8	0.2	100.0	

Source: Compiled Data from Districts, Education Departments, 2013

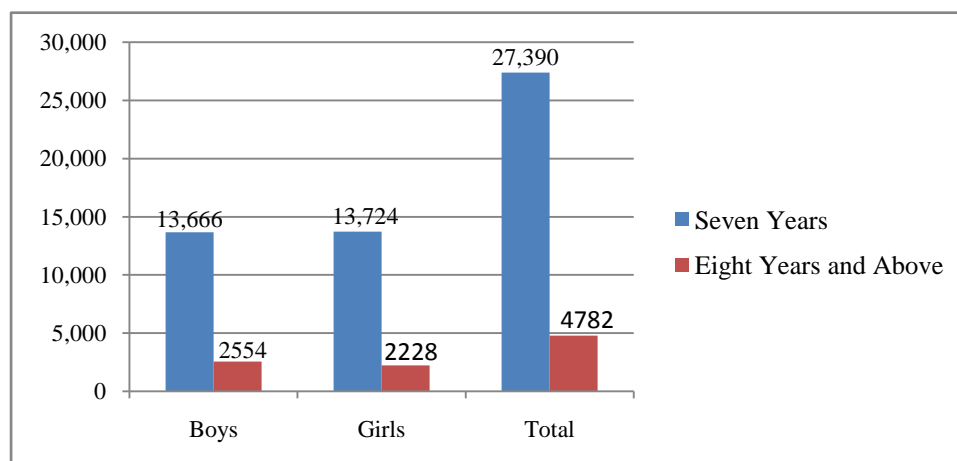
5. 2.4.2 Standard One Enrolment by Age Group

Normally, the target group for enrolment into standard one is the seven year olds (SYOs). This is according to Universal Primary Education (UPE). But because of the big backlog of 7 to 13 year olds who are yet to join school the target for enrolment into standard one has been temporarily widened to include children of other ages within the primary schools going age group of 7 to 13 years. Nevertheless the number of SYOs in a community is still the yard stick for the recruitment campaign each year.

According to Table 5.28, a total of 32,172 pupils mostly aged seven years but also eight to thirteen were registered into Standard One in the Region in 2012. Since 85.1 percent of those registered in Standard One were at the age of seven years, the Region adhered to Universal Primary Education Policy which insists that pupils should start Standard One at that age. Table 5.28 also reveals that 14.9 percent of the pupils were registered at the age of eight years and above. Mufindi was the leading district in registering Standard One pupils at the age of seven years. They accounted for 97.2 percent of all pupils registered. Iringa DC enrolled the lowest proportion of pupils at the age of seven years. They accounted for 69.6 percent of all pupils registered. More girls (13,724, 50.1

percent) than boys (13,666, 49.9 percent) registered into Standard One at the age of seven years. Figure 35 shows the largest number of pupils who started Standard One at the age of seven years. More girls than boys started school at that age.

Figure 33: Standard I Enrolment by Age Group and by Sex, Iringa Region; 2012



Source: Compiled Data from Districts, Education Departments, 2013

Table 5.28: Standard I Enrolment by Age Group, Iringa Region; 2012

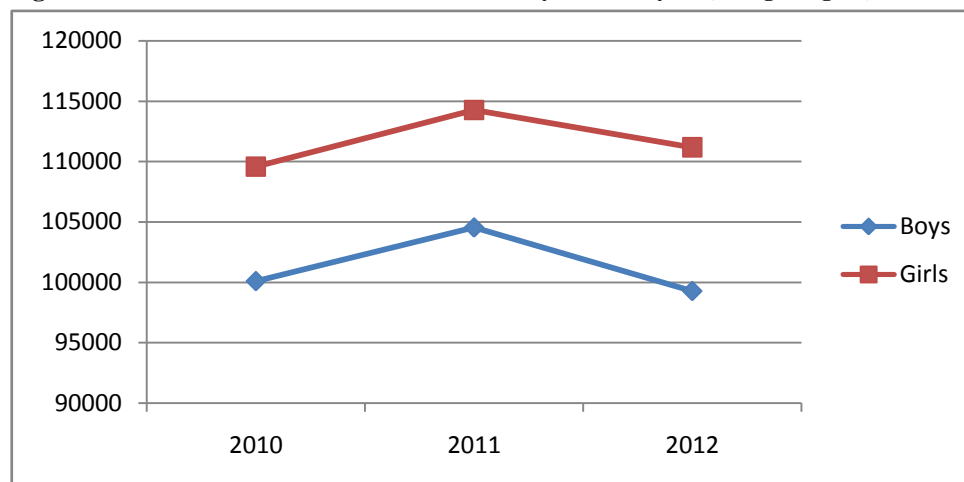
Council	Sex	Seven Years		Eight Year and Above		Total (Number)
		Number	Percentage	Number	Percentage	
Iringa DC	Boys	3241	66.6	1626	33.4	4867
	Girls	3623	72.6	1366	27.4	4989
	Total	6864	69.6	2992	30.4	9856
Mufindi	Boys	4917	96.6	173	3.4	5090
	Girls	5492	97.7	129	2.3	5621
	Total	10409	97.2	302	2.8	10711
Iringa Municipal	Boys	2,067	80.9	487	19.1	2554
	Girls	1,171	70.9	480	29.1	1651
	Total	3,238	77.0	967	23.0	4205
Kilolo	Boys	3441	92.8	268	7.2	3709
	Girls	3438	93.1	253	6.9	3691
	Total	6879	93.0	521	7.0	7400
Iringa Region	Boys	13,666	84.3	2554	15.7	16220
	Girls	13,724	86.0	2228	14.0	15952
	Total	27,390	85.1	4782	14.9	32172

Source: Compiled Data from Districts, Education Departments, 2013

5.2.4.3 Standard (I-VII) Enrolment

Table 5.29 shows that total enrolment of Std. I to VII increased by 4.3 percent from 209,692 in 2010 to 218,793 in 2011 and then declined by 3.8 percent to reach 210,463 pupils in 2012. Mufindi District registered the largest number of pupils in 2010 and 2012 at 72,488 (34.6 percent) and 67,090 pupils (31.9 percent) whilst in 2011 Iringa DC registered the largest number of pupils (69,350, 31.7 percent). Iringa Municipal enrolled the smallest number of pupils in all three years. However, Table 5.29 further illustrates that the Region succeeded in increasing girls enrolment in primary schools. This is true as in each year more girls than boys were registered into standard I to VII in primary schools. Proportionally, girls were at 52.3, 52.2 and 52.8 percent compared to 47.7, 47.8 and 47.2 percent of boys in 2010, 2011 and 2012 respectively.

Figure 34: Std (I-VII) Enrolment in Public Primary Schools by Sex, Iringa Region; 2010- 2012



Source: Compiled Data from Districts, Education Departments, 2013

Table 5.29: Total (Std I - VII) Enrolment in Public Primary Schools by Sex and Council, Iringa Region; 2010-2012

Council	2010			2011			2012			Percent of the Total Enrolment		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	2010	2011	2012
Iringa DC	26172	32382	58554	32,167	37,183	69,350	30,253	30,076	60,329	27.9	31.7	28.7
Mufindi	34795	37693	72488	32508	34422	66930	28176	38914	67090	34.6	30.6	31.9
Iringa Municipal	11,672	12,162	23,834	10883	12,406	23,289	11,698	11,869	23,567	11.4	10.6	11.2
Kilolo	27,469	27,347	54,816	28,981	30,243	59,224	29,161	30,316	59,477	26.1	27.1	28.3
Regional Total	100108	109584	209692	104,539	114,254	218,793	99,288	111,175	210,463	100.0	100.0	100.0
Percentage by Sex	47.7	52.3	100.0	47.8	52.2	100.0	47.2	52.8	100.0			

Source: Compiled Data from Districts, Education Departments, 2013

The average pupil per school is an important indicator which shows to what extent schools are congested with pupils. The lower the average number of pupils per school the less congested and viceversa.

Table 5.29a reveals that Iringa Region had average pupils per school of 449, 458.7 and 438.5 in 2010, 2011 and 2012 respectively. The average number of pupils per school for districts varied. It was highest in Kilolo District at 522.1, 533.6 and 535.8 for the years 2010, 2011 and 2012 respectively. This means that primary schools in Kilolo were more congested than those in the other districts in Iringa Region. It was followed by Iringa Municipal which had average number of pupils per school of 507.1, 495.5 and 481 respectively. Iringa Regional Authority should give first priority Kilolo and then Iringa Municipal when building new primary schools.

Table 5.29 a: Distribution of Std I - VII Pupils Among Primary Schools by Council, Iringa Region; 2010-2012

Council	2010			2011			2012		
	Total No. of Pupils	Total No. of Schools	Average Pupils per School	Total No. of Pupils	Total No. of Schools	Average Pupils per School	Total No. of Pupils	Total No. of Schools	Average Pupils per School
Iringa DC	58554	145	403.8	69,350	145	478.3	60,329	145	416.1
Mufindi	72488	170	426.4	66930	174	384.7	67090	175	383.4
Iringa Municipal	23,834	47	507.1	23,289	47	495.5	23,567	49	481.0
Kilolo	54,816	105	522.1	59,224	111	533.6	59,477	111	535.8
Regional Total	209692	467	449.0	218,793	477	458.7	210,463	480	438.5

Source: Compiled Data from Districts, Education Departments, 2013

5. 2.3.4 Primary School Completion Rate

The completion rate is an indicator of the efficiency of the school system that shows the extent to which a cohort of pupils admitted in Class One complete the primary education cycle irrespective of whether they sit for the final examination or not. According to Table 5.30, among the cohort of 31,370 pupils registered in primary schools in 2005, 27,493 pupils or 87.6 percent completed standard seven in 2011 in the Region. Proportionally, more girls (51.7 percent) than boys (48.3 percent) registered in primary schools in 2005. However, at the completion of the primary school education cycle in 2011 there were even more girls (52.9 percent) than boys (47.1 percent). Table 5.30 also shows that the completion rate was higher for girls (89.7 percent) than boys (85.4 percent).

With a total of 9,190 pupils (33.4 percent) who completed education cycle, Iringa DC was leading in the number of pupils who completed primary school education cycle in 2011. Next was Mufindi District (8,591 pupils, 31.2 percent), Kilolo District (6,351 pupils, 23.1 percent) and Iringa Municipal had the smallest number at 3,361 pupils (12.2 percent).

Table 5. 30 : Number of Pupils Enrolled in Std I in 2005 and Completed Std VII in 2011 by Council, Iringa Region

Council	2005 to 2011								
	Enrolled 2005			Completed 2011			Completion Rate by Sex		Percent Completion by District to the Regional Total
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Iringa DC	5,011	5,116	10,127	4,498	4,692	9,190	89.8	91.7	33.4
Mufindi	4,825	5,426	10,251	3,907	4,684	8,591	81.0	86.3	31.2
Iringa Municipal	1,559	1,599	3,158	1,592	1,769	3,361	102.1	110.6	12.2
Kilolo	3,756	4,078	7,834	2,943	3,408	6,351	78.4	83.6	23.1
Regional Total	15,151	16,219	31,370	12,940	14,553	27,493	85.4	89.7	100.0
Percentage	48.3	51.7	100.0	47.1	52.9	100.0	87.6		

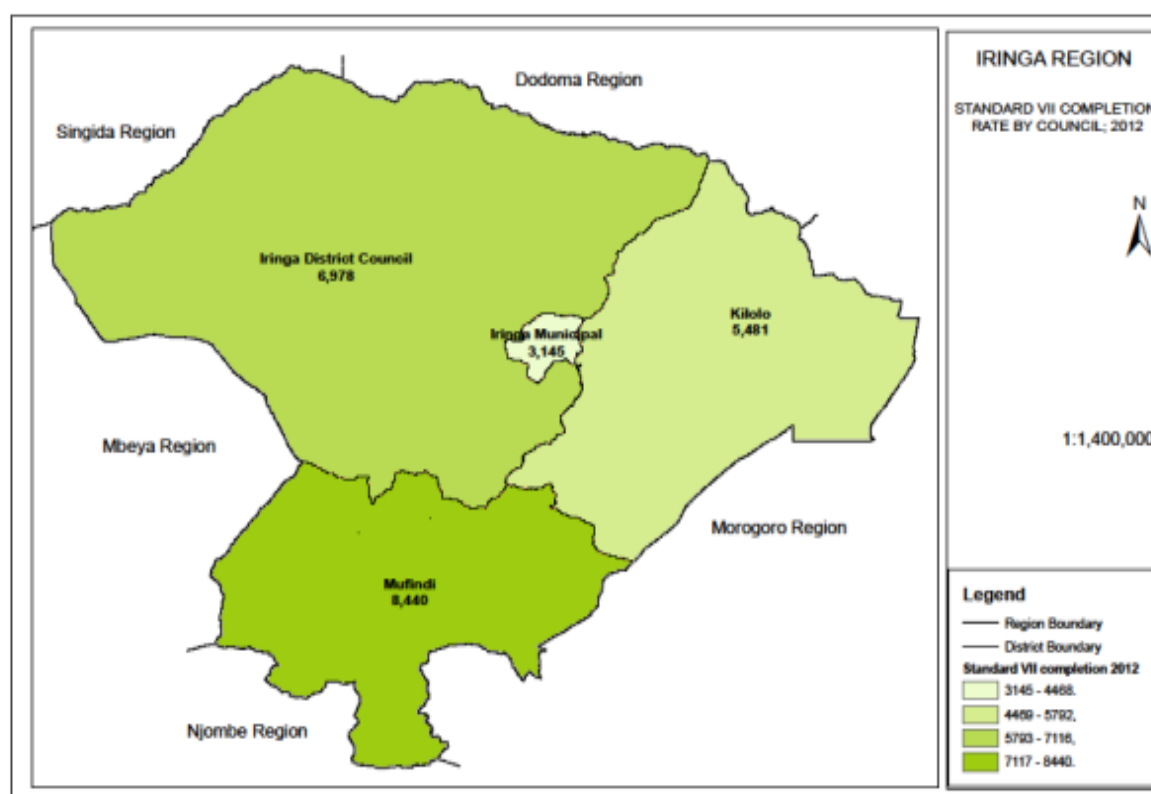
Source: Compiled Data from Districts, Education Departments, 2013

Primary school completion rate of 82.4 percent in 2012 was slightly lower than that of 87.6 percent observed in 2011. Similarly, according to Table 5.30a, the number of pupils who completed the education cycle in 2012 which was 24,044 pupils was lower by 3,449 pupils or 12.5 percent compared to 27,493 pupils who completed education cycle in 2011. The Table also shows that more girls (12,746, 53 percent) than boys (11,298, 47 percent) completed primary school education cycle in 2012. Table 5.30a further shows that 78.4 percent of total boys admitted into primary schools in 2006 in Iringa Region completed education cycle in 2012 and so were 86.3 percent of total girls admitted into standard one in 2006.

Mufindi District with 35.1 percent of the Region's total pupils who completed education cycle in 2012 was leading followed by Iringa DC (29 percent) and

Kilolo (22.8 percent). As in 2011, Iringa Municipal had the lowest number of pupils who completed education cycle in 2012 at 13.1 percent.

Map of Iringa Region showing Standard VII completion Rate by Council; 2012



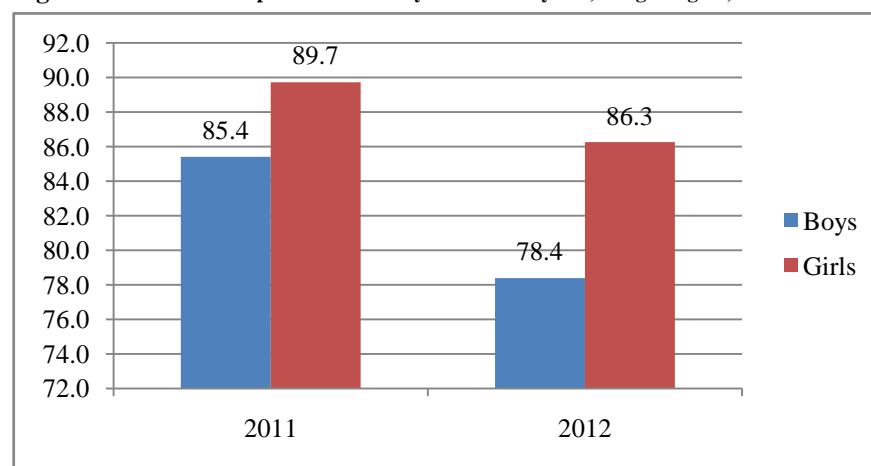
Source: National Bureau of Statistics, NBS, 2013

**5.30 a : Number of Pupils Enrolled in Std I in 2006 and Completed Std VII in 2012
by Council in Iringa Region**

Council	2006 to 2012								
	Enrolled 2006			Completed 2012			Completion Rate by Sex		Percent completion by District to the Regional Total
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Iringa DC	4,419	4,385	8,804	3,349	3,629	6,978	75.8	82.8	29.0
Mufindi	5,073	5,218	10,291	3,942	4,498	8,440	77.7	86.2	35.1
Iringa Municipal	1,600	1,666	3,266	1,528	1,617	3,145	95.5	97.1	13.1
Kilolo	3,321	3,508	6,829	2,479	3,002	5,481	74.6	85.6	22.8
Regional Total	14,413	14,777	29,190	11,298	12,746	24,044	78.4	86.3	100.0
Percentage	49.4	50.6	100.0	47.0	53.0	100.0		82.4	

Source: Compiled Data from Districts, Education Departments, 2013

Figure 35: Rates of Completion of Primary Education by Sex, Iringa Region, 2011 and 2012



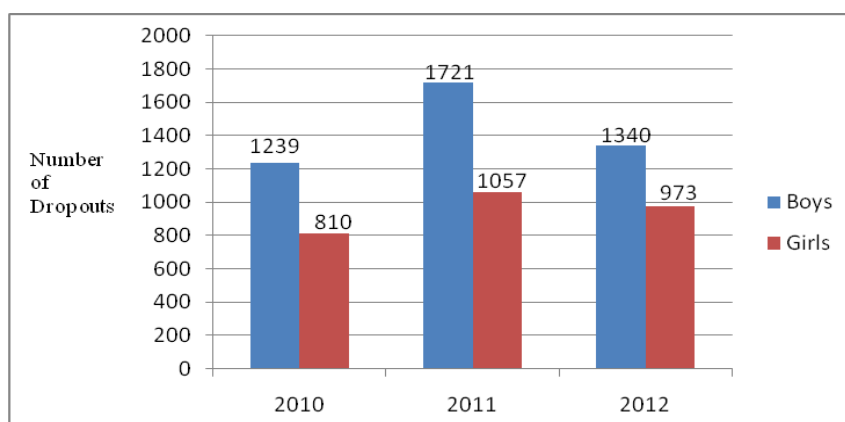
Source: Compiled Data from Districts, Education Departments, 2013

5.2.4.5 Primary School Dropout Rate

Table 5.31 summarizes the situation of primary school pupil dropouts in three consecutive years; 2010, 2011 and 2012 in Iringa Region. The largest number of dropouts in the three year period from 2010 to 2012 was 2,778 pupils. 38.9 percent of all dropouts during the period were in 2011. Year 2012 was second with 2,313 dropouts (32.4 percent) and 2010 had the smallest dropouts at 2,049 pupils (28.7 percent). Moreover, during the three year period boys dropouts who were 4,300 accounted for 60.2 percent of the total dropouts while girls totaled 2,840 and accounted for 39.8 percent. Since Mufindi District accounted for 91.7 percent of the Region's total dropouts which was the highest in the region. The Iringa Regional Authority in collaboration with the Mufindi District Council should take this as a challenge and find out why there are so many primary school dropouts in the District. Next to Mufindi was Iringa DC which accounted for 5.6 percent of the total dropouts, Iringa Municipal and Kilolo District had the same percentage of dropouts of 1.3 percent each.

Dropouts due to 'other reasons' were the majority in Iringa Region. According to Table 5.31, 3,812 pupils (53.4 percent) dropped out of school due to other reasons. By causing 3,120 dropouts (43.7 percent of total pupils who dropped from school), truancy was the second cause of dropouts followed by pregnancy. In a period of three years shown in the table, 111 girls (equivalent to 1.6 percent of all dropouts) dropped out of school due to pregnancy. Iringa DC was leading in number of girls who dropped out of school due to pregnancy (54) followed by Mufindi District(51) while Iringa Municipal and Kilolo District had equal numbers (3) each. On the other hand, death caused 97 dropouts and Mufindi District had the largest number of pupil deaths (64). Mufindi District was also leading in pupils dropouts due to truancy (2,983) and of 'other reasons' (3,748).

Figure 36: Dropouts of Pupils by Sex in Public Primary Schools, Iringa Region; 2010-2012



Source: Regional Compiled Data from Districts, Education Departments, 2013

Table 5.31: Pupils Drop Outs by Reasons, Iringa Region; 2010 – 2012

Council	Reason	2010			2011			2012			Total Dropouts			Percent of the Total
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	2010-2012			
											Boys	Girls	Total	
Iringa DC	Truancy	68	39	107	57	35	92	58	37	95	183	111	294	4.1
	Pregnancy		16	16		20	20		18	18	0	54	54	0.8
	Death	3	0	3	4	0	4	5	0	5	12	0	12	0.2
	Other	6	9	15	6	7	13	8	7	15	20	23	43	0.6
	District Total	77	64	141	67	62	129	71	62	133	215	188	403	5.6
Mufindi	Truancy	482	291	773	624	393	1017	529	364	893	1635	1048	2683	37.6
	Pregnancy		14	14		19	19		18	18	0	51	51	0.7
	Death	11	7	18	15	10	25	12	9	21	38	26	64	0.9
	Other	653	416	1069	957	536	1493	689	497	1186	2299	1449	3748	52.5
	District Total	1146	728	1874	1596	958	2554	1230	888	2118	3972	2574	6546	91.7
Iringa Municipal	Truancy	9	14	23	11	7	18	15	7	22	35	28	63	0.9
	Pregnancy		0	0		3	3		0	0	0	3	3	0.0
	Death	3	3	6	5	6	11	0	1	1	8	10	18	0.3
	Other	4	1	5	4	3	7	0	0	0	8	4	12	0.2
	Municipal Total	16	18	34	20	19	39	15	8	23	51	45	96	1.3
Kilolo	Truancy	-	-	-	32	15	47	23	10	33	55	25	80	1.1
	Pregnancy		-	-		1	1		2	2	0	3	3	0.0
	Death	-	-	-	2	-	2	-	1	1	2	1	3	0.0
	Other	-	-	-	4	2	6	1	2	3	5	4	9	0.1
	District Total	-	-	-	38	18	56	24	15	39	62	33	95	1.3
Regional Total Droputs		1239	810	2049	1721	1057	2778	1340	973	2313	4300	2840	7140	100.0
Regional Total Std (1-VII) Enrolment		79358	82237	161595	106299	108855	215154	99288	111175	210463				
Percent of Dropouts to Total Enrolment		1.6	1.0	1.3	1.6	1.0	1.3	1.3	0.9	1.1				

Source: Compiled Data from Districts, Education Departments, 2013

5.2.4.6 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. Out of 24,044 pupils who sat for Std VII Examination 19,082 (79.4 percent of those who sat for the examinations) passed (Table 5.32). More girls than boys sat and passed examinations. For the pupils who sat for Std VII examinations girls were 53 percent and boys were 47 percent and for those who passed the examinations girls were 53.1 percent and boys were 46.9 percent. Mufindi with 6,661 pupils who passed examination which was equivalent to 34.9 percent of all examinees was the leading District. Iringa DC was second with 5,226 pupils (27.4 percent) followed by Kilolo (4,250, 22.3 percent) and Iringa Municipal had the smallest number (2,945 pupils, 15.4 percent).

Table 5.32: Number of Pupils Who Sat and Passed STD VII Examinations in Public Primary Schools, Iringa Region; 2012

Council	Pupils sat for STD VII Examinations			Pupils Passed STD VII Examinations			Percentage of Pupils Who Passed		Percent of the Total Pupils who Passed
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	
Iringa DC	3,349	3,629	6,978	2,467	2,759	5,226	73.7	76.0	27.4
Mufindi	3942	4498	8440	3137	3524	6661	79.6	78.3	34.9
Iringa Municipal	1,528	1,617	3,145	1,425	1,520	2,945	93.3	94.0	15.4
Kilolo	2,479	3,002	5,481	1,920	2,330	4,250	77.5	77.6	22.3
Regional Total	11,298	12,746	24,044	8,949	10,133	19,082	79.2	79.5	100.0
Percent	47.0	53.0	100.0	46.9	53.1	100.0		79.4	

Source: Compiled Data from Districts, Education Departments, 2013

5.2.4.7 Transition to Secondary Education

In the education hierarchy, primary education leads to secondary education and secondary education to tertiary or university education. The transition between primary and secondary education is marked by an examination barrier which aspiring pupils must pass.

Table 5.33 gives the number of pupils who were selected to join Form One and those who joined form one in public secondary schools in the Region. Since data for Mufindi and Kilolo were not available then detailed analysis of the table was impossible. Nevertheless, for Iringa DC and Iringa Municipal, we can say that in 2012 the two districts had 8,371 pupils who were selected to join Form One in public secondary schools. Iringa DC had the largest portion of pupils (62.4 percent) than of Iringa Municipal (37.6 percent) that were selected to join Form One. In regards to the pupils who joined Form One, Mufindi District had the highest percentage (36.6 percent) followed by Iringa DC (28.7 percent), Kilolo (20.8 percent) and Iringa Municipal (13.9 percent).

Table 5. 33: Number of Pupils Who were Selected and Joined Form I in Public Secondary Schools, Iringa Region; 2012

Council	No. of Pupils Selected				No. of Pupils Joining Form I			
	Boys	Girls	Total	Percent	Boys	Girls	Total	Percent
Iringa DC	2,466	2,760	5,226	62.4	2,466	2,760	5,226	28.7
Mufindi	-	-	-	-	3137	3526	6,663	36.6
Iringa Municipal	1528	1617	3145	37.6	1129	1402	2,531	13.9
Kilolo	-	-	-	-	1741	2049	3,790	20.8
Regional Total	3,994	4,377	8,371	100	8,473	9,737	18,210	100.0
Percent by Sex	47.7	52.3	100.0		46.5	53.5	100.0	

Source: Compiled Data from Districts, Education Departments, 2013

5.2.4.8 Primary School Facilities

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

(i) Classrooms

According to Tanzania Ministry of Education and Vocational Training, the recommended number of pupils per class-room is 45. If a classroom accommodates more than 45 pupils is outside the national standard and an indication of classroom shortage.

By the end of 2012, Iringa Region had a total of 469 public primary schools having a total of 3,738 classrooms which accommodated 210,257 pupils (Table 5.34). This made the Region have a Pupils Classroom Ratio of 1:56 which is beyond the national standard and thus signifies classroom shortage. At district level, the Table also shows that all four districts in the Region in 2012 were facing shortage of classrooms in primary schools. Kilolo District had a pupils classroom ratio of 1:69 which was above that of the regional average and it was considered to have critical shortage. Further analysis of Table 5.34 reveals that in 2012 the Region required 5,451 classrooms in primary schools and therefore had a shortage of 1,713 classrooms. Kilolo District had the highest percentage deficit of 75.5 percent while Iringa DC had the lowest at 24.4 percent. For improving learning environment in primary schools, more classrooms are therefore needed to enable the pupils to sit more comfortably and enhance teaching effectiveness of the teachers.

Table 5. 34: Availability of Classrooms in Public Primary Schools by Council, Iringa Region; 2012

Council	Number of Schools	Total Pupils	Available Classrooms	Average number of Classroom per School	Classroom Pupils Ratio (CPR)	Required Classrooms	Deficit/ Excess	Percent Deficit/ Excess
Iringa DC	145	60,329	1097	8	1:55	1,532	435	39.7
Mufindi	172	67089	1333	8	1:50	1855	522	39.2
Iringa Municipal	41	23,362	454	11	1:51	565	111	24.4
Kilolo	111	59477	854	8	1:69	1499	645	75.5
Regional Total	469	210,257	3738	8	1:56	5,451	1,713	45.8

Source: Compiled Data from Districts, Education Departments, 2013

(ii) Pitlatrine



The Region has a long way to go attain required national standard of Pupils Toilet Ratio

Table 5.35 shows that in 2012 there were 6,123 pitlatrines in 469 public primary schools with an average of 13 pitlatrines per school. Basing on the standard set by the Government of Tanzania, of pupils pitlatrine ratio of 1:20 for girls and 1:25 for boys. Unfortunately, Table 5.35 does not display number of pupils and pitlatrines by sex, therefore, the general pitlatrine ratio shown in the Table just depicts general situation of the availability of pitlatrines services among pupils. According to the Table, in 2012, on average, 34 pupils in public primary schools

in Iringa Region were using one toilet hole. However; the region requires 9,705 pitlatrines and therefore has a shortage of 3,582 pitlatrines (58.5 percent deficit). Primary schools in Kilolo had highest deficit of pitlatrines as on average, one toilet hole in primary schools in this district was used by 46 pupils. Situation on the availability and deficit of pitlatrines for the remaining three districts is shown in Table 5.35 below.

Table 5. 35: Availability of Pit Latrines in Public Primary Schools by Council, Iringa Region; 2012

Council	No. of Schools	Total Pupils	Available Pit Latrine	Average number of Pit Latrine per School	Pit Latrine Pupils Ratio	Required Pit Latrine	Deficit of Pit Latrine	Percent Deficit/Excess
Iringa DC	145	60,329	1763	12	1:34	2803	1,040	59.0
Mufindi	172	67089	2407	14	1:28	3028	621	25.8
Iringa Municipal	41	23,362	669	16	1:35	1,170	501	74.9
Kilolo	111	59477	1284	12	1:46	2704	1,420	110.6
Regional Total	469	210,257	6123	13	1:34	9705	3,582	58.5

Source: Compiled Data from Districts, Education Departments, 2013

(iii) Staff Houses



More teachers' houses are needed to curb a deficit of 805 houses in the district

Teachers' houses are important to teachers' welfare, school security and general efficiency of school services through teachers being on site. A look at Table 5.36 reveals that in 2012 there were in the Region only 1,830 teachers' houses leaving a substantial deficit of 3,453 houses or 69.9 percent. All districts had large deficits ranging from 52.4 percent for Iringa Municipal to 90.9 percent for Iringa DC which had the biggest deficit of 1,111 houses.

Table 5. 36: Availability of Public Primary School Teachers' Houses by Council, Iringa Region; 2012

Council	No. of Public Primary Schools	Number of Available Teachers	Required Houses	Available Houses	Average Number of Houses per School	House Teachers Ratio (HTR)	Deficit of Houses	
							Number	Percent
Iringa DC	145	1222	1528	417	11	3	1111	90.9
Mufindi	172	1516	1967	900	11	5	1067	70.4
Iringa Municipal	41	739	480	93	12	2	387	52.4
Kilolo	111	1463	1308	420	12	4	888	60.7
Regional Total	469	4940	5283	1830	11	4	3453	69.9

Source: Compiled Data from Districts, Education Departments, 2013

(iv) Furniture(Desks)



Pupils Desk Ratio of 1:4 shows primary schools in the district have desks deficit

The average number of pupils per desk is an important indicator of the provision of favourable and conducive learning environment for the pupils. For primary schools, the recommended desk pupils' ratio (DPR) is three pupils per one desk (1:3). Based on this fact and with desk pupils' ratio of 1:3 shown in Table 5.37, we can say at regional level, primary schools in Iringa region adhered to the national standard and had no desks shortage. Detailed analysis of the Table by district-wise shows Mufindi district and Iringa municipal were also comply with the national required desk pupils ratio of 1:3. Iringa DC and Kilolo districts each at desk pupils' ratio of 1:4 diverted from the national standard and hence, had desks shortage. Nevertheless, analysis of the table basing on the absolute number of the available and required desks proves still at regional level and for the two districts, Mufindi and Iringa municipal there was a deficit of desks. At regional level, there was 42.5 percent deficit or 44,386 desks against 60,149 desks then available. The percentage deficit ranges from 32.4 percent for Mufindi district and 54.2 percent for Kilolo district.

Table 5. 37: Availability of Desks in Public Primary Schools by Council, Iringa Region; 2012

Council	Total Pupils	Available Desks	Desk Pupils Ratio	Required Desks	Deficit of Desks	
					Number	Percent
Iringa DC	60,329	16,593	1:4	29,656	13,063	44.0
Mufindi	67,089	22,670	1:3	33,545	10,875	32.4
Iringa Municipal	23,362	7,274	1:3	11,595	4,321	37.3
Kilolo	59,477	13,612	1:4	29,739	16,127	54.2
Regional Total	210,257	60,149	1:3	104,535	44,386	42.5

Source: Compiled Data from Districts, Education Departments, 2013

(v) Accessibility of Water

Water is not only important but also necessary for human beings and other living organisms. Availability of water in primary schools is of paramount importance.

Schools having water sources within their compounds improve the sanitation level of the schools. In addition, water sources available within primary school premises reduce time spent by pupils on fetching water. Nevertheless, sources of water in primary schools differ among the districts. Topographic and geographical variation among the districts and availability of water bodies found in the districts determine type and sustainability of water sources used not only by pupils in primary schools, but also at households' level. Since Iringa Region is well endowed with ground and surface water sources, water wells (shallow, medium and dip boreholes) followed by tap water are common water sources in primary schools especially in Iringa DC, Mufindi District and Iringa Municipal. Shallow wells are the only water sources in primary schools in Kilolo District and thus primary schools have the worst access to water sources than in the other districts.

(vi) Teachers

The teacher to pupil ratio is an important indicator which also shows the quality of education provided in schools. The national standard requirement is that one teacher should serve a classroom of 45 pupils (1:45). Table 5.38 indicates that in 2012 primary schools in Iringa Region had teachers' pupils ratio (TPR) of one teacher per 46 pupils (1:46). This is above the national standard and hence, there was shortage of primary school teachers in the Region. However, at district level, magnitude of deficit differs among the districts with Kilolo having the highest teachers' pupils' ratio of 1:54 and the largest deficit of teachers of 26.1 percent. With TPR of 1:49 Iringa DC also had a deficit. Mufindi and Iringa Municipal with TPR of 1:44 and 1:31 comply with the required national standard. In absolute number, the regional deficit was 16.4 percent or 904 teachers against 4,603 teachers then available. Percentage deficit of the districts ranged from negative 45 for Iringa Municipal to 26.1 percent for Kilolo District.

The negative percentage deficit of 45 in Iringa Municipal implies that there was no teachers shortage in the municipal as the available number was larger than the required number of teachers.



The teacher pupil ratio is an important indicator for quality education

Table 5.38: Availability of Public Primary School's Teachers (Grade A, B, Diploma and Degree) by Council, Iringa Region; 2012

Council	Total Pupils	Teachers Required	Available Teachers	Deficit	Percent of Deficit	Teacher Pupils Ratio (TPR)
Iringa DC	60,329	1,532	1,230	302	19.7	49
Mufindi	67089	1967	1516	451	22.9	44
Iringa Municipal	23,362	521	758	-237	-45.5	31
Kilolo	59477	1487	1099	388	26.1	54
Regional Total	210,257	5,507	4,603	904	16.4	46

Source: Compiled Data from Districts, Education Departments, 2013

5.2.5 Secondary Education

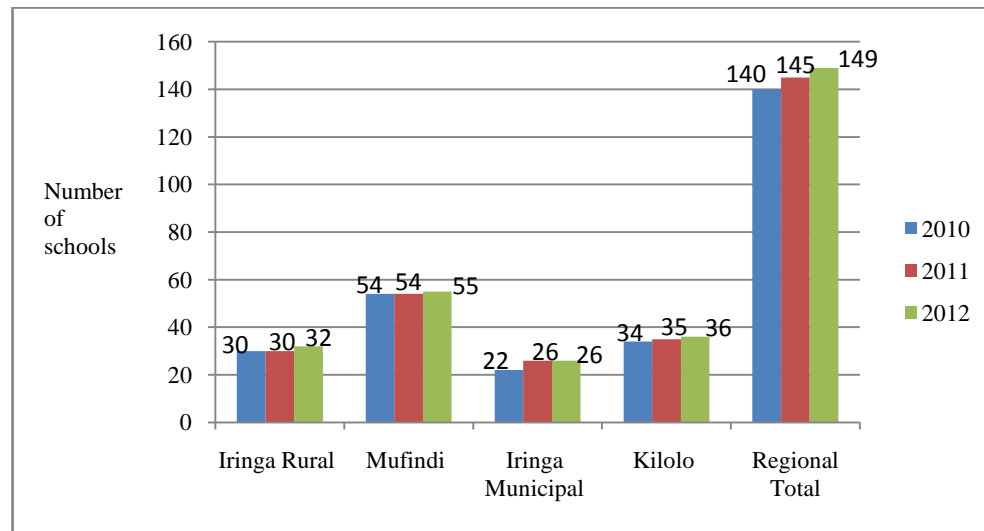
Secondary education is optional. But many parents and students have discovered its value in preparing young people for the new world. Hence there has been a

dramatic increase in both enrolment and the number of secondary schools throughout the country but Iringa Region in particular. Nevertheless, the policy of a secondary school per ward which was introduced in early 2006 under the Government of President Dr.Jakaya Mrisho Kikwete also played a big role in increasing number of secondary schools and enrolment in the Region and the country at large. Private sector participation in the establishment and running of secondary schools is another reason for the increase in secondary schools in the country including Iringa Region.

Table 5.39 shows that the number of secondary schools in the Region increased steadily from 140 in 2010 to 145 in 2011 and then 149 in 2012. This is equivalent to an increase of 6.4 percent from 140 secondary schools in 2010 to 149 in 2012. The share of private sector in ownership of secondary schools shows an increasing trend. It increased from 27.1 percent in 2010 to 29.7 percent in 2011 and attained 30.2 percent in 2012. Consequently, the ratio between secondary schools and primary schools in the region has declined due to significant increase in secondary schools (Table 5.39a). The ratio was 3.3 primary schools to a secondary school in 2010 and 2011 and then the ratio declined to reach 3.2 primary schools to a secondary school in 2012.

Table 5.39 shows that in 2012, Mufindi District had the largest number of secondary schools (55, 36.9 percent). It was followed by Kilolo District (36, 24.2 percent), Iringa DC (32, 21.5 percent) and Iringa Municipal had the smallest number of secondary schools at 26 (17.4 percent). Moreover, in 2012 Mufindi District had also the largest number of public secondary schools (41) while the same District and Kilolo led in number of private secondary schools (14). Iringa municipal had the smallest number of public secondary schools (13) and Iringa DC had the smallest number of private secondary schools (4).

Figure 37: Number of Secondary Schools by Council, Iringa Region; 2010-2012



Source: Compiled Data from Districts, Education Departments, 2013

Table 5. 39: Number of Secondary Schools by Ownership and by Council, Iringa Region; 2010 – 2012

Council	2010			2011			2012			Percent
	Public	Private	Total	Public	Private	Total	Public	Private	Total	
Iringa DC	26	4	30	26	4	30	28	4	32	21.5
Mufindi	41	13	54	41	13	54	41	14	55	36.9
Iringa Municipal	13	9	22	13	13	26	13	13	26	17.4
Kilolo	22	12	34	22	13	35	22	14	36	24.2
Regional Total	102	38	140	102	43	145	104	45	149	100.0
Percent	72.9	27.1	100.0	70.3	29.7	100.0	69.8	30.2	100.0	

Source: Compiled Data from Districts, Education Departments, 2013

Table 5.39 a: Average number of Primary school per Secondary Schools by Council, Iringa Region; 2010 – 2012

Council	2010			2011			2012		
	No. of Primary Schools	No. of Secondary Schools	Average No. of Primary Schools per Sec. Schools	No. of Primary School	No. of Secondary Schools	Average No. of Primary Schools per Sec. Schools	No. of Primary Schools	No. of Secondary Schools	Average No. of Primary Schools per Sec. Schools
Iringa DC	145	30	4.8	145	30	4.8	145	32	4.5
Mufindi	170	54	3.1	174	54	3.2	175	55	3.2
Iringa Municipal	47	22	2.1	47	26	1.8	49	26	1.9
Kilolo	105	34	3.1	111	35	3.2	111	36	3.1
Regional Total	467	140	3.3	477	145	3.3	480	149	3.2

Source: Compiled Data from Districts, Education Departments, 2013

According to Table 5.39b, Iringa Region succeeded in implementing the government policy of 2006 which prescribes a secondary school for each ward. On average, each ward in the region had at least 1.3 secondary schools. By the end of 2012, Mufindi had done a recommendable job by having two secondary schools per ward which was the highest in the Region. The lowest secondary schools per ward were observed in Iringa DC which had a ratio of 1:3.

Table 5.39 b: Distribution of Secondary schools among Wards, by Council, Iringa Region; 2012

Council	Number of Secondary School	Number of Wards	Average Schools per Ward	Rank
Iringa DC	32	25	1.3	3
Mufindi	55	28	2.0	1
Iringa Municipal	26	16	1.6	2
Kilolo	36	22	1.6	2
Regional Total	149	91	1.6	

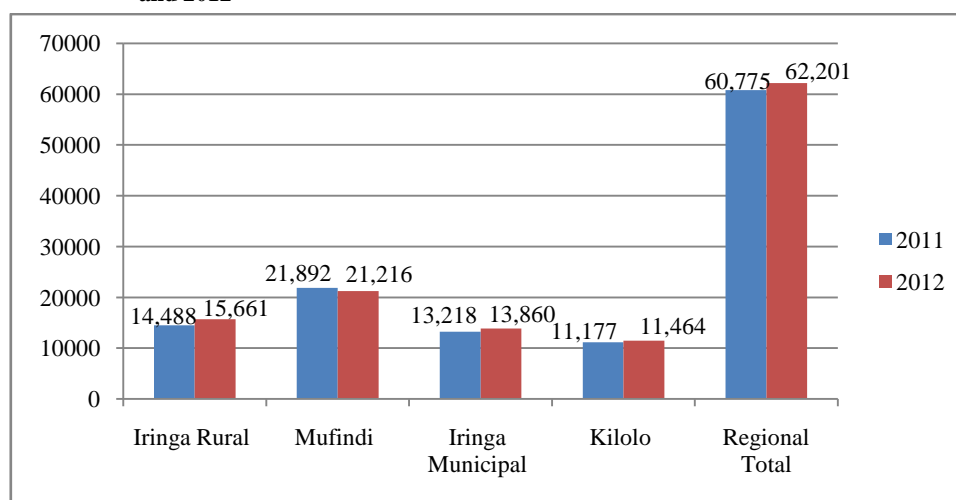
Source: Compiled Data from Districts, Education Departments, 2013

5.2.5.1 Secondary School Enrolment

5.2.5.1.1 Form (I-IV) Enrolment

There has been a steady increase in the total enrolment of secondary school students of 1,426 students or of 2.3 percent from 60,775 in 2011 to 62,201 in 2012 (Table 5.40). In each year, more boys than girls' enrolled into secondary schools in the Region. This is evident in Table 5.40 as number of boys registered accounted for 52.6 percent of all the students in in 2011 compared for 47.4 percent for girls.. In 2012, boys' students accounted for 51 percent against 49 percent for girls. Moreover girl's enrolment went up by 5.8 percent or 1,671 students from 28,795 in 2011 to 30,466 in 2012. Unfortunately, boy's enrolment dropped by 0.8 percent or 245 students from 31,980 in 2011 to 31,735 in 2012. By registering 21,892 students equivalent to 36 percent of all students registered into secondary schools in 2011 and 21,216 students (34.1 percent) in 2012, Mufindi led in students' enrolment in both years. Next was Iringa DC by registering 14,488 students (23.8 percent) in 2011 and 15,661 students (25.2 percent) in 2012. Iringa Municipal was third by enrolling 13,218 students (21.7 percent) in 2011 and 13,860 students (22.3 percent) in 2012. Kilolo District registered the smallest number of students at 11,177 (18.4 percent) and 11,464 students (18.4 percent) in 2011 and 2012.

Figure 38: Form (I-IV) Enrolment in Public and Private Secondary Schools, Iringa Region; 2011 and 2012



Source: Compiled Data from Districts, Education Departments, 2013

Table 5. 40: Total Form (1-IV) Enrolment in Public and Private Secondary Schools by Sex and Council, Iringa Region; 2011 and 2012.

Council	2011							2012						
	Boys		Girls		Total Boys and Girls	Proportion (%)		Boys		Girls		Total Boys and Girls	Proportion (%)	
	Number	Percent share	Number	Percent share		Boys	Girls	Number	Percent share	Number	Percent share		Boys	Girls
Iringa DC	7,700	24.1	6,788	23.6	14,488	53.1	46.9	8,300	26.2	7,361	24.2	15,661	53.0	47.0
Mufindi	11,420	35.7	10,472	36.4	21,892	52.2	47.8	10,593	33.4	10,623	34.9	21,216	49.9	50.1
Iringa Municipal	6,131	19.2	7,087	24.6	13,218	46.4	53.6	6,148	19.4	7,712	25.3	13,860	44.4	55.6
Kilolo	6,729	21.0	4,448	15.4	11,177	60.2	39.8	6,694	21.1	4,770	15.7	11,464	58.4	41.6
Regional Total	31,980	100.0	28,795	100.0	60,775	52.6	47.4	31,735	100.0	30,466	100.0	62,201	51.0	49.0
Percent by Sex	52.6		47.4					51.0		49.0				

Source: Compiled Data from Districts, Education Departments, 2013

Table 5.40a shows that in the year 2012 Iringa Region had 66.1 students per 1000 of the population. This means that for every 1000 people in the Region in 2012, there were 66.1 secondary school students. Iringa Municipal had the largest number of students per 1000 of the population at 91.6 followed by Mufindi District (66.8), Iringa DC (61.6) and Kilolo District had the smallest number of students per 1000 of the population (52.6). Table 5.40a also shows that in the year 2012 there were an average of 417.5 secondary school students per secondary school and 683.5 students per ward in the region. Iringa Municipal had the largest average number of students per school (533.1) and per ward (866.3). Kilolo district had the smallest average number of students per school (318.4) and per ward (521.1)

Table 5.40a: Distribution of Form (I-IV) Students Enrolment per 1000 Population, Secondary School and Wards, by Council, Iringa Region; 2012

Council	Total Population (Based on 2012 Census)	Total Enrolment Form (I-IV) Students	Number of Secondary Schools (Public and Private)	Number of Wards	Average Students per 1000 Population.	Average Students per Sec. School	Average Students per Ward
Iringa DC	254,032	15,661	32	25	61.6	489.4	626.4
Mufindi	317,731	21,216	55	28	66.8	385.7	757.7
Iringa Municipal	151,345	13,860	26	16	91.6	533.1	866.3
Kilolo	218,130	11,464	36	22	52.6	318.4	521.1
Regional Total	941,238	62,201	149	91	66.1	417.5	683.5

Source: Compiled Data from Districts, Education Departments, 2013

5.2.5.1.2 Form IV Completion Rate

Table 5.41 shows that there were 13,516 students in 2011 and 11,840 in 2012 who completed Form IV education in public and private secondary schools in the Region. In each year fewer girls than boys completed Form IV education. Girls' students accounted for 47.7 (percent of the students completing) in 2011 and 48.7 (percent of the students completing in 2012). Table 5.41 also shows that the percentage of girls who completed Form IV increased from 47.7 percent in 2011 to 48.7 percent in 2012. Consequently, the percentage of boys completing decreased from 52.3 percent in 2011 to 51.3 percent in 2012. Mufindi had the largest number of students who completed form IV at 4,051 in 2011 and 4,571 in 2012. Kilolo had the smallest number at 3,019 students in 2011 while in 2012 there no records for students who completed Form IV in this District (Table 5.41).

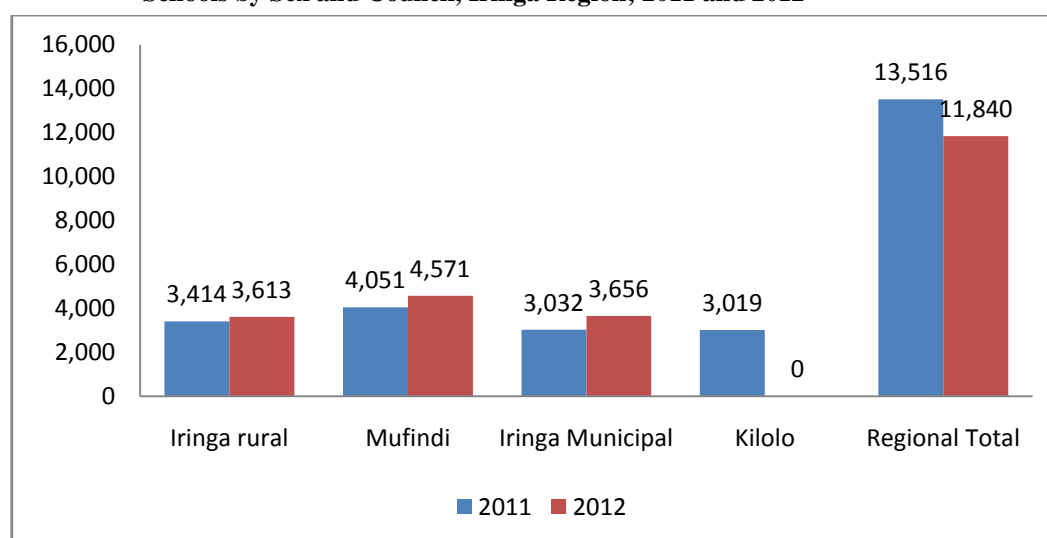
Table 5. 41 : Students Completed Form IV in Public and Private Secondary Schools by Sex, Iringa Region; 2011 and 2012

Council	2011							2012						
	Boys		Girls		Total Boys and Girls	Proportion (%)		Boys		Girls		Total Boys and Girls	Proportion (%)	
	Number	Percent share	Number	Percent share		Boys	Girls	Number	Percent	Number	Percent		Boys	Girls
Iringa DC	1,877	26.5	1,537	23.9	3,414	55.0	45.0	1,968	32.4	1,645	28.5	3,613	54.5	45.5
Mufindi	2,227	31.5	1,824	28.3	4,051	55.0	45.0	2,438	40.1	2,133	37.0	4,571	53.3	46.7
Iringa Municipal	1,439	20.3	1,593	24.7	3,032	47.5	52.5	1,672	27.5	1,984	34.4	3,656	45.7	54.3
Kilolo	1,530	21.6	1,489	23.1	3,019	50.7	49.3	na	na	na	na	na	na	na
Regional Total	7,073	100.0	6,443	100.0	13,516	52.3	47.7	6,078	100.0	5,762	100.0	11,840	51.3	48.7
Percent by Sex	52.3		47.7	100				51.3		48.7	100			

na: means not available

Source: Compiled Data from Districts, Education Departments, 2013

Figure 39: Number of students Completed Form IV in Public and Private Secondary Schools by Sex and Council, Iringa Region; 2011 and 2012



Source: Compiled Data from Districts, Education Departments, 2013

5.2.5.1.3 Form (V-VI) Enrolment

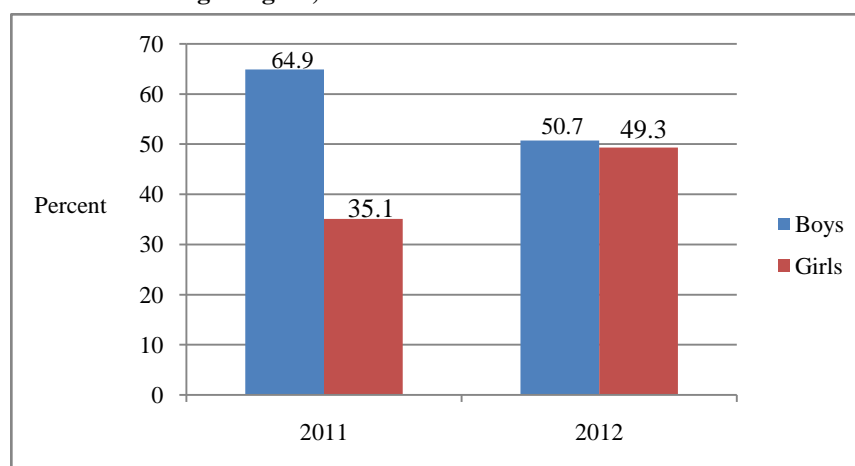
Performance of education at high school level was good in terms of quality of students who enrolled in high school education. Table 5.41 shows that the students who enrolled into high school education increased by 10.3 percent (304 students) from 2,964 in 2011 to 3,268 in 2012. There was a bigger difference between boys and girls enrollment in 2011 than in 2012. In 2011, boys accounted for 69.9 percent of the total enrollment while girls accounted for 35.1 percent. In 2012 about the same number of boys (1,657, 50.7 percent) and girls (1,611, 49.3 percent) were enrolled. Comparison of enrolment for students of the same sex, table 5.41 reveals that number of girls enrolled in high school increased tremendously from 1,039 in 2011 to 1,611 in 2012 which is an increase of 55 percent. In the regard to boys, enrolment dropped (13.9 percent) from 1,925 in 2011 to 1,657 in 2012. At district level, in both years Iringa DC had the largest number of students enrolled in high school while Kilolo District had the smallest number (Table 5.42).

Table 5. 42: Total Form (V-VI) Enrolment in Public Secondary Schools by Sex and Council, Iringa Region; 2011 and 2012

Council	2011							2012						
	Boys		Girls		Total Boys and Girls	Proportion (%)		Boys		Girls		Total Boys and Girls	Proportion (%)	
	Number	Percent	Number	Percent		Boys	Girls	Number	Percent	Number	Percent		Boys	Girls
Iringa DC	975	50.6	405	39.0	1380	70.7	29.3	763	46.0	789	49.0	1552	49.2	50.8
Mufindi	599	31.1	118	11.4	717	83.5	16.5	414	25.0	92	5.7	506	81.8	18.2
Iringa Municipal	173	9.0	430	41.4	603	28.7	71.3	257	15.5	676	42.0	933	27.5	72.5
Kilolo	178	9.2	86	8.3	264	67.4	32.6	223	13.5	54	3.4	277	80.5	19.5
Regional Total	1925	100.0	1039	100.0	2964	64.9	35.1	1657	100.0	1611	100.0	3268	50.7	49.3
Percent by Sex	64.9		35.1	100				50.7		49.3	100			

Source: Compiled Data from Districts, Education Departments, 2013

Figure 40: Percentage of Form (V-VI) Students Enrolled in Public Secondary Schools, Iringa Region; 2011 and 2012



Source: Compiled Data from Districts, Education Departments, 2013

5.2.5.1.4 Form VI Completion Rate

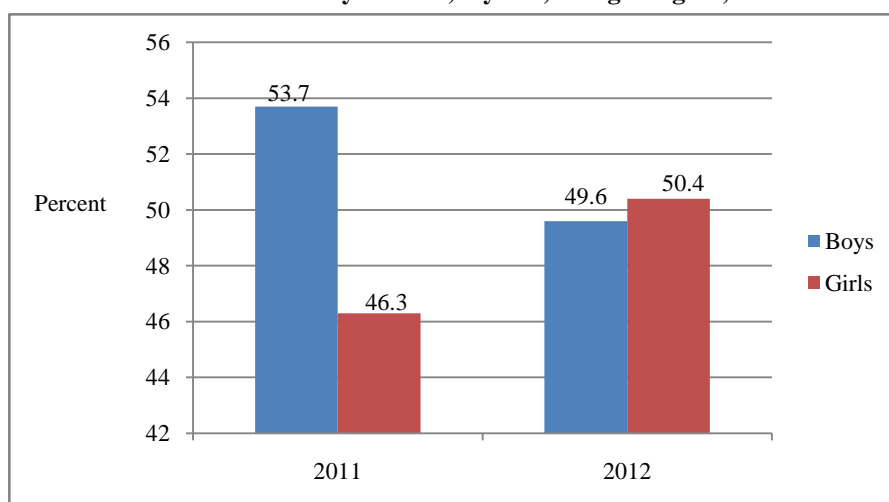
Table 5.43 shows the number of students who completed high school education by sex in Iringa Region. Number of students who completed high school in 2012 went up by 534 students (21.8 percent) compared to those of year 2011. The number of girls who completed high school studies increase by 32.7 percent from 1,134 in 2011 to 1,505 in 2012. Likewise, in 2012 boys who graduated from high school studies had increased by 12.4 percent from 1,317 of 2011 to 1,480 in 2012. As compared to 2011, Iringa DC had the biggest increase in the number of high school graduates in 2012. They increased by 573 students or 52.3 percent increase from 1,096 in 2011 to 1,669 in 2012. It was followed by Mufindi District (53 students, 10.5 percent increase) and Kilolo District (39 students, 25.7 percent increase). In Iringa Municipal the number of high school graduates decreased by 131 students in 2012 (18.7 percent decrease) from 699 students in 2011 to 568 in 2012.

Table 5.43: Number of Students, Who Completed High Level Education in Public Secondary Schools by Sex and by Council, Iringa Region; 2011 and 2012

Council	2011							2012						
	Boys		Girls		Total Boys and Girls	Percent to the Total Enrolment		Boys		Girls		Total Boys and Girls	Percent to the Toatal Enrolment	
	Number	Percent share	Number	Percent share		Boys	Girls	Number	Percent share	Number	Percent share		Boys	Girls
Iringa DC	721	54.7	375	33.1	1096	65.8	34.2	813	54.9	856	56.9	1669	48.7	51.3
Mufindi	350	26.6	154	13.6	504	69.4	30.6	357	24.1	200	13.3	557	64.1	35.9
Iringa Municipal	154	11.7	545	48.1	699	22.0	78.0	200	13.5	368	24.5	568	35.2	64.8
Kilolo	92	7.0	60	5.3	152	60.5	39.5	110	7.4	81	5.4	191	57.6	42.4
Regional Total	1317	100.0	1134	100.0	2451	53.7	46.3	1480	100.0	1505	100.0	2985	49.6	50.4
Percent by Sex	53.7		46.3	100				49.6		50.4	100			

Source: Compiled Data from Districts, Education Departments, 2013

Figure 41 : Percentage of Form VI Students who Completed High Level Education in Public Secondary Schools, by Sex, Iringa Region; 2011 and 2012



Source: Compiled Data from Districts, Education Departments, 2013

5.2.5.2 Quantity and State of School Facilities

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

(i) Teachers

Expansion of secondary education should always go hand in hand with the increase in the number of teachers. By the end of 2012, Iringa Region had a total of 1,787 teachers in public secondary schools distributed among 104 public secondary schools that were available in the Region in that year. The average number of teachers per school was 17 (Table 5.44). Moreover, the best average number of teachers per secondary school was observed in Iringa Municipal with a ratio of 1: 34 while Iringa DC had the smallest average of 1:12.

In 2012 there were 1,787 teachers in public secondary schools in Iringa Region. With requirement at 2,686 teachers there was a deficit of 899 teachers or 33.5

percent. The deficit of teachers among the districts ranged from 48.5 percent in Kilolo District to 6.3 percent in Iringa Municipal. Therefore there was unequal distribution of teachers for public secondary schools among districts with most of them being allocated to urban schools. For the betterment of education in rural areas, the Iringa Regional Authority institutes a fair distribution of teachers among secondary schools.

Table 5. 44: Distribution of Teachers among Public Secondary Schools, by Council, Iringa Region; 2012

Council	Number of Public Sec. Schools	Required Teachers	Available Teachers	Average number of Available Teachers per school	Deficit of Teachers	Percent of Deficit of Teachers
Iringa DC	28	617	346	1:12	271	43.9
Mufindi	41	955	667	1:16	288	30.2
Iringa Municipal	13	475	445	1:34	30	6.3
Kilolo	22	639	329	1:15	310	48.5
Regional Total	104	2686	1787	1:17	899	33.5

Source: Compiled Data from Districts, Education Departments, 2013

(ii) Teachers' Houses

Teachers' houses are important to teachers' welfare, school security and general efficiency of school services through teachers being on site. Table 5.45, shows that in 2012, there were only 340 teachers houses leaving a substantial deficit of 1,697 or 83.3 percent to the required 2,037 houses. All districts had large deficits ranging from 73.6 percent for Iringa DC to 93.5 percent for Kilolo District. Mufindi had the largest deficit of 600 houses represented 35.4 percent of the regional deficit of 1,697 houses. The Regional Authority should recognize the importance of teachers' houses as an incentive for teacher retention and promotion of effective teaching. Therefore, efforts to improve performance of education system in the region, apart from focusing on employing more teachers, should also focus on building more teachers' houses.

Table 5. 45: Availability of Teachers Houses in Public Secondary Schools, by Council, Iringa Region; 2012

Council	Required Houses	Available Houses	Teachers Available	Deficit of Houses	Percent to the Required Houses	Percent to the Regional Houses' Deficit
Iringa DC	530	140	346	390	73.6	23.0
Mufindi	749	149	667	600	80.1	35.4
Iringa Municipal	340	24	445	316	92.9	18.6
Kilolo	418	27	329	391	93.5	23.0
Regional Total	2037	340	1787	1697	83.3	100.0

Source: Compiled Data from Districts, Education Departments, 2013

(iii) Classrooms

Classrooms are a key requirement for the development of education. In the year 2012 Iringa Region had a deficit of 283 classrooms or 16.1 percent of its requirements. Of the districts, Kilolo had most of the deficit at 100 classrooms or 29.9percent of its requirements. Even Iringa Municipal with the least deficit (6.7 percent) had a gap to fill in terms of new classrooms. It required 17 additional classrooms in 2012 (Table 5.46).

Table 5.46: Availability of Classrooms in Public Secondary Schools, by Council, Iringa Region; 2012

Council	Number of Public Secondary schools	Required	Available	Average Classroom per school	Deficit of Classrooms		Percent to the Regional Classroom Deficit
					Number	Percent	
Iringa DC	28	489	411	14.7	78	16.0	27.6
Mufindi	41	680	592	14.4	88	12.9	31.1
Iringa Municipal	13	254	237	18.2	17	6.7	6.0
Kilolo	22	335	235	10.7	100	29.9	35.3
Regional Total	104	1758	1475	14.2	283	16.1	100.0

Source: Compiled Data from Districts, Education Departments, 2013

(iv) Toilets

The deficit of toilet holes in the Region was 960 for the year 2012. Iringa Municipal had the least deficit at 172 holes while on the other hand, Iringa DC had the largest deficit of 326 toilets holes. The 104 public secondary schools that were available in the Region in 2012 had an average of 20 toilet holes per school. Secondary schools in Iringa DC and Iringa Municipal had the largest average number of toilet holes per school of 23 each while Kilolo had the smallest average number of 14 toilet holes per school (Table 5.47).

Table 5. 47 : Availability of Toilet holes in Public Secondary Schools, by Council, Iringa Region; 2012

Council	Number of Public Secondary schools	Required Toilet holes	Available Toilet holes	Average number of Toilet holes per School	Deficit of Toilet holes		Percent to the Regionals' Toilet holes Deficit
					Number	Percent	
Iringa DC	28	956	630	23	326	34.1	30.2
Mufindi	41	1087	846	21	241	22.2	40.6
Iringa Municipal	13	469	297	23	172	36.7	14.3
Kilolo	22	532	311	14	221	41.5	14.9
Regional Total	104	3044	2084	20	960	31.5	100.0

Source: Compiled Data from Districts, Education Departments, 2013

(v) Dormitories

The availability of dormitories help students solve the problem of walking long distances to school, give students more time for self study, reduces truancy as well as help to reduce girls students drop outs due to pregnancies. Table 5.48, shows that in 2002 a total of 355 dormitories were required out of which 141 were available. This left a deficit of 60.3 percent or 214 dormitories. The most desperate district in this regard was Kilolo whose deficit stood at 76.2 percent.

Secondary schools in Iringa Municipal were in better position in terms of dormitories availability as they had the least percentage deficit of 6.2 percent.

Table 5. 48: Availability of Dormitories/Hostels in Public Secondary Schools, by Council; Iringa Region; 2012

Council	Number of Public Secondary schools	Required Dormitories	Available Dormitories	Deficit of Dormitories		Percent to the Regionals' Dormitories Deficit
				Number	Percent	
Iringa DC	28	135	62	73	54.1	34.1
Mufindi	41	103	40	63	61.2	29.4
Iringa Municipal	13	16	15	1	6.2	0.5
Kilolo	22	101	24	77	76.2	36.0
Regional Total	104	355	141	214	60.3	100.0

Source: Compiled Data from Districts, Education Departments, 2013

(vi) 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 5.49 shows that out of 104 public secondary schools, 14 had library each in 2012. This left 90 schools without libraries and therefore, an equal number of new libraries to cater for the shortage of 86.5 percent. The situation was worst in Kilolo District where no school had a library.. Iringa municipal had the least deficit of 10 libraries or 76.9 percent deficit against its requirements.

Table 5.49: Availability of Libraries in Public Secondary Schools by Council, Iringa Region; 2012

Council	Number of Public Secondary schools	Required Libraries	Available Libraries	Average number of Libraries per School	Deficit of Libraries		Percent to the Regionals' Libraries Deficit
					Number	Percent	
Iringa DC	28	28	4	0.14	24	85.7	26.7
Mufindi	41	41	7	0.17	34	82.9	37.8
Iringa Municipal	13	13	3	0.23	10	76.9	11.1
Kilolo	22	22	0	0	22	100.0	24.4
Regional Total	104	104	14	0.13	90	86.5	100

Source: Compiled Data from Districts, Education Departments, 2013

(vii) Desks

The deficit of desks in the region was 670 for the year 2012. According to Table 5.49, Iringa DC had the most deficits at 2,058 desks or 10.8 percent deficit to its requirements of 19,063 desks. Next was Kilolo District with a deficit of 753 desks. On the other hand Mufindi and Iringa Municipal had no desks shortages in the year 2012. In regard to availability of desks per school, Table 5.50 shows that Iringa Municipal had the largest average number of desks per school of 807.3, followed by Iringa DC (607.3), Mufindi (544.8) and Kilolo district had the smallest average number of desks per school of 455.2.

Table 5. 50: Availability of Desks/Tables in Public Secondary Schools by Council, Iringa Region; 2012

Council	Number of Public Secondary schools	Required Desks	Available Desks	Average number of Desks per School	Deficit of Desks	
					Number	Percent
Iringa DC	28	19,063	17,005	607.3	2,058	10.8
Mufindi	41	20,463	22,337	544.8	-1874	-9.2
Iringa Municipal	13	10,228	10,495	807.3	-267	-2.6
Kilolo	22	10,768	10,015	455.2	753	7.0
Regional Total	104	60,522	59,852	575.5	670	1.1

Source: Compiled Data from Districts, Education Departments, 2013

(viii) Laboratories

A laboratory is a necessary facility for students majoring in science subjects. The standard set by the government is that each secondary school in a country should have at least three laboratories for physics, chemistry and biology subjects. With reference to Table 5.51, in 2012 a total of 401 laboratories were required out of which 71 were available. This left a deficit of 82.3 percent or 330 laboratories. The most desperate council in this regard was Iringa DC with a laboratory deficit of 137 (79.2 percent of its requirements). Next was Mufindi (113, 91.9 percent), Kilolo (55, 83.3 percent). Iringa Municipal had the smallest laboratory deficit at 25 (64.1 percent deficit). In terms of average number of laboratories per school, the Region had a ratio of 0.7 laboratories per school. Iringa DC District had the best ratio of 1.3 while the worst ratio of 0.2 was observed in Mufindi District.

Table 5. 51: Availability of Laboratories in Public Secondary Schools by Council, Iringa Region; 2012

Council	Number of Public Secondary schools	Required Laboratories	Available Laboratories	Average number of Laboratories per School	Deficit of Laboratories	
					Number	Percent
Iringa DC	28	173	36	1.3	137	79.2
Mufindi	41	123	10	0.2	113	91.9
Iringa Municipal	13	39	14	1.1	25	64.1
Kilolo	22	66	11	0.5	55	83.3
Regional Total	104	401	71	0.7	330	82.3

Source: Compiled Data from Districts, Education Departments, 2013

5.2.6 Higher Learning Education

Higher education institution means a university, college, campus, or any other autonomous institution that offers a level of academic education and professional training that leads to full academic and or professional

qualifications and competence. Iringa Region is among the few regions in Tanzania that has a numerous number of universities/institutions or colleges. Out of the four districts the in region, Iringa Municipal is the only district which had universities/institutions.

However, the universities/colleges which were available by the year 2012 in the region were Mkwawa University College of Education (MUCE), Iringa University College (IUC), Ruaha University College (RUCO) and Open University. Other institutions are Rungemba Community Development Institute, RETCO Business College, Mafinga Clinical Officer Training Centre, Primary Health Care Institution (PHCI), Kleruu Teachers Training College, Mufindi Teachers College, Miso Teachers College, St. Monica Teachers College and Consolata Teachers Training College

5.2.6.1 Universities

Mkwawa University College of Education

The Mkwawa University College of Education (MUCE) is located in Iringa Municipal in Mkwawa Ward, about 3 kilometres from the town centre. MUCE was established as a constituent college of the University of Dar es Salaam (UDSM) on the 1st of September 2005 by upgrading the former Mkwawa High School, in response to the growing demand for teachers. Mkwawa High School was first established as an ‘O’ level school in 1959 and was called St. Michael and St. George’s School. However, in 1961, when Tanganyika became independent, the plan to establish the Girl’s school was abandoned, and what was in place became a co-education school. In 1964 it became a High School, officiated by the First President of the United Republic of Tanzania, the late Mwalimu Julius K. Nyerere. In 1977 it became a teachers college offering certificate and diploma programmes in teacher education. Again in 1992 it became a High School and operated up to March 2003, when it was upgraded to a constituent college of UDSM, by Order Under section 55 (1) of the University of Dar es Salaam Act No. 12 of 1970 and published on 22nd July 2005 on Government Notice No. 2003.

Iringa University College

Iringa University College of Tumaini University is an institution of higher learning organized under the Evangelical Lutheran Church of Tanzania. It is also located at the town centre of Iringa municipal. The college is dedicated to develop dynamic and entrepreneurial leaders who will engage and realize their full potential and that of their community, their country and the world at large. Iringa University College was established in 1994. It is providing a combination of liberal arts, education, specific technical training and practical experience. The University offers students a healthy balance between social and academic activities including lectures, discussions, research, paper writing and presentations, internships and placements, public lectures by renowned speakers, social welfare, cultural and sporting activities. Iringa University College has the status of full accreditation by the Higher Education Accreditation Council (HEAC). It has established five faculties and one institute offering first and higher degrees, diplomas and certificates. Keen to develop an international orientation as well, the university maintains cooperative links with a number of institutions outside the country. Currently they include the universities of the Evangelical Lutheran Church of America (ELCA), the University of Joensuu in Finland, the Maastricht School of Management and the University of Amsterdam in the Netherlands. Faculty from these institutions come and serve as visiting lecturers/ professors to reinforce our 100 strong full-time faculty and several part time lecturers from sister universities in the country. Current enrolment is 3,000 and to date about 1,500 students have graduated and are the nation in various capacities while some have proceeded to undertake postgraduate studies.

Ruaha University College (RUCO)

Ruaha University College (RUCO) in Iringa Municipal is a private and secular institution of higher learning that is open to all regardless of their faith or religious affiliation. It was established by the Tanzania Episcopal Conference (TEC) under its Trust Deed of the Registered Trustees of Ruaha University College who are the trustees of SAUT, through the generous support of well wishers (friends of RUCO) within and outside the country. The College is governed and administered in accordance with the Catholic Church Policy on Higher Education Institutions – Ex Corde Ecclesia and the provisions of the constitution establishing a constituent college of the St. Augustine University of Tanzania (SAUT).

The Open University of Tanzania, Iringa Branch

Is another university found in Iringa Municipal. The Open University of Tanzania offers certificates, diplomas, degrees and postgraduate courses. At the moment the Open University of Tanzania consists of the following Faculties, Institutes and Directorates: Arts and Social Sciences, Education, Science, Technology and Environmental Studies, Law, Business Management Institute of Continuing Education, Institute of Educational Technology. The Open University of Tanzania conducts its operations through Regional Centres and Study Centres. Currently there are 25 Regional Centres and 69 Study Centres. At each regional centre there are study centres to service distance study students. Within each region several institutions with adequate facilities have been identified to serve as study centre. For example Secondary schools, Colleges and Institutes. Study centres serve as general points for project work, interaction with other students, attending seminars and tutorials, practical work and demonstrations and for using reference materials.

Table 5.52 highlights the number of students enrolled into public and private colleges situated at Iringa Region. In the academic years of 2011/12 and 2012/13, more male than female students were admitted in universities and colleges found in Iringa Region. In the academic year 2011/12 male students accounted for (59.4 percent of the students) against 40.6 percent for females. Similar in 2012/13 academic year, male were 59 percent and female were 41 percent with 42.4 percent of all the region's higher learning students in academic year 2012/13, Iringa University College had the largest share. It was followed by RUCO (37.4 percent), MUCE (15.9 percent) and Open University of Tanzania (Iringa Branch) had the smallest proportion of students (4.3 percent).

Table 5.52: Total Number of Students in Public and Private University Colleges and Institutes by Sex, Iringa Region, 2011/12 and 2012/13

Name of Institution	2011/12			2012/13			Percent
	Male	Female	Total	Male	Female	Total	
MUCE	1,297	1,015	2,312	1,609	9,59	1,609	15.9
RUCO	3,032	1,819	4,851	1,520	2,257	3,777	37.4
IUC	2,150	1,635	3,785	2,552	1,733	4,285	42.4
Open University	187	90	277	278	152	430	4.3
Total	6,666	4,559	11,225	5,959	4,142	10,101	100.0
Percent	59.4	40.6	100.0	59.0	41.0	100.0	

Source: Compiled Data from Districts, Education Departments, 2013

5.2.6.2 Colleges and Institutes

Apart from having universities Iringa region is also endowed with a number of other higher learning institutions/colleges (Table 5.53). Number of students in these institutions dropped from 1,193 of 2011 to 670 in 2012. At district level, Mufindi with a total of five institutions was leading in the number of institutions. Iringa Rural District had the smallest number of institutions (one).

Table 5. 53 : Total Number of Students in Other Institutions/Colleges by Sex, Iringa Region, 2011 and 2012

District	Institute/College	2011			2012		
		Male	Female	Total	Male	Female	Total
Iringa Municipal	Kleruu TTC	450	125	575	244	93	337
	Iringa PCHI	25	25	50	27	31	58
Mufindi	Rungemba Community Development Institute	0	480	480	-	-	-
	Mafinga Clinical Officer Training Center	34	17	51	-	-	-
	Consolata Teachers' Training College	25	12	37	43	42	85
	MISO Teachers College	-	-	-	12	9	21
	Mufindi Teachers College	-	-	-	71	31	102
Iringa DC	St. Monica Teachers College	-	-	-	0	67	67
Kilolo	Ilula Focal Development Centre-(FDC)	-	-	-	-	-	-
	Maria Magoreth Agriculture College	-	-	-	-	-	-
Regional Total		534	659	1193	397	273	670
Percent		44.8	55.2	100.0	59.3	40.7	100.0

Source: Compiled Data from Districts, Education Departments, 2013

5.2.6.3 Vocational Education

Vocational training is important in preparing youths for employment or self employment. Training of youths is the remedy for income poverty and also contributes significantly to Iringa regional GDP and Tanzania as a whole. At the end of 2012 there were 21 vocational training centres in the region distributed as follows; Iringa DC, (11) Mufindi (1), Iringa Municipal (3) and Kilolo (6). Since the region has a number of vocational training centres, the remaining challenge

is to increasing number of youths under training youth especially from rural areas. Reducing fees and explaining the importance of vocational educational to rural population would led to more youths undergoing training and eventually being self employed and hence, reducing income poverty.

Table 5. 54 : List of Vocational Public and Private Training Schools/Centres, Iringa Region; 2012

District	List of centres	Skills Taught
Iringa DC	1: Tanangozi 2: Kalenga VTC 3: Masumbo VTC 4: Migoli VTC 5: Isimani VTC 6: Tosamaganga VTC 7: Nyabula VTC 8: Ulete VTC 9: Masumbo VTC 10: Wasa VTC 11: Kitanewa VTC	Carpertry, tailoring, masonry, electricity, computer Motor vehicle mechanics, welding, plumbing, and food production, vocational training.
Mufindi	1:Mafinga Vocational Training Centre	
Iringa Municipal	1: Iringa VETA 2: Don Bosco VTC 3: Mgongo VTC	
Kilolo	1: Maria Goreth VTC 2:FDC-Ilula VTC 3:Kilolo star VTC 4: Ihimbo VTC 5:Nyota ya asubuhi VTC 6:Pomerini VTC	
Regional Total	21	

VTC: Vocational Training Centre

Source: Compiled Data from Districts, Education Departments, 2013

5.2.6.4 Special Education

The issue of disability has of late been gaining 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 5.55 shows that in 2012 there were 220 disabled pupils registered in primary schools in Iringa Region. The majority of them (56.8 percent of the total disabled pupils) were boys.. Girls accounted for the remaining 43.2 percent. Most of disabled pupils registered in primary schools suffered from visual impairment. These were 82 pupils or 37.3 percent of the total disabled pupils registered primary schools in 2012. They were followed by handicap ped pupils (57, 25.9 percent), Intellectual impairment (54 pupils, 24.5 percent) and deaf pupils had the smallest number at 27 (12.3 percent). Iringa DC had the largest number of disabled pupils in primary schools at 105 equivalent to 47.7 percent of the regional total, followed by Mufindi (59 pupils, 26.8 percent) and Kilolo District (56 pupils, 25.5 percent). Iringa Municipal had not yet started special education for disabled pupils, it is therefore necessary for the Regional Authority in collaboration with Iringa Municipal to think of how to introduce such kind of education in primary schools.

Table 5. 55: Number of Pupils Enrolled in Primary schools, by Type of Impairment; Iringa Region; 2012

Type of impairment	Iringa DC			Mufindi			Iringa Municipal			Kilolo			Regional Total	
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Number	Percentage
Visual impairment	15	12	27	11	10	21	-	-	-	21	13	34	82	37.3
Intellectual impairment	9	8	17	20	17	37	-	-	-	-	-	-	54	24.5
Handicap	32	24	56	1	0	1	-	-	-	-	-	-	57	25.9
Deaf	4	1	5	0	0	0	-	-	-	12	10	22	27	12.3
Total	60	45	105	32	27	59	-	-	-	33	23	56	220	100.0
Percent	57.1	42.9	100.0	54.2	45.8	100.0	-	-	-	58.9	41.1	100.0		

Source: Compiled Data from Districts, Education Departments, 2013

5.2.6.5 Adult Education

The socio-economic development of any country depends much on the level of literacy of the population. Literacy is gained through education obtained both formally and informally. Tanzania has since independence (1961) embarked on a programme to eradicate illiteracy by expanding primary and secondary education as well as placing emphasis on the Adult Education Programme. In the 1970s primary schools were earmarked as centres of adult education and Headteachers of such schools were put in charge of the adult education campaign around their schools. In recent years MUKEJA and MEMKWA programmes have been introduced to revive adult education learning in the country.

Table 5.56 shows that in 2011 the region had 219 adult education centers and in 2012 it had 316. The number of adults registered at such centers was 60,539 in 2011 and 60,855 in 2012.. Table 5.56 also shows that in both years Mufindi District had the largest number of centres as well as enrolments. In terms of number of centres and adults enrolment; in 2012 Iringa Municipal had the smallest number of centres (16) and enrolment (746).

Table 5. 56: Number of Adult Education Centers and Enrolments by Council, Iringa Region; 2011 and 2012

District	Number of centres		Total enrolment	
	2011	2012	2011	2012
Iringa DC	38	66	1,758	1,844
Mufindi	92	265	48,293	48,397
Iringa municipal	51	16	666	746
Kilolo	38	35	9,822	9,868
Regional Total	219	316	60,539	60,855

Source: Compiled Data from Districts, Education Departments, 2013

5.2.6.6 Literacy Rate

Literacy is the ability to read and write with an 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. The literacy rates for a population aged 10 years and above in Iringa Region have been increasing. It increased from 31 percent in 1967 census to 54 percent in 1978 census then reached 68.3 percent in 1988 census there after attained the literacy rate of 79.5 percent in 2002 census which was higher than literacy rate of 70.4 for Tanzania Mainland. By attaining the literacy rate of 79.5 percent in 2002, Table 5.57 reveals that Iringa ranked the third in Tanzania mainland in literacy for the population aged 10 years and above. The first and second regions were Dar es Salaam (90.9 percent) and Kilimanjaro (89.5 percent).

Table 5.57: Percentage literate of the Population Aged 10 Years and above by Region, Tanzania Mainland

Region	1967 Census	1978 Census	1988 Census	2002 Census	Rank
Tanzania Mainland	na	na	na	70.4	
Iringa	31	54	68.3	79.5	3
Kilimanjaro	56	74.1	80.8	89.5	2
Dar es Salaam	60	73.3	80.7	90.9	1
Ruvuma	41	66.3	70.5	77	4
Tanga	40	60.6	66	74.6	6
Morogoro	37	58.6	62.8	70.7	9
Mara	35	56.4	63.9	75.3	5
Kagera	40	52.9	59.5	68.3	11
Mtwara	28	51.4	57.1	62.0	14
Dodoma	24	49.5	55.5	64.4	13
Mbeya	29	49.2	61.9	72.0	8
Rukwa	-	48.5	58.6	61.6	15
Lindi	-	48.4	53.8	60.2	16
Singida	24	46.7	57.4	69.5	10
Mwanza	25	44.3	57.3	69.5	10
Coast	26	44	51.1	60.2	
Kigoma	19	43.7	55.1	65.7	12
Arusha	26	41.9	58.1	73.4	7
Tabora	27	40.5	50.5	54.5	18
Shinyanga	16	33.2	48.3	58.5	17

na: means not applicable.

Source: NBS, 1967, 1978, 1988 and 2002 Population and Housing Census Reports

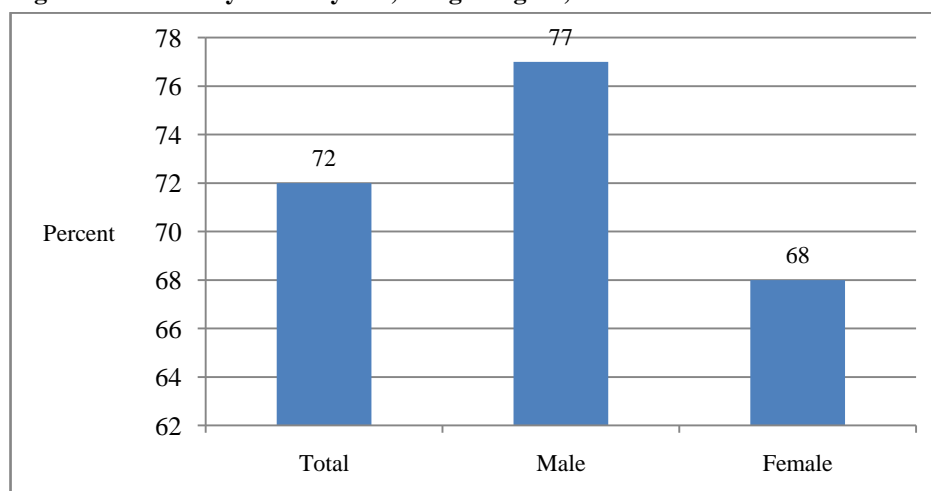
Table 5.57a shows distribution of population by age groups, literacy and sex for Iringa Region according to 2002 population census. From the Table, out of 1,230,608 persons aged five years and above, 889,732 or 72 percent were literate. It is further observed that, among the literates, 50 percent were males and 50 percent females, while literacy rate was higher among males (77 percent) than females (68 percent). However, with the exception of the 5-9, 10-14, and 15-19 age groups, the literacy rate was higher among males than among females for each of the remaining age groups.

Table 5.57 a: Distribution of Population by Age Group, Literacy and Sex, Iringa Region; 2002

Age Group	Population			Literate			Literacy Rates		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
5 – 9	112930	114636	227566	43871	48744	92615	39	43	41
10 – 14	106204	104603	210807	94628	94715	189343	89	91	90
15 – 19	74829	67308	142137	67202	60452	127654	90	90	90
20 – 24	50903	70032	120935	46040	62123	108163	90	89	89
25 – 29	50704	64033	114737	46081	55771	101852	91	87	89
30 – 34	38861	50221	89082	35795	42423	78218	92	84	88
35 – 39	31961	38610	70571	29330	28524	57854	92	74	82
40 – 44	24818	30718	55536	21645	17107	38752	87	56	70
45 – 49	19308	25910	45218	16104	12417	28521	83	48	63
50 – 54	16019	23218	39237	12681	8961	21642	79	39	55
55 – 59	11886	16096	27982	8821	5346	14167	74	33	51
60 – 64	11304	15431	26735	7611	3811	11422	67	25	43
65 – 69	8559	11669	20228	5572	2456	8028	65	21	40
70 – 74	6490	10129	16619	3689	1656	5345	57	16	32
75 – 79	4378	5665	10043	2352	782	3134	54	14	31
80+	5322	7853	13175	2218	804	3022	42	10	23
Total	574476	656132	1230608	443640	446092	889732	77	68	72

Source: 2002 Population and Housing Census, Iringa Regional Profile

Figure 42: Literacy Rates by Sex, Iringa Region; 2002 Census



Source: 2002 Population and Housing Census, Iringa Regional Profile

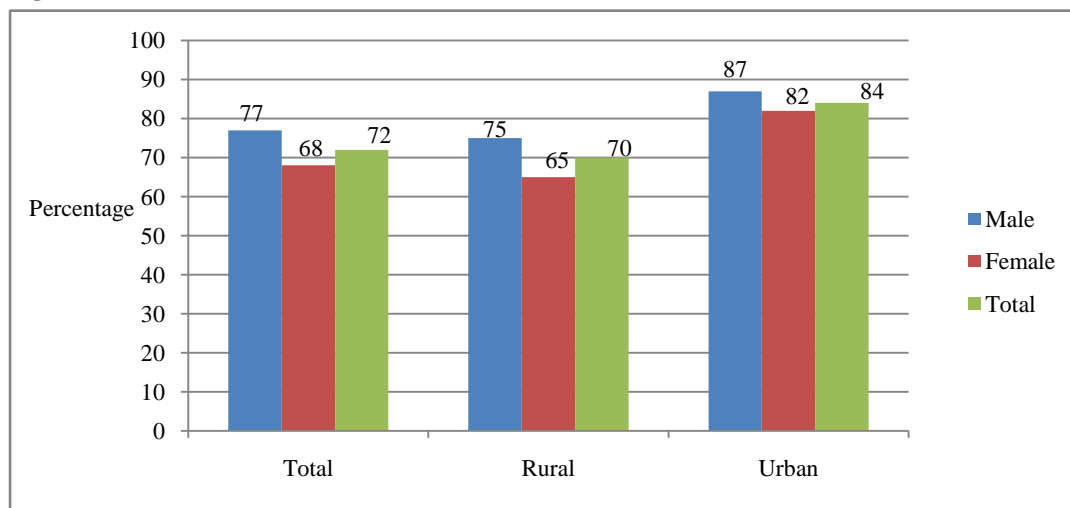
Table 5.57b shows the literacy rate variation among rural and urban population of the Iringa Region observed during the 2002 Population and Housing census. According to the Table, literacy was higher in urban areas (84 percent) than in the rural areas (70 percent). Moreover literacy was highest at 80+ age group (77 percent) followed by 75-79 group (69 percent) and 70-74 groups (68 percent). Apart from 5-9 age group, the illiteracy increased with age (Table 5.57b).

Table 5.57 b : Distribution of Literacy by Age Group, Sex and Location, Iringa Region; 2002

Age Group	Total			Rural			Urban		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
5 – 9	39	43	41	36	40	38	53	57	55
10 – 14	89	91	90	88	90	89	93	92	92
15 – 19	90	90	90	89	88	89	94	94	94
20 – 24	90	89	89	89	87	88	96	95	95
25 – 29	91	87	89	89	85	87	96	94	95
30 – 34	92	84	88	91	83	86	97	92	94
35 – 39	92	74	82	90	71	80	97	86	91
40 – 44	87	56	70	86	52	67	95	75	84
45 – 49	83	48	63	82	45	60	91	68	79
50 – 54	79	39	55	77	36	52	91	59	73
55 – 59	74	33	51	72	31	48	85	51	68
60 – 64	67	25	43	65	23	41	82	41	59
65 – 69	65	21	40	64	19	38	77	38	54
70 – 74	57	16	32	54	15	30	74	30	49
75 – 79	54	14	31	52	13	30	68	26	43
80+	42	10	23	41	9	22	54	18	31
Total	77	68	72	75	65	70	87	82	84

Source: 2002 Population and Housing Census, Iringa Regional Profile

Figure 43: Literacy Rates by Sex and Location, Iringa Region; 2002 Census



Source: 2002 Population and Housing Census, Iringa Regional Profile

5.2.6.7 Policy Implication on Education sector

Although there is recognizable progress in both primary and secondary education, policy intervention need to take place to alleviate the few challenges observed. The Region needs to put more effort in construction of girls' dormitories which will help to prevent or reduce girls' dropout due to pregnancy and also increasing pass rate for girls' pupils/students. In addition to that, for learning improvement in primary schools, the school feeding programme is of paramount importance.

Since both primary and secondary schools in the Region have critical shortage of toilet holes, more toilets should be constructed to satisfy the education policy of one toilet hole for 20 girls and one toilet hole for 24 boys. Likewise, the number of desks in some of primary and secondary schools should be increased to meet education policy of one desk per three pupils in primary schools, and one table and chair per student for secondary school.

Some primary and secondary schools in Iringa Region have no access to clean and safe water. Therefore, initiatives are needed to supply the schools with clean and safe water through tap water or boreholes. Rain water harvest technology can also help to alleviate the water shortages. Moreover, if not all schools, boarding secondary schools should be supplied with electricity to enhance learning environment.

5.2.7 Investment Opportunities in Education

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

5.3 WATER SUPPLY AND SANITATION

Sustainable access to clean and safe water is essential for reducing poverty and reducing health problems. The largest use of water is domestic water supply but due to increase economic activities and delivery of social services of which utilizes water in one way or another, Supply of water has become a burden which the government cannot meet without participation of the private sector. Hence the Government is encouraging private investment in the water sector. Agriculture sample census carried out in 2007/08 reveals that only 39 percent of Iringa residence use piped water. This revelation shows there is a need to increase the coverage and service level of water supply in the region. The water sector contribution to the GDP of Iringa Region has remained to be 0.1 percent for the period of 2006-2008 according to the Iringa Region GDP Report 2008

this contribution is insignificant considering the importance of the sector to the economy.

Access to improved sanitation is also low in Iringa Region as 93 percent of households use traditional pit latrine (Agriculture sample census 2007) which usually does not separate human excrete from human contact.

5.3.1 Urban water supply

Urban areas of Iringa Region cover the whole Municipal area and parts of Mufindi and Kilolo districts. The dominant sources of water for urban areas of Iringa Region are the piped scheme followed by shallow wells though not reliable as springs. The development and maintenance of water and sewage infrastructure in Iringa Municipal is carried out by Iringa Urban Water Supply and Sanitation Authority (IRUWASA) a legal entity that was established to operate on commercial principals. Table 5.58 reveals that in 2012 IRUWASA had 34 water sources capable of supplying water services to Iringa Municipal residents. The dominant water source was piped water (9 sources), followed by boreholes (6) and charco/dams (1). Moreover, spring water and rain water haverst through water tanks are alternative water sources for the residents of Iringa Municipal when there is shortage through piped schemes and borcholes. In urban areas found in the districts the task of water supply is carried out by District Urban Water Supply and Sanitation Authorities (DUWASSAs). In Iringa Region MAUWASSA operates in Mufindi District and KIUWASSA in Kilolo District. Since Iringa DC is a rural district there are no water sources for urban areas. For districts with urban areas, Mufindi had six water sources, Iringa Municipal (18) and Kilolo (10). However, when piped water is in short supply, spring water from 10 sources is the leading alternative water source for urban areas.

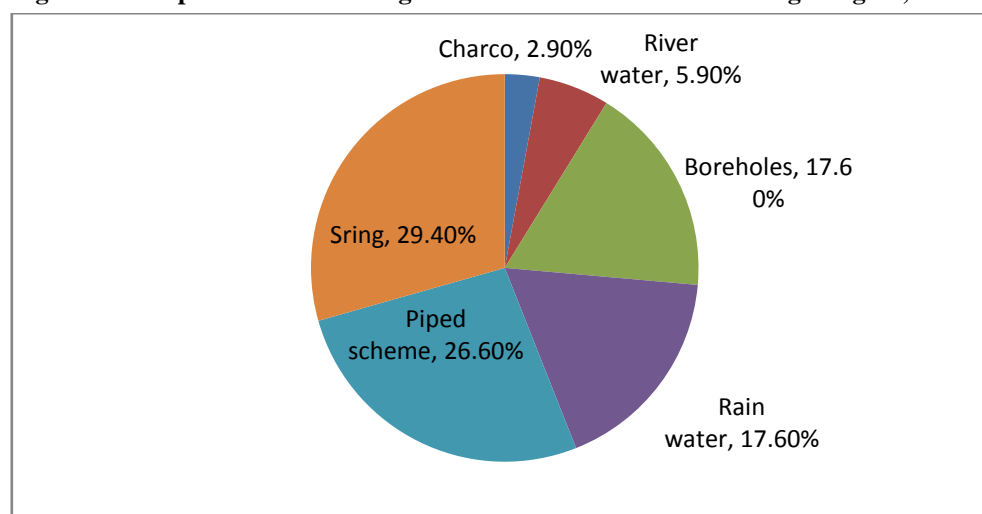
Table 5. 58: Number and Type of Urban Water Source by Council, Iringa Region; 2012

District	Source of Water									Total
	Charco/ Dam	Spring	Shallow Wells	Rain Water	Bore holes	River Water	Lake Water	Dam	Piped water Scheme	
Iringa DC	na	na	na	na	na	na	na	na	na	na
Mufindi	0	1	na	1	1	1	0	0	2	6
Iringa Municipal	1	3	na	5	5	1	0	0	3	18
Kilolo	0	6	na	na	0	0	0	0	4	10
Regional Total	1	10	na	6	6	2	0	0	9	34

na: means not available

Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

Figure 44: Proportion in Percentage of Urban Water Sources in Iringa Region; 2012



Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

Hand pump was the most popular of water delivery technology used in the urban areas of Iringa Region (26 hand pumps) Table (5.59). Electric pump was the second at four (4). The remaining technologies were rarely used. The schemes shown in the Table are the ones that were working. Those which were not working/operating are not shown. Therefore, maintenance of water schemes is necessary to get rid of the problem of non-working schemes that exists in the Region.

Table 5. 59 : Number of Water Schemes by Type of Technology by Council, Iringa Region 2012

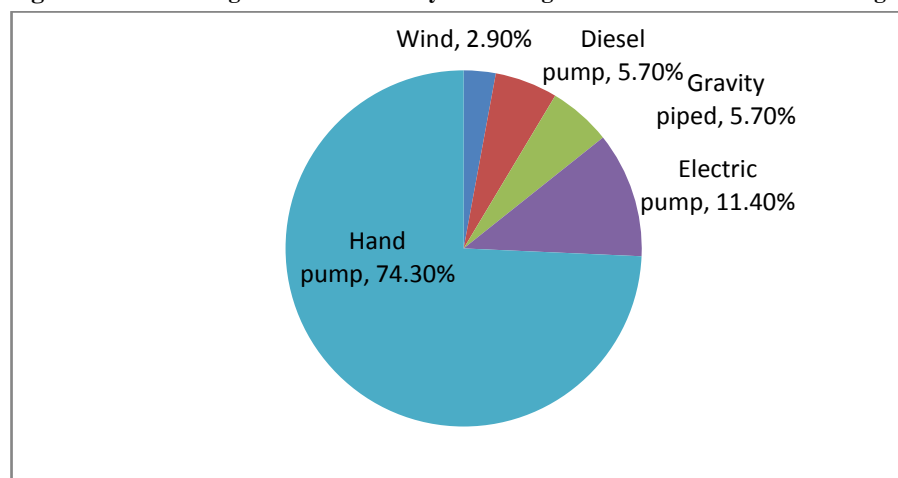
District	Type of Technology					Total
	Wind	Electric Pump	Diesel Pump	Hand Pump	Gravity piped	
Iringa DC	na	na	na	na	na	
Mufindi	0	1	0	14	1	16
Iringa Municipal	1	3	0	3	0	7
Kilolo	0	0	2	9	1	12
Total	1	4	2	26	2	35
Percent	2.9	11.4	5.7	74.3	5.7	100.0

na means not applicable

Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

The percentage of working water delivery technologies is shown in the Figure 45. Despite the availability of electricity in many urban areas, electric pumps are not common water delivery technology. On the other hand, as Figure 45 shows, hand pump is the most popular water delivery technology in urban areas of the region.

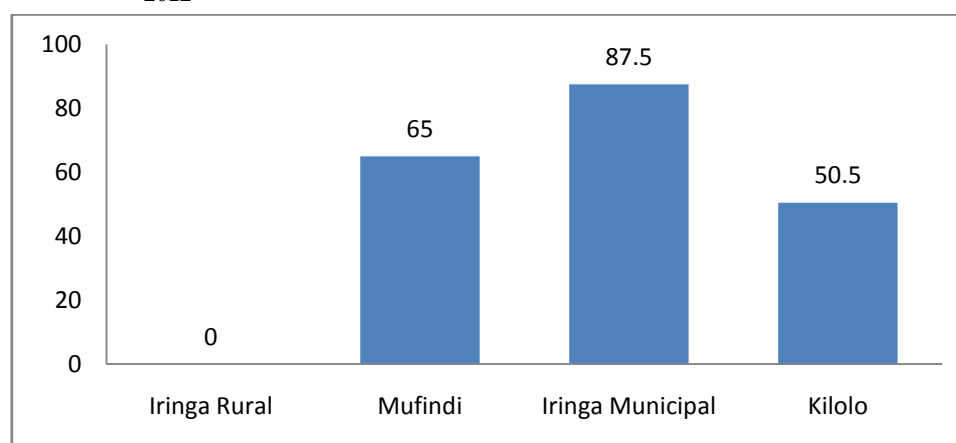
Figure 45 : Percentage of Water Delivery Technologies Used in Urban Areas of Iringa Region; 2012



Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

In 2012, on average, 66 percent of the urban population of Iringa Region was served with clean water. Basing on Figure 46, Iringa Municipal had the highest percentage of population served with clean water (87.5 percent), Mufindi (65 percent), and lastly Kilolo with 50.5 percent. As far as Iringa Rural District Council is a typical rural area, no urban population served with clean water (i.e zero percent).

Figure 46: Percentage of Urban Population Served With Clean Water by Council, Iringa Region; 2012



Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

5.3.2 Rural Water Supply

In rural areas, water supply and sanitation services are operated and owned by communities.

Rivers, shallow wells and springs found in Iringa Region serve as important source of water in the rural parts of the Region. Table 5.60 shows that Iringa Region has a total of 1,075 water sources. Among them, 761 sources (70.8 percent) were operating/working and 314 (29.2 percent) were not working. Working shallow wells were 299 and these are the main water sources in the rural parts of Iringa Region followed by boreholes (171), permanent or working springs (138), rain water harvests through water tanks (43) and piped

scheme each numbered at 43, river water (38) and dams (17). However, of all water sources, charco dams were the least in number (12).

Table 5. 60 : Number and Type of Rural Water Sources by Council, Iringa Region; 2012

Water Sources	Status	Council				Regional Total
		Iringa DC	Mufindi	Iringa Municipal	Kilolo	
Charco Dam	W	11	1	na	0	12
	NW	0	0	na	0	0
	Total	11	1	na	0	12
Spring	W	3	7	na	128	138
	NW	0	36	na	0	36
	Total	3	43	na	128	174
Shallow well	W	0	200	na	97	299
	NW	0	143	na	67	210
	Total	0	343	na	164	509
Rain Water Harvest Tanks	W	0	0	na	43	43
	NW	0	0	na	0	0
	Total	0	0	na	43	43
Bore holes	W	154	14	na	3	171
	NW	39	13	na	7	59
	Total	193	27	na	10	230
River Water	W	15	0	na	23	38
	NW	0	0	na	0	0
	Total	15	0	na	23	38
Lake water	W	0	0	na	0	0
	NW	0	0	na	0	0
	Total	0	0	na	0	0
Dam	W	7	3	na	7	17
	NW	0	0	na	0	0
	Total	7	3	na	7	17
Piped scheme	W	14	8	na	21	43
	NW	0	4	na	5	9
	Total	14	12	na	26	52
Total	W	204	233	na	324	761
	NW	39	196	na	79	314
	Total	243	429	na	403	1075

na: means not available

Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

Different water delivery technologies are used to make sure that there is a fairly sufficient supply of water to the residents of Iringa Region. Table 5.61 shows that out of 761 water delivery technologies which were available in the region in 2012, 66 percent were working and the remaining 255 technologies or 34 percent

were not working. Working hand pumps were 436 (86 percent of all working water delivery technologies) and was the most popular technology used in rural areas of the region. Next was gravity piped (48, 9.5 percent), diesel pump (15, 3 percent) and the least used water delivery technology was the electric pump (7, 1.4 percent). Electric pump was the least used due to lack of electricity in rural areas. On the other hand; wind mill technology was not used at all.

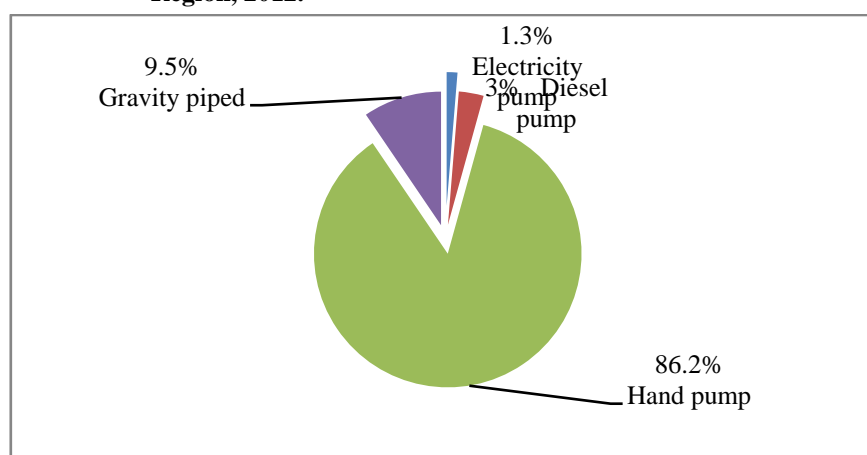
Table 5.61: Number and Type of Technology Used in Rural Water Schemes by Council, Iringa Region; 2012

District	Type of Technology										Total		Grand Total
	Wind Mill		Electric Pump		Diesel Pump		Hand Pump		Gravity Piped				
	W	NW	W	NW	W	NW	W	NW	W	NW	W	NW	
Iringa DC	0	0	1	0	10	0	103	30	14	0	128	30	158
Mufindi	0	0	3	0	1	0	239	151	14	3	257	154	411
Iringa Municipal	na	na	na	na	na	na	na	na	na	na	na	na	na
Kilolo	0	0	3	1	4	3	94	64	20	3	121	71	192
Regional Total	0	0	7	1	15	3	436	245	48	6	506	255	761

na means not applicable

Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

Figure 47: Percentage of Water Delivery Technologies Used in Rural Areas Of Iringa Region, 2012.



Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

Provision of safe drinking water is directly dependent on the source of water used. Data reveals shallow wells were the most used rural water source in the Region. According to Table 5.62, 56.2 percent of the region's rural population in 2012 was served with clean water. Iringa DC was the leading district at 68 percent, followed by Kilolo (57.9 percent) and Mufindi (45.8 percent). Since Iringa Municipal is typical urban, it is not under consideration and no figures are given for the municipality in Table 5.62.

Table 5. 62 :Percentage of Rural Population Served with Clean Water by Council, Iringa Region; 2012

Council	Total Rural Population	Population Served with Clean Water	Percent Population Served with Clean Water
Iringa DC	254,032	172,742	68.0
Mufindi	324,430	148,695	45.8
Iringa Municipal	na	na	na
Kilolo	218,130	126,297	57.9
Total	796,592	447,734	56.2

na: means not applicable

Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

As already mentioned water supply in rural areas is managed by village communities. Once water supply schemes are established, villagers form village water committees whose task is to operate and run the schemes using funds from village water funds (VWFs). One village may have more than one Village Water Committee (VWC) and Village Water Fund (VWF). Villagers also form Water Users Groups (WUGs).

Iringa Region had a total of 130 village water committees with 901 members (Table 5.63). Females were 416 and male members were 485. Total funds

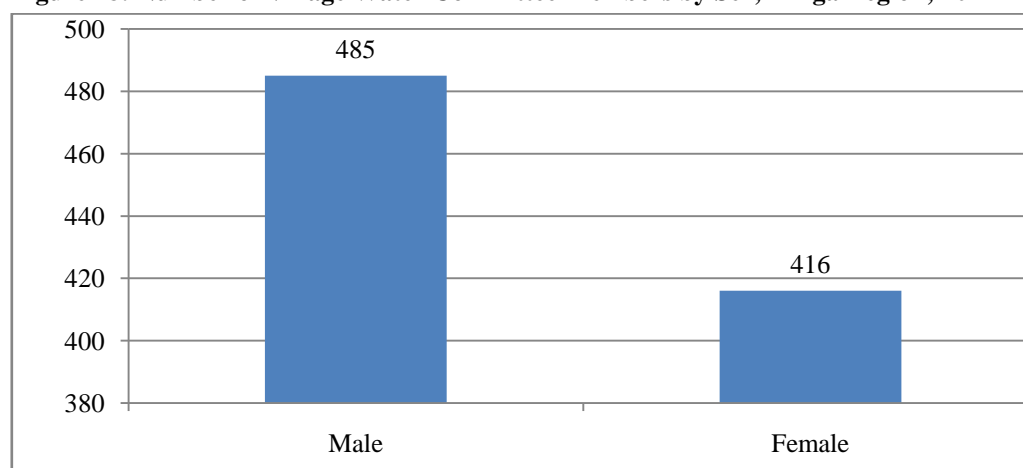
collected by all committees through village water funds were Tshs 103,970,050. By districts, Mufindi had the largest number of water committees (86) also committee mebers (536). Village water committees in Kilolo District collected the largest amount of money at TShs 45,822,180 while Iringa Municipal collected the smallest amount (TShs. 9,270,000).

Table 5. 63: Number of Village Water Committees, Committee members by sex and value of Village Water Funds by District, Iringa Region; as at 31.12 2012

Council	Water Committee	Village Water Committees' Members			Value of VWFs (TShs)
		Male	Female	Total	
Iringa DC	24	110	72	182	32,000,000
Mufindi	86	268	268	536	16,877,870
Iringa Municipal	5	28	15	43	9,270,000
Kilolo	15	79	61	140	45,822,180
Regional Total	130	485	416	901	103,970,050

Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

Figure 48: Number of Village Water Committee Members by Sex, Iringa Region; 2012



Source: Compiled Data from Districts (Water and Sanitation Departments), 2013

5.3.3 Policy Implication on Water Sector

Shallow wells are a dominant source of water for the rural population in Iringa Region. There is a need to put in place policies that will be guiding tools towards improving water sources in rural areas as well as changing rural population from shallow well water source dependence to piped water schemes. However, there is also need of establishing practicable institutional arrangements and mechanisms to ensure sustainability of community managed rural water supplies.

Iringa Region is also facing a problem of poor sewage system which results into big problem of sanitation and hygiene to urban population. To alleviate the problem, Iringa Urban Authorities have to institute rules of guidance of water disposal in households in urban areas with firm follow-up strategies.

5.3.4 Investment Opportunities in Water Supply

The supply of clean tap water is still a major problem in Iringa Region. Therefore, supply of water infrastructure material and equipments like pipes, drilling machines as well as construction of clean/safe water systems is of outmost importance. Supply of boreholes materials such as electric and diesel pumps, drilling machines and pipes is another opportunity for investment. Workshops for repairing and maintenance of electric and diesel pumps and drilling machines and even establishing shops for selling spare parts and even new pumps have a good chance to prosper and also help improve availability of clean water both rural and urban areas of the Region.

CHAPTER SIX

Other Development Issues

6.0 Introduction

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

6.1 Gender Empowerment

Gender empowerment aims at ensuring that all sexes, particularly women, are fully participating in policy and decision-making processes and in all aspects of economic, socio-cultural and political life. Various measures had already been taken to minimize time spent by women and girls in attending to home activities and thus allow more time to be used in the above mentioned activities. These measures include the use of family planning, opening and operating of day care centers, establishment of women economic groups, participation in SACCOs, CBOs and other cooperative activities. These initiatives are also implemented in Iringa Region.

6.1.1 Day Care Centers

Running of day care centers enables mothers to participate in various economic activities which contribute significantly to the socio economic growth of the region. Day care centers are meant for children aged 3 to 4 years. These are the young ones who are not even qualified for pre primary school. In Iringa Region the district with day care centers is only Iringa District. The day care centers are established through community development programmes for purpose of

enabling women to participate fully in economic activities. Unfortunately despite the importance of these day care centers other districts have no day care centers.

Table 6.1 : Number of Day Care Centers and pupils by Council, Iringa Region; 2011 and 2012

Council	2011			2012		
	Centers	Pupils	Percent Share	Centers	Pupils	Percent Share
Iringa DC						
Mufindi	0	0	0	0	0	0
Iringa Urban	na	na	na	na	na	na
Kilolo	0	0	0	0	0	0
Total	61	3180	100	71	4382	100

na means not available

Source: Compiled Data from Districts (Community Development Departments), 2013

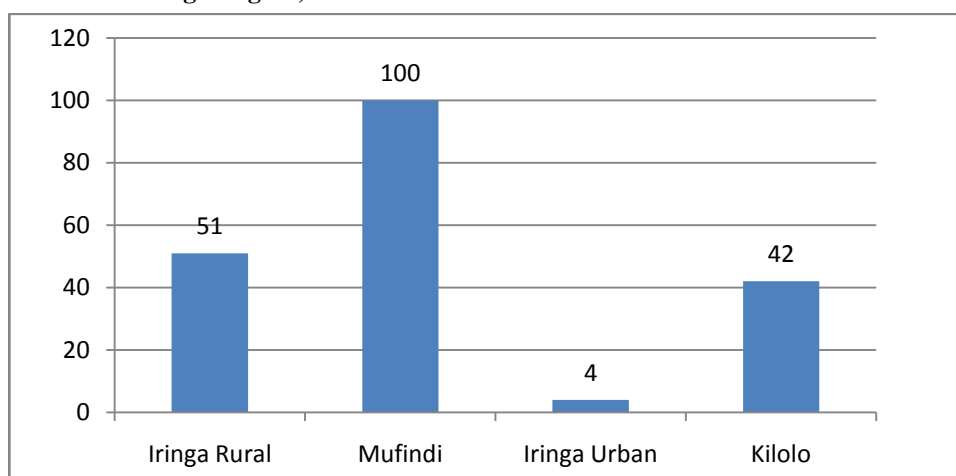
Iringa Region had a total of 71 day care centers in the year 2012, an increase of 10 day care centers from 61 centers in 2011. The number of pupils also increased from 3,180 in 2011 to 4,382 pupils in 2012; therefore women in Iringa DC have the privilege of having places to keep their children when they go to attend different economic activities.

6.1.2 Women Groups

Women in Iringa Region are industrious and a good number of them are engaged in various economic activities. In order to respond to the need of women emancipation in society, women economic groups have been established to cater for womens' emerging needs. These women groups which are engaged in various micro economic activities such as small scale businesses, horticulture, agriculture, poultry keeping, tailoring, sewing, tie and dye, pottery, bakery food and beverages, etc. will increase the growth of district's economy. Table 6.2 and

Figure 49 shows that Iringa Region had 524 distributed in all of its districts. Most economic groups were in Iringa Municipal and Iringa DC, but Mufindi with 74 groups received the largest loan of TShs 78,000,000. This may be due to the good economy of Mufindi District; Iringa DC with a loan of TShs 44,220,000 was second. Figure 49 reveals that all the groups in Mufindi District were assisted with a loan, 51 percent of groups in Iringa DC were assisted, 42 percent for Iringa Region and only 4 percent of Iringa Urban.

Figure 49: Percentage of Women Economic Groups who Received Loans by Council, Iringa Region; 2012



Source: Compiled Data from Districts (Community Development Departments), 2013

Table 6. 2: Women Economic Groups by Council, Iringa Region, 2012

Council	Total no. of Groups	Total Members	No. of Groups Assisted	Total Loaned Tshs	Loan Received per Group	Percent of Groups Assisted
Iringa DC	107	666	55	44,220,000	804000	51
Mufindi	74	653	74	78,000,000	1054054	100
Iringa Urban	295	2481	11	10,800,000	981818	4
Kilolo	48	312	20	9,000,000	450000	42
Iringa Region	524	4,112	160	142,020,000	3,289,872	31

Source: Compiled Data from Districts (Community Development Departments), 2013

Women are encouraged to form groups and they have formed a total of 524 groups in the whole Iringa Region but the assisted groups are as low as 31 percent, therefore the district authorities should encourage women by providing them with skills on how to access loan and conduct group economic activities.

Despite the efforts made by international and local organization together with the government, participation of women in managerial posts in Iringa Region is very disappointing as shown in Table 6.3. The information provided, gives a general indication of women participation in policy and decision – making in the Region.

Women have low percentage of participation in all categories except in professional/technicians (47 percent) of all posts. The participation of women in managerial posts was 12 percent against 88 percent for men. Likewise in political posts women participation was 17 percent against 83 percent for men.

Table 6.3: Participation in Managerial, Political, Professional and Technical Personel by Sex and Council, Iringa Region; 2012

Council	Managerial			Professionals/ Technicians			Politicians (MPs, DC)			Total			
	M	F	T	M	F	T	M	F	T	M	F	T	Percentage
Iringa DC	136	9	145	939	941	1880	760	82	842	1835	1032	2867	25
Mufindi	168	24	192	1572	1373	2945	27	11	39	1768	1407	3175	28
Iringa Urban	36	11	47	1595	1407	3002	183	104	287	1814	1522	3336	29
Kilolo	101	18	119	1076	891	1967	22	10	32	1199	919	2118	18
Total	441	62	503	5182	4612	9794	992	207	1200	6616	4880	11496	100
Percent by Sex	88	12	100	53	47	100	83	17	100	58	42	100	
Percent by Category	4.4			85.2			10.4			100			

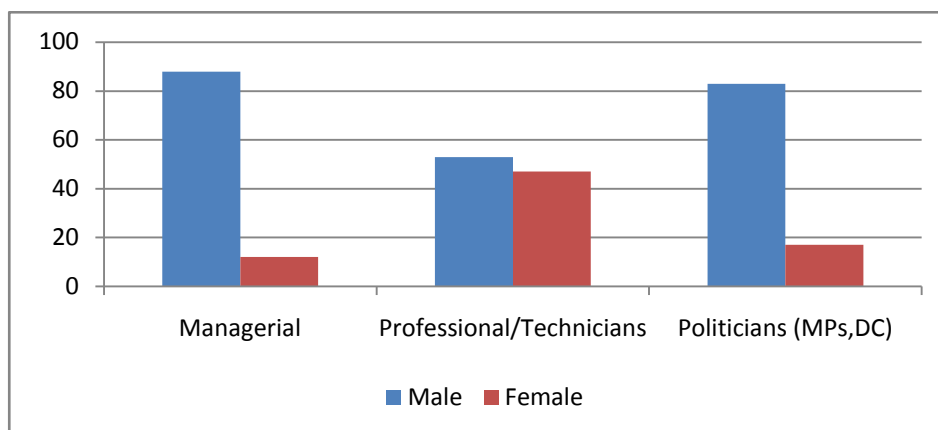
M=Male, F=Female, T=Total, MPs=Member of Parliament, DC=District Commissioner

Source: Compiled Data from Districts (Community Development Departments), 2013

The high participation of women in professional positions illustrates the efforts that are been made by women to acquire decision making positions other than managerial and political posts.

Professional/technicians posts involved a lot of people by accounting for 85.2 percent of all posts, followed by politicians (10.4 percent) and managerial posts (4.4 percent).

Figure 50: Participation in Managerial, Political, Professional and Technical Posts by Sex, Iringa Region, 2012



Source: Compiled Data from Districts (Community Development Departments), 2013

6.2 Youth Economic Groups

Youths in Iringa Region are mainly involved in small scale activities like plumbing, sawmilling and other machinery activities. Employment of youth in these activities has helped to overcome the problem of youth unemployment. However, self-employment even in these sectors needs some preparation and some capital input. Accesses to entrepreneurship skills as well as credit are therefore essential facilitators if these youths are to develop their potential and contribute to the district economy and poverty eradication. Availability of training and credit facilities depend on the formation of mutually beneficial economic groups basically because many youths have no collateral. Youths can be provided with entrepreneurial skills and access to credit through these groups, which provide supervision and guarantee repayment of the loans.

Based on this paradigm of helping youth to generate income for poverty alleviation, youth have initiated and formulated economic groups. At the end of

2012, Iringa Region managed to have youths organize themselves into several groups.

Table 6. 3: Youth Economic Groups and Total Money Loaned by Council, Iringa Region, 2012

Council	Total Number of Registered Groups	Total Members	No. of Groups received Loans in 2011	Total Loaned in 2011 (TShs)	Total Loans of 2011 Recovered as at 31 Dec. 2012	Total Loans not Recovered as at 31 Dec. 2012
Iringa DC	27	139	27	20,000,000	20,000,000	0
Mufindi	18	185	18	18,300,000	2,762,000	15,938,000
Iringa Municipal	n.a	n.a	n.a	n.a	n.a	n.a
Kilolo	9	89	0	0	0	0
Total	54	413	45	38,300,000	22,762,000	15,938,000

na: means not available

Source: Compiled Data from Districts (Community Development Departments), 2013

The potential groups were in Iringa DC (27) and Mufindi (18). Iringa Municipal has youth groups but no data were provided and Kilolo has youth groups but no loans were provided to these groups. The groups in Iringa and Mufindi districts were provided with a total loan of Tsh 38,300,000 of which 22,762,000 (59 percent of the total loan) were recovered.

6.3 Vulnerability

Vulnerability is all about self protection and is reflection of lack of control. In fact, all children and especially younger ones are vulnerable as because of their age they cannot:

- Provide their basic needs.
- Cannot defend themselves against physical assault
- Cannot get away from a dangerous situation
- Cannot even know when a dangerous situation is developing

Children totally depend on others for protection and provision of their basic needs. Increasing physical and mental maturity usually leads to growing capability for self-provisioning, but during the period of childhood and adolescence, children and young people continue to need special care and support. While most children in Tanzania are cared for and protected by their families and communities, many are not so fortunate. Aspects of child vulnerability include:

- Child mortality and malnutrition
- Orphan hood and HIV/AIDS
- Children in household headed by children or household with elderly adults only
- Education and child labour and
- Gendered abuse.

The above aspects were used to identify vulnerable children in Iringa Region. Table 6.4 gives the number of most vulnerable children in Iringa Region by council. Vulnerable children were identified whether they are orphans or non orphans. Out of 28,653 vulnerable children, orphans were 21,388 (74.6 percent) and non-orphans (7,265, 25.4 percent). As the Table shows, 79.4 percent of orphans were in Mufindi and 20.6 percent in Iringa District Council. Data for non-orphans were only available in Iringa District and was at 7,265 children. Most of vulnerable children who were orphans were boys (10,790) and those who were non orphans were girls (3,809).

Table 6. 4: Most Vulnerable Children by Council, Iringa Region; 2012

Council	Orphans				Non Orphans				Total Orphan and non Orphans
	No. of Girls	No. of Boys	Total	Percent	No. of Girls	No. of Boys	Total	Percent	
Iringa DC	2,161	2,235	4,396	20.6	3,809	3,456	7,265	100	11,661
Mufindi	8,437	8,555	16,992	79.4	n.a	n.a	na	na	16,992
Iringa Urban	n.a	n.a	n.a	na	n.a	n.a	n.a	na	na
Kilolo	n.a	n.a	n.a	na	n.a	n.a	n.a	na	na
Total	10,598	10,790	21,388	100	3,809	3,456	7,265	100	28,653

na: means data not available

Source: Compiled Data from Districts (Community Development Departments), 2013

6.4 Savings and Credit Cooperative Societies (SACCOS)

The Government and stakeholders encourage people to create SACCOs to alleviate poverty.

SACCOs are perceived as appropriate and micro financing outlets for rural and poor people because they are simple form of financial institutions suitable for rural communities.

People in Iringa Region have positively responded to the call to form SACCOs. In the year 2012 a total of 114 SACCOs were registered in Iringa Region of which 83 were active, 31 were dormant. The total numbers of members was 28,487 (16,379 males, 12,108 females). A total of TShs 13,839,134,925 was loaned to members for the period January to December 2012, and a total loan of TShs.10,396,559,519 (75 percent) was recovered by the end of the year 2012. This shows that loan recovery is good in the Region, and this may be due to industrious nature of the people in Iringa Region.

Among districts, Kilolo had the highest rate of loan recovery of 86 percent followed by Mufindi with 73 percent, Iringa DC and Iringa Municipal had the least loan recovery of 20 percent each.

Table 6. 5: Active SACCOS by Council, Iringa Region; 2012

Council	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 of Loan Recovered
	Active	Dormant	Male	Female	Total				
Iringa DC	15	11	2588	1842	4,430	225,413	1,678,233	329,910	20
Mufindi	33	7	8,427	7,031	15,458	462,490,926	8,294,634,140	6,030,228,893	73
Iringa Municipal	24	11	2837	2096	4933	307,844,147	631,312,902	127,515,982	20
Kilolo	11	2	2527	1139	3,666	790,289,154	4,911,509,650	4,238,484,734	86
Total	83	31	16379	12108	28487	1560849640	13839134925	10396559519	75

Source: Compiled Data from Districts (Community Development Departments), 2013

6.5 Financial Institutions

A number of financial institutions are operating in Iringa Region. Increase in population from 840,404 persons in 2002 to 941,238 in 2012 increased demand of financial services. On top of that, regional economic growth attributed by increased social and economic activities provided conducive business environment for financial and even non-final banking institutions to operate. However, Table 6.6 shows list of financial institutions operating in the region.

Table 6. 6: List of Financial Institutions, Iringa Region; 2010 – 2012

2010	2011	2012
NMB	NMB	NMB
TPB	TPB	TPB
NBC	NBC	NBC
BACLAYS	BACLAYS	BACLAYS
EXIM	EXIM	EXIM
CRDB	CRDB	CRDB
MUCOBA	MUCOBA	MUCOBA

Source: Compiled Data from Districts (Trade Departments), 2013

6.6 Crime statistics

6.6.1 Introduction

The growth of towns, population increase, the development of science and technology and the increase of crimes are the sources and catalyst to the erosion of morals in the country. The statistics on the rate of crime and the type of offences committed reveal that the erosion of morals within the society has been increasing day by day. Iringa Region like other regions in the country also experiences an increase in crime as well as erosion of morals.

6.6.2 Crime Cases

A total of 11,895 crime cases were reported in Iringa Region, the most common crime was property crime with 98 percent of reported cases, drug crime accounted for 2 percent of the reported cases. There were no violent crime cases reported during the three- year period. Of the total of 664 jailed people, 609 (92 percent) were jailed due to property crimes and 55 people (8 percent) were jailed due to drug crime cases.

Table 6. 7: Total Number of Crimes Reported in Region Police Station and Number of People Jailed, Iringa Region, 2010- 2012.

Year	Total no. of Police in the Region	Number of crimes reported				Number of People Jailed			
		Violent Crimes	Property Crimes	Drug Crimes	Total	Violent Crimes	Property Crimes	Drug Crimes	Total
2010	687	na	3087	86	3173	na	181	19	200
2011	800	na	4669	69	4738	na	181	13	194
2012	887	na	3880	104	3984	na	247	23	270
Total	2374	na	11636	259	11895	na	609	55	664
Percent		na	98	2	100	na	92	8	100

na: means not available

Source: Iringa Regional Police Office

6.6.3 Accidents

Like other regions in Tanzania, Iringa Region is menaced by the number of accidents that involve road users of all categories. According to Iringa Regional Police Office, a total of 1,245 accidents were recorded over the period 2010 – 2012. Most of the reported accidents were due to motor vehicles and motor cycles versus pedestrians (416), followed by motor vehicles versus motor cycles (413) and accidents involving motor vehicles only were at 325. Accidents involving motor cycles only were the lowest in number (91). Of the people involved in accidents, 67 percent died while 33 percent were injured. The highest percentage of death occurred in accidents that involved motor vehicles and motor cycles versus pedestrian.

Table 6. 8 : Number of Accidents Reported in the Regional Police Station and Number of People Injured/ Died by Type of Accident, Iringa Region, 2010-2012.

Accidents						People Injured/ Died										
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	122	146	26	159	453	87	28	101	33	14	20	111	52	313	133	446
2011	98	130	32	119	379	60	70	72	27	15	15	83	48	230	160	390
2012	105	137	33	138	413	76	23	92	37	20	23	103	40	291	123	414
Total	325	413	91	416	1245	223	121	265	97	49	58	297	140	834	416	1250
Percent	26	33	7	33	100	18	10	21	8	4	5	24	11	67	33	

Source: Iringa Regional Police Office

6.6.4 Theft Cases

Number of theft cases reported in the regional police office from 2010 to 2012 was 2,675. Cattle stealing were the most reported theft cases as accounted for 84.7 percent of all cases reported. It was followed by bicycle stealing (10.3 percent), motor cycle (4.3 percent) and motor vehicle stealing (0.6 percent). Bicycle and cattle stealing reported cases accounted for 48.2 percent of all the people jailed. 3.7 percent of the total jailed due to motor cycle stealing. However, no person was jailed due to motor vehicle stealing over the period under consideration (Table 6.9).

Table 6 9 : Number of Theft Cases Reported at the Regional Police Station and Number of People Jailed, Iringa Region 2010-2012

Year	Total no. of Police in the Region	Total number of					Total Number of People Jailed due to Stealing of				
		Motor vehicles stolen	Motor cycles stolen	Bicycles Stolen	Cattle Stolen	Total	Motor vehicles	Motor cycles	Bicycles	Cattle	Total
2010	687	2	29	53	1026	1110	0	2	14	39	55
2011	800	6	25	81	586	698	0	2	28	27	57
2012	887	8	62	142	655	867	0	3	50	26	79
Total	2374	16	116	276	2267	2675	0	7	92	92	191
Percent		0.6	4.3	10.3	84.7	100.0	0	3.7	48.2	48.2	100.0

Source: Iringa Regional Police Office

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Iringa Region



Hon. Dr. Christine G. Ishengoma (MP)
Regional Commissioner

Vision

We strive to become a modern, competent and dedicated technical resource centre in the Region by 2025.

Mission

To link central Government with local Government Authorities, provide Technical support services to Local Government and ensure peace and tranquility within the Region