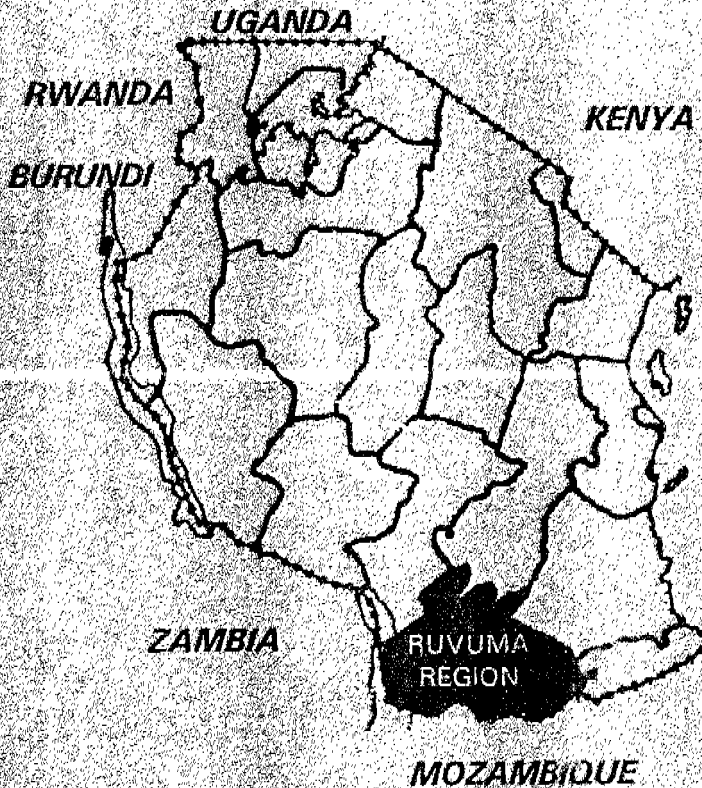




THE UNITED REPUBLIC OF TANZANIA

## RUVUMA REGION SOCIO-ECONOMIC PROFILE



Joint Publication by:  
**THE PLANNING COMMISSION**  
**DAR ES SALAAM**  
and  
**REGIONAL COMMISSIONER'S OFFICE**  
**RUVUMA**

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## **FOREWORD**

1. *As we approach the 21st Century the problems facing rural areas in developing countries like Tanzania are numerous and formidable. Social and Economic services are deteriorating and proving to be unsustainable; school enrollment rates are declining; food situation is precarious; infant and maternal mortality rates continue to be high; unemployment is on the rise triggering off mass migration of youth from the rural areas into already overcrowded urban centres; in Ruvuma Region, for example, land pressure is escalating and deforestation is going on at an alarming rate.*
2. *This situation has arisen because of many factors including ill - prepared rural development programmes and weak monitoring and supervision of the implementation of development programmes and sectoral strategies. The observed shortcomings in the policy formulation, project identification, design, and implementation in the developing countries is in turn attributed to lack of reliable and adequate data and information on the rural development process.*
3. *The publication of Regional Socio-economic Profiles series by the Planning Commission in collaboration with Regional Commissioner's offices should be viewed as a fruitful attempt towards finding solutions to the existing problem of data and information gap.*
4. *The Regional Profile series cover a wide range of data and information on geography, population, social economic parameters, social services, economic infrastructure and productive sectors. The publications so far have proved to be*

*of high demand and a vital source of information to many policy makers, planners, researchers, donors and functional managers.*

*The Planning Commission has found it a worthwhile effort to extend the exercise to cover even more regions. Readers are invited to make suggestions and constructive criticisms which can assist in improving the quality and effectiveness of future Profiles.*

5. *I would like to take this opportunity to acknowledge with thanks once again the financial support of the Royal Norwegian Embassy which facilitated the preparation of the Ruvuma Region Socio-Economic Profile. I would also like to thank both the Planning Commission and Ruvuma Regional Planning Staff who put a lot of effort into ensuring the successful completion of this task.*



*Nassoro W. Malocho (MP)*

**MINISTER OF STATE**

**PLANNING AND PARASTATAL SECTOR REFORM**

*December, 1997*

## **SECTION I**

### **1.0 LAND, PEOPLE AND CLIMATE**

#### **1.1 LOCATION**

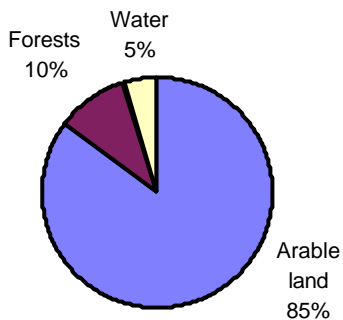
Ruvuma region is situated in the Southern part of the country. The region extends between latitudes  $9^{\circ} 35'$  to  $11^{\circ} 45'$  South of Equator and longitudes  $34^{\circ} 35'$  to  $38^{\circ} 10'$  Meridian. Ruvuma Region borders the Republic of Mozambique in the South, Lake Nyasa in the West and Iringa in the North-North East. It is also bordered by Mtwara Region to the West.

The lowlands in the Eastern part of the region are 300 metres above sea-level while the Northern and Western parts of Lukumburu and Matengo mountains rise to the level of 2,000 metres above sea level.

#### **1.2 AREA AND ADMINISTRATIVE UNITS**

Ruvuma region covers an area of 64,493 sq km. of which 54,839 sq kms are arable land, 6,425 sq kms forests, and 29,79 sq kms consists of water surface. Administratively the region is divided into three 3 rural districts and one Township authority namely:- Mbinga, Songea Rural, Tunduru and Songea Urban. Table I shows land coverage, number of divisions, wards and villages for each district. It is observed in Table I that Songea Rural district with Land area of 33,825 Sq kms, equivalent to 52.4% of the total regional area is the largest district in the region followed by Tunduru district.

**Fig. 1: Land Use Distribution in Ruvuma Region**



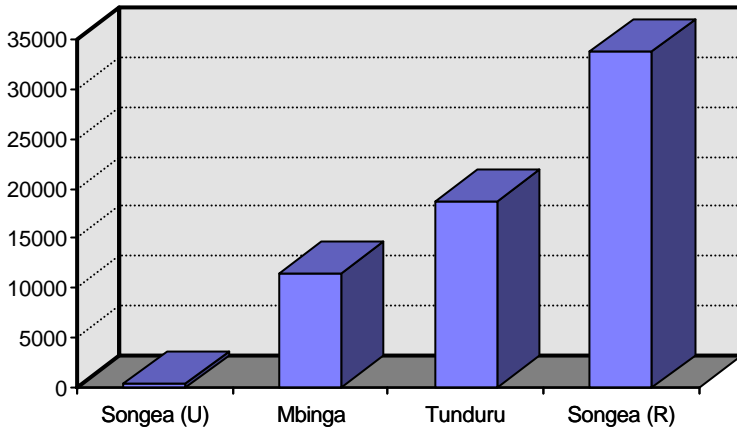
**TABLE I: LAND AREA AND ADMINISTRATIVE UNITS 1996**

District	Total land Area	%	Divisions	Wards	Villages	House holds
Songea (U)	394	0.7%	2	13	165	24,342
Mbinga	11,396	17.8%	6	33	168	61,215
Tunduru	18,778	29.1%	7	24	98	37,686
Songea (R)	33,825	52.4%	7	22	116	106,003
Total	64,493	100%	22	92	547	229,246

Source: Regional Commissioner's Office-Ruvuma



**Fig. 2: Distribution of Area by District (Sq. Kms), Ruvuma Region, 1996**



### **1.3 CLIMATE**

#### **1.3.1 Temperature**

Ruvuma region has a mild temperature averaging 23<sup>0</sup> C. depending on altitude and season. The months of June, July and August are chilly with the temperatures dropping to 13<sup>0</sup> C particularly, within the areas surrounding Matengo Highlands in Mbinga district. October and November are the hottest months with an average temperature of 30<sup>0</sup> C.

#### **1.3.2 Rainfall**

Except for bad years, the region experiences adequate rainfall annually. The rainfall pattern depicts one long season which begins in November and ends in May each year. The rainfall averages between 800 mm and 1800 mm. The quantity of rain varies from one district to another with Mbinga district recording the highest annual average rainfall of 1,225 mm. while Tunduru

district gets the lowest rainfall which is normally less than 900 mm per annum.

### 1.3.3 Humidity

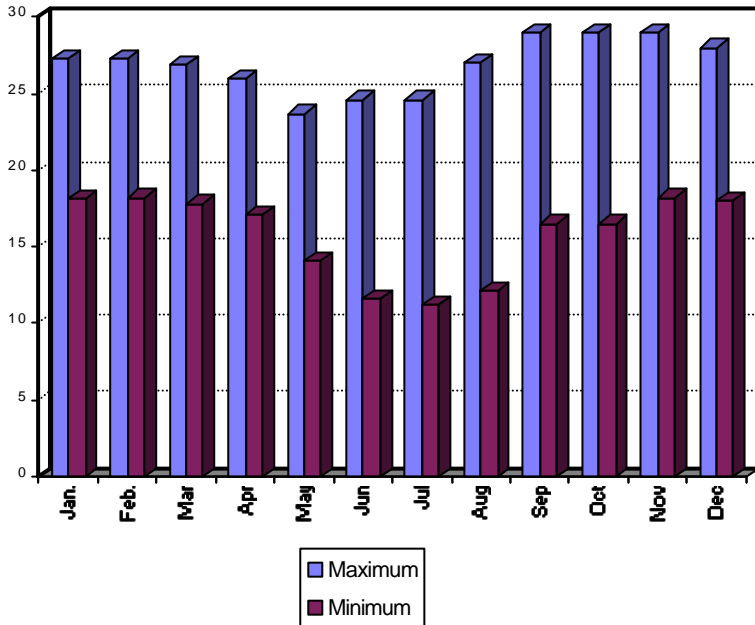
The mean humidity for Ruvuma region is relatively high especially during the morning hours. The humidity is about 88 percent during the day in the months of March while in the evening it may drop down to 37 percent in the month of October as Table II below depicts.

**TABLE II: AVERAGE TEMPERATURE AND RELATIVE HUMIDITY - SONGEA TOWN:**

Month	Climatic Category				Rainfall
	Temperature		Humidity %		
	Maximum m (°C)	Minimum m (°C)	AT 9.00 a.m.	AT 3.00 p.m.	
January	27.3	18.1	86	63	276.5
February	27.3	18.2	87	63	220.3
March	26.9	17.8	88	66	247.9
April	26.0	17.1	87	64	115.7
May	23.7	14.1	83	56	113.7
June	24.6	11.6	78	50	0.7
July	24.6	11.2	76	48	3.4
August	27.0	12.1	71	44	0.4
September	29.0	16.5	68	39	0.9
October	29.0	16.5	67	37	7.8
November	29.0	18.2	70	44	66.9
December	28.0	18.0	82	58	211.5
Average/Total	26.0	15.6	78.6	52.7	1265.7

Source: Met. Department - Songea 1997.

Fig. 3: Average Temperature (Max. (°C) and Min.°C)) by Month, Songea Town



## 1.4 VEGETATION

Vegetation consists of woodland, bushland thicket and grasslands.

The common vegetation in the arable land comprises planted trees, bamboos and shrubs. Miombo woodlands cover greater part of the region which includes some parts of Songea rural district, Tunduru and Mbinga. Areas surrounding Mount Matogoro are covered by planted pines and eucalyptus trees. The typical trees found in the region fall under three species namely, branchstegia, julbernardia and isoberlinia. The woodlands (Miombo) in the near past used to cover large area of Ruvuma region. However, much of the woodlands is currently being depleted through human activities such as firewood, timber, charcoal, tobacco curing and brick making. Consequently, the

area covered by woodlands in the region is now declining. The bushland is found in lower slopes. The occurrences of bushes are a result of forest clearing, shifting cultivation, tobacco curing and tree cutting. The grasslands are generally common in lowlands and plateau due to destructive human activities mentioned above as well as drainage and rainfall effects. The region should thrive to put in place an effective system for controlling wanton tree felling.

## **1.5 DEMOGRAPHIC CHARACTERISTICS**

### **1.5.1 Ethnic Groups**

The main ethnic groups in Ruvuma region are Wamatengo, Wangoni, Wayao, Wanyasa, Wandendeule, Wamakua, Wapoto, Wamanda, Wanindi, Wamatambwe and Wabena. Wamatengo are the main ethnic group in Mbinga district, accounting for over 60 percent of the district total population. The Wanyasa , Wamanda and Wapoto reside along the shores of Lake Nyasa together with a few Wangoni. Wangoni constitutes the major ethnic group in Songea Urban followed by Wandendeule, Wamanda, Wayao, Wamatengo and Wanyasa. Tunduru district has Wayao as the main ethnic group. There are also within them Wamakua, Wandendeule and Wamatambwe. In Songea rural district, Wangoni and Wandendeule residing in Ruvuma and Ndendeule divisions are the predominant ethnic groups. Other minor ethnic groups such as Wayao, Wabena and Wanindi occupy Muhukuru, Sasawala and Madaba divisions.

### **1.5.2 The cultural Aspects**

Traditionally, the regional population is dominated by Wangoni, Wamatengo and Wayao who are basically cultivators.

Subsistence crop cultivation is widely practised. Unlike most regions in the country, livestock keeping is not a common economic activity among various ethnic groups in the region. Shifting cultivation is widely practised in the region particularly in Songea and Tunduru Districts. Wamatengo in Mbinga district do practice advanced cultivation method popularly known as "Ngoro". Maize for a long time has become the major food and cash crop in the region.

### **1.5.3 Settlement pattern**

Like in most other regions in the country settlement pattern was determined by the Villagization Programme launched in 1973/74. Over 90% of the Ruvuma Region's population estimated at 1,055,761 (1997) live in the existing 547 villages. Most of the villages are located along the main roads or in areas which are accessible by road. However, recently there have been a tendency of few people going back to their old settlement. Only about 5-8% of the population reside in the district headquarters, commonly known as "towns" or "trading centres".

### **1.5.4 Population growth and distribution:**

Within Tanzania, Ruvuma is among the regions with small population and population density. The regional population has increased from 395,447 in 1967 to 783,327 in 1988, thus, doubling in two decades. As Table IV indicates the average annual growth rate between 1978 and 1988 was 3.4%. This growth rate is higher than the national average of 2.8%. It is apparent that at this rate of growth, the regional population will double again in two decades. The rapid growth rate of the population in the region could mainly be attributed to natural

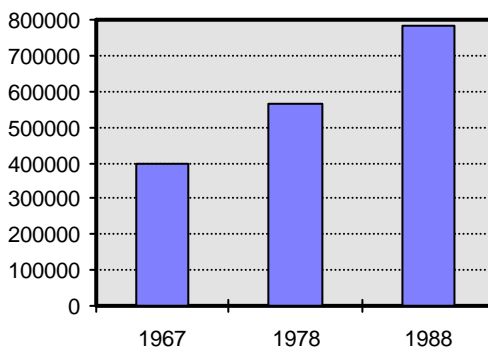
increase. The natural increase, is determined by high fertility rate and decline in death rate. The average household size in the region is 5.3 which is higher than the national average of 5.2 persons per family. The average household size has increased over the years from 4.0 in (1967) to 5.3 in 1988 in line with the increase in fertility rates. The fertility rate decreased from 8.7 (1978) to 7.5 (1988) as Table IV indicates.

**TABLE IV: POPULATION, AVERAGE HOUSEHOLD SIZE, FERTILITY, GROWTH, AND CRUDE DEATH RATES IN RUVUMA REGION**

Year	Population 1988	Average Household size	Fertility Rate	Annual Growth Rate	Crude Death Rate
1967	395,408	4.0	10.1	3.2	22.4
1978	564,113	5.2	8.7	3.2	20.7
1988	783,327	5.3	7.5	3.4	13.5
Mainland Tanzania 1988	23,174,336	5.2	6.7	2.8	14.7

Source: Planning Commission Compiled Data Based on 1967,1978 and 1988 Census Report

**Fig. 4: Population Size for the Past Censuses, Ruvuma Region**



It is observed from Table V that the rate of population growth among the rural districts of Ruvuma region is highest in Songea (3.4%) and lowest in Tunduru (2.3%).

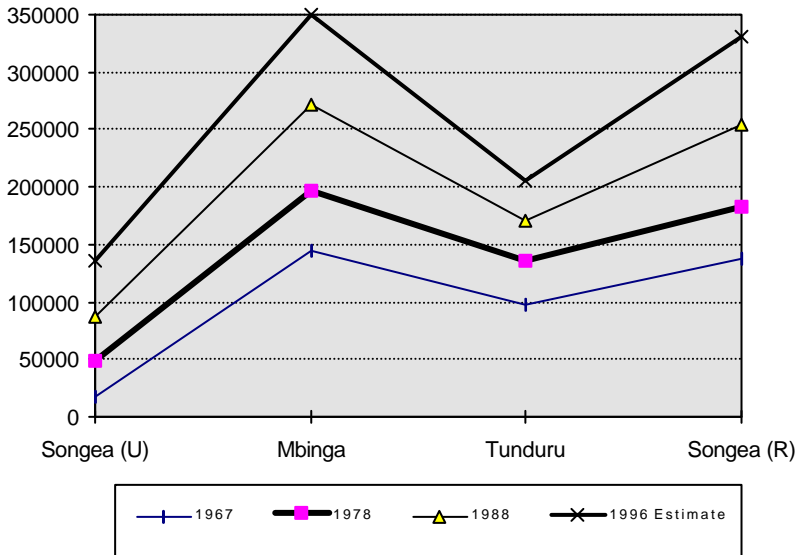


**TABLE V: POPULATION SIZE AND GROWTH 1967-1997**

District	Population				Annual Growth rate	
	1967	1978	1988	1996 Estimate	1967-78	1978-88
Songea (U)	16,611	49,303	86,880	135,581	9.9	5.6
Mbinga	144,059	196,167	271,845	349,582	2.8	3.2
Tunduru	97,555	135,548	170,235	204,721	3.0	2.3
Songea (R)	137,183	183,095	254,367	330,576		3.4
Total	395,408	564,113	783,327	1,020,464	3.2	3.4

Source: Population Census 1967, 1978 and 1988

**Fig. 5: Population Size by District (Population Censuses 1967, 1978 and 1988), Ruvuma Region**





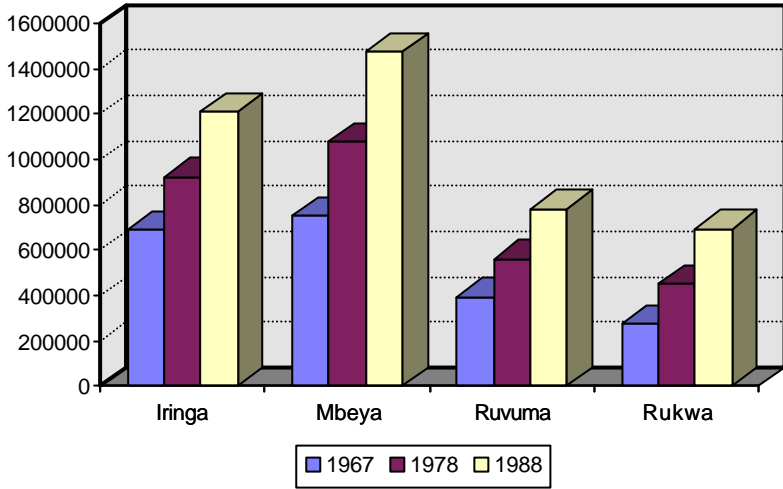
The rapid growth of the population in the region could also be caused by migration. It may be recalled that during the period of Liberation War in 1960's and 1970's the region received substantial number of refugees from Mozambique. There have been also significant number of immigrants from the neighbouring regions.

**TABLE VI: POPULATION AND POPULATION GROWTH RATES FOR IRINGA, MBEYA, RUVUMA AND RUKWA REGIONS**

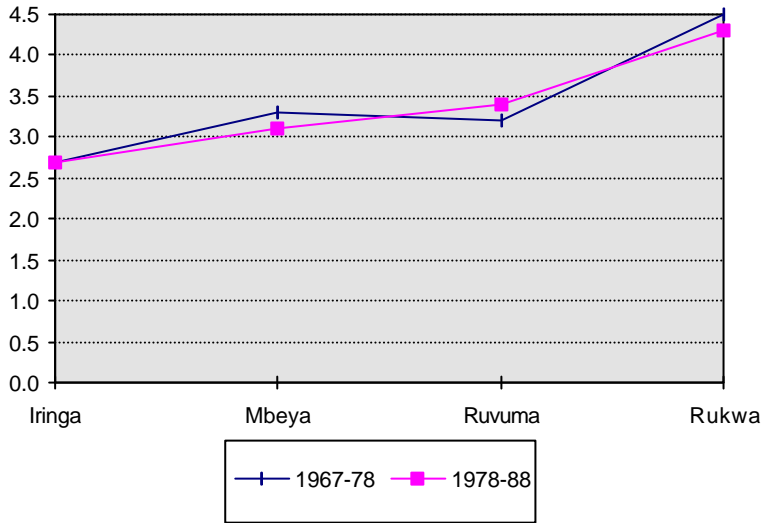
Region	Population Census			Population Growth rates	
	1967	1978	1988	1967-78	1978-88
Iringa	689,905	925,044	1,208,914	2.7	2.7
Mbeya	753,765	1,079,864	1,476,199	3.3	3.1
<b>Ruvuma</b>	<b>395,447</b>	<b>561,575</b>	<b>783,327</b>	<b>3.2</b>	<b>3.4</b>
Rukwa	276,091	451,897	694,974	4.5	4.3

Source: 1988 Population Census (Quoted in Iringa Region Socio-Economic Profile)

**Fig. 6 (a): Population Size for the Selected Regions, Iringa, Mbeya, Ruvuma and Rukwa in the Population Censuses 1967, 1978 and 1988.**



**Fig. 6 (b): Population Growth Rates for the Selected Regions, Iringa, Mbeya, Ruvuma and Rukwa from 1967-78 and 1978-88**



Compared with other three regions, Ruvuma had the highest population growth rate after Rukwa, (1978 and 1988 Population Census results). However, Rukwa with the highest population growth rate had the smallest population in all three census results (Iringa Region Socio-Economic Profile).

### **1.5.5 Population Distribution by Sex:**

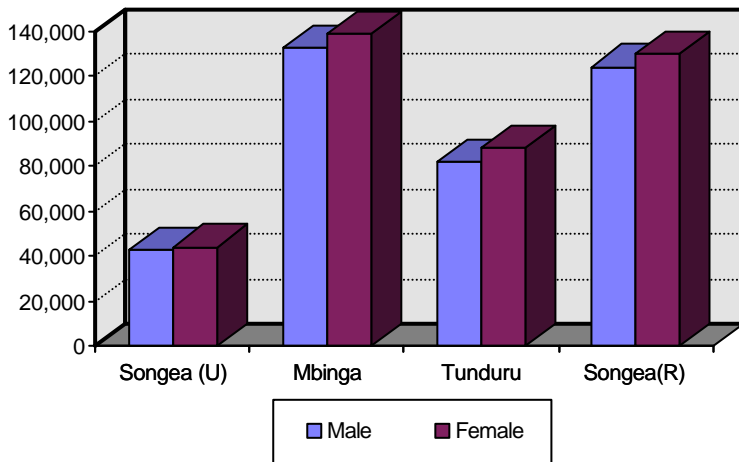
The 1988, Population Census revealed that the number of women in the region outnumbered that of men by 5.1%. It is observed from Table VII that household size is bigger in Songea rural, followed by Tunduru, a rough indication of a high dependency ratio. A large number of people per household is partly attributed to lack of knowledge in family planning and of course the direct outcome of polygamy, and strong family ties which tend to bring people together.

**TABLE VII: POPULATION BY SEX AND HOUSEHOLD SIZE**

District	Sex			Number of Households (1988)	Average Household Size
	Male	Female	Total		
Songea (U)	42,734	44,146	86,880	18,379	4.7
Mbinga	132,735	139,110	271,845	53,097	5.1
Tunduru	81,788	88,447	170,235	31,806	5.3
Songea(R)	124,181	130,186	254,367	43,592	5.8
Total	381,438	401,889	783,327	146,874	5.3

Source: 1988 Population census

**Fig. 7: Population Size by District and Sex, Ruvuma Region, 1988 Census.**



### 1.5.6 Population Density

As Tables VIII indicate that Ruvuma Region is among the least populous and sparsely populated regions in the country. The population density increased from 6 persons per sq km in 1978 to

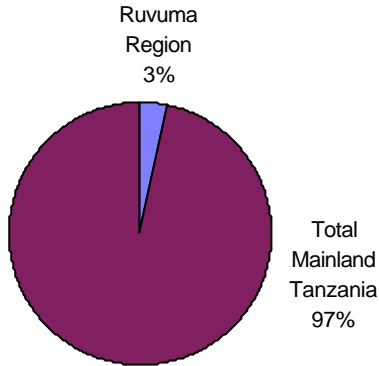
8 people per sq km in 1988. Currently (1997), the average population density is estimated at 16 persons/sq km. This population density is lower than the national density of 26 persons per sq km. Other regions which are sparsely populated include: Kigoma, Iringa, Arusha, Rukwa, Lindi, Tabora, Coast, Singida and Morogoro.

**TABLE VIII: POPULATION DISTRIBUTION AND DENSITY BY REGION 1988**

REGION	LAND AREA KM <sup>2</sup>	POPULATION	Density per sq Km		
			1988	1978	1978
Dar es Salaam	1393	1360850	976.0	270	843
Mwanza	19683	1876776	95.8	52	72
Kilimanjaro	13309	1108699	83.7	50	69
Mtwara	16710	887583	53.2	35	45
Tanga	26677	1280262	48.1	28	38
Kagera	28456	1313639	46.6	32	36
Mara	21760	952616	43.7	27	36
Shinyanga	50760	1763960	34.9	17	25
Dodoma	41311	1235277	30.0	17	23
Mbeya	60350	1476261	24.0	12	18
Kigoma	37040	853263	23.1	11	17
Iringa	56850	1193074	21.3	12	16
Arusha	82098	1352225	16.5	7	11
Rukwa	68635	704050	10.1	4	6
Lindi	66040	642364	9.8	6	8
Tabora	76151	1036293	14.0	4	6
Pwani	32407	638015	20.0	15	16
Singida	49341	791814	16.0	9	12
Morogoro	70799	1222737	17.0	9	13
<b>Ruvuma</b>	<b>66477</b>	<b>783327</b>	<b>12.0</b>	<b>6</b>	<b>8</b>
TOTAL MAINLAND TANZANIA	885987	23174443	26.1	12	19

Source: 1988 Population Census - National Profile

**Fig. 8: Population of Ruvuma Region as a Percent of Total Mainland Population, 1988**



### **1.5.7 Distribution of People by Sex and Age Group:**

The population of Ruvuma is characterized by a significant proportion of the young men. Table IX indicates that the proportion of children under 15 years is 43.7% (an average number of females and males) compared with 51.8% of the active age group (15-64 years) and 4.5% of the old age (65 years and above). This age distribution suggests rather high dependence ratio. About 48.2% of the total population according to the 1988 population census are dependants. About 52 percent of the population are women and 48 are men. High dependence ratio means more mouths to feed and this may not match with the rate of food production.

**TABLE IX: PERCENTAGE DISTRIBUTION OF POPULATION BY SEX AND AGE GROUPS 1988**

District	Sex	Age Groups		
		0-14	15-64	65 and Over
Songea (U)	Male	41.1	57.4	1.5
	Female	40.5	57.1	2.4
	Total	40.8	57.2	2.0
Mbinga	Male	47.1	48.8	4.1
	Female	44.7	51.7	3.6
	Total	45.9	50.3	3.8
Tunduru	Male	46.8	47.7	5.5
	Female	42.7	53.1	4.2
	Total	44.7	50.5	4.8
Songea (R)	Male	48.2	47.3	4.5
	Female	45.1	50.9	4.0
	Total	46.6	49.1	4.7
Region	Male	46.8	47.7	5.5
	Female	42.7	53.1	4.2
	Total	44.7	50.5	4.8

Source: Population census Regional Profile

**TABLE X: POPULATION DISTRIBUTION AND DENSITY BY DISTRICT 1997**

District	Land area Sq Km	Population			Population Density per Km <sup>2</sup>		
		1978	1988	1997 Estimates	1978	1988	1997 Estimates
Songea (U)	394	49,303	86,880	117,391	125.1	220.5	297.9
Mbinga	11,396	196,167	271,845	365,814	17.21	23.85	32.1
Tunduru	18,778	135,548	170,235	228,488	7.22	9.10	12.2
Songea (R)	33,925	183,095	254,367	341,980	5.40	7.50	10.10
Total	64,493	564,113	783,327	1,053,673	8.75	12.15	16.3

Source: Region Planning 1997 - Population Census 1988

**TABLE XI: RELATIVE DISTRIBUTION OF RURAL AND URBAN POPULATION BY DISTRICT**

District	Total Population 1988	Distribution	Percentage (%)
----------	-----------------------	--------------	----------------

				District Population		Region Population	
		Urban	Rural	Urban	Rural	Urban	Rural
Songea (U)	86,880	50,892	35,988	59	41	51	5
Mbinga	271,345	6,332	265,513	2	98	6	39
Tunduru	170,235	21,603	148,632	13	87	22	22
Songea (R)	254,367	20,210	234,157	8	92	21	34
Total	783,327	99,037	684,290	13	87	100	100

Source: Planning Commission Analysis Based on 1988 Population Census

Although, Ruvuma region is being categorized as one of the most sparsely populated regions in the country it is however, worth noting that the population is unevenly distributed. The highlands in Mbinga district and areas along the shores of lake Nyasa are the most populated with an estimated average of 60 persons per sq km. At district level, Mbinga is the most populated with 32 persons per sq km. Nevertheless, a good part of the region is still uninhabited due to tsetse fly infestation.

## 1.6 MIGRATION:

Migration in the region is still very low and has so far not posed a serious phenomenon. It occurs mainly in response to food shortages, drought, war (especially in the past), and inadequate socio-economic facilities. Main migration is noticeable among youths who move from rural areas to urban centres such as Songea town, mining sites in Tunduru district and other district headquarters in search of employment opportunities and business opportunities.

During the past three decades the region had experienced an influx of people from outside the region. That is, there has been a net population gain due to migration into the region following good social-economic conditions obtainable in the region. Table XII



indicates the region population net migration between 1967 and 1988.

**TABLE XII: REGIONAL POPULATION NET MIGRATION 1967 - 1988:**

Year	Population	Annual Growth Rate(%)	Rate of Natural Increase	Net Migration
1967	395,408	3.0	2.7	+03
1978	564,113	3.2	2.7	+05
1988	783,327	3.4	2.7	+07

Source: Planning Commission: Compiled data

### **1.7 Agro-Economic & Ecological Zones:**

The Agro-economic and Ecological zones in Ruvuma region are several, and were defined in 1971 by a team of experts from BRALUP. The agro-economic zone can be defined as part of a region or district in which agricultural conditions are sufficiently similar to warrant adoption of a single agricultural policy at the district or regional level. Some characteristics of the zone may change with time like population density, types of technology adopted and crops grown in one zone, and the farming systems. It is therefore, alluded here that the definition of a zone should not be static, as the zones may be reviewed from time to time. The Agro-economic Zones in Ruvuma region varies greatly in terms of location, altitude, rainfall, temperature, topography, and types of soils, crops grown and animals kept as detailed in the subsequent paragraphs and in the summary table III. The environmental and climatic conditions dictate the type of economic activity within a zone for example fishing, honey collection, and Livestock keeping.

**Table III: AGRO-ECONOMIC ZONES FOR RUVUMA REGION:**

ZONE	GENERAL MORPHOLOGY AND TOPOGRAPHY	ECONOMIC ACTIVITIES
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<p><b>The Matengo Highlands:</b> The Zone covers Longiro Litembo and Ndengu, Western Myangayanga and parts of Southern Kigonsera and Mperamba.</p>	<p><b>Altitude:</b> Hilly highland Altitude range at 200m. maximum. <b>Rrainfall:</b> Average annual rainfall is between 1200 - 1400 mm. <b>Soils:</b> Dark brown to reddish brown clay loams and clay sandy loams. <b>Vegetation:</b> Wooded grasslands. <b>Population:</b> Medium 30-49 persons per Km<sup>2</sup>.</p>	<p><b>Agriculture:</b> Intensive cultivation popularly known as Ngoro system is practiced. <b>Crops:</b> Coffee, maize, wheat sunflower, benas, and Irish potatoes. <b>Livestock:</b> Cattle, goats, poultry, pigs, and sheep. <b>Soil Conservation:</b> Terracing, ridging mulching, crop rotation and interplanting.</p>
<p><b>Lower Matengo:</b> Area covered is Tingi division, most of Liperamba and Eastern parts of Myangayanga and Kigonsera.</p>	<p><b>Altitude:</b> Very Hilly area Altitude range between 800 - 1500m. <b>Rainfall:</b> Average annual rainfall 1100 - 1300 mm. <b>Soils:</b> Deep, dark reddish brown to red sandy clay loams. <b>Vegetation:</b> Woodland. <b>Population:</b> Very low. Density under 15 person per Km<sup>2</sup>.</p>	<p><b>Agriculture:</b> Mainly cultivation of crops. <b>Crops:</b> Tobacco, maize, cassava, beans, sesame and fingermillet. <b>Livestock:</b> Fewer cattle, goats, sheep, pig and poultry. Honey collection is also important. <b>Soil conservation:</b> Done through shifting cultivation, interplanting, ridging mulch and use of manure. Chemical fertilizer used sometimes.</p>
<p><b>Ruhuhu Valley:</b> The zone borders Njombe District and includes Ruanda division and the northwestern part of Kigonsera.</p>	<p><b>Altitude:</b> Very hilly and steeply dissected land. <b>Rainfall:</b> Extremely dry. Average annual rainfall is between 900 - 1100 mm. <b>Soils:</b> Greyish brown loamy sands and reddish brown clay loams. <b>Vegetation:</b> Woodland. <b>Population:</b> Very low population Density under 15 person per Km<sup>2</sup>. There is high out migration from the area.</p>	<p><b>Agriculture:</b> Much of the area is unsuitable for cultivation. <b>Crops:</b> Cassava, Pulses, Millet, tobacco, groundnuts and sesame. <b>Livestock:</b> Goats and Sheep. <b>Soil Conservation:</b> The main means are fallow, shifting cultivation interplanting and ridging. Few people use chemical fertilizers &amp; insecticides.</p>

<p><b>Lake Shore:</b> This is a narrow zone bordering Lake Nyasa, an area of approximately 1700 Km<sup>2</sup>, 12 Km long by 10 km wide along north eastern shore of Lake Nyasa. It includes almost all of Ruhekei division. It is bounded on the east by the Livingstone mountains.</p>	<p><b>Altitude:</b> Flood plains area bounded by mountainous land. Altitude rises from 500m. at the edge of Lake Nyasa to 600 metres in the foot hills of the Livingstone Mountains. <b>Rainfall:</b> Varies between 100mm in the north to over 1400mm south. The yearly minimum rainfall is between 600 - 1000mm. <b>Soils:</b> Very dark grey silts and clay with dark brown sands and loams with low fertility and poorly drained. <b>Vegetation:</b> Mainly grass land and woodland on the higherland. <b>Population:</b> Medium 30 - 49 person per Km<sup>2</sup>.</p>	<p><b>Agriculture:</b> Cultivation of crops. <b>Crops:</b> Cassava (staple food) groundnuts, beans, groundnut, paddy, coconuts, maize, sorghum, some bananas, fruits and oil palms. <b>Livestock:</b> Cattle, goats, sheep, pigs and poultry. <b>Soil Conservation:</b> Mould ridging, fallow, and interplanting are main methods.</p>
<p><b>Mitomoni:</b> This is a very small zone in the extreme south east of Mbinga district, comprising the south eastern part of Liperamba division.</p>	<p><b>Location:</b> Rolling low lying area. Altitude range between 600 - 1500 m. <b>Rainfall:</b> Average annual rainfall is 1100 - 1300 mm. <b>Soils:</b> Dark reddish brown loam. <b>Population:</b> Density extremely low, under 15 person per Km<sup>2</sup>.</p>	<p>Crop cultivation. Cassava, paddy, pulses and cashewnuts. Negligible except poultry. There is fishing carried in Ruvuma river.</p>
<p><b>Ubena Highlands:</b> The zone is located in the extreme north of Songea district bordering Njombe.</p>	<p><b>Location:</b> Hilly area with steeply dissected escarpment. Altitude raising to about 1500 m. <b>Rainfall:</b> Average annual rainfall 1100 - 1400 mm. <b>Soils:</b> Well drained soil with dark reddish brown loams. <b>Vegetation:</b> Dominantly grassland. <b>Population:</b> Density very low, under 15 persons per Km<sup>2</sup>.</p>	<p>Cultivation of cash and food crops. Maize, beans, Irish and sweet potatoes, pigeon peas, sunflower, bananas, and coffee as cash crop. <b>Livestock:</b> Cattle, goats, sheep and poultry. Honey collection important. <b>Soil Conservation:</b> Interplanting crop relation ridging fallow mulching and use of manure.</p>

<p><b>Western Songea:</b> The zone extends from the Mbinga border to just east of Songea town and includes Northern Ruvuma division and parts of Msindo and Wabaki divisions.</p>	<p><b>Altitude:</b> Fairly hilly area with undulating lower areas. <b>Rainfall:</b> The average annual rainfall is 1000 - 2000 mm. <b>Soils:</b> Dark reddish brown to red sandy clay loams and clay loams. <b>Vegetation:</b> Mainly Woodland. <b>Population:</b> Population density vary from medium (30 - 49 person per Km<sup>2</sup>) near Songea town and the Mbinga road to very low in the south.</p>	<p><b>Agriculture:</b> Crop cultivation. <b>Crops:</b> Maize, beans, paddy, cassava, groundnuts, finger millet, sweet potatoes, peas and tobacco. <b>Livestock:</b> Cattle, goats, sheep and poultry. Honey collection: Is of considerable importance in the Zone.</p>
<p><b>Central Songea:</b> The zone covers the area east of Songea town, including Luegu division and adjoining parts of Msindo, Ligera Wabaki, Likuyu and Namtumbo division.</p>	<p>Resembles zone 7 in terms of altitude, climate, soils, and vegetation. Only that the population density varies from low (15 - 29 persons per Km<sup>2</sup>) in the central part along the main road to very low (under 15 person per Km<sup>2</sup>) in the extreme north and south than is the case in the former zone.</p>	<p><b>Agriculture:</b> Same as in Zone 7. <b>Crops:</b> The main difference is that tobacco replaces rice as the main cash crop. <b>Livestock:</b> More cattle are reared than goats.</p>
<p><b>Undendeule:</b> The zone lies to the North of Western Songea, and Central Songea zone and it includes northern part of Undendeule division and much of Hanga division</p>	<p><b>Attitude:</b> Very hilly area. Much of the zone rugged and dissected by narrow valley. <b>Rainfall:</b> The average annual rainfall is 900-1100mm <b>Soils:</b> Greyish brown loamy sands some what darker in colour in the Western part of the zone than in the east <b>Vegetation:</b> Mainly woodland <b>Population:</b> Extremely low, under 15 person per km<sup>2</sup></p>	<p><b>Agriculture:</b> This zone is too rugged for cultivation. <b>Crops:</b> Tobacco, sesame, maize, rice, beans, cassava and finger millet. <b>Livestock:</b> Few cattle because of tsetse fly infection. Honey: Honey collections fairly an important economic activity.</p>
<p><b>Southern Songea:</b> The zone covers the whole of the south of the district from the Mbinga border to the Tunduru border. It includes parts of Ruvuma Sasawala and Undendeule division.</p>	<p><b>Altitude:</b> Rolling terrain area <b>Rainfall:</b> Average annual rainfall range between 1100-1300mm <b>Soils:</b> Dark greyish brown to reddish loamy sands <b>Vegetation:</b> Mainly woodland <b>Population:</b> Very low under 15 person per km<sup>2</sup> especially in the West. The zone is isolated.</p>	<p><b>Agriculture:</b> Main stay for the people in the area <b>Crops:</b> Cashewnuts, Tobacco and Sesame, maize, cassava, paddy, beans and groundnuts. <b>Livestock:</b> Negligible because of tsetse fly. Soil conservation: Is done through interplanting and leaving the land fallow.</p>

<p><b>Matemanga:</b> The zone covers the north-western part of the Tunduru district and includes almost all of Matemanga division</p>	<p><b>Altitude:</b> Very hilly area dissected by narrow Valleys <b>Rainfall:</b> The average annual rainfall is 900-1000mm <b>Soils:</b> Dark greyish brown to reddish brown loamy sands <b>Vegetation:</b> Predominantly woodland. <b>Population:</b> Very low under 15 person per km<sup>2</sup></p>	<p><b>Agriculture:</b> The zone is too rugged for cultivation <b>Crops:</b> Tobacco, sesame, maize, beans, sorghum and paddy. <b>Livestock:</b> Animal husbandry is of little importance due to tsetse fly infection only poultry are kept.</p>
<p><b>Southern Tunduru:</b> This zone covers the whole of the southern part of Tunduru district including the division of Lukumbule Nalasi, Namasakata, Nampungu and Western Mlingoti</p>	<p><b>Altitude:</b> An undulating or Rolling area with some hills <b>Rainfall:</b> The average annual rainfall is 1000-1100mm <b>Soils:</b> Deep dark brown to dark reddish brown loamy sands and sandy loam <b>Vegetation:</b> Woodland <b>Population:</b> Density is higher than other area in the district. Denstry is under 15 per person per km<sup>2</sup></p>	<p><b>Agriculture:</b> Crop farming. <b>Crops:</b> Cashewnuts, Groundnuts, sesame, maize, and cassava. <b>Livestock:</b> Less important. Only poultry is undertaking by most household. <b>Fishing:</b> Some fishing in Ruvuma river is done. <b>Soil Conservation:</b> Done through fallow, shifting and interplanting</p>
<p><b>Nakapanya:</b> This is a small zone in the eastern part of Tunduru district bordering Masasi district. It covers that part of Mlingoti division east of Nakapanya village.</p>	<p><b>Altitude:</b> An undulating plain area broken by numerous interbergs and rock out crops. <b>Rainfall:</b> Average annual rainfall range between 900-1100mm <b>Soils:</b> Deep-dark brown to dark reddish brown loamy sands and sandy loams <b>Vegetation:</b> Mainly woodland area. <b>Population:</b> Very low population density under 15 person per km<sup>2</sup>. due to tsetse fly presence.</p>	<p><b>Agriculture:</b> Crop cultivation. <b>Crops:</b> Cashewnuts, sesame, groundnuts, maize, cassava, beans sorghum and little tobacco <b>Livestock:</b> Very negligible except poultry <b>Soil conservation:</b> The main means are fallow and interplanting. Artificial fertilizer are occasionally used.</p>

## **1.8 TOPOGRAPHY AND DRAINAGE SYSTEM**

### **1.8.1 TOPOGRAPHY:**

The region lies in the Southern Highlands which rise from 300 metres to 2000 metres above sea level. The western part of the region is covered by Lake Nyasa which lies within the Western arm of the Rift Valley. To the East of the Rift Valley there are Matengo Mountains ranges which rise up to 2000m. Similarly, towards the North there are Lukumburu Mountains whose elevation rises up to 2000 metres above sea level. South of the region runs through the lower plains which are dissected by Ruvuma River.

### **1.8.2 DRAINAGE SYSTEM**

Apart from being a natural boundary between the United Republic of Tanzania and Mozambique, Ruvuma River is also an important river in the Southern part drainage system. Ruvuma river drains into the Indian Ocean and it is constituted by several perennial tributaries such as Njuga, Likonde, Ngembambili and Lukimwa. Other rivers include Luegu, Mbarangandu, Lukukira - Ruvuma together with Ruhuhu and other many small streams also form the major drainage system for the region.

## **SECTION II**

### **2.0 THE REGION ECONOMY:**

#### **2.1 INTRODUCTION:**

Ruvuma Region is mainly an agrarian region with over 87 percent of its population residing in rural areas and actively engaged in land based production. The regional major economic activities are agricultural farming, livestock keeping, lumbering, fishing, beekeeping, mining and trade. Agriculture is the mainstay and leading productive sector accounting for a larger part of the regional GDP and per capita income. Livestock ownership is not wide spread through out the region due to diseases and high mortality rate. Farming especially crop production is undertaken by individual small-scale farmers. The main food crops in the region are maize, cassava, paddy, sweet potatoes, legumes, millets and sorghum, while coffee, tobacco, cashewnuts are major cash crops. Other crops are sunflower, soya beans, simsim, finger millet and groundnuts.

There is high potential for natural resources development in Ruvuma region. There are about 21,334 sq.km. of forests in Songea district 2,526 sq km in Mbinga district, 46.10 sq km in Songea urban and 2,365 sq. km. of land for game reserve in Tunduru district. Tourism, beekeeping, fishery and lumbering are among important subsectors in the region not yet fully exploited. The region has very few industries therefore industrial production and commerce is still nascent and contribute very little to the regional income. Mining is in small scale. There is gold mining at Mpepo, Liparamba and Mipotopoto in Mbinga district and

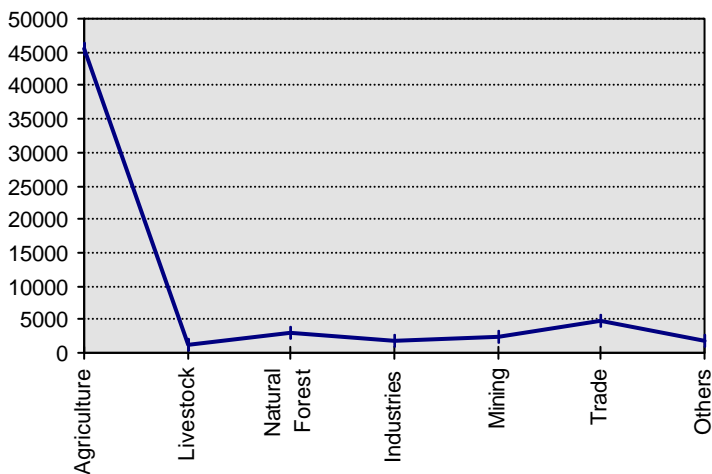
Tunduru district is famous for gemstone mining which include alexandrite, surphire, tormalin etc.

**TABLE XIII: CONTRIBUTION OF EACH SECTOR TO THE REGIONAL ECONOMY 1996:**

Sector	Output in Tshs. Mill.	Percent of Contribution
Agriculture	45,489.6	75
Livestock	1,213.1	2
Natural Forest	3,032.6	5
Industries	1,819.6	3
Mining	2,426.1	4
Trade	4,852.2	8
Others	1,819.6	3
Total	60,652.8	100

Source: Ruvuma Regional Annual Report 1997.

**Fig. 9: Output Contribution in TShs. (Mill.) of Each Sector to the Regional Economy 1996.**





## **2.2 GDP AND PER CAPITA GDP:**

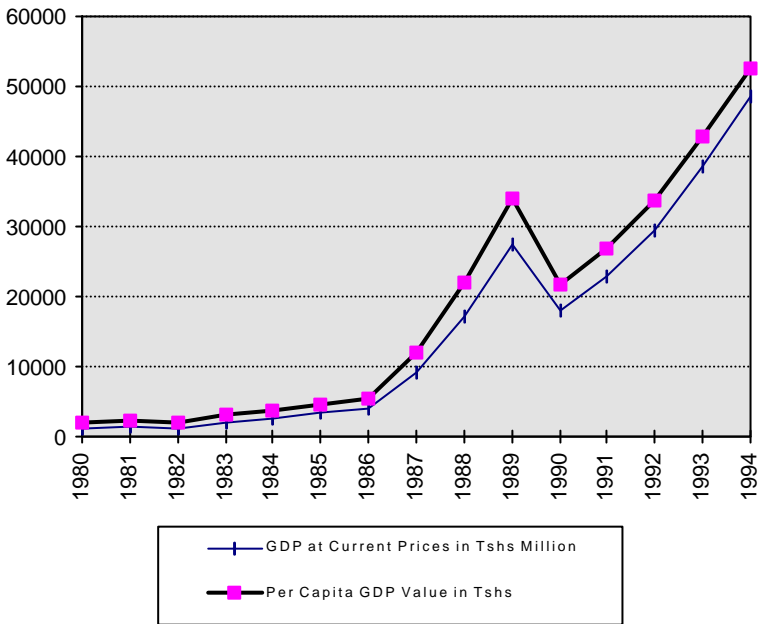
Regional GDP in 1997 is estimated to be Tshs 60,691,564,800/= while the per capita GDP is estimated at Tshs 57,600 (US \$ 95) per annum. The per capita of 57,600/= per annum is relatively small and could explain better why Ruvuma region becomes one of the poor regions in the country and why it experiences frequent malnutritional problems and other social problems particularly, poor housing, clothing water services, etc. It is observed from Table XIV that although, the per capita GDP of Ruvuma region at current prices increased in absolute terms from T.shs. 52537/= in 1994, the purchasing power of a shilling weakened in dollar terms from US \$ 234 in 1980 to only US \$ 95 in 1994. This means that the people in Ruvuma region in 1994 were about two times poorer than what they were in 1980.

**TABLE XIV: THE GDP AND PER CAPITA GDP OF RUVUMA REGION AT CURRENT PRICES AND PERCENTAGE CHANGES 1980 - 1994:**

Year	GDP at Current Prices in Tshs Million	% Change	Per Capita GDP at Current Prices in Tshs and US Dollars					GDP at Current Prices as % of National GDP
			Value in Tshs	% Change	Exchange Rate	Value in US\$	% Change	
1980	1155	-	1924	-	8.22	234	-	3
1981	1480	28.14	2384	23.91	8.35	286	22.22	3
1982	1253	-15.34	1952	-18.12	9.52	205	-28.32	2
1983	2089	66.72	3147	61.22	12.46	253	23.41	3
1984	2508	20.06	3655	16.14	18.11	202	-20.16	3
1985	3329	32.74	4691	28.34	16.50	284	40.59	3
1986	3886	16.73	5296	12.90	51.72	102	-64.08	3
1987	9163	135.80	12077	128.04	83.72	144	41.18	5
1988	17210	87.82	22023	82.35	125.00	176	22.22	5
1989	27412	59.28	34109	54.88	192.00	178	1.14	5
1990	18063	-34.11	21856	-35.92	197.00	111	-37.64	3
1991	22909	26.83	26954	23.33	234.00	115	3.60	3
1992	29567	29.06	33828	25.50	335.00	101	-12.17	3
1993	38638	30.68	42985	27.07	480.00	90	-10.89	3
1994	48565	25.69	52537	22.22	553.00	95	5.59	3
Average	15149	34.01	17961	30.12	-	172	-13.34	3.3

Source: National Accounts 1976 - 1994 August, 1995.

**Fig. 10: The GDP and Per Capita GDP of Ruvuma Region at Current Prices 1980 - 1994**



**TABLE XV: REGIONAL ANNUAL AVERAGE CONTRIBUTION TO THE NATIONAL GDP, 1980 - 1994:**

Region	GDP (in Tshs.) 1994	Average Annual Contribution (%)	Ranking in Terms of Contribution
Dar-es-Salaam	316,541,000	20.3	1
Arusha	145,192,000	7.8	2
Mwanza	107,553,000	7.7	3
Mbeya	84,903,000	6.0	4
Shinyanga	110,353,000	5.8	5
Iringa	92,021,000	5.1	6
Tanga	92,821,000	5.5	7

Morogoro	88,073,000	4.7	8
Kagera	80,537,000	4.6	9
Kilimanjaro	72,898,000	3.7	10
Mara	50,127,000	3.5	11
Tabora	55,012,000	3.4	12
Ruvuma	48,565,000	3.3	13
Mtwara	62,491,000	3.27	14
Rukwa	66,160,000	3.1	15
Dodoma	57,856,000	3.07	16
Singida	51,995,000	2.9	17
Kigoma	30,545,000	2.5	18
Lindi	29,253,000	2.0	19
Coast	17,033,000	1.0	20

Source: National Accounts 1976 - 1994, August, 1995.

According to table XV above, Ruvuma region takes the thirteenth position in terms of annual average GDP contribution to the National GDP. It's contribution was just 3.33 percent for the last 15 years (1980-1994). Measured against other Maize Surplus Regions (Mbeya, Iringa and Rukwa), Ruvuma's contribution is just slightly above that of Rukwa region and falls below percentage contributions made by both Mbeya and Iringa.

**TABLE XVI: PER CAPITA GDP FOR RUVUMA REGION COMPARED WITH OTHER NEIGHBOURING REGIONS 1980 - 1994:**

Year	Exchange Rate	Ruvuma		Iringa		Mbeya	
		Tshs.	USA Dollars	Tshs.	USA Dollars	Tshs.	USA Dollars
1980	8.22	1924	234	1801	219	1838	224
1981	8.35	2384	286	2325	278	2412	289
1982	9.52	1952	205	2868	301	3055	321
1983	12.46	3147	253	3131	251	3277	263
1984	18.11	3655	202	3975	219	4437	245
1985	16.50	4691	284	5204	315	5911	358
1986	51.72	5296	102	6789	131	7517	145
1987	83.72	12077	144	9390	112	5681	68
1988	125.00	22023	176	17010	136	9874	79
1989	192.00	34109	178	26339	137	15507	81
1990	197.00	21856	111	28144	143	21174	107
1991	234.00	26954	115	34812	149	26374	113
1992	335.00	33828	101	42028	125	31685	95
1993	480.00	42985	90	51659	108	38904	81
1994	553.00	52537	95	64502	117	59390	107
Average	-	17961	172	19999	183	15801	172

Source: National Accounts 1976 - 1994, August, 1995.

**Fig. 11: Per Capita GDP for Ruvuma Region Compared with Other Neighbouring Regions 1980-1994**

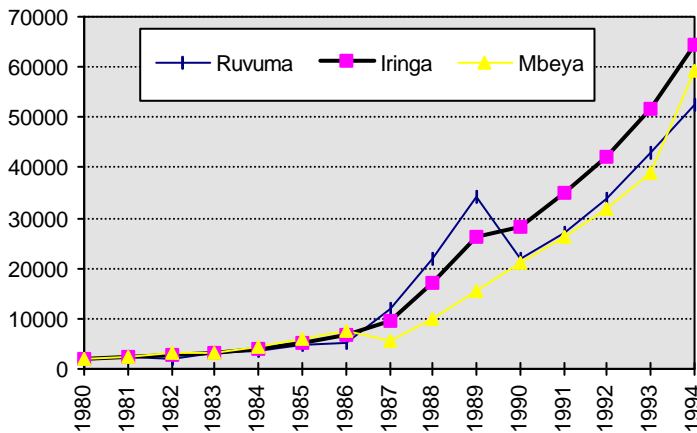


Table XVI compares the per capita GDP for three neighbouring regions and what comes out clearly is that Ruvuma region in 1980 had the highest per capita GDP. However, as seen from the table, Ruvuma could not sustain its per capita GDP lead in subsequent years. Thus, by 1994 it had the lowest per capita GDP compared with Mbeya and Iringa.

### **2.3 EMPLOYMENT:**

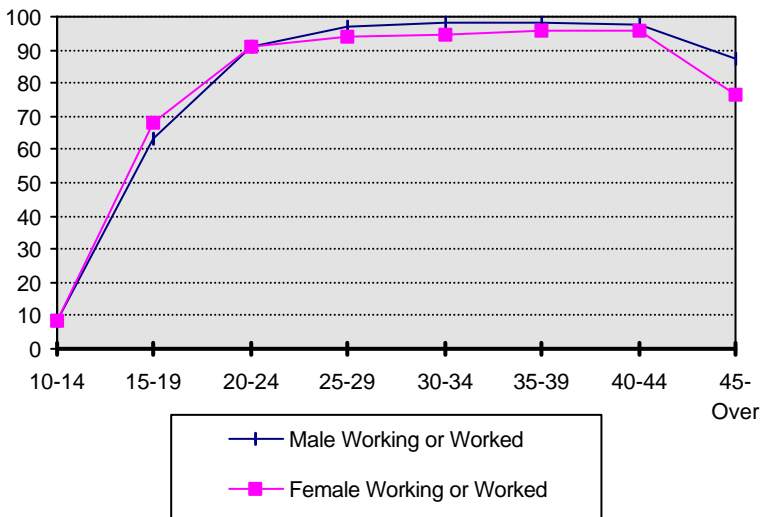
In terms of employment opportunities a large part of economic active population in Ruvuma region engages in farming (mixed). The remaining portion is employed in public and private sectors such as trade, carpentry, masonry, shoe making, bicycle repair, black smithery etc. Table XVII (a) and XVII (b) show the participation of males and females population (10 years and above) in the regional economy. Table XVII (c) shows the distribution of working population (10 years and above) by main occupation, while table XVII (d) depicts the unemployment rate by age group as reported in the 1988 population census. It is seen from table XVII (d) that there is a high unemployment rate among male youths, between 15 and 25 years of age compared with the females' unemployment rate. Unemployment problem of the males is said to be caused by their tendency to prefer white collar jobs, which unfortunately are not readily available or their education levels are too low for the jobs. Unlike the males, the majority of the females content themselves with the house work activities.

**TABLE XVII (a): PERCENTAGE OF MALE PARTICIPATION IN THE REGION'S ECONOMY:**

Age Group	Male Population	Percentage of Economic Active Population		Percentage of Not Economic Active Population			
		Working or Worked	Looking for Work	Household Workers	Students	Unable to Work	Others
10-14	49655	8.2	0.3	5.9	76.8	1.3	7.6
15-19	42177	63.4	1.9	3.3	29.1	0.7	1.5
20-24	27755	91.1	1.7	2.6	3.1	0.8	0.6
25-29	25072	96.7	0.7	1.1	0.4	0.5	0.4
30-34	18134	98.2	0.1	0.6	0.1	0.5	0.4
35-39	16350	98.3	0.2	0.5	0.1	0.6	0.2
40-44	11300	97.7	0.2	1.1	0.03	0.8	0.1
45-Over	50202	87.5	0.01	0.7	0.0	2.8	8.8
Not Stated	143	32.8	0.0	0.0	15.4	0.0	43.0
Total Population	241588	70.4	0.7	2.5	21.3	1.2	3.8

Source: 1988 Population Census.

**Fig. 12: Percentage of Male and Female Participation in Ruvuma Region by Age Group, 1988 Population Census.**



**TABLE XVII (b): PERCENTAGE OF FEMALE PARTICIPATION IN THE REGION'S ECONOMY:**

Age Group	Population	Percentage of Economic Active Population		Percentage of Not Economic Active Population			
		Working or Worked	Looking for Work	Household Workers	Students	Unable to Work	Others
10-14	48056	8.3	0.2	5.3	0.2	0.9	5.0
15-19	42196	67.9	0.9	6.9	23.1	0.4	0.7
20-24	33799	91.1	0.5	5.9	1.2	0.6	0.2
24-29	30674	93.9	0.01	5.1	0.2	0.3	0.3
30-34	21945	94.6	0.02	4.3	0.1	0.8	0.1
35-39	19288	95.9	0.01	3.1	0.03	0.6	0.1
40-44	13773	95.8	0.01	2.9	0.05	0.8	0.3
45 Over	53039	76.8	0.01	2.6	0.06	5.4	14.9
Not Stated	280	21.7	0.0	0.3	11.8	8.9	8.2
Total Population	263050	70.6	0.3	4.7	18.6	1.6	4.2

Source: 1988 Population Census.

**TABLE XVII (c): WORKING POPULATION (10 YEARS AND ABOVE) BY MAIN OCCUPATIONS:**

Main Occupation	Total Population	% of Total	Distribution			
			Males	Females	Rural	Urban
Legislators, Managers, and Administrators	1,041	0.2	943		656	385
Professional Teacher and Technicians	9,561	1.9	6,945	2,616	6,313	3,248
Clerks	1,872	0.4	1,102	770	597	1,275
Services and Shopkeeping	4,113	0.8	2,624	1,489	1,927	2,186
Farmers	324,680	64.3	146,259	178,421	299,971	24,709
Mixed Farming	1,800	0.3	1,485	315	1,565	235
Agricultural Workers	703	0.1	563	140	418	285
Graft Men and Machine Operators	4,086	0.8	3,912	174	1,627	24,559
Small Scale Traders and Labourers	5,658	1.1	4,655	1,003	1,629	4,029
Not Employed	148,252	29.4	71,234	77,018	123,238	25,014
Other Workers	1,869	0.4	1,344	505	1,072	797
Not Stated	971	0.2	506	425	866	105
Total	504,606	100	241,572	465	439,879	64,727



Source: 1988 Population Census.

**TABLE XVII (d): UNEMPLOYMENT RATE (10 YEARS AND ABOVE) BY AGE AND SEX**

Age Group	Usually Economically Active Population					
	Males			Females		
	Total	Looking for Work	Unemployment Rate	Total	Looking for Work	Unemployment Rate
10-14	49,655	160	0.3	48,056	109	0.2
15-19	42,177	793	1.9	42,196	402	0.9
20-24	27,755	484	1.7	33,799	183	0.5
25-29	25,872	187	0.7	30,674	43	0.1
30-34	18,134	24	0.1	21,945	5	0.02
35-39	16,350	33	0.2	19,288	2	0.01
40-44	11,300	19	0.2	13,773	1	0.01
45-Over	50,202	20	0.04	53,039	9	0.02
Not Stated	143	0	0	280	0	0

Source: 1988 Population Census.

## **2.4 AGRICULTURE**

### **2.4.1 Food And Cash Crop Production**

Agriculture is the main economic activity contribution over 75 percent of the Regional Gross Domestic Product. Ruvuma Region is among the Big Four regions as far as maize production is concerned in the country. The three other regions are Iringa, Mbeya and Rukwa. The “Green Revolution in maize production in the region began in the past two and half decades following several efforts in previous years by the Regional Authority to develop the economy through modernization of the agricultural sector. Before the “Green Revolution” the region depended on the

production of cassava, beans, sweet potatoes and finger millets as major food crops. However, the intensive use of fertilizers in maize production has resulted into the depletion of soil nutrients and in some areas it has caused environmental degradation. The effects of intensive use of fertilizers manifest themselves in low maize production as depicted in Table XIX. To avoid further the effects of fertilizers on soil nutrients the people have begun using fertilizers which reduce the concentration of soil acidity and at the same time restores soil nutrients. Thus, the experts have recommended the use of UREA, NPK and CAN in Ruvuma Region. Nevertheless, the problem of soil fertility being experienced by many people in the region could be reduced if the people looked back and adopted the “Marejea” plant technology introduced in early sixties. According to the research done by both the priests of Peramiho Catholic Church and Agricultural Institution, “Marejea” plant has been found to be capable of conserving soil nutrients or restoring them once depleted. In addition, it is a cheap technology. It improves soil fertility through natural nitrogen fixation process. Although, “Marejea” technology has been tried in Ruvuma since early sixties, its application has continued to be minimal. At most it has been applied in Namanguli in Mkongo division, Litisha and Morogoro villages in Ruvuma division, Mpitumbi village in Malukuru division and in Peramiho A and Peramiho B villages.

In the light of difficulties involved in securing modern farm inputs, high fertilizer prices and a fall in maize production, one would have expected many people taking interest in the adoption of “Marejea” plant technology but this has not been the case. For people to take advantage of cheap and appropriate “Marejea” technology in farming, the government and the Regional Authority in particular should promote and popularize the use of it.

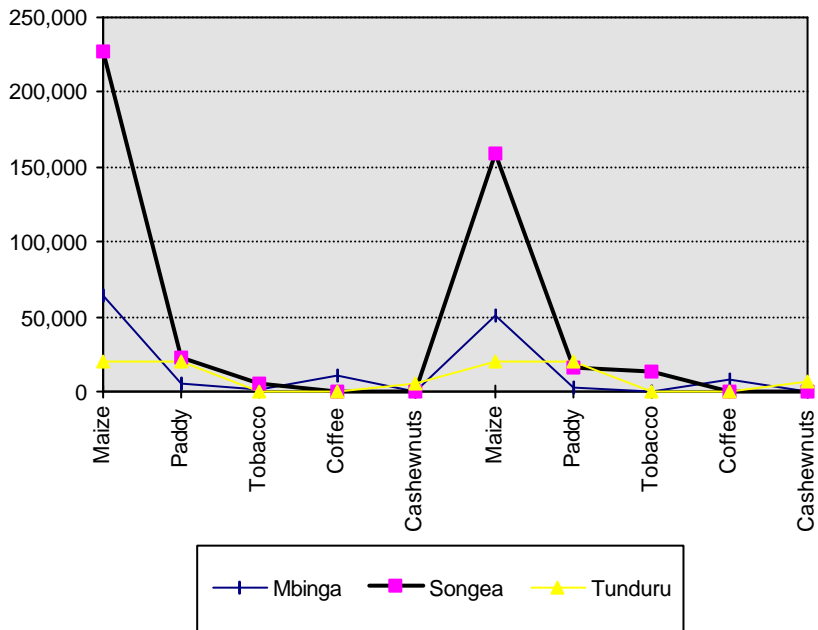
The regions major cash crops includes, coffee, tobacco and cashewnuts. Coffee is chiefly grown in Mbinga district and account for a higher percentage in the districts GDP and makes the district one of the districts with high per capita income in the country. Tobacco is a major cash crop in Songea district followed by maize which serves both as food as cash crop. The fire cured tobacco grown in Songea is significant for its good quality and good price in the world market. Over the recent years, production of tobacco has been increasing steadily due to high demand for the crop, and production yields are expected to double following the policy of trade liberalization on the marketing of the crop. Tunduru district is famous for cashewnuts production despite low yields caused by “Milddaw Disease” However, the district Authority is currently undertaking a programme intended to improve the quality of cashew trees and hence increase production. Table XVIII below shows the production of food and cash crops in 1995/96 season.

**TABLE XVIII: CROP PRODUCTION IN 1995/96:**

1995/96	Mbinga		Songea		Tunduru		Total	
	Tone	%	Tone	%	Tone	%	Tone	%
Maize	64,800	20.8	227,277	72.0	19,600	6.3	311,677	100
Paddy	4,685	9.9	22,683	48.1	19,800	42.0	47,108	100
Tobacco	1,600	22.8	5,272	75.1	145	2.1	7,017	100
Coffee	10,500	99.0	100	1.0	-	-	10,600	100
Cashewnuts	205	3.8	85	1.6	5,080	94.6	5,370	100
1996/97								
Maize	51,235	22.3	158,563	69.1	19,530	94.6	229,328	100
Paddy	3,222	8.3	16,156	41.4	19,650	8.6	39,028	100

Tobacco	400	2.9	12,913	95.8	159	50.3	13,472	100
Coffee	8,000	98.9	85	1.1	-	1.3	8,085	100
Cashewnuts	225	3.4	119	1.8	6,300	94.8	6,644	100

**Fig. 13: Crop Production in Mbinga, Songea and Tunduru Districts, 1995/96**



**2.4.2 FOOD CROPS:**

Food crops are maize, paddy, cassava, beans, sweet potatoes, millet and sorghum. Table XIX indicates production levels for each food crop from 1990 - 1996.

**Table XIX: TOTAL CULTIVATED AND PRODUCTION OF MAJOR FOOD CROPS 1990-1996**

Year	Production Ton/Ha.	Crop type					Total
		Maize	Cassava	Paddy	Beans/ Legume	Millet/ Sorghum	
1990	Tones	281583	53215	41097	22664	4528	403087
	Hectares	125396	31130	27200	27774	6638	218138
	Ton/Ha.	2.2	1.7	1.5	0.8	0.7	1.8
1991	Tones	303283	76974	53415	24008	5893	463573
	Hectares	127365	34729	32628	30615	9092	234429
	Ton/Ha.	2.4	2.2	1.6	0.8	0.6	2.0
1992	Tones	287644	82002	26089	21239	4583	421557
	Hectares	140919	50872	30359	32672	8643	263465
	Ton/Ha.	2.0	1.6	0.8	0.6	0.5	1.6
1993	Tones	238568	89731	41162	20508	4683	394652
	Hectares	104229	59145	30146	28296	8995	230811
	Ton/Ha.	2.3	1.5	1.4	0.7	0.5	1.7
1994	Tones	269047	65310	43251	23019	4554	405181
	Hectares	126320	36025	30579	30907	6523	230354
	Ton/Ha.	2.1	1.8	1.4	0.7	0.7	1.7
1995	Tones	260464	74208	43206	23402	3320	404600
	Hectares	116733	41597	27381	33240	5602	224553
	Ton/Ha.	2.2	1.8	1.6	0.7	0.6	1.8
1996	Tones	229328	84382	41028	27766	2843	385347
	Hectares	124148	48113	26723	32366	4827	23177
	Ton/Ha.	1.8	1.7	1.5	0.8	0.6	1.6

Source: Regional agriculture Office 1997.

Production trend over the years (Table XIX) is of a fluctuating nature let alone low productivity per hectare. Productivity of maize per hectare fell from 2.2 tons per hectare in 1990 to 1.8 tons per hectare in 1996. Productivity in cassava, paddy and pulses remained the same between 1990 and 1996. One may wonder why productivity in food crops is too low or static in Ruvuma region, especially when you consider the potentiality of the region in terms of climate, topography and its human capital. Could low productivity in food crops be attributed to poor road infrastructure in the region? I understand, roads make the movement of people, goods and services easy and where they

lack the incentive to produce and market the produce becomes very low.

**(a) MAIZE:**

Songea district is the main maize producing area in the region. In Songea district, maize is mainly produced in Undendeule, Mkongo, Hanga/Mputa divisions. In Mbinga district, maize is produced in Matengo Lowlands, Mpepo and Namswea divisions.

According to table XIX, maize production was highest in 1991 followed by 1992. The region produced 303,283 tons in 1991. Surprisingly enough maize production went down by 24 percent from 303,283 tons to 229,328 tons in 1996. Poor maize production in the region could be attributed to the maize disease known as Maize Blight Disease. The disease attacked the region in 1995/96, causing maize leaves to dry. Mbinga and Songea rural were the most affected. Nevertheless, the region has taken the following measures in order to mitigate the disease effects:-

- Burning all maize stocks and other weeds before next planting season.
- Encouraging the use of improved seeds, believed to be resistant to the disease.
- Allowing the land to lie fallow for 2-3 years.

**(b) Paddy:**

Paddy is grown in all three districts of the Ruvuma region. Important areas for growing paddy in Mbinga district include, Lake Nyasa shores especially in Ruhekei and Ruhuhu divisions. In Songea district, the important paddy growing areas are in Muhukuru and Sasawala divisions and some few areas in Hanga/Mputa division. In the district of Tunduru, paddy is grown

along the Riverplains, the valleys of Ruvuma and Nampungu rivers as well as small river basins particularly the Angalia basin. Paddy production according to table XIX, fluctuates between 26,089 tons and 53,500 tons. Paddy productivity per hectare also went down as low as 0.8 tons per ha. in 1992 from 1.6 tons per ha. in 1991.

### 2.4.3 CASH CROPS:

As already said, the most important cash crops in the region are tobacco, coffee and cashewnuts. Other cash crops include sunflower, simsim, groundnuts and soyabeans. Table XX highlights production trend in cash crops between 1993/94 and 1996/97. The table also shows the contribution of the region to the total national production of tobacco, coffee and cashewnuts. It is observed from the table that the region contributed 38.1 percent of the total tobacco production in the whole country, in 1996/97, while the contribution of coffee was only 19.6 percent in the same period. Percentage contribution of coffee in Ruvuma declined from 23.7 in 1993/94 to 19.6 in 1996/97.

**Table XX: PERCENTAGE CONTRIBUTION OF RUVUMA REGION IN TERMS OF MAJOR CASH CROPS TO TOTAL NATIONAL PRODUCTION COMPARED WITH OTHER REGIONS**

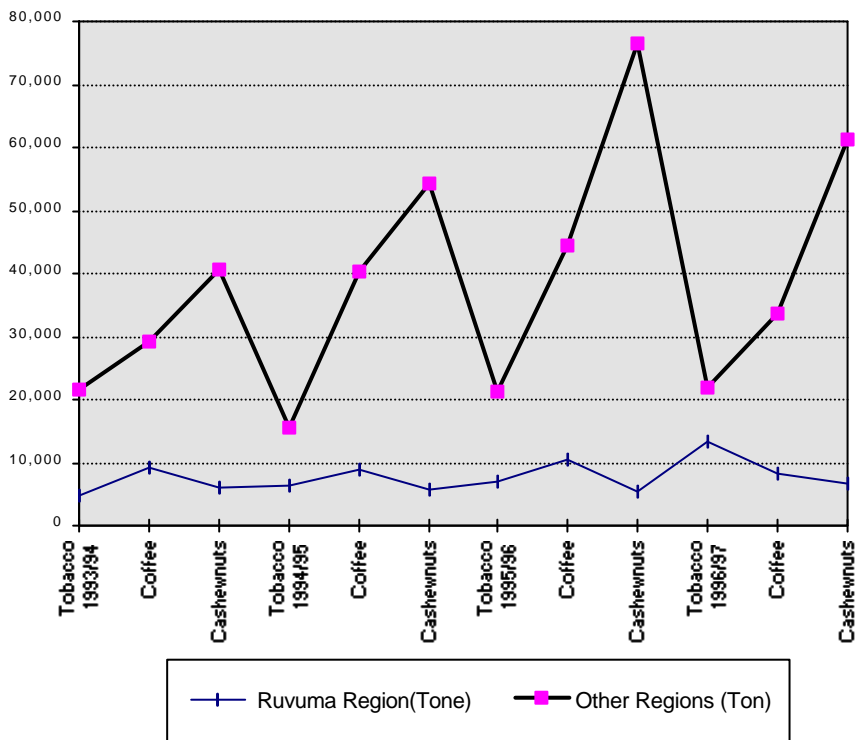
Year	Crops	Ruvuma		Other Regions		National Total	
		(Tone)	% Contribution	(Ton)	% Contribution	(Tone)	%
1993/94	Tobacco	4,640	17.8	21,470	82.2	26,110	100
	Coffee	9,100	23.7	29,294	76.3	38,394	10
	Cashewnuts	6,120	13.1	40,478	86.9	46,598	10
1994/95	Tobacco	6,453	29.2	15,657	70.8	22,110	10
	Coffee	8,763	17.9	40,226	82.1	48,989	10
	Cashewnuts	5,670	9.5	54,330	90.5	60,000	10



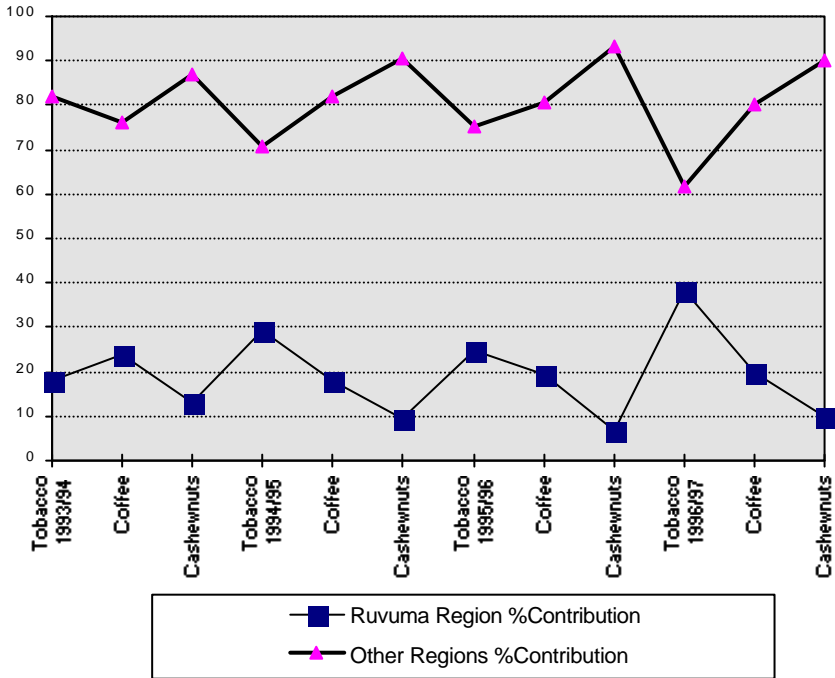
1995/9 6	Tobacco	7,017	24.7	21,353	75.3	28,370	10
	Coffee	10,600	19.3	44,400	80.7	55,000	10
	Cashewnuts	5,370	6.6	76,359	93.4	81,729	100
1996/9 7	Tobacco	13,472	38.1	21,934	61.9	35,406	100
	Coffee	8,224	19.6	33,776	80.4	42,000	100
	Cashewnuts	6,644	9.8	61,356	90.2	68,000	100

Source: RALDO Office Ruvuma

**Fig. 14 (a): Production Graphs of Major Cash Crops in Ruvuma Region Compared with National Production (Tone).**



**Fig. 14 (b): Percentage Contribution of Major Cash Crops to Total National Production.**



**(a) Coffee:**

Coffee thrives well in Mbanga district and Songea Rural. The important areas which grow coffee in Mbanga district are the Matengo Highlands, where 90 percent of the coffee comes from. However, Mbuji division, particularly the Hagati valley is the most famous coffee growing areas. The most famous areas for coffee growing in Songea district are the Northern Highlands of Madaba division, especially the areas in Limo whose attitude is similar to the Matengo Highlands. Other small-scale coffee growing areas in Songea Urban includes the Matogoro Highlands, particularly the areas of Ndirima, Litembo, Mahilo and Lipanya. The production

of coffee as can be seen from table XX is not satisfactory. It fluctuates a lot let alone its low production levels. In 1993/94 season coffee production recorded 9,100 tons, while in 1994/95 season the output fell to 8,763 tons; picking up again to 10,600 tons in 1995/96.

**(b) Tobacco:**

Tobacco grows well in Mkongo, Undendeule and Hanga/Mputa divisions of Songea rural, while in Mbinga district tobacco grows in Matengo lowlands. In the district of Tunduru, tobacco grows in the areas of Matemanga and Nalasi divisions where the soils are suitable. According to table XX, the production of tobacco has increased from 4,640 tons in 1993/94 to 13,472 tons in 1996/97.

Tobacco appears to be the only crop that assumes a positive growth trend over the years. Production trend in other crops has tended to rise and fall and so on.

**(c) Cashewnuts**

The crop grows well in hot climate and sandy soils found mostly in Tunduru district and some few areas of Songea district. In addition, some trial plantations are being done along Lake Nyasa shores and in Nanmswea division in Mbinga district. Cashewnuts crop is grown in all divisions of Tunduru district. As said above, the district has embarked on a programme to rehabilitate cashewnut farms in older to revive the production to the previous levels attained during the past decade.

## 2.4.4 FARM IMPLEMENTS:

The use of hand hoes is a predominant means of cultivation in the region. Efforts to introduce mechanization farming has been fruitless due to low level of people's awareness and little education which has tended to prevent them from appreciating modern farming techniques and the use of better farm implements. Table XXI shows clearly that the majority of the people in Ruvuma region still use the hand hoes. It is also evident that the use of ploughs in the region is still insignificant. There are only 49 ploughs. It is also observed from the table below that Songea Rural has more tractors (82) against only 17 in Tunduru.

**Table XXI: AVAILABLE FARM IMPLEMENTS, 1997:**

District	Implements							
	Hand Hoes	Ox-Carts	Cultivators	Ox-Ridges	Ox-Harrows	Ox-Ploughs	Tractors	Tractors and Ploughs
Songea (U)	7,188	2	1	1	1	3	2	5
Mbinga	243,720	8	4	5	4	17	37	27
Tunduru	81,675	3	4	9	15	16	17	13
Songea (R)	162,737	43	2	4	5	13	82	57
Total	495,320	56	11	19	25	49	138	102

Source: RALDO Office Ruvuma.

## 2.4.5 FARM INPUTS

The nature of soils in the region requires an application of fertilizers otherwise, the yields become poor. Thus, for better production of various crops in the region, large quantities of fertilizers and improved seeds are very essential. Table XXII below highlights what pertains to the demand and supply of farm inputs in the region.

**TABLE XXII: FERTILIZER AND IMPROVED SEEDS MADE AVAILABLE TO DISTRICTS 1990 - 1995**

District	Type of Input (Tonnes)	Demand and Supply	Year						
			1990	1991	1992	1993	1994	1995	1996
Songea (U)	Fertilizers	Demand	4,115	3,949	2,219	4,419	4,420	4,420	3,172
		Supply	2,424	3,034	2,807	3,680	3,613	3,639	2,298
		Shortage	1,691	915	+588	739	807	781	874
	Improved Seeds	Demand	16.20	14.70	24.00	NA	NA	NA	NA
		Supply	12.40	12.00	15.00	NA	NA	NA	NA
		Shortage	3.80	2.70	9.00	NA	NA	NA	NA
Mbinga	Fertilizers	Demand	19,071	16,409	17,314	16,834.0	16,834	17,406	11,327
		Supply	6599.25	6168.25	1,877	8,538	9,247.3	2,600.3	2,669
		Shortage	12471.75	10240.75	15,437	8,296	7,586.7	14805.7	8,658
	Improved Seeds	Demand	66	40	32	32	32	32	52
		Supply	6	2.44	5	3	1.5	6	2.5
		Shortage	60	37.56	27	31	30.5	26	49.5
Tunduru	Fertilizers	Demand	1,482	6,291	6,259	6,259	6,145	6,100	4,100
		Supply	1,358.45	2215.85	633	166.35	1369.40	17,081.1	1,632
		Shortage	123.55	4075.15	5,626	6092.65	4775.6	4,391.9	2,468
	Improved Seeds	Demand	33	8	6.50	6.0	6	5.00	21.00
		Supply	-	0.349	0.30	-	-	10.00	-
		Shortage	12,354	7.651	6.20	6.0	6.0	+5.00	21.0
Songea (R)	Fertilizers	Demand	16612.25	12,451	15,910	13,796	14,042	8,358	15,573
		Supply	+4258.25	14,462.7	15,979	15401.3	40359.65	+18819	18985.95
		Shortage	105	2011.7	+69	+1605	+26317.65	+10,461	+3412.95
	Improved Seeds	Demand	80.6	96.0	80	80	61.0	75.0	75.0
		Supply	24.4	63.5	45	25	38	48	20.5
		Shortage		32.5	35	55	23	27	54.5

Source: RALDO Office Ruvuma

From Table XXII we see clearly that the low crop production levels observed in the previous sections are mainly caused by inadequate supply of the needed farm inputs. How do you expect good harvest if the amount of fertilizers required does not reach the farmers!

In Mbinga district in 1990 for instance, the people needed 19,071 tons of fertilizers but only 6,599.25 tons were supplied. In Songea Rural in 1995, they needed 48 tons of improved seeds but got only 27 tons.

#### 2.4.6 IRRIGATION:

Irrigation development in Ruvuma began in early sixties and was more strengthened in Mid-seventies when Indian Engineers managed to construct several intakes in the region. These include Likarasi, Mtonya, Masonya and Likonde. Financial constraints hindered further irrigation development despite big potential of the irrigatable land in the region. Crops which can be grown under irrigation are rice and sugarcane.

**Table XXIII: LAND UNDER IRRIGATION, POTENTIAL AREA AND MAIN SOURCE OF IRRIGATION WATER**

District	Irrigation Potential Area (Ha)	Area Under Irrigation (Ha)	Main Source of Irrigation Water	Crop Irrigated
Songea (U)	13,000	60	Streams and Rain water harvest	Sweet Potatoes, Vegetables
Mbinga	18,000	500	Rivers, Streams and Rain water harvest	Paddy, Beans, Sugarcane and Vegetables
Tunduru	1,800	800	Rivers and Streams Rain water harvest	Paddy
Songea (R)	32,930	30	Rivers, Streams/Rain water harvest	paddy, Sugarcane, Fruits
Total	65,730	1,390		

Source: RALDO Office Ruvuma 1997

It is observed from table XXIII above that despite huge potential in Irrigation in the Region, only 2 percent of the land is irrigated. The Region could produce more food for the nation if more hectares of land were put

under irrigation. Until the end of 1997 the Region managed to irrigate only 1390 hectares out of 65,730.

## 2.4.7 FOOD ADEQUACY:

**Table XXIX: THE REGION FOOD POSITION AND BALANCES 1996**

District	Number of villages	Number of Households	Population Estimate 1996	food production in tones	food Requirement in tones	food Balance
Songea (U)	165	24,342	135,581	8,923	31,923	-22,487
Mbinga	168	61,215	349,582	86,798	104,875	-18,077
Tunduru	98	37,686	204,721	76,459	74,692	1,767
Songea (R)	116	106,003	330,576	273,525	99,173	174,352
Total	546	229,246	1,020,461	445,705	310,150	135,555

Source: RALDO Ruvuma

It is reported that Ruvuma region normally does not face food shortages to the extent necessitating food importation from other regions. The region has the potential to produce enough food for its population and sell surplus food to other regions in need. However, there are some few areas like those along Lake Nyasa shores in Mbinga district and some of the villages near Ruvuma River in Songea and Tunduru districts which sometimes face food shortages. The food shortages are said to be caused by reluctance of the local people to adopt the cultivation of drought resistant crops such as cassava.

It is seen from table XXIX that in 1996 the region had a surplus of food to the tune of 135,555 tons. Although, Songea Urban and Mbinga District appear to have had food shortage, we believe the gap was bridged by food surpluses from Songea Rural and Tunduru district. Food sufficiency notwithstanding, the region does experience a lot of cases of malnutrition believed to be caused by



inadequate intake of animal protein, especially for children under the age of 5 years. Thus, it is important for the people in the region to increase animal protein in their diet. This can be done by encouraging people to keep more livestock.

## 2.4.8 STORAGE FACILITIES:

**Table XXX: NUMBER OF MODERN STORAGE FACILITIES  
IN RUVUMA, 1996:**

District	Number of Godowns	Capacity in Tones
Songea (U)	15	36,500
Mbinga	129	8,160
Tunduru	37	11,300
Songea (R)	175	52,500
Total	352	108,460

Source: RALDO Office Ruvuma

Storage facilities for crops are increasingly losing their original meaning and importance as well. This stems from the fact that the present trade liberalisation policy does not encourage storage of crops in the godowns for longer periods. Free competition in buying and selling of crops also means competition for markets as well as minimisation of costs. This means the sooner you buy and sell the better to avoid unnecessary storage costs (charges).

## 2.4.9 LIVESTOCK:

The region has small Livestock population. Mbinga district has relatively more livestock than other districts. Efforts are being made by the District authorities in collaboration with International Organisations such as World food Programme, Caritas and food Aid Counterpart Fund to bring in more cattle and goats from the

other regions. Table XXXI below indicates livestock distribution by District.

**Table XXXI: LIVESTOCK POPULATION GROWTH BY DISTRICT 1984-1994**

District	Type of Livestock	Number of Livestock		% Growth
		1984	1994	
Songea (U)	Cattle	700	3,286	369.43
	Goats	5,343	10,177	90.5
	Sheep	340	567	66.74
	Pigs	1,413	3,002	112.46
	Cattle	29,990	52,655	75.6
	goats	77,182	118,168	53.1
	Sheep	10,906	19,154	75.6
	Pigs	28,406	53,098	86.9
Tunduru	Cattle	1,617	4,521	179.59
	Goats	49,693	102,565	106.4
	Sheep	4,560	7,614	66.97
	Pigs	176	476	170.45
Songea (R)	Cattle	6,703	11,341	66.97
	Goats	50,184	67,667	34.84
	Sheep	4,818	8,021	66.47
	Pigs	11,987	31,896	166.10
Total Region Mbinga	Cattle	39,010	71,803	84.1
	Goats	182,402	298,577	63.7
	Sheep	20,624	35,356	71.4
	Pigs	41,982	88,462	110.7

Source: RALDO Ruvuma 1997

In a period of ten years (1984 - 1994) livestock population in Ruvuma region increased very significantly. For instance, the number of cattle increased by 99 percent from 39010 in 1984 to 77,803 in 1994. It is reported that the increase in the number of cattle is mainly due to the efforts made by various institutions including the Heiga Project International (HPI). The HPI project introduced into the region new cattle breeds as well as importing cattle from neighbouring regions. Luhimba and Hanga are used as livestock breeding centres.

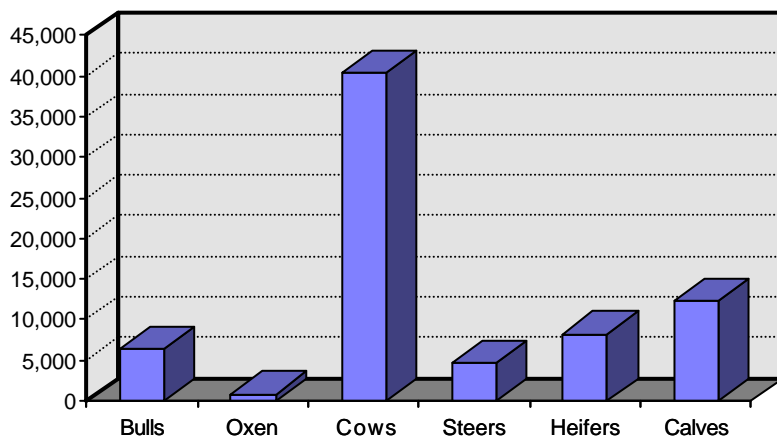
## 2.4.10 LIVESTOCK DISTRIBUTION:

TABLE XXXII: DISTRIBUTION OF CATTLE BY TYPE IN RUVUMA REGION 1994

Cattle Type	Number of Cattle	% of Total
Bulls	6,303	8.45
Oxen	766	1.22
Cows	40,368	57.95
Steers	4,631	7.38
Heifers	8,194	9.87
Calves	12,307	15.13
Total	71,803	100.00

Source: RALDO Ruvuma 1997.

**Fig. 15: Distribution of Cattle by Type in Ruvuma Region 1994**



**Table XXXIII: DISTRIBUTION OF DIARY CATTLE AND OWNERS BY DISTRICT 1994**

District	Small Scale Owners		Big Cattle Farms	
	Number of Cattle Owners	Diary Cattle	Number of Farms	Diary Cattle
Songea (U)	314	189	-	-
Mbinga	12,208	141	1	-
Tunduru	1,651	15	2	-
Songea (R)	4,942	102	4	2
Total	19,115	447	7	2

Source: RALDO Office Ruvuma.

Large population of cattle in the region belongs to farms owned by local government authorities, missionary and prisons department. These farms are in Luhimba and Muhullum (Songea district), Peramiho and Liganga (Peramiho Mission) Masonya and Majimaji (Tunduru district) and Matiri in Mbinga district.

#### **2.4.11 LIVESTOCK IN FRASTRUCTURE**

The region has very few Livestock infrastructure to cater for the increasing number of animals. This is due to the fact that Livestock are owned by small scale farmers scattered all-over the Region, making it difficult for the Government to provide the required facilities.

**Table XXXIV: AVAILABLE LIVESTOCK INFRASTRUCTURE BY DISTRICT 1996**

District	Dips	Crusher	health Clinics	Abattoir	Hides and Skins heds
Songea (U)	2	-	1	2	1
Mbinga	22	-	-	2	-
Tunduru	12	-	-	1	-
Songea (R)	30	19	-	-	-
Total	66	19	1	5	1

Source: RALDO Office Ruvuma 1997

The most interesting observation we can make on table XXXIV is that Mbinga District which happen to have more cattle than Songea Rural has only 21 dips. Songea Rural with 11,341 (1994 estimates) cattle has 30 dips and 19 crushers.

## 2.5 NATURAL RESOURCES

Ruvuma Region is endowed with very high natural resource potential, including the Miombo woodlands. The potentials include natural forests, game reserves, fish minerals deposits, honey and bees wax.

### 2.5.1 FORESTRY:

Ruvuma region is one of the regions in the southern part of the country endowed with natural miombo woodlands. The region has a total number of 13 forest reserves with a total area of 695,775 Ha. Out of this area, catchment forest reserves take up an area of 629,805 Ha, equivalent to 90.52% of the total forest reserve area.

**TABLE XXXIV (a): FORESTS COVERAGE BY DISTRICT**

District	Number of Forest Reserves	Catchment Forest Reserves	RESERVE AREA	
			Forest Reserves (Ha.)	Catchment forest Reserves (Ha.)
Songea (U)	1	1	3,723	3,723
Mbinga	3	2	59,769	2,719
Tunduru	4	4	315,386	315,386
Songea (R)	5	3	316,897	307,977
Total	13	10	695,775	629,805

Source: Regional Natural Resources Office-Ruvuma.

The problem with forests is that there is no effective protection of the existing forests. In most cases people over exploit them in the process of gathering firewood and cutting wood for building materials, and other uses. However, as we can see in Table XXXIV (b) the Regional Authority is making some effort to avoid further depletion of forests by preserving some of them. Apart from preserving the forests for the future other measures should be taken to replenish the barren areas with trees, (raising seedlings and planting them). As evidenced by the data on Table XXXIV (b) tree planting by various Institutions has been increasing tremendously.

**TABLE:XXXIV (b) NUMBER OF SEEDLINGS PLANTED**

Institutions Involved	Number of Seedlings planted in Ruvuma Region						
	1990	1991	1992	1993	1994	1995	1996
District Councils	2million	2.5 Million	4 Million	3.5 Million	2 Million	2.6 Million	1 Million
Schools	75,000	80,000	100,000	208,000	200,000	50,000	26,000
Villages	800,000	950,000	1.2 Million	1.5 Million	1 Million	1 Million	0.4 Million
Individual groups	100,000	250,000	800,000	750,000	600,000	600,000	30,000
Other	50,000	75,000	25,000	30,000	30,000	20,000	10,000

The success story of tree planting in Ruvuma Region has been made possible by European Union Funds. These funds have enabled the District Councils to raise and plant 17.6 million seedlings between 1990 and 1996. The Regional and District Authorities should continue to encourage and support those interested in tree planting as well as the overall environmental preservation endeavours. Apart from balancing deforestation and afforestation, people earn incomes through sales of fuelwood, charcoal, poles etc, while the government gets its revenue from sale tax. Therefore, promoting afforestation programme in the Region benefits both the government and the people.

It is reported that between 1991 and 1996 the revenue collected from the sale of various forest products amounted to 10,650,300/= (TShs), of which TShs 14,343,175 came from the sale of charcoal, logs fuel wood etc.

Table XXXV below, highlights the volume of forest products produced between 1991 and 1996.

**Table.XXXV: FORESTRY PRODUCTION 1990 - 1996**

Type of Product						
	1991	1992	1993	1994	1995	1996
Timber (Logs)	80,000	200.0	150.0	100.00	120.00	90.565
Fuel woods M <sup>3</sup> Stacked	350.0	400.05	500.00	450.00	400.00	387.25
Charcoal (M <sup>3</sup> ) (Bags)	500	800	850	600	700	958
Poles Number	200	500	600	450	500	180





### **2.5.2 Wildlife:**

Ruvuma Region is also rich in wildlife, especially the elephants, sable, lesser Kudu, hippo, lions, leopards, zebra, buffalo etc. The region has one game Reserve (Selous) and game controlled areas namely, Muhuwesi, Undendeule and Mwambesi. Liparamba in Mbinga district is still a proposed Game Reserve. Liparamba occupies about 570 sq km Muluwesi and Mwambesi Game controlled areas are in Tunduru district, while Undendeule is in Songea district. Like in other Game controlled areas, game poaching is always a problem, that the government will need to find a lasting solution. Other problems disturbing game includes bushfire.

### **2.5.3 Bee-Keeping:**

Bee-keeping if taken seriously it becomes a very good alternative source of income for many people. In other regions where miombo woodlands are plenty, you find bee-keeping activities very lucrative to many people. The same could happen in Ruvuma region if people could be made aware of the potential still not tapped effectively. It is reported that in 1996, Ruvuma region produced only 1.43 tons of honey and 0.3 tons of wax. In Iringa region in 1994/95 season for instance, it produced 116 tons of honey and 7 tons of wax (Iringa region Socio-Economic Profile, Page 77). According to Iringa Socio-Economic Profile, people in Njombe district earned 51,770,000/= from the sale of honey in 1994/95 season.

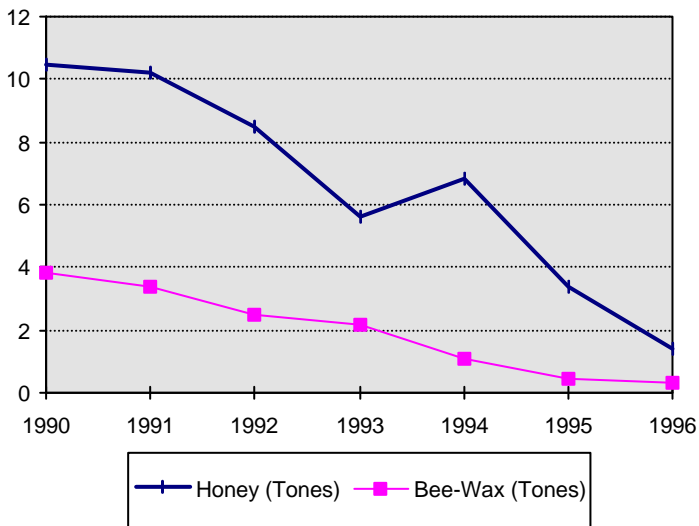
Table XXXVI below highlights low production levels in honey and wax between 1990 and 1996.

**TABLE.XXXVI: PRODUCTION HONEY AND BEE-WAX BETWEEN 1990-1996**

Year	Honey (Tones)	Bee-Wax (Tones)
1990	10.5	3.8
1991	10.2	3.4
1992	8.5	2.5
1993	5.6	2.2
1994	6.8	1.1
1995	3.4	0.45
1996	1.43	0.304

Source: Region Natural resource Office Ruvuma 1996

**Fig. 16: Production of Honey and Beeswax (Tones) Between 1990 - 1996, Ruvuma Region.**



#### 2.5.4 FISHING INDUSTRY:

Fishing plays an important role in the economy of Ruvuma Region in particular in Mbinga District. It is a supplier of fish

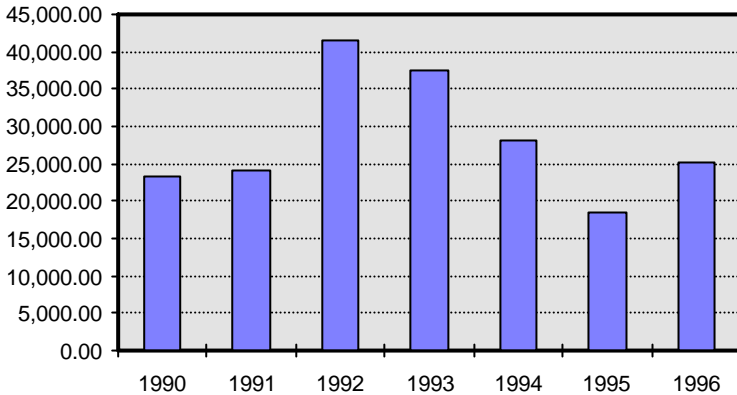
protein and a major source of employment. Fishing activities are mainly carried out in lake Nyasa, covering an area of 2978 km<sup>2</sup>. Minor fishing in the waters of Ruhuhu, Ruhuji, Lukimwa, Ruvuma, Mwambesi, Nampungu and Muhuwesi rivers also do contribute substantial amount of fish. There are about 5000 full and partime artisanal fishermen using over 1000 dug out canoes. Fish catches fluctuate between 18,000 and 25,000 metric tones annually with a declining tendency mainly due to a marked shortage of modern fishing gear. Mbinga exports about 50,000 live aquarium fish to European markets per year. In inland areas there are about 5,000 fish ponds, where some people practice small-scale fishing. Nevertheless, fishing in the region is not to the level that meets demand and in most cases necessitates the importation of fish from other regions. The region receives about 1000 tones of processed fish from Lake Victoria (Mwanza), Lake Tanganyika (Kigoma, Rukwa), Mtera Dam, Kilombero and Indian Ocean (Coast Dar es Salaam, Lindi Mtwara) annually.

**TABLE XXXVII: FISH PRODUCTION (LAKE NYASA)**

<b>Year</b>	<b>No. of Fishermen</b>	<b>No. of Vessels</b>	<b>Weight of fish (Ton)</b>
1990	5,087	1,255	23,381.2
1991	4,018	857	24,091.6
1992	2,184	1,482	41,591.3
1993	2,184	1,482	37,550
1994	4,957	1,572	28,020.6
1995	4,203	1,056	18,355
1996	4,002	1,022	25,154

Source: Report on fisheries report from 1985-1995 Ruvuma region.  
 - Fisheries Annual Report Ruvuma Region.

**Fig. 17: Fish Production (Lake Nyasa) (Tones) in Ruvuma Region, 1990 - 1996.**



### **2.5.5 MAJOR FISHING AREAS:**

Lake Nyasa provides a major fishing ground in the region and it occupies 2978 sq. kms. Minor fishing areas include rivers, natural dams and ponds (man-made): Important rivers are Ruhuji, Pitu, Lukimwa and Ruvuma in Songea district. The rivers in which fishing is carried out in Tunduru district are Muhuwezi, Mwambesi, Nampungu and Ruvuma. There are 5301 fish ponds of which 1184 are in Songea Urban, 1985 are in Songea Rural, 1142 are in Tunduru and 990 are in Mbinga district.

### **2.5.6 MINING:**

The mineral deposits potential of the region includes gold. Various gemstones, coal and building materials, diamond have also been reported to exist especially in the southern most end of the region. The deposits concentration spread as follows:-

(i) **Gold:**

Gold prospecting and mining is mostly carried out in Mbinga District, by small-scale miners. Recent Geological investigations indicated that there were some gold deposits along Muhuwesi river in Tunduru district. Mineral potential is believed to be enormous, specially in Tunduru and Songea districts.

(ii) **Gemstones:**

Gemstones mining in Tunduru has only started recently but the potential appears to be high. Gemstones spotted include, sapphire, chrysobery, Alexandrite, spinel and Garnets. Agua marine deposits have been found in Songea district. However, a detailed exploration work is still needed to confirm the existence of the gemstones, the grade, quality and etc.

(iii) **Coal:**

Geological investigations in Tanzania was conducted mainly by the Colonial Development Corporation (Madini - Dodoma) and NDC, and found Five basins in Ruvuma Region to be containing some coal. The existing basins are Ngaka, Muhukuru, Mbamba-Bay, Njuga and Lumecha. More work is still needed by the Geologists to confirm the existence of the coal, quantity and quality.

(iv) **Building Minerals:**

Building minerals like rocks, stones, gravel, sand, murram and clays are available in the region. The minerals are good for road construction, house building and general masonry and brick making.

### **2.5.7 SECTOR PROBLEMS**

1. Mineral prospecting and mining activities in the region are being carried out with minimal mechanization, (prospecting is by visual inspection and or by development of shallow trenches).
2. Most miners employ inferior equipments (picks and shovels).
3. Lack of transport for supervising mining activities.
4. Lack of reliable market since early 1995 (the bank of Tanzania stopped buying gold). This has affected Mbinga District most.

### **2.5.8 INDUSTRY ACTIVITIES:**

The region has three big factories, namely, tobacco processing factory owned by Songea Agricultural Marketing and Co-operative Union (SAMCU), coffee curing factory owned by Mbinga Marketing Co-operative Union (MBICU) and cashewnuts factory owned by Cashewnut Marketing board of Tanzania. Table XXXVIII highlights the number of existing industries in each district.

**Table. XXXVIII: THE NUMBER OF SMALL SCALE INDUSTRIES, 1996:**

Type of Industry	Songea (U) (No.)	Mbinga (No.)	Tunduru (No.)	Songea (R) (No.)	Total
Ginneries	NIL	-	-	-	-
Farm Implements	1	-	-	-	1
Grinding Mills	208	159	90	99	556
Machenised Saw Mill	2	3	2	2	9
Pit Saw	4	-	-	-	4
Caprentry Works	4	1	2	1	8
Printing Press	1	-	-	1	2
Oil Extraction	5	-	-	-	5
Bakery	5	3	2	2	12
Grain Milling	1	5	-	4	10
Fruit Canning	-	-	-	-	-
Textiles	-	-	-	-	-
Hand Loom Weaving	5	1	-	1	7
Garment Tailoring	10	-	-	-	10
Tanneries	-0	-	-	-	-
Shoe Making	2	-	-	1	3
Soaps					
Utensil					
Metal	5				5
Fabrication	1				1
Transport	2	2			4
Workshops	2				2
Auto-Garages	2				2
Blacksmiths	1				1
	37	6	-	5	48

Source: Regional Manager SIDO - Ruvuma 1996

## 2.5.9 SECTOR PROBLEMS:

The Industrial sector in the region has various setbacks which hinder the development of the existing industries and the establishment of new industries.

1. Poor infrastructure such as Roads, storage facilities, power, and water,
2. Lack of market for some products.



3. Low entrepreneurship ability among the people.
4. Lack of Credit facilities.

## SECTION III

### 3.0 ECONOMIC INFRASTRUCTURE:

#### 3.1 Roads Network:

Ruvuma Region has a total of 3,921 kms. of road network. The road network includes trunk, regional, district and feeder roads. Songea the regional headquarter is served by major roads such as, Makambako - Songea tarmac road of 387 km, Tunduru - Songea earth road of 264 km and Songea -Mbambabay earth road of 170km.

**TABLE XXXIX: ROAD NETWORK BY DISTRICT AND TYPE 1996**

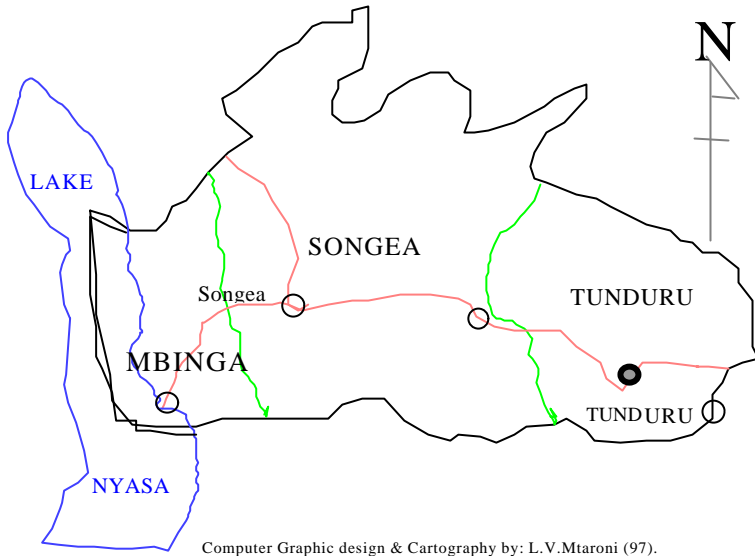
District	Type of Road				Total
	Trunk (Km)	Regional (Kms)	District (Km)	Feeder (Km)	
Songea (U)	36	12	41.0	85	174
Mbinga	115	334.2	379.1	225.1	1053.4
Tunduru	208	142	242	520	1,112
Songea (R)	325	426	722	63	1,536
Total	684	914.2	1384.1	893.1	3875.4

Source: Regional Engineers Office 1997.

Unlike in other regions, the number of kilometers of feeder roads are incredibly smaller than both kilometers of district and regional roads. Feeder roads account for only 23 percent of the total roads length, while district roads account for 35 percent and regional roads 24 percent. Normally feeder roads network are expected to cover more kilometers because they constitute the most important routes of the regional economy. Various actors in the economy need feeder roads more than any other route to enable them move and distribute their products to the needy areas.



## ROAD NETWORK - RUVUMA REGION



### **LEGEND**

- Regional boundary
- District boundaries
- Road network
- Water bodies edge
- Lake Nyasa

- Background Tanga region
- District Urban centers.

**TABLE XL: TYPE AND QUALITY OF ROAD NETWORK 1996**

District	Type by Surface			Total
	Tarmac (Km)	Gravel (Km)	Earth (Km)	
Songea (U)	30	47	97	174
Mbinga	-	183	870.9	1053.9
Tunduru	-	12	1100	1112
Songea (R)	154	175.8	1206.2	1536
Total	184	417.8	3274.1	3875.4

Source: Regional Engineer's Office 1997.

Improvement of road surface increases the efficiency and reduces the costs of transportation of goods and services. It is observed from Table XL that only 5 percent of the regional road network are tarmac surfaced and the rest are either gravel or earth surfaced. The more kilometers of earth roads the more problems people face during rainy season as most roads tend to be impassable. This is evidenced by the condition of the road between Songea and Tunduru during rainy season. Tunduru in most cases is temporarily cut-off from the Regional Headquarter during the peak of the wet season.

Table XLI highlights the condition of district and Feeder roads in the region.

**TABLE .XLI: LENGTH AND CONDITION OF REGION'S ROAD NETWORK 1996:**

District	Type of Road	Condition of Road (Kms.)		
		Good	Fair	Poor
Songea (U)	District	0	41	
	Feeder	0	84	
Mbinga	District	0		380.2
	Feeder	0		230.5
Tunduru	District	0		242
	Feeder	0		520
Songea (R)	District	0		722
	Feeder	0		63
Total	District	0	41	1,344.2

	Feeder	0	84	813.5
GRAND TOTAL			125	2,157.7

Source: Regional Engineer's Office.

It is observed from Table XLI that there is not any good District or Feeder roads. Only 41 and 84 kilometers of district and feeder roads are fairly good respectively and the remaining 2,157.7 kilometers (District and Feeder roads) of roads network are in poor state. It also shows the seriousness of the poor roads condition in Ruvuma region. The poor state of roads in the region is attributed to inadequate allocation of funds for roads maintenance. The district councils have very limited capacity to maintain districts roads. In general the region is faced with poor road infrastructure which is a big constraint in the exploitation of the agricultural potential in the region.

Table XLII below shows the names of selected roads which have recently been rehabilitated.

**TABLE XLII: UPGRADING AND ROAD MAINTENANCE PROJECTS IN THE REGION 1996:**

District	Road (Name)	Length Coverage	Type of Work
Songea (U)	Mkulima road	1 km	Upgrading to tarmac status
		5 km	Upgrading to gravel status
		40 km	Upgrading to earth road
Songea (R)	Mlete - Matimira	24.1 km	Rehabilitation
	Lumecha - Hanga	21.8 km	Rehabilitation
	Namabengo - Mbimbi	11.5 km	Rehabilitation
	Namtumbo - Namigongo	8.5 km	Rehabilitation
Mbinga	Ndengu - Mbuji	14.8 km	Rehabilitation
	Unyoni - Hanga	32.1 km	Rehabilitation
	Bambo - Mikalanga	6.5 km	Rehabilitation
	Maguu - Hinga	4.2 km	Rehabilitation
	Godown access road	7.0 km	Rehabilitation
	Mbinga - Kitulo	32 km	Rehabilitation
	Myangayanga - Mpitachinunu	5.3 km	Rehabilitation
	Gela - Ituru	21.2	Rehabilitation

	Pelekano - Lugari	4.3 km	Rehabilitation
	Longa - Linda - Matiri	19.5 km	Spot Improvement
	Kilanga juu - Mahenge	7.3 km	Spot Improvement
	Longa - Litoho	33 km	"
	Mbinga - Litindo	28.5 km	"
	Mapera - Kihongo	6.2 km	"
	Kihulila - Ungano	10 km	"
	Ngima - Litembo	9.7 km	"
	Lituhi - Mbamba Bay	113 km	"
	Ndongosi - Lituhi	32 km	Upgrading
Trunk Road	Songea - Tunduru - Lumesule	336 km	Spot Improvement

Source: Regional Engineer's Office - Ruvuma.

### 3.2 Air Transport:

Songea Town is served by a small Airport of grade III standard, and mainly suitable for small aircrafts. Apart from small charter planes, Fokker 50 uses the airport as well.

### 3.3 Marine Transport:

Marine transport is only possible in Lake Nyasa by steamer between Malawi Ports and Mbamba-Bay port and between Itungi port and Mbamba-Bay on the Tanzania side.

### 3.4 Communication Net Work:

Telecommunication services have improved in the last five years, during which STD system, was installed and Telex, Fax and EMS facilities have been put in place as well. Table XLIII shows the type of telecommunication systems available in the region.

**TABLE XLIII: TELECOMMUNICATION SERVICES AVAILABILITY IN RUVUMA REGION:**

Year	Type of Service				Letter Boxes
	Telephone Lines	Telex	Fax	Post Office	
1990	999	12	-	3	3025
1991	1021	12	-	3	3025
1992	1226	14	14	3	3025
1993	1257	13	16	3	2975
1994	1363	14	22	3	3075
1995	1399	13	24	3	3075
1996	1306	11	24	3	3075
1997	1386	11	24	3	3075

Source: Manager Kampuni ya Simu Ruvuma 1997.



### 3.5 Energy and Electricity:

Songea Rural is a fast developing district in Ruvuma region creating high electricity demands. For instance, the present electricity demand in Songea town is estimated at 4.0 MW against the installed capacity of 3.08 MW. The Township depends on electric power generated by 4 Generators which are only capable of producing 1.2 MW. Mbinga town still lacks electric power supply by TANESCO. It's electricity demand is estimated at 2.0 MW. Unlike Mbinga town, Tunduru town is supplied with electricity generated by diesel engines. Demand is still low and therefore, the existing power is exceeding the demand of the people.

**TABLE XLIV: URBAN DEMAND AND SUPPLY OF ELECTRICITY IN RUVUMA REGION, 1996:**

District	Electricity Supply			Percentage with Electricity
	Total Demand	Installed Capacity	Total Supply	
Songea (U)	4 MW	3.08 MW	1.5 MW	37.5
Mbinga	2.0 MW	-	-	-
Tunduru	0.35 MW	0.4 MW	0.35 MW	87.5
Songea (R)	-	-	-	-
Total	6.35 MW	3.48 MW	1.85 MW	57.5

Source: TANESCO Songea 1997

## **3.6 ALTERNATIVE SOURCES OF POWER:**

### **3.6.1 Fuel/Fire Wood:**

Most people in Ruvuma Region use firewood for domestic purposes. About 2 mill m<sup>3</sup> of wood is used every year. Electric power is used by few people, mainly in towns. Nevertheless, care must be taken to ensure that deforestation does not take place in the region due to over cutting of trees in order to generate the energy needed. Measures should be devised to help avoid environmental degradation by pursuing better methods of efficient utilization of fuel-wood. Deliberate efforts need to be made to encourage people to use improved charcoal stoves and tobacco curing methods. Other uses of alternative sources of energy such as coal for tobacco curing, biogas and solar energy for cooking and lighting should be tried. Biogas technology has been introduced in the region but very few people are using it. The use of Solar energy is yet to be introduced in the region. Many people in the region seem not to have heard of it.

## **SECTION IV**

### **4.0 SOCIAL SERVICE SECTORS:**

#### **4.1 EDUCATION SECTOR:**

Formal education in Ruvuma regions begins with the works of the Missionaries particularly, the Catholic Church whose entry into the region dates back to 1898 Ruvuma region therefore is one of the few regions in the country that could boast of having benefited from the educational activities of the Christian Missionaries. However, the impact of the Missionary education system in the region is difficult to qualify but we may probably attempt to measure it by the output of the early Middle Schools like, Nkaya, Mango, Mpitimbi, Litembo, Kigonsera, Peramiho and St. Michael, etc. In order to provide education to all school going age in the country without discrimination the government launched a Universal Primary School Education Programme (UPE) in 1974.

The idea here was to provide primary school education to all children aged 7-13 and to reduce the adult illiteracy rate from 69% to 5% throughout the country. This programme resulted into many children going to school and many schools being built.

##### **4.1.1 Primary School Education:**

Primary school education in Ruvuma region has been expanding especially in Mbinga district. According to Table XLV below, the region increased the number of schools from 345 in 1975 to 493 in 1996, of which 40 percent are in Mbinga district. An increase in the number of primary schools notwithstanding, school enrolment dropped from 76.4 percent in 1991 to 73.8 percent in 1996. Another interesting observation we can make from Table

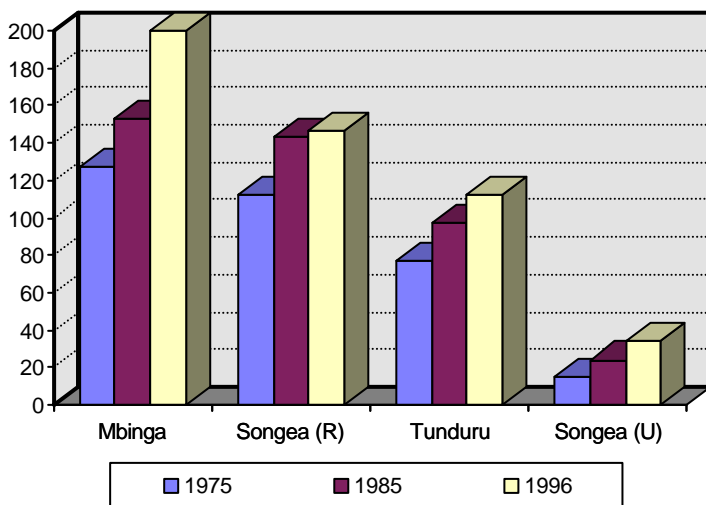
XLV is that Mbinga district with a smaller land surface has more primary schools than Songea and Tunduru districts with bigger land surface. As shown in table XLV Mbinga, Tunduru and Songea Urban districts have made great progress in building schools between 1985 and 1996, while Songea rural managed to build only 4 schools compared with 7 in Mbinga, 15 in Tunduru and 10 in Songea Urban.

TABLE XLV: **EXPANSION OF PRIMARY SCHOOLS 1994-1996**

District	1975	1985	1996
Mbinga	127	153	200
Songea (R)	112	143	147
Tunduru	77	97	112
Songea (U)	15	24	34
Total	345	408	493

Source: Regional Education Office - Ruvuma 1997.

**Fig. 17: Expansion of Primary Schools 1994 - 1996**



Another further striking observation from Table XLV above is that between 1985 and 1996 (about ten years), Mbinga District managed to increase the number of schools by 31 percent, while Songea Rural and Tunduru Districts by only 3 and 15 percent respectively. More primary schools in Mbinga District also help explain the cause of higher gross enrolment rate in Mbinga compared with other districts. It appears from the observations that Mbinga people take education more seriously than in other districts.

#### 4.1.2 Primary School Enrolment:

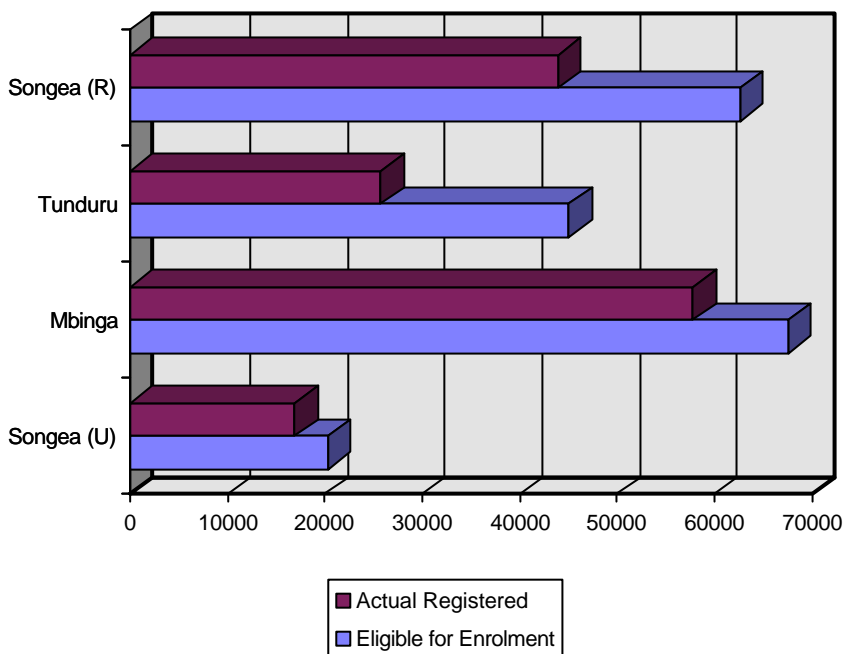
According to Table XLVI we witness a higher Gross Enrolment Rate of about 86 percent in 1996 in Mbinga district compared with only 57 percent in Tunduru District.

**TABLE XLVI: STANDARD I ENROLMENT BY DISTRICT 1996 (7-13 YEARS)**

District	Eligible for Enrolment	Actual Registered	Not Enroled	Gross Enrolment Rate (%)
Songea (U)	20,243	16,919	3,324	83.6
Mbinga	67,527	57,781	9,746	85.6
Tunduru	45,039	25,732	19,307	57.1
Songea (R)	62,652	43,924	18,728	70.1
Total	195,461	144,356	51,105	73.8

Source: Regional Education Office - Ruvuma 1997

**Fig. 18: Standard I Enrolment by District 1996 (7-13 Years)**



In Table XLVII it is observed that in all six years (1991 - 1996), Gross Enrolment Rate for Girls exceeded that of boys. It is still not clear why more girls have always been registered than boys in Ruvuma region.

**TABLE XLVII: PUBLIC SCHOOL ENROLMENT IN STD I - VII BY SEX 1991-1996**

Year	Sex	Number Eligible for Enrolment	Actual Registered	Not Registered	Gross Enrolment rate %
1991	Boys	83617	62199	21418	74.4
	Girls	81753	64194	17559	78.5
	Total	165370	126393	38977	76.4
1992	Boys	86460	65527	20933	75.8
	Girls	84632	67115	17417	79.4
	Total	170992	132642	38350	77.6
1993	Boys	89400	68046	21354	76.1
	Girls	87407	68808	18599	78.7
	Total	17687	136854	39953	77.4
1994	Boys	92439	68595	23844	74.2
	Girls	90378	70583	19795	78.1
	Total	182817	139178	43639	76.1
1995	Boys	95582	69792	25790	73.0
	Girls	93451	71684	21767	76.7
	Total	189033	141476	47557	74.5
1996	Boys	88832	70357	28475	71.2
	Girls	96629	73999	22630	76.6
	Total	195461	144356	51105	73.8

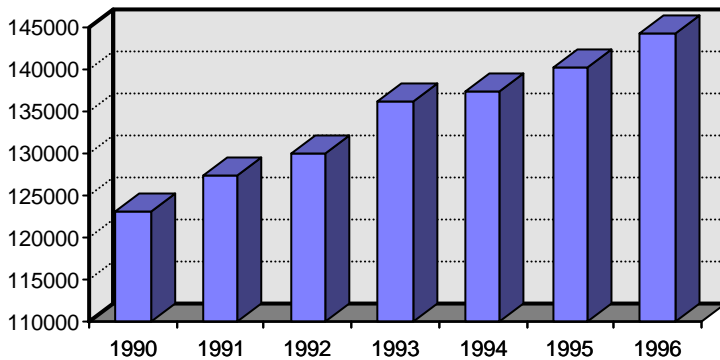
Source: Regional Education Office - Ruvuma 1997

**TABLE XLVIII NUMBER OF PUPILS IN PRIMARY SCHOOLS, 1990 - 1996:**

Year	GRADE							Total
	I	II	III	IV	V	VI	VII	
1990	20119	18720	19109	18019	14854	16321	15877	123019
1991	22251	19025	18669	19021	17383	14804	16314	127467
1992	24199	20651	18865	18608	16593	16627	14367	129909
1993	26587	21750	19431	19373	16618	15975	16455	136189
1994	26002	24311	20320	19855	15146	16202	15589	137430
1995	26919	23646	22674	19859	17418	14595	15769	140277
1996	27511	25096	22945	23001	15263	16792	13708	144356

Source: Regional Education Office Ruvuma 1997

**Fig. 19: Number of Pupils in Primary Schools, 1990-1996**



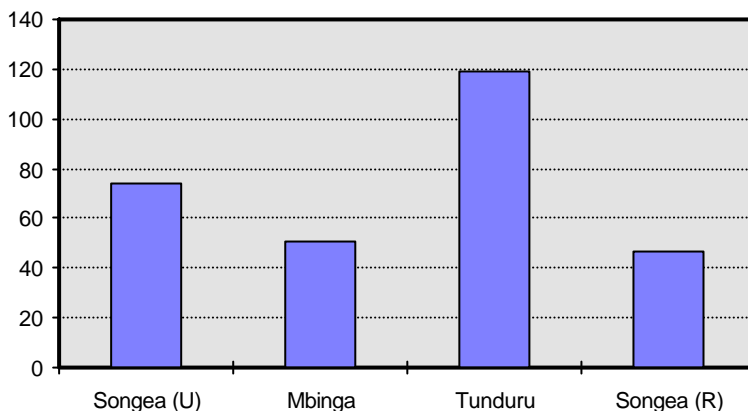
Under normal circumstances, one would have expected more children completing Grade VII now than in the past due to several educational campaigns that have been made by the leaders to popularize the importance of education, including UPE programme that has been effective since 1974. Nevertheless, what we see in table XLVIII is different, especially the number of children who completed Grade VII from 1990 to 1996. The number fluctuates so much, beginning with 15,877 pupils in 1990 to only 13,708 pupils in 1996. Causes for the drop-out will be clearer when we discuss a section on school drop-outs. Table XLIX below shows pupils/classroom ratio by district. By National standards, the ratio should be 45:1, that is, 45 pupils per classroom.

**TABLE XLIX: CLASSROOM PUPIL RATIO BY DISTRICT - 1996**

District	No. of Pupils	Available Classrooms	Ration
Songea (U)	16919	222	74
Mbinga	57781	1132	51
Tunduru	25732	216	119
Songea (R)	43924	947	46.4
Regional	144356	2524	57.0



**Fig. 20: Classroom Pupils Ratio by District, Ruvuma Region 1996**



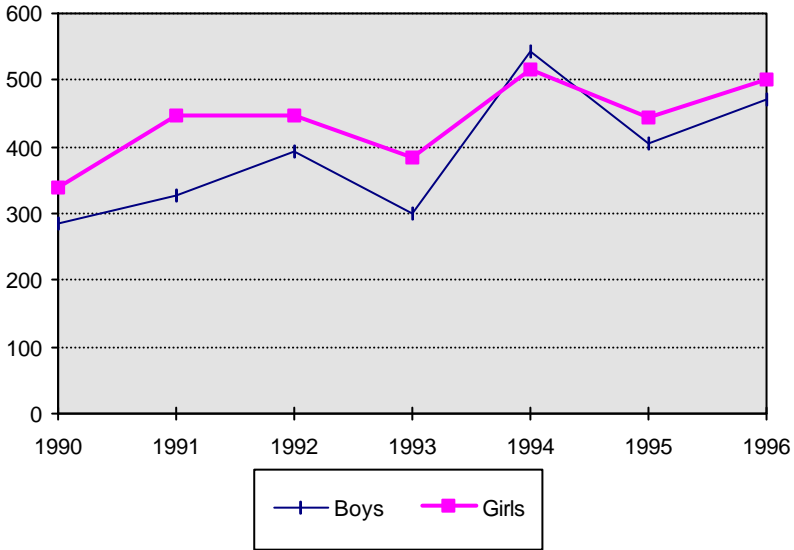
Surprisingly enough in Tunduru District, the ratio is as high as 119 pupils per classroom. It is only in Songea Rural where the ratio is close to the standard ratio of 45 to one. The number of schools in Tunduru district is not adequate and more schools need to be built soon in order to avoid congestion in classrooms. The more the number of pupils in the classroom the more ineffective teachers become and hence poor educational performance at the end of the day. Tunduru district will need 356 additional classrooms in order to attain a ratio of 45 pupils per classroom. Mbinga district would only need 152 additional classrooms in this respect.

**TABLE L (a): DROP OUT CASES:**

Year	1990	1991	1992	1993	1994	1995	1996	Total
Boys	286	327	393	300	542	404	471	2723
Girls	340	446	447	384	517	444	502	3080
Total	626	773	840	684	1059	848	973	5803

Source: Regional Education Office Ruvuma Region 1997

**Fig. 21: Droup-Out Cases by Sex, 1990 -1996, Ruvuma Region**



Unlike, enrolment rates in Grade I girls tend to drop-out of school as they advance into higher grades. Table L (a) above shows such a drop-out cases. In all years except 1994, drop-out cases in girls tended to be higher than that of boys. The incidencies of girls drop-out from school are further confirmed by the subsequent tables of L (b) and L (d). School drop-out cases, when looked at from the rural districts point of view, we observe that Songea Rural with fewer schools and pupils than Mbinga district recorded higher drop-out cases for both girls and boys. For instance, in 1990 in Songea rural 138 boys and 160 girls dropped out of school against 96 boys and 106 girls in Mbinga district. Similarly, in 1996, 168 boys and 191 girls in Songea rural left school compared with only 96 boys and 109 girls in Mbinga district (Table L (b)). Table L (a) shows that the last three years of

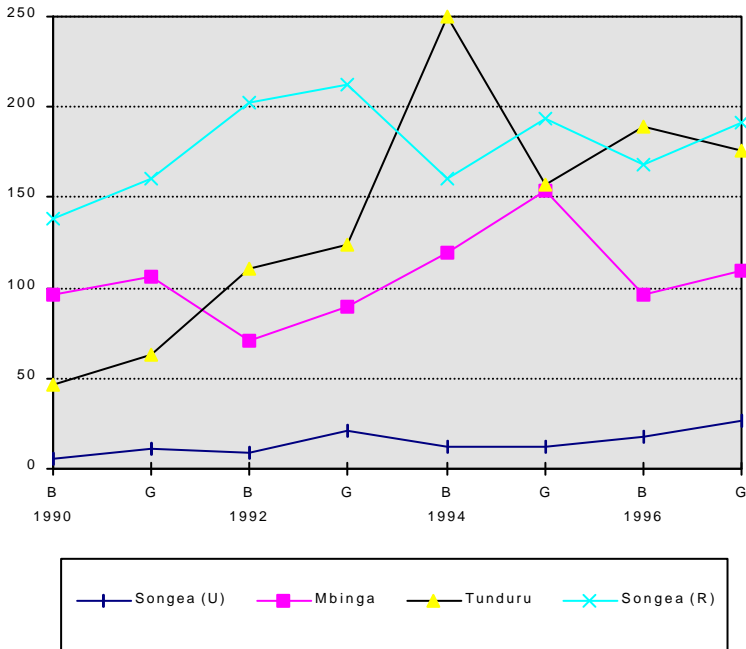
Primary school education have more drop-out cases, especially the girls.

**TABLE L (b) DROP OUT CASES BY DISTRICTS**

District	1990		1992		1994		1996	
	B	G	B	G	B	G	B	G
Songea (U)	6	11	9	21	12	12	18	26
Mbinga	96	106	71	90	120	154	96	109
Tunduru	46	63	111	124	250	157	189	176
Songea (R)	138	160	202	212	160	194	168	191
Total	286	340	393	447	542	517	471	502

Source: Regional Education Office Ruvuma 1997

**Fig. 23: Droup-Out Cases by Sex, Boys(B) and Girls (G) for Districts under the Key, 1990, 1992, 1994 and 1996.**



**TABLE L (c): MAGNITUDE OF DROP-OUTS BY SEX AND DISTRICT**

District	Std. I Enrolment 1990		Number Completed Std VII 1995		Percentage Drop-outs	
	Boys	Girls	Boys	Girls	Boys	Girls
Songea (U)	1036	1055	888	948	14.3	10.1
Mbinga	3510	3438	2988	3235	14.8	5.9
Tunduru	2484	2378	1457	1550	41.3	34.8
Songea (R)	2997	2967	2280	2443	23.9	17.7
Total	10027	9838	7613	8176	24.1	16.9

Table L (c) highlights the magnitude of drop-outs by district. When we compare the four districts of Ruvuma region in terms of drop-out cases, between Grade I and Grade VII, we see that Tunduru and Songea rural command higher percentage drop-out cases. For example out 2484 boys and 2378 girls in Tunduru who enrolled for Grade I in 1990 only 1457 boys and 1550 girls completed Grade VII in 1995. While, in Mbinga district, out of 3510 boys and 3438 girls registered in Grade I in 1990 2988 boys and 3235 girls completed Grade VII in 1995. The reasons for drop-out cases in schools are highlighted in Table L (d). According to the table in question, it is obvious that truancy is the main cause for drop-outs. Truancy claimed 430 drop-out cases in 1991, 500 in 1995 and 626 in 1996. While, pregnancy which is unique and peculiar to girls claimed 171 drop-out cases in 1991, 190 in 1993 and 173 in 1996.

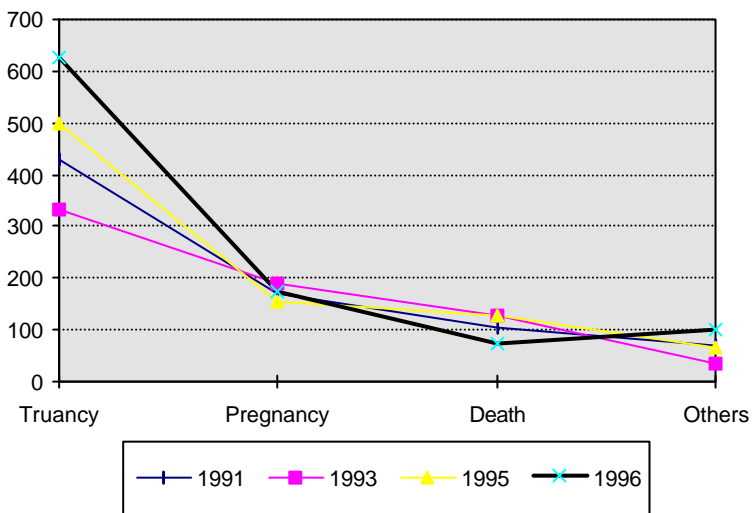
**TABLE L (d): CAUSES OF DROP-OUTS**

	1991	1993	1995	1996
Truancy	430	333	500	626
Pregnancy	171	190	153	173
Death	103	127	129	72
Others	69	34	66	102

Total	773	684	848	973
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Source: Basic Statistics in Education, Regional Data - Ministry of Education and Culture 1991-1995

Fig. 24: Causes of Drop-outs in Ruvuma Region, 1991, 1993, 1995 and 1996



Truancy applies to both boys and girls. Out of 773 cases reported in 1991 truancy constituted 55% while out of 973 cases reported in 1995 truancy constituted 64%. Songea urban district has the lowest incidence of school drop outs while Tunduru district has the highest (As table L (e) below). Pregnancy is the second cause indicating high occurrence. Both Tunduru and Songea rural districts have high incidents of girls leaving school due to pregnancy related causes. For example, out of 173 cases reported in 1996, Songea rural had 69 cases (39%) while Tunduru had 52 (30%). Songea urban district had only 7 cases (13%) of the total cases reported while Mbinga reported 45 cases (18%).

**TABLE L (e): SCHOOL DROP-OUT CAUSES BY DISTRICT 1996**

District	CAUSES								
	Truancy		Pregnancy		Death		Others		Total
	B	G	B	G	B	G	B	G	
Songea (U)	6	8	-	7	8	6	4	5	44
Mbinga	72	51	-	45	16	-	8	13	205
Tunduru	148	101	-	52	8	-	33	23	365
Songea (R)	137	103	-	69	22	12	9	7	359
Total	363	263	-	173	54	18	54	48	973

Source: Regional Education Office - Ruvuma 1997

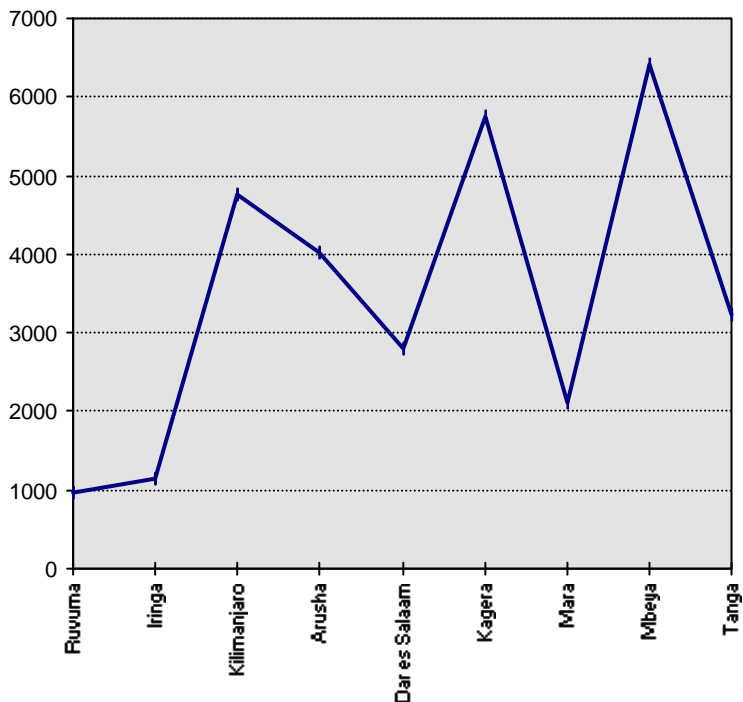
According to Table L (f) drop-out cases in primary schools were not very pronounced in Ruvuma region compared with other regions. In 1994 there were only 969 pupils who dropped out of school in Ruvuma region compared with 1,145 in Iringa, 6406 in Mbeya, 5745 in Kagera and 4,752 pupils in Kilimanjaro region.

**TABLE L (f): DROP OUTS FROM PRIMARY SCHOOLS IN NINE SELECTED REGIONS, 1994:**

	GRADES							TOTAL	RANKING
	I	II	III	IV	V	VI	VII		
Ruvuma	88	60	91	138	108	241	243	969	9
Iringa	76	89	126	231	119	209	295	1145	8
Kilimanjaro	242	436	710	976	645	848	895	4752	3
Arusha	392	486	486	773	543	641	695	4016	4
Dar es Salaam	225	298	451	641	426	432	326	2799	6
Kagera	210	420	653	1131	1052	1134	1145	5745	2
Mara	211	224	295	437	418	355	567	2107	7
Mbeya	334	403	368	552	584	584	638	6406	1
Tanga	293	408	444	760	517	397	418	3237	5

Source: Iringa Region, Socio-Economic profile, 1997

**Fig. 25: Drop-Outs from Primary Schools in Nine Selected Region, 1994.**



### 4.1.3 Education Facilities

Ruvuma region like other regions of Tanzania is facing serious shortage of educational facilities. These include infrastructures such as classrooms, teachers houses, latrines and other basic education facilities such as desks, tables, chairs and cupboards. The absence of these facilities have at times made school life to some pupils and teachers difficult. Congestion in classrooms has contributed to poor performance in schools and a cause for truancy. Poor educational facilities also are cause for teachers low morale in teaching. Table LI below shows the magnitude of



educational facilities shortage in 1991 and 1996. According to the table it appears many teachers go without proper houses to live in. Similarly, most pupils lack desks. In such a situation it becomes difficult to get good results from the schools. As observed from the table, in 1991 on average, educational facilities could be met by less than 50 percent. It is also observed that in 1996 there was a general decline in terms of requirements. For example in 1991 requirements for classrooms were 5212 compared to 3487 in 1995. The same applies to other facilities. The overall performance in 1991 and 1996 indicates that shortages were more pronounced in 1991 than in 1996. Table L I below shows the situation pertaining to educational facilities in each District.

**TABLE L I: SITUATION OF EDUCATION FACILITIES BY DISTRICT 1996**

District	Type of Facility	Required	Available	Shortage	% Shortage
SONGEA URBAN	Classrooms	353	229	124	35.1
	Teachers	595	74	521	87.6
	Houses	635	348	287	45.2
	Latrines	7167	4604	2563	36
	Desks	889	272	617	69
	Tables	995	326	669	67
MBINGA	Classrooms	1370	1132	238	17.4
	Teachers	1716	633	1083	63.1
	Houses	2988	1642	1346	45.0
	Latrines	24029	18303	5726	24.0
	Desks	2397	1113	1284	54.0
	Tables	2084	1456	628	30.0
TUNDURU	Classrooms	811	447	364	44.9
	Teachers	1010	257	753	74.5
	Houses	1124	216	908	80.8
	Latrines	12250	5905	6347	52.0
	Desks	1676	418	1258	75.0
	Tables	1846	409	1435	77.0
SONGEA RURAL	Classrooms	1048	947	101	9.6
	Teachers	1320	548	772	58.5
	Houses	1516	972	544	35.9
	Latrines	17670	12057	5613	32.0
	Desks	1992	1094	898	45.0
	Tables	2018	1100	918	46.0

TOTAL REGION	Classrooms	3582	2755	827	23.1
	Teachers	4641	1512	3129	67.4
	Houses	6263	3178	3085	49.3
	Latrines	61116	40867	20249	33.0
	Desks	6954	2897	3957	57.0
	Tables	6943	3291	3652	53.0

**Source: Regional Education Office - Ruvuma 1997**

It can be observed from table LI above that lack of latrines is a serious problem facing schools in the region which causes also sanitation problems. Only 51% of the requirements are met and this could contribute to health hazards particularly during the rainy seasons. Tunduru District is the most affected in terms of educational facilities. It had fewer desks even.

**TABLE L II: TEACHERS DISPOSITION BY DISTRICT AND CATEGORY 1996**

District	Required		Actual Strength		Shortage	
	III A	III B	III A	III B	III A	III B
Songea (U)	427	244	401	260	-26	+16
Mbinga	774	762	655	982	-119	+220
Tunduru	433	750	305	705	-128	-45
Songea Rural	759	710	723	1108	-36	+398
Total (Region)	2393	2466	2084	3055	-309	+679

**Source: Regional Education Office - Ruvuma 1997**

Table L II shows the disposition of teachers in the region. It is observed from the table that the region had 5139 teachers in 1996. This gives a ratio of 10. teachers for every school. About 40% of the teachers are Grade IIIA while 60% are Grade IIIB. It is further noted that Grade IIA teachers are fewer in Mbinga and Tunduru district schools than in Songea Urban and Songea Rural schools. However, in terms of Grade IIIB teachers, all Districts have a surplus except Tunduru.

#### 4.1.4 Secondary School Education

Ruvuma Region is one of the Regions with few secondary schools compared with say Iringa and Kilimanjaro. Nevertheless, the Region increased the number of its secondary schools by 255 percent from just 9 in 1985 to 32 in 1996. Out of the 32 secondary schools, 20 belong to private Institutions. Table LIII highlights the expansion of both public and private secondary schools between 1985 and 1996.

**TABLE LIII EXPANSION OF SECONDARY SCHOOLS (1985-1996)**

<b>Year</b>	<b>Public</b>	<b>Private</b>	<b>Total</b>
1985	5	4	9
1991	10	6	16
1992	11	9	20
1993	10	9	19
1994	10	11	21
1995	12	14	26
1996	12	20	32

**Source: Basic Education Statistics  
Ministry of Education 1991-1995**

**TABLE LIV: DISTRIBUTION OF SECONDARY SCHOOLS BY DISTRICT  
1996**

<b>District</b>	<b>1985</b>			<b>1996</b>		
	<b>Public</b>	<b>Private</b>	<b>Total</b>	<b>Public</b>	<b>Private</b>	<b>Total</b>
Songea Urban	3	-	3	3	2	5
Mbinga	1	3	4	5	6	11
Tunduru	1	-	1	3	1	4
Songea Rural	-	1	1	1	11	12
	5	4	9	12	20	32

Source: Regional Education Office - Ruvuma 1997

The distribution of secondary schools in the region is unevenly distributed among districts. As noted in table 1 Tunduru district, although bigger in size than Mbinga and Songea urban has the least number of secondary schools in the region with only three public and one private secondary schools. Another observation we make on table LIV is that most of the secondary schools are private. There are 20 private secondary schools in the region and about 55 percent of them are in Songea Rural. Tunduru has only one Private Secondary School. Selection to Secondary Schools is based on a quota system policy although there are few cases where pupils are selected on a competitive basis. As in other districts, Day Secondary Schools tend to remain solely for pupils leaving around a particular school. Thus, a district with the largest number of Day Schools has the advantage of enrolling more pupils into its secondary schools.

**TABLE LV: PUPILS SELECTED TO JOIN FORM I BY DISTRICT 1990-1996**

District	1990		1993		1996	
	Boys	Girls	Boys	Girls	Boys	Girls
Songea Urban	54	64	55	65	93	63
Mbinga	163	133	228	194	235	235
Tunduru	92	72	109	89	124	121
Songea Rural	67	36	110	82	84	87
Total	378	305	502	429	536	506

Source: Regional Education Office - Ruvuma 1997  
Form I Enrolment by District

**Fig. 26: Pupils Selected to Join Form I by Sex and District, 1990-1996**

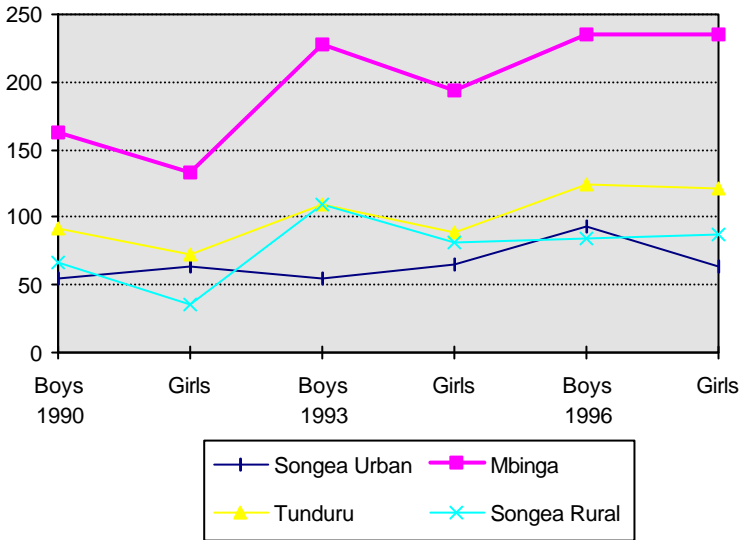


Table LV shows the number of boys and girls selected for Form I in the region in 1990, 1993 and 1996. It has been reported that 9366 pupils in Ruvuma region sat for Grade VII Exams in 1990 and only 683 pupils were selected for Secondary School education. The number selected for Secondary School education come to only 7 percent. The number of pupils who sat for Grade VII Exams in 1996 was 13300 and we are told only 1042 (equal to 7.8 percent) were selected for secondary school education. Naturally Mbinga District with more public schools absorbed more pupils from within followed by Tunduru district. On the whole, more boys join public Secondary Schools than girls as table LV indicates. In 1990, boys were more than girls by 19 percent while in 1996 boys were more by only 6 percent. Nevertheless the information available says that disparity between the number of girls and boys joining public secondary schools is caused by the fact that boys have more boarding schools and some of them join seminaries. This gives them an advantage over the girls.

#### **4.1.5 Adult Education**

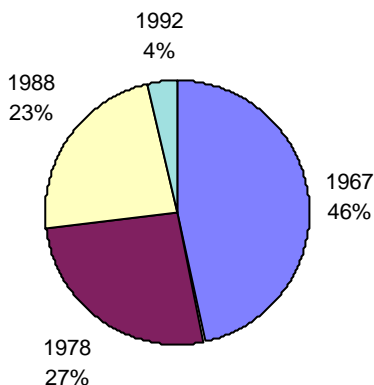
There seem to be high response to adult education programme in the region, since 1967. According to table LVI 59 percent of the Adult population in Ruvuma region was illiterate in 1967 but this number dropped to only 4.6 percent in 1992, making the region the second in the country with the lowest number of illiterate people.

**TABLE LVI: PERCENTAGE OF ILLITERATE POPULATION AGED 10 YEARS AND ABOVE BY REGION 1967, 1988 AND 1992**

Region	Percentage of Illiterate			
	1967	1978	1988	1992
Kilimanjaro	44	25.4	19.2	4.7
Dar es Salaam	40	26.7	19.3	3.3
<b>Ruvuma</b>	<b>59</b>	<b>33.7</b>	<b>29.5</b>	<b>4.6</b>
Tanga	60	39.4	34.0	9.6
Morogoro	63	41.4	37.2	14.2
Mara	65	43.6	36.1	12.3
Iringa	69	46	31.7	13.8
Kagera	60	47.1	40.5	17.9
Mtwara	72	48.6	42.9	20.4
Dodoma	76	50.5	44.5	17.7
Mbeya	71	50.8	38.4	20.7
Rukwa	-	51.5	41.4	21.7
Lindi	-	51.6	46.2	21.6
Singida	76	53.3	42.6	25.6
Mwanza	75	55.7	42.76	25.6
Coast	74	56	48.9	17.3
Kigoma	81	56.3	44.9	16.4
Arusha	74	58.1	41.9	22.2
Tabora	73	59.5	49.5	28.0
Shinyanga	84	66.8	51.7	31.9

Source: 1988 Population Census Basin Education Statistics Data Analysis 1961-1992

**Fig. 27: Percentage of Illiterate Population Aged 10 Years and Above, 1967, 1978, 1988 and 1992.**



It is observed from table LVII that the percentage of illiteracy is higher in Tunduru district than in any other district. Illiteracy percentage is lowest in Songea urban followed by Mbinga District.

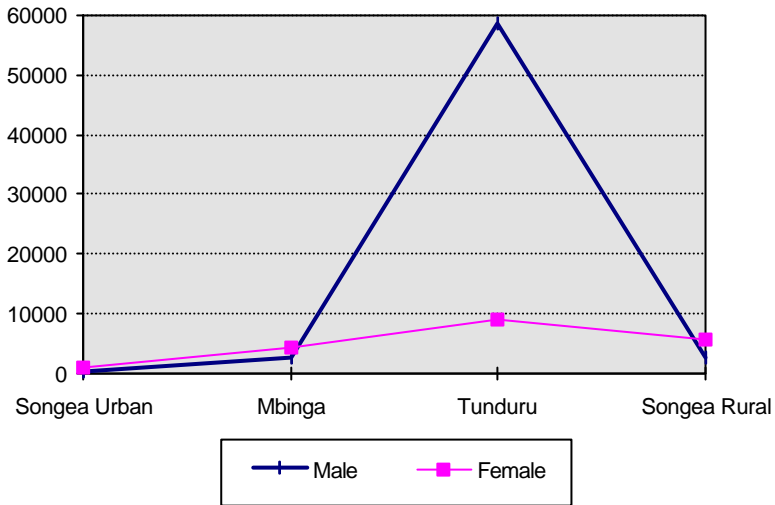
**TABLE LVII: ILLITERATE POPULATION BY DISTRICT**

District	No. of Adult Pop	Number of Illiterate Pop			
		Male	Female	Total	% of Illiteracy
Songea Urban	62125	415	979	1394	2.2
Mbinga	25414	2831	4260	7091	2.8
Tunduru	132741	58767	9030	14897	11.2
Songea Rural	165414	2724	5821	8545	5.2
Total	614421	11837	20090	31927	5.2

Source: Regional Education Office - Ruvuma 1997



**Fig. 28: Illiterate Population by District and Sex, Ruvuma Region**



#### 4.1.6 Nursey Schools:

Ruvuma Region has 65 nursery schools which can accommodate 5480 children. About 34% of the schools are located in Songea urban while 24% are located in Songea Rural district. Mbinga and Tunduru districts accommodate 23% and 19% of the schools respectively. Pre-school education is the most significant factor in the mental and social development of children. Early childhood education helps to prevent stunted cognitive development and has been associated with better performance in school. Pre-school education is thus very important in laying a foundation for further education and future productivity. Table LVIII below shows the absorptive capacity of the existing Pre-schools in Ruvuma Region.

Considering the importance of the pre-schools, the Districts need more of them to cater for more children.

**Table LVIII: PUPILS IN NURSERY SCHOOLS BY DISTRICT AND 1996**

District	Number of Nursery Schools	1990			1996			
		Number of Pupils			Number of Nursery School	Number of Pupils		
		Boys	Girls	Total		Boys	Girls	Total
Songea (U)	7	163	154	317	22	746	563	1,309
Mbinga	5	115	97	212	15	850	968	1,818
Tunduru	2	24	40	64	12	594	726	1,320
Songea (R)	5	117	120	237	16	435	598	1,033
Total	19	407	391	798	65	2,625	2,855	5,480

Source: Regional Education Office Ruvuma, 1997

## 4.2 HEALTH SECTOR

### 4.2.1 Health Situation:

The health status in Ruvuma region portrays almost the same gloomy picture experienced by even more developed regions in the country. It is evident that Ruvuma region has considerably enough health facilities in all districts but like in other regions they lack medicine and qualified medical staffs. In 1996 there were 8 hospitals, 15 health centres and 146 dispensaries. Measured against the estimated population of 1996, except the dispensaries, both hospitals and Rural Health Centres serve more people than the number required by National Standards. This situation lowers the quality of service in hospitals and Rural Health Centres and may help explain the frequent occurrence of certain diseases. The common and most occurring diseases in Ruvuma Region include malaria, URTI, diarrhoea, pneumonia and anaemia. Skin and meningitis diseases are most common in Mbinga and Tunduru districts respectively. During rain seasons dysentery is also

common in Songea (R) and Tunduru districts. However, the occurrence of these diseases is a clear manifestation of poor environmental Sanitation. Tables LX, LXI and LXII are enough indication of efforts made by the private sector in supporting the government in health service provisions. Private sector support comes from St. Benedictine Fathero of Peramiho Songea district, Anglican Diocese of Ruvuma in Mbinga district, the Christian Missionary of Mary Lands in Tunduru district. In total there are 52 private dispensaries and 5 hospitals owned by Religions Institutions against 94 public dispensaries and only 3 hospitals in the whole region. Table LIX highlights the number of cases associated with the diseases mentioned above.

**TABLE LIX: OCCURRENCES OF THE MOST TEN COMMON DISEASES REPORTED BY DISTRICT IN RUVUMA REGION 1995/96**

Diseases	Cases				
	Mbinga	Songea (R)	Songea (U)	Tunduru	Regional
1. Malaria	10,728	116,912	44,932	84,446	257,018
2. Diarrhoea	1,488	14,827	3,462	25,955	45732
3. Pneumonia	957	-	4,101	3,325	8,383
4. URTI	1,242	50,421	8,547	20,776	80,986
5. Anaemia	582	38,091	1,097	9,722	49,492
6. Intestinal Worms	378	10,071	2,198	2,936	15,583
7. Gonorrhoea	360	-	-	-	360
8. Eye diseases	918	10820	2,287	8,019	22,044
9. Ear diseases	290	-	1,356	-	1646
10. Skin diseases	-	13,514	832	13,038	14346

Source: Regional Medical office-Ruvuma.

The table above shows that the majority of people in Ruvuma Region do suffer from malaria, URTI and anaemia. But unlike other districts, the people in Songea Rural experience more cases of malaria and URTI disease. The people in Tunduru suffer more often from diarrhoea and URTI. It was only in Mbinga district

where the ten most common diseases in the region did not affect many people. For instance, in 1995/96 season only 10,728 people suffered from Malaria against 116,912 in Songea Rural, 44,932 in Songea Urban, 84,446 people in Tunduru district. While, URTI cases in Mbinga were only 1,242 and 50,421 in Songea Rural.

#### 4.2.2 Dispensaries

By the end of 1996, there were 146 dispensaries in Ruvuma Region catering for an estimated population of 1,020,464 people (1996 estimates). By National Standards, a dispensary is supposed to serve 10,000 people, this means Ruvuma Region based on 1996 population estimates appears to have less than the National Standards requirements of a dispensary. That is, instead of each dispensary serving 10,000 people in the Region it serves 6989. This is good and it assumes better service by the dispensaries.

**TABLE LX: NUMBER OF DISPENSARIES AND POPULATION PER DISPENSARY 1996**

District	Dispensaries		Total	Population (1996 Estimates)	Population per Dispensary
	Public	Private			
Tunduru	27	2	29	204721	704
Songea urban	6	11	17	135581	7975
Songea Rural	27	18	45	330576	7346
Mbinga	34	21	55	349582	6356
Total	94	52	146	1020464	6989

Source: Ruvuma Regional Medical Office, 1997.

#### 4.2.3 Health Centres:

At district level, Rural health Centres (RHC) are the second referral health facilities after the dispensaries. By National average standards, RHC is supposed to serve 50,000 people and it is staffed by a medical Assistant and several health auxiliaries. According to table LXI there were 15 Rural Health Centres in Ruvuma Region in 1996.

**TABLE LXI: DISTRIBUTION OF HEALTH FACILITIES BY DISTRICT, 1996**

District	Rural Health centres			Population (1996 Estimates)	Population per RHC
	Public	Private	Total		
Tunduru	4	-	4	204721	51180
Songea Urban	-	-	-	135581	0
Songea Rural	5	1	6	330576	55096
Mbinga	5	-	5	349582	69916
Total	15	-	15	1020464	68031

Source: Ruvuma Regional Medical Office, 1997

It is observed from Table LXI that the existing Rural Health centres in all districts serve more than 50,000 people. Songea Rural and Mbinga districts need one more RHC each in order to improve the quality of medical services offered. All in all, the situation of RHC services in the Region has not yet reached alarming state compared with other Regions like Iringa. However, the Authorities must always ensure that people get better medical services.

#### **4.2.4 Hospital Services:**

Ruvuma Region by the end of 1996 had only 8 hospitals compared with 17 in Iringa Region. There were only 3 public hospitals and 5 private hospitals as shown below.

**TABLE LXII: DISTRIBUTION OF HOSPITALS AND SERVICE CAPACITIES**

District	Number of Hospitals			Number of Beds	Population per Bed (1996)	Population per Doctor (1996)	Population per Hospital (1996)
	Public	Private	Total				
Tunduru	1	1	2	328	624	20472	102361
Songea Urban	1	-	1	221	613	11298	135581
Songea Rural	-	1	1	451	733	55096	330576
Mbinga	1	3	4	634	551	38842	87396
Total	3	5	8	1635	624	3986	127558

Source: Ruvuma Regional Medical Office, 1997

By national average standards a doctor is supposed to serve only 24930 people, but what we see in Table LXII is that a doctor in Songea Rural and Mbinga districts serves 55,096 and 38842 people respectively. Thus, Songea Rural requires one more doctor so that the available ones work much more comfortably. The situation may also apply to Mbinga district, where a doctor in 1996 served 38,842 people. Further observation on Table LXII reveals that Songea Rural had only one Private hospital in 1996 and it happened to serve 330,576 people against the required figure of 150,000 people per hospital. Songea Rural is the only rural district with just a single hospital. In order to avoid congestion and hence poor hospital services, more hospitals are needed. If the government can't then the private people should come in. According to Table LXIII the medical personnel in the region appears to be inadequate compared with the existing health facilities. For instance, the Regional and District hospitals still lack medical specialists such as physicians, patricians, surgeons and pharmacists.

**TABLE LXIII: MEDICAL PERSONNEL AND SUPPORTING STAFF DISPOSITION BY DISTRICT 1996**

Personnel Categories	Songea (U)	Mbinga	Tunduru	Songea (R)

	Total Establis hment	Actua l Stren gth	Total Establ ishm ent	Act ual Stre ngt h	Total Establ ishm ent	Actua l Stren gth	Total Establ ishm ent	Actua l Stren gth
Medical Doctors	9	3	3	1	3	1	2	1
Assistant Medical Officers	10	8	5	2	5	1	2	-
Medical Assistants	15	20	8	8	8	8	5	6
Surgeons	1	-	3	1	3	1	1	1
Dentists	1	1	1	-	1	-	1	1
Dental	2	-	3	-	2	-	3	1
Technicians	1	11	1	1	1	2	2	
Clinic Officers	-	-	-	-	-	-	-	-
X-ray	2	2	1	1	1	1	2	2
Laboratory Technicians	3	2	1	-	1	-	2	2
Laboratory Assistants	6	5	3	2	3	1	4	2
Pharmacists	2	-	1	-	1	-	1	1
Pharmacists Assistants	4	3	3	1	2	-	2	2
Nurse Officers	25	30	10	10	15	10	5	11
Nurse Midwives	75	79	35	44	50	45	20	19
Nurse Assistants	110	24	30	19	75	104	85	74
Health Officers	12	7	6	4	4	3	6	8
Health Assistants	2	12	1	18	1	21	1	22
Mch Aides	30	18	70	56	37	30	58	45
Rural Medical Aides	33	7	65	45	36	28	56	27
Attendants	88	12	10	5	10	8	12	2

Source: Regional Medical Office-Ruvuma 1997.

#### **4.2.5 Life Expectancy at Birth**

According to 1978 and 1988 Population Census, Ruvuma's average Life expectancy at birth was hardly 50 years especially for the males. Table LXIX shows Life Expectancy at Birth for the Mainland region.



**TABLE LXIV: LIFE EXPECTANCY AT BIRTH BY REGION 1978 AND 1988 CENSUS TANZANIA MAINLAND**

Region	1978			1988		
	Total	Male	Female	Total	Male	Female
Arusha	50	50	57	57	57	58
Coast	47	47	48	48	46	51
Dar Es Salaam	50	50	50	50	50	50
Dodoma	45	45	46	46	45	47
Iringa	41	41	45	45	44	47
Kagera	45	45	45	45	44	45
Kigoma	40	40	48	48	47	49
Kilimanjaro	58	58	59	59	57	62
Lindi	42	42	47	47	46	48
Mara	44	44	47	47	46	48
Mbeya	41	41	47	47	45	48
Morogoro	44	44	46	46	45	48
Mtwara	40	40	45	46	45	48
Mwanza	44	44	48	48	46	50
Rukwa	40	40	45	45	44	48
<b>Ruvuma</b>	<b>43</b>	<b>43</b>	<b>49</b>	<b>49</b>	<b>48</b>	<b>51</b>
Shinyanga	42	42	50	50	48	51
Singida	44	44	55	55	54	55
Tabora	44	44	53	53	53	54
Tanga	49	44	49	48	48	51
Total	44	49	50	50	49	51

Source: Population Census 1978 and 1988 Health Statistic Abstract 1996.

It is observed from table LXV that compared with Arusha, Kilimanjaro, Singida and Tabora, the people in Ruvuma region lived shorter on average than those in the above mentioned regions.

#### 4.2.6 Nutritional Status

Ruvuma Region is usually self-sufficient in food production, despite experiencing low animal protein in people's diet. This is mainly caused by fewer livestock available Nevertheless, the

animal protein shortage is always supplemented by high consumption of beans and other types of pulses. The Nutritional programme introduced by UNICEF in collaboration with the Government of Tanzania in 1987 helped a great deal in improving the health situation of those who were in poor nutrition status (extreme severe nutrition) from 8.5 percent in 1990 in Tunduru to 1.7 percent in 1996 and from 1.7 percent in 1990 in Mbinga to 0.6 percent in 1996. In Songea Rural the programme reduced severe cases from 4.9 percent in 1990 to 1.7 percent in 1996. Table LXVI highlights the success of CSPD programme.

**TABLE LXVI: PERCENT DISTRIBUTION OF SEVERE AND MODERATE CASES UNDER 5 YEARS**

District	1990		1992		1994		1996	
	Severe	Moderate	Severe	Moderate	Severe	Moderate	Severe	Moderate
Songea (U)	1.2	28.5	0.5	18.9	0.4	18.3	0.3	15.8
Mbinga	1.7	29.0	0.6	25.3	0.8	25.2	0.6	27.6
Tunduru	8.5	49.3	4.1	38.9	2.3	44.1	1.7	39.1
Songea (R)	4.9	39.7	2.9	33.0	1.5	35.9	1.7	30.9
Total	4.1	36.6	2.0	29.0	1.2	30.9	1.1	28.3

Source: Regional Medical Office-Ruvuma

**TABLE LXVII: PERCENTAGE DISTRIBUTION OF SEVERE AND MODERATE UNDER WEIGHT CHILDREN 0-5 YEARS) in CSPD areas -Mainland Tanzania 1990-1994**

Region	1990		1991		1992		1993		1994	
	Severe	Moderate	Severe	Moderate	Severe	Moderate	Severe	Moderate	Severe	Moderate
Coast	-	-	-	-	-	-	7.1	46.5	4.4	42.5
Iringa	1.7	38.8	1.4	34.0	1.3	32.8	1.1	33.0	1.1	34.8
Kagera	2.0	29.5	2.1	33.6	1.6	29.3	1.2	27.2	1.2	25.0
K/manjaro	0.6	15.4	0.4	13.2	0.3	12.5	0.2	12.1	0.2	12.8
Mara	6.9	32.2	3.0	27.0	2.8	23.1	1.6	20.0	1.4	18.2
Morogoro	3.2	38.6	3.3	36.4	2.2	35.85	1.6	31.8	1.5	30.8
Mtwara	6.3	43.4	5.5	41.4	1.8	35.5	1.9	35.8	2.0	37.1
Mwanza	-	-	-	-	-	-	3.2	20.9	2.3	18.7
Ruvuma	4.1	36.6	3.7	34.4	2.0	29.0	1.6	30.4	1.2	28.3
Shinyanga	2.0	27.2	1.4	26.8	1.5	29.4	1.1	31.0	1.1	30.1
Singida	3.5	34.6	1.8	31.5	1.5	33.6	1.5	30.0	1.6	29.6

Total	2.8	34.0	2.5	33.3	1.6	30.6	1.6	28.9	1.4	28.3
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Source: Health Statistics Abstract 1996

Table LXVII above compares achievements attained by each CSPD implementing Regions. In 1990, Mara, Mtwara and Ruvuma regions had serious or severe malnutrition for the under five children compared with the other regions. However, this situation changed very much in 1994. It is observed that the cases for severe malnutrition dropped to only 1.2 percent in Ruvuma region, while in Mara region it dropped to 1.4 percent. These improvements in nutrition by and large explain the success of the CSPD programme introduced by UNICEF.

#### **4.2.7 INFANT AND UNDER FIVE MORTALITY RATES**

Apart from the existence of the above said common diseases in the region, there has been a decline in infant and child mortality rates over the past ten years. This trend has been attributed to general improvements in the provision of public health services including immunization and nutrition programmes implemented by the government in collaboration with external agencies particularly DANIDA, WHO, UNICEF and local religious Institutions. According to Table LXVIII both Infant and Under Five Mortality Rates in Ruvuma Region tended to decline. For example between 1975 and 1995 Ruvuma region recorded the highest decline of both IMR (39.3%) and U5MR (41.6%) compared to Lindi IMR (14.6% and U5MR (14.5%) and Mtwara IMR (26.1%) and U5MR (24.3%) regions.

**TABLE LXVIII: INFANT AND U5 MORTALITY RATES OF RUVUMA REGION COMPARED TO LINDI & MTWARA REGIONS AND THE NATIONAL AVERAGE:**

Region	IMR			U5MR		
	1975	1985	1995	1975	1985	1995
Ruvuma	145	113	88	245	188	143
Lindi	151	140	129	255	236	218
Mtwara	161	138	119	267	233	202
National	137	115	96	231	191	158

Source: Health Statistics Abstract 1996

**Fig. 29: Infant and Under Five Mortality Rates for Selected Neighbouring Regions of Lindi and Mtwara Compared to the National Average in 1975 and 1985**

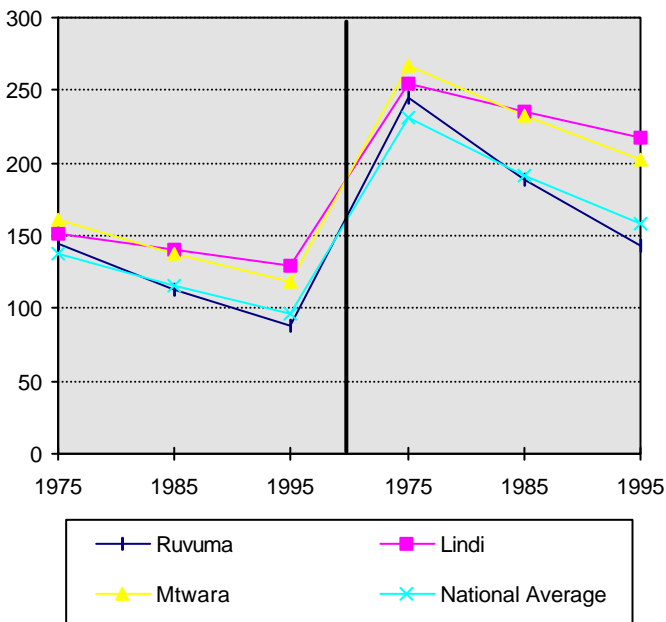


Table LXVIII above shows how many children we lost in every one thousand in 1975 in the regions of Lindi, Mtwara and Ruvuma. The number nevertheless, kept on decreasing and by 1995, Ruvuma region for instance, lost 88 infants out of 10,000

and 143 children under five years compared with 245 lost in 1975. Similarly in Table LXIX we see that in 1985 and 1995 Songea district had the highest IMR and U5MR compared to other districts. For example in 1985 it had 136/1000 IMR and 230/1000 U5MR while in 1995 the rates were 115/1000 and 171/1000 respectively. This implies that in Songea district in every 1000 infants 136 died in 1985 and 115 in 1995.

**TABLE LXIX: INFANT AND U5 MORTALITY RATES BY DISTRICT IN RUVUMA REGION FOR THE YEAR 1995**

District	YEAR 1985		YEAR 1995	
	IMR	U5MR	IMR	U5MR
Songea (U)	108/1000	178/1000	37/1000	60/1000
Mbinga	79/1000	126/1000	67/1000	93/1000
Tunduru	131/1000	222/1000	98/1000	186/1000
Songea (R)	136/1000	230/1000	115/1000	171/1000

Source: Regional Medical Office-Ruvuma

#### **4.2.8 Maternal Mortality Rate (MMR)**

Maternal mortality is defined as the death of women while pregnant or death within 42 days after baby born. In Ruvuma region, the maternal mortality is still a major problem facing women. However it is observed in Table LXX that, between 1990 and 1996 the number of maternal deaths fluctuate between 39 and 66 deaths. Table LXXI on the other hand attempts to highlight the magnitude of UMR in each region in 1992 -1994. It is noted that, UMR for Ruvuma region was relatively high in 1994 compared to UMR of poor regions such as Coast, Lindi and Mtwara. Maternal Mortality rate of Ruvuma region was 225 in 1992, while that of Coast region was 209 and 144 for Kigoma region.



**TABLE LXX: MATERNAL MORTALITY RATE OF RUVUMA REGION 1990-1996**

Year	Number of Births	Number of Maternal Deaths	Maternal Mortality Rate per 100,000 Births
1990	16546	39	236/100,000
1991	25760	51	198/100,000
1992	27602	62	225/100,000
1993	29508	58	197/100,000
1994	28969	54	187/100,000
1995	30453	54	187/100,000
1996	29423	66	225/100,000

Source: Regional Medical office Ruvuma

The Maternal Mortality Rate (MMR) of Ruvuma dropped to 186 deaths in every 100,000 births in 1994, which implies that there may probably be some improvements in maternal health care programmes.

**TABLE LXXI: MATERNAL MORTALITY RATE BY REGION FOR THREE CONSECUTIVE YEARS 1992,1993 AND 1994**

Region	Maternal Mortality Rate (MMR) per 100,000 Births		
	1992	1993	1994
Arusha	102	158	114
Coast	209	111	70
Dar es salaam	220	308	237
Dodoma	197	214	208
Iringa	331	321	276
Kagera	304	343	190
Kilimanjaro	126	46	107
Kigoma	144	155	105
Lindi	262	289	193
Mara	67	361	436
Morogoro	289	172	190
Mtwara	264	212	161
Mwanza	221	186	266
Rukwa	172	294	243
<b>Ruvuma</b>	<b>225</b>	<b>189</b>	<b>186</b>
Shinyanga	143	188	199

Singida	242	171	238
Tabora	151	185	130
Tanga	255	172	220
Total	199	211	197

#### 4.2.9 Immunization Coverage:

The immunization programme is being carried out by the Ministry of Health in collaboration with International agents such as WHO, UNICEF and others in order to control six diseases common to children. The diseases are Measle, Polio, Tuberculosis, Diphtherial, Tetanus and Whooping Cough. Table LXXII below shows the extent of immunization coverage of BCG, DPT<sub>3</sub> POLIO and measles, TT<sub>1</sub>-s doses.

**TABLE LXXII: PERCENTAGE IMMUNIZATION COVERAGE OF CHILDREN 0-1 YEAR FOR BCG,DPT-3,POLIO 3 AND MEASLES BY DISTRICT 1990-1996:**

District	BCG%		DPT-3%		POLIO-3%		MEASLES%	
	1990	1996	1990	1996	1990	1996	1990	1996
Songea (U)	93.2	83.7	79.1	98.7	63.7	98.7	69.7	86.8
Mbinga	78.8	79.8	67.4	94.9	81.6	94.8	75.2	86.3
Tunduru	89.6	84.0	93.4	60.9	89.4	62.5	86.8	65.3
Songea (R)	84.7	77.0	70.5	74.2	82.6	72.9	68.9	72.9
Total	86.6	81.1	77.6	82.6	79.3	82.2	75.1	77.8

Source: Regional Medical Office Ruvuma 1997.

**TABLE LXXIII: PERCENTAGE IMMUNIZATION COVERAGE FOR DPT3- AND T. TOXOID BY DISTRICT 1990-1996:**

District	DPT-3%		T.T1-5 DOSES%	
	1990	1996	1990	1996
Songea (U)	79.1	98.7	66.6	75.8
Mbinga	67.4	94.9	70.4	47.5
Tunduru	93.4	60.9	87.3	38.3
Songea (R)	69.6	74.2	67.8	39.2
Total	77.4	82.2	73.0	50.2





#### 4.2.10 HIV - Infection and AIDS Disease:

In general, the number of HIV victims and Aids Cases in Ruvuma region has increased since 1987 when the first victim was recognised (45 people). Mbinga district is having more HIV infection and Aids cases than other districts. Up to 1997 the number of HIV and AIDS cases have increased to 2512 people in the region. Table LXXIV shows the number of HIV and Aids cases since 1987 to 1996.

**TABLE LXXIV: SITUATION OF HIV AND AIDS CASES IN THE REGION, 1996:**

District	Number of AIDS Cases Diagnoses	Reported Deaths	Rate of Aids per 100,000 Population
Songea (U)	454	272	414
Mbinga	1055	633	297
Tunduru	291	175	131
Songea (R)	712	427	212
Total	2512	1507	245

Source: Regional Medical Office - Ruvuma.

#### 4.3 WATER SECTOR

The major water sources in Ruvuma region include Lake Nyasa covering an area of 2978 km<sup>2</sup> in (Mbinga district) and the great rivers of Ruhuhu and Ruhuji. Ruvuma and Likimwa rivers in Songea district, and Nampungu, Mwambegi and Muhuwezi in Tunduru district do provide water as well. The main water sources for the rural population in the region are lakes, rivers, streams, traditional wells, ponds and water springs, hand pump wells, gravity schemes, hydro schemes and rain water harvested.

### 4.3.1 Rural Water Supply

In Ruvuma region many villages have an improved water supply schemes. These are fairly spread through out the region. The level of rural water coverage in the region is not satisfactory. Mbinga district has the lowest water coverage of only 34 percent of the rural population. The low water coverage in Mbinga district is attributed mainly to the type of topography (mountainous highlands) only suited by gravity schemes. Songea and Tunduru districts mainly depend on hand pump wells, which are also easily maintained by the local people.

Water accessibility however is not a real problem in Ruvuma region as most of water sources are less than 400m from the users. Only in dry areas does this distance increase as many traditional sources dry up.

**TABLE LXXV: PERCENT OF PEOPLE GETTING WATER FROM DIFFERENT SOURCES**

Level of service	Ruvuma Region			Tanzania Mainland		
	Region Total	Urban	Rural	Total	Urban	Rural
Piped water inside the house or village	4.01	25.20	1.05	9.47	28.12	5.41
Piped water outside the house or village	16.54	35.17	13.93	18.85	49.97	12.07
Well water in plot or village	14.95	6.62	16.12	19.26	5.90	22.17
Well water outside plot or village	55.40	31.02	58.82	34.24	12.38	39.00
Other water in plot or village	0.78	1.04	0.74	5.65	0.56	6.76
Other water outside plot or village	8.27	0.86	9.30	12.41	2.96	14.47
Not stated	0.04	0.90	0.04	0.11	0.10	0.11
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Population Census 1988 Results

On the whole, there are 52 gravity water systems, 19 bore holes and 134 hand pumped wells, of which 38 percent, 84 percent and 8 percent of the gravity system, bore hole and hand pumped wells are not functioning respectively.

**TABLE LXXVI: RURAL WATER COVERAGE IN RUVUMA REGION 1996**

District	1988			1996		
	Total Rural population	Population served	% Served	Total Rural Population	Population Served	% Served
Mbinga	271,845	90485	33	329582	112058	34
Tunduru	170,235	99580	59	171121	76830	45
Songea (R)	254,367	138015	54	330576	155370	47
Total	696447	328080	47	831279	344258	41

Source: Regional Water Engineer Ruvuma

It is observed from Table LXXVI that Mbinga rural population have less access to clean and safe water than those in other districts, although percentages of the population served with clean water in 1996 are still low in all districts. From the table it appears no single district managed to provide clean water to more than 47 percent of its population by the end of 1996. Mbinga managed only 34 percent.

### 4.3.2 Urban Water supply

The water demand in urban towns in Ruvuma Region is currently 27233 M<sup>3</sup> per day. Estimated urban population is 189,181 (1996 estimates) people. It is reported that Songea Urban required 20,000 m<sup>3</sup> of water per day but only 8500 M<sup>3</sup> of water is supplied per day, which is equivalent to only 43 percent. Similarly

in Mbinga and Tunduru only 52 percent and 28 percent of water demand is supplied per day. Table LXXVII highlights the situation of water supply in urban centres of Ruvuma Region.

**Table LXXVII : URBAN WATER DEMAND AND SUPPLY 1996**

District Town	Population (Estimate)	Demand m <sup>3</sup> per day	Supply m <sup>3</sup> per day	Shortfall m <sup>3</sup> per day
Songea(U)	135,581	20,000	8500	11500
Mbinga	20000	2380	1246	1134
Tunduru	33600	3870	1088	2782
Total	189181	26250	10834	15416

Source: Region Water Engineer Ruvuma

Adequate water supply in the three towns (Songea Mbinga and Tunduru) are made difficult by the continued use of the aged water machines, inadequate supply sources as well as a rise in urban population which was not anticipated. Consequently, by the end of 1996 only 41 percent of the total urban population was served with water. Table LXXVIII below indicates the population of the urban people served with clean water.

**TABLE LXXVIII: URBAN POPULATION SERVED WITH CLEAN WATER BY DISTRICT 1988-1997**

District	1988			1996		
	Total Population	No served	% Served	Total population	No served	% Served
Songea (U)	86880	34482	50	135581	56760	42
Mbinga	12665	4270	45	20000	10500	53
Tunduru	21603	5235	24	33600	11000	33
Total	121148	43987	36	189181	78260	41

Source: Regional Water Engineer Ruvuma

When compared with few selected Regions, Ruvuma appears to serve clean water to very few people in the urban centres (towns).

Table shows the percent of the population in the urban towns served with clean water in six regions.

**TABLE LXXIX : COMPARISON OF POPULATION WITH ACCESS TO CLEAN WATER IN FIVE SELECTED REGION 1996**

<b>Region</b>	<b>Urban Population '000'</b>	<b>No Population Served</b>	<b>% Served</b>
Ruvuma	189181	78200	41
Dodoma	156000	95000	61
Mbeya	214000	161000	75
Lindi	113000	93000	82
Kilimanjaro	155000	77000	50
Shinyanga	172000	129000	75
Tanzania Mainland	4753000	321000	67

Source: Regional Water Engineer Ruvuma 1996

The inadequate water supply in Songea town may be solved by constructing a dam, while in Mbinga town the Authorities should draw water from Luwaita river and Tukuzi stream. For Tunduru town there is water potential at Masonya situated 5 kilometres from the town. Water supply in Ruvuma region is mostly undertaken by the Government and some donor agencies such as DANIDA and UNICEF. There is also a significant contribution by the NGOs like, CDTF, SODA operating through the Local Government as well as Religious organisations. Songea urban water supply is also being improved by the assistance from TCRS, TAMMOFA and EEC. Nevertheless, for better water supply management, several water schemes are now being executed by the local people through community participation. The local people are involved right from the identification and the planning of

the project stage, cash contribution and finally the operation and maintenance of the schemes. The number of village committees responsible for the management of water schemes in Ruvuma region are shown in Table LXXX.

**TABLE LXXX: ESTABLISHED VILLAGE WATER COMMITTEES (VWC) AND VILLAGE WATER FUNDS (VWF) BY DISTRICT 1996**

District	Number of village	Number of V.W.C	%	Number of V.W.F	%
Mbinga	168	26	16	26	16
Tunduru	98	49	50	33	34
Songea (R)	116	47	41	47	41
Total	382	122	32	106	28

Source: Regional Water Engineer Ruvuma

**TABLE LXXXI: RURAL/URBAN SANITATION STATUS, 1996:**

District	Number of Households	Households Inspected	Households with Good Latrines	Households with Bad Latrines	households without Latrines	% Coverage of Households with Latrines
Songea (R)	49,170	49,170	42,890	4,232	2,048	95.83
Songea (U)	22,958	22,610	21,153	1,362	95	98.07
Mbinga	54,192	50,171	48,506	5,036	650	98.80
Tunduru	34,549	25,303	16,587	6,954	1,564	68.13
Total	160,869	147,254	129,136	17,584	4,387	91.20

Source: Regional Medical Office - Ruvuma.

Table LXXXI shows the situation of sanitation (latrines) in the region as revealed by the Latrine Promotion Report of 1996. It is observed from the table that about 91 percent of the households in Ruvuma region had latrines in 1996. Mbinga district had the

highest percentage compared with other Rural Districts. Songea Rural had the highest number of households without latrines followed by Tunduru.



**TABLE LXXXII: BASIC FACILITIES IN RUVUMA REGION BY DISTRICT  
1994:**

Type of Facility	Songea (U)	Mbing a	Tundur u	Songea (R)	Total
Nursery Schools	22	15	12	16	65
Primary Schools	34	200	112	147	493
Secondary Schools	4	11	5	10	30
University (Out)	1	-	-	-	1
Teachers Training Colleges	1	-	-	-	1
Technical, Folk or Vocational Training Centres	5	7	6	7	25
Hospitals	1	4	2	1	10
Health Centres	1	5	5	7	18
Dispensaries	17	56	31	45	149
Health Posts	17	100	50	43	210
Day Care Centres	36	8	4	21	69
Guest House	94	49	37	22	202
Shop	623	617	300	525	2,065
Post Office	2	1	1	1	5
Garages	18	4	5	3	20
Butcherries	43	54	4	8	109
Abattoir	1	1	1	1	4
Saw Mills	12	5	4	2	23
Petrol Station	7	4	3	3	17
Grain Mills	138	105	22	95	360
Banks	2	2	1	-	5

Source: District Profiles 1996.

**TABLE LXXXIII: RUVUMA REGION SOCIO-ECONOMIC INDICATORS  
COMPARED WITH FIVE NEIGHBOURING REGIONS:**

Indicators	Tanzania Mainland (Averages )	Ruvuma	Mbeya	Iringa	Morogo ro	Lindi	Mtwa ra
Regional GDP in Tshs Million (1994)	82,996	49,565	84,903	92,021	88,073	29,253	62,49 1
Per Capita Income in Tshs (1994)	62,138	52,537	48,737	64,502	59,370	38,340	59,53 3
Population Growth Rate	2.8	3.4	3.1	2.7	2.6	2.0	1.4

Population Density	16	12	25	21	17	10	53
Life Expectancy (1988)	50	49	47	45	46	47	46
Maternal Mortality (1994)	197	186	436	276	190	193	161
Infant Mortality (1995)	96	143	163	187	189	218	202
Crude Death Rate	14.7	12.8	13.9	15.3	13.6	14.7	12.6
No. Primary Schools (1996)	547	493	827	714	628	267	488
Primary School Gross Enrolment Rate (1996)	74.2	79.5	79.6	80.9	69.7	58.5	54.3
Primary School Net Enrolment Rate (1996)	54.2	56.5	56.6	62.9	48.3	46.8	54.3
Illiteracy Rate (1996)	16	4.1	20.7	13.8	14.2	11.4	20.4
Number of Dispensaries	175	149	238	187	193	105	111
People Per Dispensary	10,000	7,072					
Number of Health Centres	15	18	20	19	17	12	11
People Per Health Centres	50,000	58,537					
Number of Hospitals	10	10	11	15	12	7	5
People Per Hospital	150,000	105,367					
Number of Doctors	54	31	26	29	37	13	21
People Per Doctor	48,000						
Number of Surgeon's (1994)	2	1	3	1	4	2	2
Accessible to Clean Water (1996)	50.52	47.0	48.7	48.2	48.0	59.2	84.7
No. of Secondary Schools	30	30	39	48	38	13	13
Percent Household with Latrines (1996)	66	80	66	80	76	71	46

Source: Planning Commission Compiled Data 1997.

## **SECTION V**

### **5.0 OTHER RELATED DEVELOPMENT ISSUES**

#### **5.1 WOMEN IN DEVELOPMENT:**

The empowerment of women and improvement of their status in the society are important ends in themselves and are essential for the achievement of sustainable development. The objectives are to achieve equality and equity between men and women and to enable women to realize their full potential. Women projects in Ruvuma region are mainly supported by funds from Regional Women Development Fund, Songea Development Action (SODA), Tanzania Mozambique Federation (TAMOF), The International Fund for Agriculture Development (IFAD), Community Development Trust fund (CDTF), the CRDB 1996, National Bank of Commerce and UNDP. However, lack of sufficient level of education make many projects of women fail.

#### **5.2 YOUTH IN DEVELOPMENT:**

Youth programmes have been introduced in Ruvuma Region since 1979. By the end of 1997 there were 272 Youth groups. These groups have engaged themselves in various economic activities. Some of these activities are farming, Livestock keeping, Mining and engagement in Small Scale Industries. Table LXXXIV below summarises the number of groups by sex in the region.

**Table LXXXIV: THE YOUTH GROUPS BY DISTRICT IN RUVUMA REGION**

District	Number of girls Group	Number of boys Group	Mixed Groups (boys and Girls)	Total
Mbinga	-	7	18	25
Songea (R)	34	36	26	96
Songea (U)	3	80	31	114
Tunduru	10	21	6	37
Total	47	144	81	272

Source:

Youth programmes have tended to get financial support from the Government and the NGOs' and they have also provided the training aspect for the youth groups. Table LXXXV below shows fund allocated in each district for Youth Projects.

**Table LXXXV: FUND ALLOCATED IN EACH DISTRICT IN RUVUMA REGION**

Year	Tunduru	Songea Rural	Songea urban	Mbinga	Total
1994/95	1,850	2,400	1,350	1,900	7,500
1995/96	1,500	1,500	2,500	1,500	7,000
1996/97	1,000	2,000	1,000	2,000	6,000
Grand Total	4,350	5,900	4,850	5,400	20,500

Source:

### 5.3 COOPERATIVES DEVELOPMENT:

In Ruvuma Region, there are three Cooperative Unions, (one in each District). There is Songea Agricultural and Marketing Cooperative Union Ltd. with 25 affiliated Primary Cooperative Societies. Mbinga Cooperative Union Ltd. With 54 Primary Cooperative Societies. Tunduru District is served by Tunduru Agricultural and Marketing Cooperative Union Ltd. which has 13 Primary Cooperative Societies. Songea Agricultural marketing cooperative Union Ltd. owns a tobacco factory with processing

capacity of 8,000 tons. The factory has a capacity of employing between 1,500 - 1,800 people. Coffee Curring Factory in Mbinga is owned by MBICU and has a capacity of processing 10,000 tons per year. Tunduru agricultural and Marketing Co-operative Union has one cashewnut factory which is not functioning due to low production of cashewnuts.

#### **5.4 NON GOVERNMENTAL ORGANIZATIONAL ACTIVITIES IN THE REGION:**

The Region has more than 40 Non Governmental Organizations performing Various/different economic and social activities . Some of the activities includes the provision of agricultural skills, education, health facilities, road construction, food storage construction and modern house roofing. The PEHOLE-Tiles is famous for house roofing.

#### **DONORS SUPPORT IN RUVUMA REGION:**

<b>Donor</b>	<b>Activity undertaken</b>
UNICEF	Child Survival protection and Development
EEC	Songea - Mitomoni road
"	Rural road Programme
"	Masasi - Tunduru - Songea - Mbinga
"	Mbamba-Bay Road
"	Construction of the Storage facilities
FAO	Financial Storage Programme
DANIDA	Rural Water Programme
Songea Development action (SODA)	Intergrated Rural Development Programme
CARITAS	Introduction of Cattle in Songea District
IFAD	Agricultural Projects
IDA	Primary School Rehabilitation Programme
CODE	Education Programme
WFP	Livestock Programme
UNDP	Environmental Conservation Programme

Christian Social Services (CSSC)	Tunduru district Health Programme
GTZ	Selon Conservation Programme
Benedictine Fathers (Peramiho)	Public Health Care and Medical Suppliers
WINO	Agricultural, Health, Cooperative Savings and Credit Scheme.

## **5.5 INVESTMENT POTENTIAL SECTORS:**

### **5.5.1 Agriculture:**

Ruvuma region covers an area of 63,498 sq km; of which 50,836 sq kms are arable land. Thus, the arable land is about 84 percent of the total area. Studies conducted reveal that out of 50,836 sq km of the arable land only 3000 sq km are under cultivation. It means 47,836 sq km (78 percent) of the arable land are idle.

Potential crops for further development are coffee, tobacco and cashewnuts. Irrigation potential is also possible along lake Nyasa.

There are 13,000 suitable hectares for paddy and sugar cane at Chiulu and Lundo basins in Ruhekei division in Mbinga district. Other paddy irrigation potential areas include 18,000 ha. of river plains in Tunduru district and 2000 hectares for sugar cane in Liganga and Hanga plains in Songea district.

### **5.5.2 Livestock:**

Growth in livestock has been going on at a very low pace during the last decades. The potential exists for more and better livestock production. Therefore investments in livestock are welcome especially in meat processing industries, tanneries and associate industries such as shoe factories.

### **5.5.3 NATURAL RESOURCES:**

#### **(a) Forestry:**

Natural forest in the region is fast disappearing due to over cutting of trees for various domestic uses including tobacco curing. Thus, investments are required in the afforestation programmes.

#### **(b) Fishing:**

An area of 2,979 Sq. Km. are covered by water in the region, which makes the region one of the few regions with fish potential. Potential Industries in fish processing recommended are fish drying, canning and fish freezing. And the associated Industries includes boat making and fishing gear. Lake Nyasa provides the major fishing ground, with fishing potential of 100 tonnes per year.

### **5.5.4 POWER SUPPLY:**

Some Min-hydropower of 12 MW. could be produced by developing Nakatuta in Songea district, following studies conducted by KFW Consultant from Germany. However, the demand for power in Songea and Mbinga is over 12 MW.

### **5.5.5 MINERALS:**

There are huge mineral deposit potentials in Tunduru and Mbinga districts. Mineral deposits includes various gemstones, coal, gold, diamond and building minerals. However, these deposits require

further exploration work in order to confirm existing potentials, tonnage, grade and quality.

#### **5.5.6 INDUSTRIAL ACTIVITIES:**

Coffee and tobacco factories require further expansion. With the increase of coffee production the establishment of another coffee curing factory is inevitable. Also the increase of tobacco production from 13,400 tons in 1996/97 to 30,000 tons in 2001 will necessitate the establishment of other three tobacco processing factories. The existing factory has a capacity of 6,000 tons only. The cashewnut processing factory at Tunduru is not working and this gives a lot of potential in cashewnut processing factories in Tunduru district to be built.

#### **5.5.7 TRADE:**

Ruvuma communication network has improved for the last 10 years. The regional headquarter (Songea) is linked by a tarmac road from Songea to Dar es Salaam, gravel road from Songea to Mbinga - Mbamba-Bay Road, Songea - Tunduru road and earth roads from Songea to rural areas. The region is also linked by steamer services between Malawi ports and Itungi Port in Mbeya.

Existing Transport and Communication system in the region is enough attraction to potential investors. The region will in the near future be linked by gravel road from Masasi to Songea and Mbamba Bay. This step will extend the volume of trade in the region.