



THE UNITED REPUBLIC OF TANZANIA

MTWARA REGION SOCIO-ECONOMIC PROFILE



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MTWARA

TABLE OF CONTENTS

Page

FOREWORD.....	V
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SECTION I

LAND, PEOPLE AND CLIMATE

1.1 Geographical Location:.....	1
1.2 Land Area:.....	1
1.3 Administrative Units:.....	1
1.4 Ethnicity:.....	4
1.5 Population Size, Growth and Distribution:.....	4
1.6 Population sex, households and Age Groups:.....	15
1.7 Urban/Rural Population Distribution:.....	24
1.8 Migration and Employment.....	27
1.9 Climate and Soils:.....	30
1.10 Topography and Drainage:.....	31
1.11 Agro-Ecological Zones:.....	31

SECTION II

REGIONAL ECONOMY

2.1 INTRODUCTION:.....	34
2.2 REGIONAL GDP AND PER CAPITA GDP:.....	35
2.3 PRODUCTIVE SECTORS.....	43
2.3.1 Agriculture.....	43
2.3.2 Livestock:.....	61
2.3.3 Forestry:.....	65
2.3.4 Fishery:.....	69
2.3.5 Wildlife:.....	73
2.3.6 Beekeeping:.....	74
2.3.7 Mining:.....	77
2.3.8 Industries:.....	78

SECTION III

SOCIAL SERVICES

3.1 EDUCATION:	79
3.1.1 Pre-School Education:.....	79
3.1.2 Primary School Education:.....	81
1.2.2 Primary School Dropouts:.....	87
1.2.3 Primary School Teachers:.....	91
2.4 Primary education Infrastructure:.....	92
3.1.2.5 Comparative Status of Primary Education in Mtwara Region:.....	95
3.1.2.6 Special Primary Schools	98
3.1.3. Adult Education	99
3.1.4 Secondary School Education:.....	105
3.2 HEALTH.....	112
3.2.1 Introduction	112
3.2.2 Morbidity and Mortality	113
3.2.3 Health Facilities	118
2.4 Child Immunization:.....	125
3.2.5 Child Nutrition:.....	127
3.2.6 Infant and Under five Mortality:.....	131
3.2.7 Maternal Mortality:.....	135
3.2.8 AIDS:	140
3.2.9 Life Expectancy	142
3.2.10 Other Health Issues	143
3.3 WATER SUPPLY	146
3.3.1 Introduction	146
3.3.2 Rural Water Supplies	146
3.3.3 Urban Water Supplies	148
3.3.4 Sanitation	151

SECTION IV

ECONOMIC INFRASTRUCTURE

4.1 Introduction.....	154
4.2 Roads.....	154
ROAD NETWORK - MTWARA REGION.....	156
4.3. Air Services.....	159
4.4. Marine Services.....	163
4.5 Telecommunication Network.....	164
4.6 Energy.....	164
4.6.1 Electricity.....	164
4.6.2 Fuelwood.....	167
4.6.3 Other forms of Energy.....	167
4.7 Land development.....	167

SECTION V

OTHER DEVELOPMENT ISSUES

5.1 WOMEN IN DEVELOPMENT:.....	169
5.1.1 Women at Household Level:.....	169
5.1.2 Women leadership at above household level:.....	170
5.1.3 Gender Issues and the Alleviation of Poverty:.....	172
5.2 Environmental Conservation:.....	175
5.3 Tourism:.....	178

SECTION VI

POTENTIAL INVESTMENT AREAS

6.1 Agriculture:.....	179
6.2 Livestock:.....	180
6.3 Forestry:.....	182
6.4 Beekeeping:.....	182
6.5 Mining:.....	182
6.6 Industrial Development:.....	183
6.7 Transport:.....	183
6.8 Energy:.....	184
6.9 Health:.....	185

6.10 Education:	186
6.11 Water Supply:.....	186
6.12 Environmental Protection:	187
6.13 Women Development:.....	188
6.14 Tourism and Wildlife:.....	188
ANNEX A	
Mtwara Region in a Nutshell.....	189
ANNEX B	
Mtwara/Mikindani District Summary (1996)	201
ANNEX C	
Mtwara Rural District Summary (1996)	206
ANNEX D	
Newala District Summary	212
ANNEX E	
Masasi District Summary	218
ANNEX H	
GENERAL INFORMATION ABOUT TANZANIA	224
Area Of Mainland	224
Tanzania Mainland Area By Regions (Sq Km).....	224
Population	225
Life Expectancy For Tanzania - By Regions, 1967, 1978, 1988, 1996:	225
Land Use	226
Arable Land:	226
Lakes	226
Mountain Summits (Metres Above Sea Level).....	226
Climate	227
Rainfall.....	227
Social Services	228
Health Facilities	228
National Parks.....	229

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 Mtwara 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 Mtwara Region Socio-Economic Profile. I would also like to thank both the Planning Commission and Mtwara 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

LAND, PEOPLE AND CLIMATE

1.1 Geographical Location:

Mtwara region is one of 20 regions of Tanzania Mainland. It is the southernmost region. It lies between longitudes 38° and 40° 30" east of Greenwich. It is also situated between latitudes 10° 05" and 11° 25" south of the Equator.

It borders Lindi region to the north, the Indian Ocean to the east and separated by the Ruvuma river from Mozambique in the south. To the west it borders Ruvuma region.

1.2 Land Area:

The region occupies 16,720 sq. kms or 1.9% of Tanzania Mainland land area of 885,987 sq. kms. It is the second smallest region after Kilimanjaro. The region is divided between districts as in Table I - 1.

1.3 Administrative Units:

Mtwara region is administratively subdivided into 5 districts, 21 divisions, 98 wards and 554 villages as shown in Table I - 1. The smallest of the districts is logically the urban district of Mtwara/Mikindani at 163 sq. kms. and the largest is Masasi at 8,940 sq. kms which is 55 times the size of the urban district.

Masasi district has also got the largest number of divisions, wards and villages.

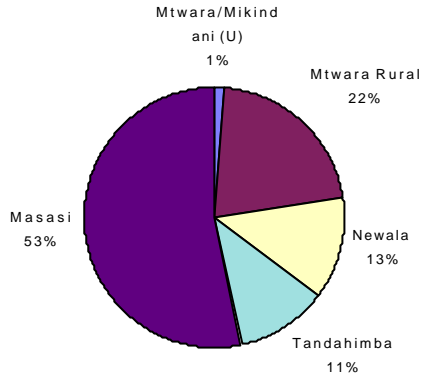
Originally Mtwara Region included Lindi until 1971 when Lindi was created to form a separate region.

TABLE I - 1: AREA AND ADMINISTRATIVE STRUCTURE OF MTWARA REGION, 1996:

District	Area (Km²)	Number of Divisions	Number of Wards	Number of Villages
Mtwara/Mikindani (U)	163	2	13	6
Mtwara Rural	3,597	6	17	101
Newala	2,126	3	16	130
Tandahimba	1,894	3	22	103
Masasi	8,940	7	30	214
Total	16,720	21	98	554

Source: Regional Commissioner's Office, Mtwara, 1997.

Fig. 1: Distribution of area (Sq. Km) by district, Mtwara region



1.4 Ethnicity:

The 1948 and 1967 censuses indicated that the majority of the indigenous people of the region were of Bantu origin. The most dominant groups are the Makonde of Newala, Tandahimba, Masasi and Mtwara rural. They made 60% of the population. This group is followed by the Makua of Masasi and Mtwara rural. The Yao, the third group, are found in Masasi.

1.5 Population Size, Growth and Distribution:

The history of Mtwara region population size is recorded by the 1967, 1978 and 1988 population censuses as in Table I-2 including the densities of the population per sq. km.

TABLE I - 2: POPULATION OF MTWARA REGION 1967, 1978 AND 1988:

Year	1967	1978	1988
Population	621,293	771,818	875,977
Population Density	37	46	53

Source: Data compiled from 1988 Population Census.

Fig. 2 (a): Population of Mtwara region 1967, 1978 and 1988

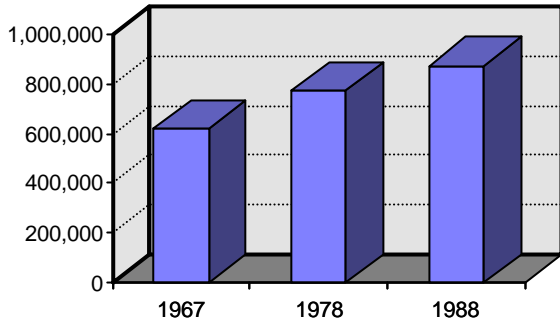
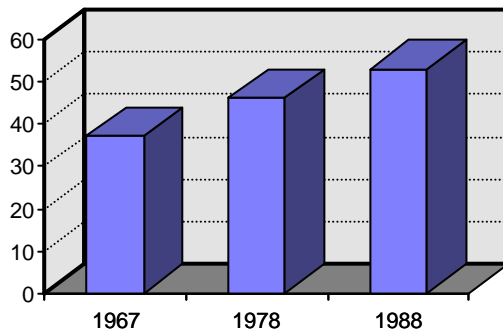


Fig. 2 (b): Population density of Mtwara region 1967, 1978 and 1988



Mtwara region's population increased by more than 40% between 1967 and 1988.

However, in order to get the proper perspective, the regions population and density has to be matched against other regions in Tanzania mainland. From Table I-3 the picture emerges that Mtwara region though having only 1.9% of Mainland land area carries 4% of its population. This can be explained by a higher than average population density. Mtwara has a density of 53.2

people per sq. km. while the mainland average is a mere 25.3 people per sq. km.

TABLE I-3: POPULATION DISTRIBUTION BY REGION AND DENSITY, TANZANIA MAINLAND, 1988:

Region	Land Area Sq. Km.	Population	Population Density per Sq. Km.	Population as a % of Mainland
Mtwara	16,710	875,977	53.2	4.0
Lindi	67,000	646,345	9.6	2.9
Shinyanga	50,760	1,763,960	34.9	7.9
Mwanza	20,095	1,878,271	93.5	8.4
Dodoma	41,311	1,235,277	30.0	5.5
Arusha	82,098	1,352,225	16.5	6.0
Kilimanjaro	13,309	1,108,699	83.7	4.9
Tanga	26,677	1,280,262	48.1	5.7
Morogoro	70,799	1,222,737	17.0	5.4
Coast/DSM	33,800	1,998,865	59.1	8.9
Ruvuma	66,477	783,327	12.0	3.5
Iringa	56,850	1,193,074	21.3	5.3
Mbeya	60,350	1,476,261	24.0	6.6
Singida	49,341	791,814	16.0	3.5
Tabora	76,151	1,036,293	14.0	4.6
Rukwa	68,635	704,050	10.1	3.1
Kigoma	37,040	853,263	23.1	3.8
Mara	21,760	952,616	43.7	4.2
Kagera	28,456	1,313,639	46.6	5.8
Total Mainland	887,619	22,466,955	25.3	100.0

Source: 1988 Population Census.

Fig. 3 (a) Distribution of land area (Sq. Km) of Mtwara region to the total Mainland

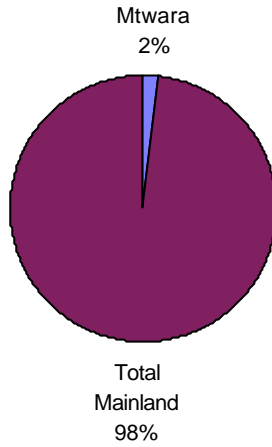
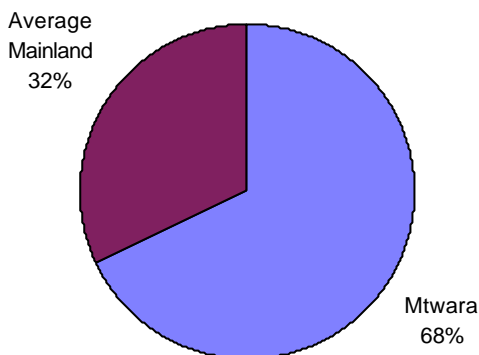


Fig. 3 (b) Distribution of population of Mtwara region to the total Mainland, 1988



Fig. 3 (c) Distribution of population density for Mtwara region to the total Mainland, 1988



Compared to its neighbouring regions of Lindi, Ruvuma, Morogoro and Coast (excluding DSM) Mtwara is the most densely populated region.

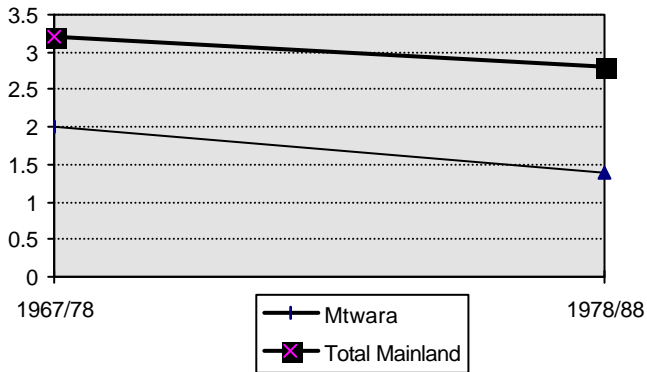
TABLE I-4: POPULATION AND POPULATION GROWTH BY REGIONS, 1978 AND 1988:

Region	Population		Annual Growth Rates	
	1978	1988	1967/78	1978/88
Mtwara	771,818	875,977	2.0	1.4
Dar-es-Salaam	843,090	1,360,850	7.8	4.7
Rukwa	451,897	704,050	4.5	4.2
Tabora	817,907	1,042,622	4.4	2.4
Kagera	1,009,767	1,313,639	3.9	2.7
Arusha	926,223	1,352,225	3.8	3.7
Shinyanga	1,323,535	1,763,960	3.5	2.9
Mbeya	1,079,864	1,476,261	3.3	3.1
Ruvuma	561,575	779,868	3.2	3.3

Dodoma	972,005	1,235,277	2.9	2.4
Kilimanjaro	902,437	1,106,068	2.9	2.1
Morogoro	939,264	1,279,931	2.9	2.6
Kigoma	648,941	853,263	2.9	2.7
Mwanza	1,443,379	1,876,776	2.8	2.6
Tanga	1,037,767	1,280,262	2.7	2.1
Iringa	925,044	1,193,074	2.7	2.7
Singida	613,949	793,887	2.7	2.5
Mara	723,827	952,616	2.6	2.9
Lindi	527,624	642,364	2.1	2.0
Coast	516,586	639,182	1.7	2.1
Total Mainland	17,036,499	22,466,955	3.2	2.8

Source: 1988 Population Census, National Profile.

Fig. 4: Annual population growth rates 1967/78 and 1978/88 of Mtwara region to the total Mainland



A perusal of Table I-4 reveals that during 1967/78 Mtwara region had the least but one annual population growth rate. During the subsequent ten years 1978/88 the region showed the least growth

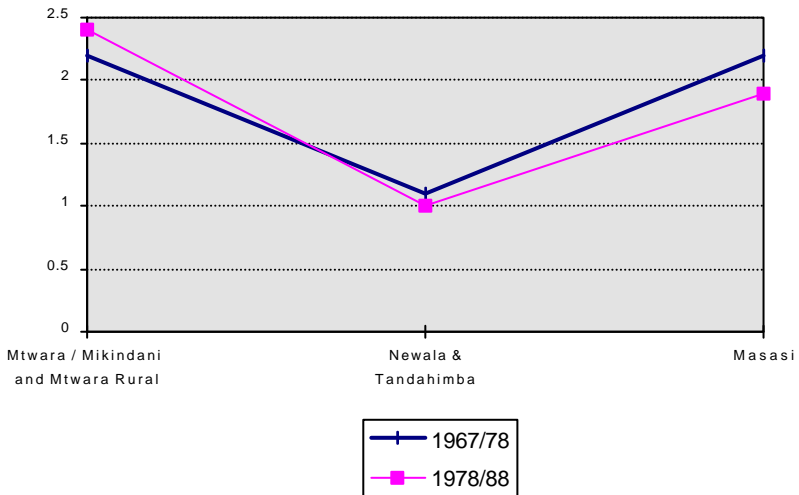
of any region and also that the rate had gone down compared to the previous ten years.

TABLE I-5: ANNUAL POPULATION GROWTH RATES BY DISTRICT, 1967/78 AND 1978/88

District	1967/78	1978/88
Mtwara/Mikindani and Mtwara Rural	2.2	2.4
Newala & Tandahimba	1.1	1.0
Masasi	2.2	1.9
Total	2.0	1.4

Source: 1988 Population Census - Mtwara Regional Profile.

Fig. 5: Annual population growth rates by district, 1967/78 and 1978/88, Mtwara region



According to Table I-5 all districts show a decline in annual population growth rate except for Mtwara Rural/Mtwara/Mikindani. The exception can be explained by the fact that the annual growth rate in urban areas of the region went up

between 1978 and 1988 quite markedly. Newala/Tandahimba district is possibly one of few districts in the country which have an annual population growth rate of as low as 1.0.

TABLE I-6: POPULATION DENSITY AND DISTRIBUTION BY DISTRICT, MTWARA REGION, 1988, 1996 AND 2000 A.D:

District	Land Area Km ²	1988			1996		2000	
		Actual Population	Annual Growth Rate %	Population Density per Km ²	Population Estimate	Population Density per Km ²	Population Estimate	Population Density per Km ²
Mtwara/Mikindani	163	75,857	4.0	465.4	103,815	636.9	121,449	745.1
Mtwara Rural	3,597	168,189	1.6	46.8	190,962	53.1	203,480	56.6
Newala	2,126	301,247*	1.0	74.9*	149,555	70.3	155,615	73.2
Tandahimba	1,894	-	1.0	-	176,555	93.3	183,824	97.1
Masasi	8,940	330,684	1.9	37.0	384,421	43.0	414,480	46.4
Total	16,720	875,977	1.4	52.4	1,005,405	60.1	1,078,845	64.5

Source: Data compiled from 1988 Population Census

* Includes Tandahimba district

Note: Annual growth rates estimates except for Masasi.

Table 1-6 reveals that Masasi is the most populous district accounting for almost 40% of the region's population. The Mtwara/Mikindani urban district is now the smallest in terms of people but its share of the total regional population is increasing. It was 8.6% in 1988 but it is expected to be 11% by 2000 A.D.

Mtwara Rural, Newala and Tindahimba districts in 1996 accounted for 19% 15% and 18% respectively.

1.6 Population sex, households and Age Groups:

Distribution of the 1988 population census between the sexes gives a regional average sex ratio of 91.9. This means for every 100 females there are 91.9 males. There are a lot more women compared to men than is average for mainland Tanzania. Newala district displayed the biggest discrepancy in a number between the sexes in the region. It had a sex ratio of 85.5 or approximately 46 males for every 54 females. See Table 1-7.

The situation with respect to 1978 census is that the regional average sex ratio since then had remained essentially the same except for a slight shift. The 1978 sex ratio was 93.5. This means that by 1988 the imbalance in numbers between the sexes was even greater than it was in 1978.

The urban district of Mtwara/Mikindani showed more men than women in both cases. In 1978 the sex ratio was 102.8. The sex ratio of 103.8 in 1988 shows that the gap is widening. See Table I-7 and I-8. There are 198,848 households in Mtwara region making an average household size of 4.4. Mtwara Rural and Newala districts had the highest size at 4.5. Mtwara Urban and Masasi districts had the lowest at 4.3. See Table 1.9.

TABLE I-7: POPULATION DISTRIBUTION BY SEX AND DISTRICT, 1988:

District	Male	Female	Total	Sex Ratio
Mtwara/Mikindani Urban	38,916	37,491	76,407	103.8
Mtwara Rural	80,853	88,459	169,312	91.4
Newala	141,857	165,858	307,715	85.5
Masasi	162,160	173,288	335,448	93.6
Total	423,786	465,096	888,882	91.9

Source: 1988 Population Census.

Fig. 6: Population distribution by district and sex, Mtwara region 1988

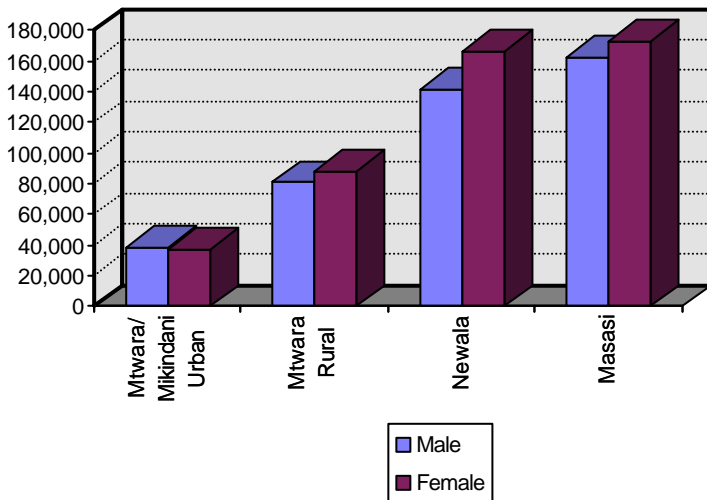


TABLE I-8: POPULATION DISTRIBUTION BY SEX AND DISTRICT, 1978:

District	Male	Female	Total	Sex Ratio
Mtwara/Mikindani Urban	24,584	23,907	48,491	102.8
Mtwara Rural	70,090	73,943	144,033	94.8
Newala	145,599	161,786	307,385	90.0
Masasi	132,769	139,140	271,909	95.4
Total	373,042	398,776	771,818	93.5

Source: 1988 Population Census, Regional Profile Mtwara.

Fig. 7: Population distribution by district and sex, Mtwara region 1978

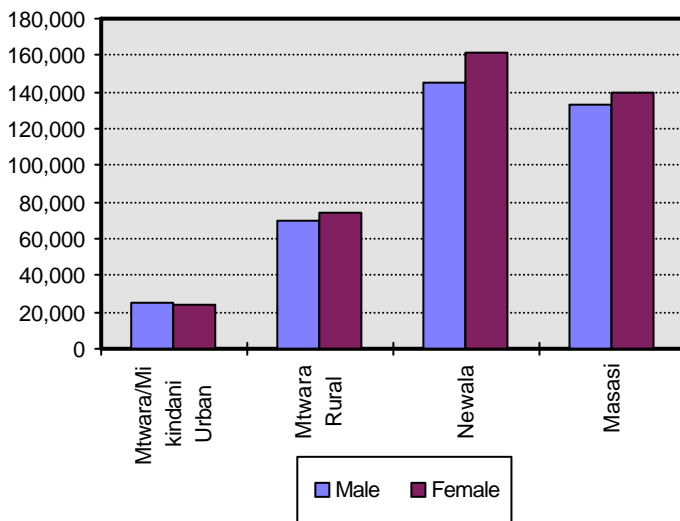


TABLE I-9: POPULATION HOUSEHOLD SIZE BY DISTRICT, MTWARA REGION, 1988:

District	Total Population	Number of Households	Average Household Size
Mtwara/Mikindani Urban	75,857	17,814	4.3
Mtwara Rural	168,189	37,519	4.5
Newala	301,247	66,496	4.5
Masasi	330,684	77,019	4.3
Total	875,977	198,848	4.4

Source: 1988 Population Census, Mtwara Regional Profile.

TABLE I-10: POPULATION HOUSEHOLD SIZE BY DISTRICT AND BY RURAL/URBAN ORIENTATION, MTWARA REGION, 1988:

District	Population		Number of Households		Average Household Size	
	Rural	Urban	Rural	Urban	Rural	Urban
Mtwara/Mikindani Urban	9,405	66,452	2,109	15,705	4.5	4.2
Mtwara Rural	161,576	6,613	35,977	1,542	4.5	4.3
Newala	275,599	25,648	60,666	5,830	4.5	4.4
Masasi	304,273	26,411	70,730	6,289	4.3	4.2
Total	750,883	125,124	169,482	29,366	4.4	4.3

Source: 1988 Population Census, Mtwara Region Profile.

Fig. 8: Rural and Urban population orientation by district, Mtwara region, 1988

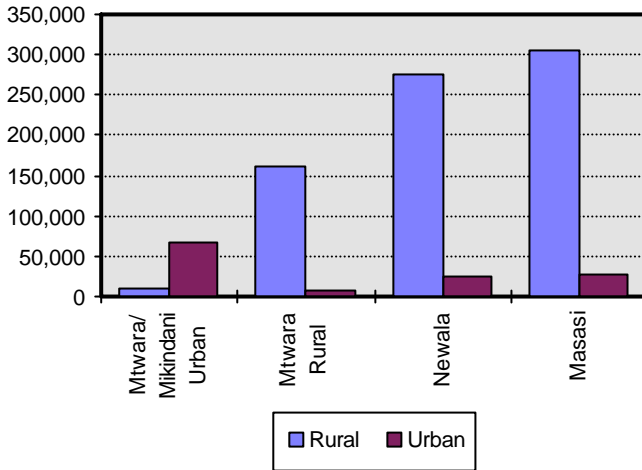


Table 1.10 reveals the trend in household size between urban and rural areas. In every case urban sizes are smaller than rural household sizes.

TABLE I-11: POPULATION AGE GROUPS BY DISTRICT, MTWARA REGION, 1988:

District	Age Groups					Dependenc y Ratio
	0 - 4	5 - 14	15 - 44	45 - 64	65+	
Mtwara/Mikindani Urban	10,483	19,007	37,566	7,390	2,115	70.30
Mtwara Rural	24,144	43,087	71,469	22,182	8,373	80.73
Newala	39,881	82,481	127,408	41,258	16,483	82.32
Masasi	52,055	88,769	135,005	41,480	16,626	89.21
Total	126,561	233,347	371,451	112,303	43,577	83.41

Source: 1988 Population Census, Regional Profile, Mtwara.

Fig. 9 (a): Population age groups in Mtwara/Mikindani Urban, 1988

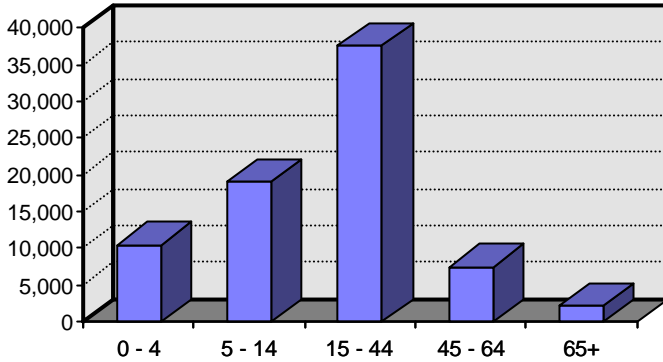


Fig. 9 (b): Population age groups in Mtwara Rural district, 1988

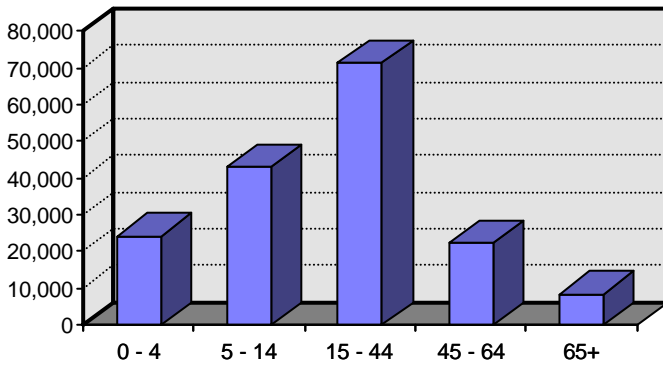


Fig. 9 (c): Population age groups in Newala district, 1988

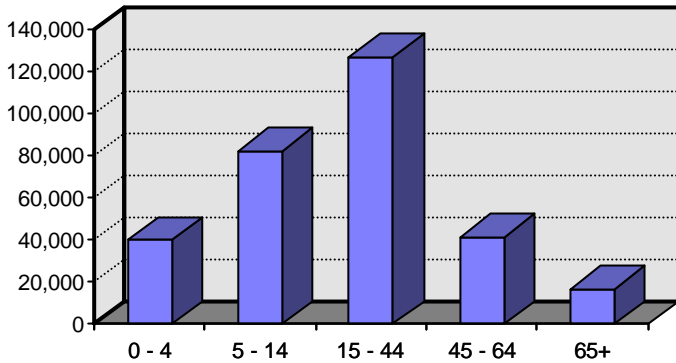
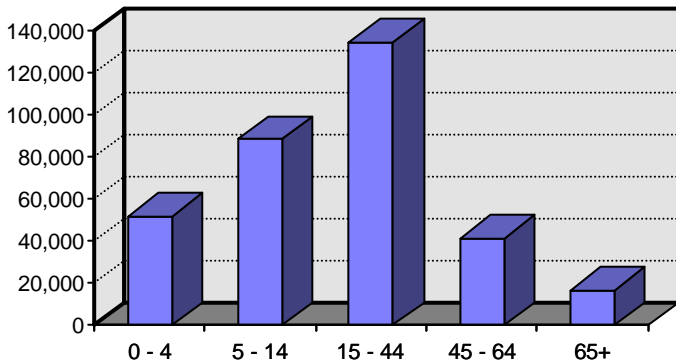


Fig. 9 (d): Population age groups in Masasi district, 1988



The distribution of various age groups in the region's population is shown in Table I-11 and I-12 for 1988 and 1978 respectively. The dependency ratio has decreased from 86.26 in 1978 to 83.41 in 1988. This economically is a healthy sign. For some inexplicable reason Masasi district's dependence ratio increased dramatically from 53.31 in 1978 to 89.21 in 1988. The proportion of people 65 years of age and over in the population

increased from 4.7% to 4.9% between the two censuses. The national average is 4.3% for 1988. The proportion of the 0 - 14 age group was 41.6% in 1978 and 40.6% in 1988. This is very good when compared to the national average of 45.7% for 1988. Population control policies

TABLE 1-12: POPULATION AGE GROUPS BY DISTRICT, MTWARA REGION, 1978:

District	Total Population	Age Groups					Dependence Ratio
		0 - 4	5 - 14	15 - 44	45 - 64	65+	
Mtwara/Mikindani Urban	48,491	7,824	11,406	24,309	4,068	884	70.88
Mtwara Rural	144,033	23,438	35,239	60,621	18,360	6,375	82.36
Newala	307,385	46,777	80,129	129,085	35,333	16,061	86.95
Masasi	271,909	45,345	71,076	107,774	34,811	12,903	53.31
Total	771,818	123,38	197,850	321,789	92,592	36,222	86.26

Source: 1988 Population Census, Regional Profile, Mtwara.

are being effective. This is also consistent with the low population growth rate which declined further from 2.0% to 1.4% between 1978 and 1988.

Fig. 10 (a): Population age groups in Mtwara/Mikindani Urban, 1978

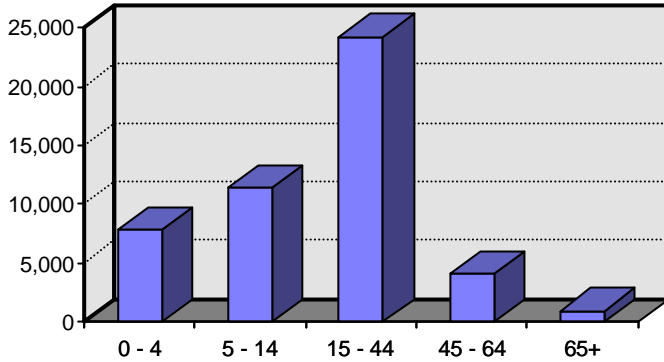


Fig. 10 (b): Population age groups in Mtwara Rural district, 1978

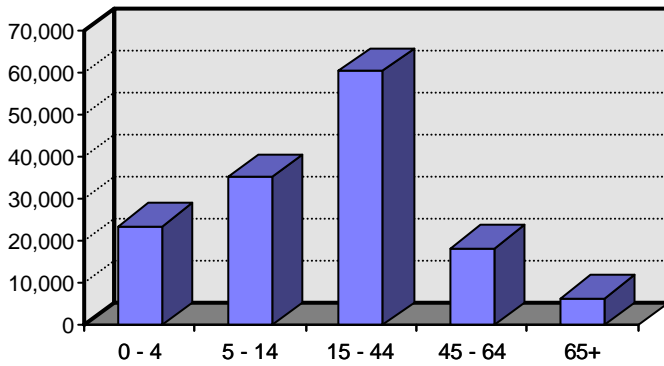


Fig. 10 (c): Population age groups in Newala district, 1978

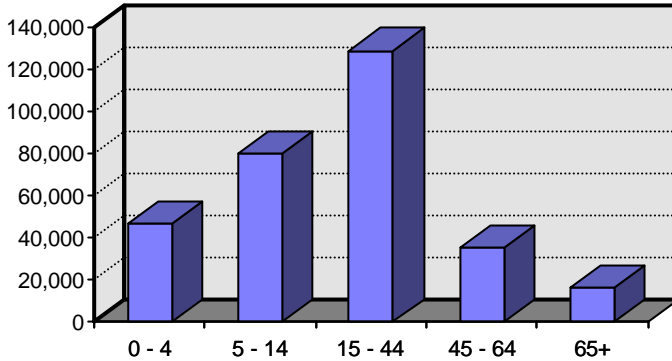
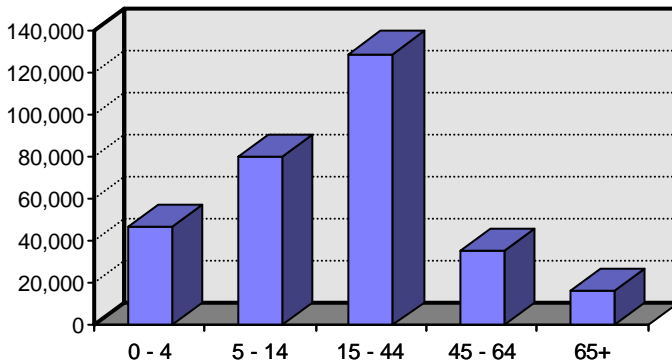


Fig. 10 (d): Population age groups in Masasi district, 1978



1.7 Urban/Rural Population Distribution:

In Mainland Tanzania 18.3% of the population were living in urban areas in 1988. In Mtwara 14.3% of the region's population lived in urban areas. It was 12.0% in 1978 and 3.3% in 1967 for Mtwara. In 1978 the urban settlements were Mtwara/Mikindani,

Newala, Masasi, Mahuta and Bondeni. The 1967, 1978 and 1988 statistics show that slowly the region is getting urbanized.

From Tables F13 and F14 the regional average trend is clear. The region moved from 12% urbanization in 1978 to 14.4% urbanization in 1988. The position with respect to the districts of Mtwara Urban and Newala need some explaining. The departure shown by these districts from the norm may have been due to the re-demarcation of administrative boundaries.

TABLE I-13: DISTRIBUTION OF RURAL AND URBAN POPULATION BY DISTRICT, MTWARA REGION, 1978 AND 1988:

District	Urban		Rural		Total	
	1978	1988	1978	1988	1978	1988
Mtwara/Mikindani Urban	48,491	66,452	NIL	9,405	48,491	75,857
Mtwara Rural	NIL	6,613	144,033	161,576	144,033	168,189
Newala	30,735	25,648	276,650	275,599	307,385	301,247
Masasi	13,129	26,411	258,780	304,273	271,909	330,684
Total	92,355	125,124	679,463	750,883	771,818	875,977

Source: 1978 Population Census Vol.IV
1988 Population Census, Regional Profile, Mtwara.

Fig. 11 (a) Distribution of rural and urban population by district, Mtwara region, 1978

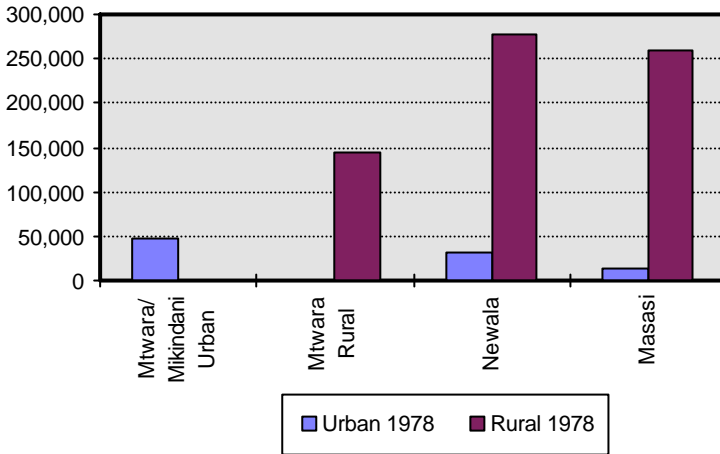


Fig. 11 (b) Distribution of rural and urban population by district, Mtwara region, 1988

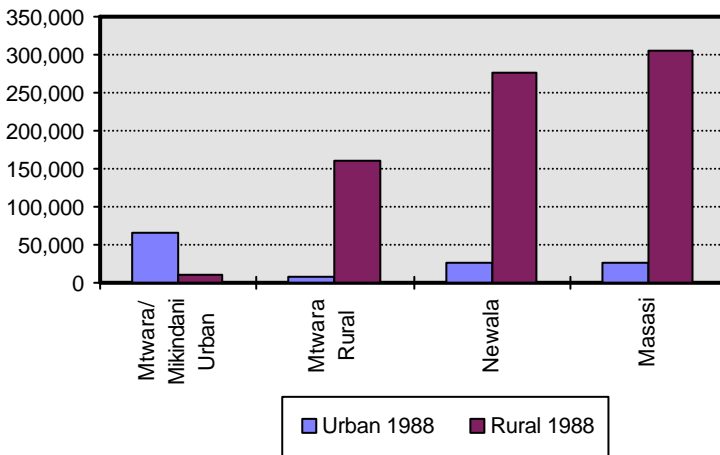


TABLE I-14: URBAN POPULATION DISTRIBUTION AND PROPORTION OF TOTAL REGIONAL POPULATION, BY DISTRICT 1978 AND 1988:

District	1978		1988	
	Urban Population	% of Total Population	Urban Population	% of Total Population
Mtwara/Mikindani Urban	48,491	100	66,452	87.6
Mtwara Rural	Nil	0	6,613	3.9
Newala	30,735	10.0	25,648	8.5
Masasi	13,129	4.8	26,411	8.0
Total	92,355	12.0	125,124	14.3

Source: 1978 Population Census Vol IV
1988 Population Census, Regional Profile, Mtwara

1.8 Migration and Employment

Table 1-15 shows the migration status of the region in 1988. Lifetime in migration stood at 46,299 while out migration was as much as 144,988. This gives a net lifetime migration of -98,689. The negative net lifetime migration figure means that the region was losing people to other parts of the country. Mtwara region is in the same situation as its fellow southern neighbours Lindi and Ruvuma regions.

**TABLE 1-15: LIFETIME MIGRATION BY REGION,
TANZANIA MAINLAND, 1988:**

Region	Lifetime in Migration	Lifetime Out Migration	Net lifetime Migration	Gross Migration
Mtwara	46,299	144,988	-98,689	191,287
Lindi	95,200	145,031	-49,831	240,231
Arusha	218,429	76,703	141,724	295,130
K'njaro	93,040	217,423	-124,383	310,463
Tanga	98,747	150,915	-52,168	249,662
Morogoro	172,393	141,956	30,437	314,349
Coast	103,804	207,716	-103,912	311,520
Dar es Salaam	651,246	150,625	500,621	801,871
Dodoma	89,900	190,985	-101,085	280,885
Ruvuma	66,442	81,661	-15,219	148,103
Iringa	49,282	169,480	-120,198	218,762
Mbeya	160,377	113,378	46,999	273,755
Singida	86,651	150,531	-63,880	237,182
Tabora	241,729	175,359	66,370	417,088
Rukwa	87,599	49,294	38,305	136,893
Kigoma	26,795	129,718	-102,923	150,513
Shinyanga	288,210	281,447	6,763	569,657
Kagera	103,713	109,693	-5,980	213,406
Mwanza	270,142	303,646	-33,504	573,788
Mara	75,987	115,865	-39,878	191,852
Total	3,025,983	3,106,414	-80,431	6,132,397

Source: 1988 Population Census National profile.

The southern zone as a whole and Mtwara in particular is unattractive to the new generation who move out in search of greener pastures elsewhere in Tanzania. They are economic "refugees". To stem this outflow means a lot of work in making the region and the zone economically attractive to young people. Drastic improvement in road connections with the north will open up the region to markets in the north. It can also provide access to the region for industrial goods and supporting economic and social services inputs from the more developed parts of the country. The region had the potential to make it attractive to coming generations of young people so that they do not need to go beyond its borders to seek a secure economic future.

Current efforts at providing employment to youths include indirectly the opening up of a thriving gemstone mining industry where any one can participate as a small scale miner. The establishment of 459 women groups as part of the gender issue exercise, boosts employment among women. Similarly, the existence of youth groups dedicated to income generation is another relevant effort which has the potential for great expansion.

So far 38 groups and 15 individual youths have taken advantage of loans of up to TShs 7.5 million. The distribution of these youth groups is Newala 30, Masasi 28, Mtwara/Mikindani 14 and Mtwara Rural 22.

Future strategy could include the expansion of women and youth groups, expansion of small scale gemstone mining and the development of the tourist industry. But in the long run the

agricultural, forestry (including beekeeping) and the fishing industries have got to be developed to the extent that they attract new generations. The industry sector is another long term possibility.

1.9 Climate and Soils:

Prevailing winds are critical in determining climate for this region which borders on the Indian Ocean. During the period November/December to April/May the dominant winds are from the north-east. They bring a hot humid rainy season to the region, when they blow from south-east the region is dry, cooler and less humid.

The rainy season of November/December to April/May is single peaked, the peak being reached in January but occasionally in February or March. The amount of total annual precipitation tends to vary with altitude. Mtwara district rains vary from 935 mm to 116 mm in the hills and the plateau. It is 893 mm at Masasi Mission and 1001 mm at Newala. It also varies from 1133 mm at Mtopwa to 832 mm at Lukwika Mission.

Likewise temperatures vary from 27⁰ as the highest monthly mean at Mtwara on the coast in December to 23⁰ C in July. Relative humidity goes from 87% in March to 79% in October in Mtwara. Temperatures and humidity are lower inland.

Geology determines soils. The region has two geological zones and hence two geologically determined soils types. The first zone is geologically the coastal sedimentary formation extending some

125 kms from the Indian Ocean to the edge of the Makonde Plateau of Newala. This zone produces deep, well drained, sandy soils of low fertility and low moisture holding capacity. They are produced from sandstones. Some areas give rise to marine heavy clay soils or vertisols. Further, coastal limestones produce red, well drained, heavy textured soils.

The second zone geologically extend west of the coastal sediments. It is a zone of pre-cambrian basement rocks consisting of gneisses and granulites. Soils from this basement are variable. They are deep, well drained, red clays to the north of Masasi town. These are the best soils in the region since they suit best the upland crops of the region. South of Masasi coarse grained sandy soils occur frequently.

1.10 Topography and Drainage:

Topography wise the region is divided into two halves. The coastal plain with its complexity of landforms. Secondly the basement plain dominated by the Makonde Plateau at 300mm to 400mm. It is generally low level with isolated rocky hills and steep river sides.

The western half lying beyond the Makonde Plateau drains to the south through the tributaries of the Ruvuma river. The Maombi and Mbuo rivers drain most of the Makonde Plateau.

1.11 Agro-Ecological Zones:

Mtwara region has four agro-ecological zones according to climate, landform, agriculture and soil / vegetation characteristics.

Zone I: South half of Mtwara Rural and South - East of Newala:

Monomodal rainfall with annual precipitation exceeding 1000 mm and 6 months of growing season (November - April). Low altitude. Isohyperthermic temperatures. Soils of low fertility.

Zone II: North half of Mtwara Rural:

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

Zone III: The Whole of Masasi (Except Northern Part) North and West Parts of Newala:

Monomodal rainfall averaging 600 mm to 1000 mm in 5 months growing season (December - April). Low altitude. Isohyperthermic temperatures. Soils of low fertility.

Zone IV: The South East of Mtwara Rural:

Bimodal rainfall pattern with annual precipitation of over 600 mm. The growing season last 7 months. (November - May) Soils of high fertility and of alluvial origin. Low altitude.

SECTION II

REGIONAL ECONOMY:

2.1 Introduction:

Present day Mtwara region came into being in 1971 as a result of the division of Mtwara and Lindi as a single region into two separate regions. The region is located at the extreme southern end of the republic. In spite of this remoteness and its economic background, the region has made some economic progress.

Mtwara like the rest of Tanzania is predominately agricultural. The main occupation of the inhabitants of the region is farming. About 92 percent of the population is engaged in agriculture, apart from other rural activities like fishing, beekeeping and small scale industries. Approximately 85 percent of the region's total area is arable land. However less than 20 percent of this is under cultivation. The average farm size per rural household (169,482 households - 1988 Census) which averages 4.4 persons is estimated at 1.5 ha.

Farm mechanization and oxenization are still far from realisation. The hand hoe is the common farming tool in the region. Major food crops include cassava, millet and sorghum. Only recently has maize gained popularity. Cashewnuts is the predominant cash crop in the region. Others are groundnuts and simsim. Livestock keeping is not traditional among the region's population, hence contribution of this sector to the region's economy is insignificant. Prospects for the mining industry in the region are great. Various

minerals have been identified and exploited on a small scale. Since 1995 sapphire, christalbella, alexandrite, tourmaline and rhodolite have been mined in Masasi district.

2.2 Regional GDP and Per Capita GDP:

The region's economy from the point of view of GDP earnings between the years 1980 and 1994 portrays a gradual but significant increase (Table II - 1). GDP earnings increased from T.shs. 1.099 billion in 1980 to T.shs. 62.491 billion in 1994. The year 1988 registered an exceptionally high increase of over 87 percent in GDP earnings compared to that of the previous year. It is said that the increase in GDP in the year under mention was mainly caused by increased production in agricultural, fishing and mineral sectors. From that year the region's economy was stimulated and continued to show remarkable increases in GDP earnings. These earnings came from various production activities and services. It is noted that the region's average contribution to the Nation's GDP between 1980 and 1990 had been 3 percent but increased to 4 percent from 1991 to 1994 (Table II-1). Mtwara region ranks 14th in GDP contribution to the Nation's economy among the Mainland regions as by 1994 (Table II-2).

It is further observed in Table II-1 that Mtwara region's per Capita GDP at current prices trend over 15 years (1980 - 1994) indicates increased per capita earnings from T.shs. 1,385 in 1980 to T.shs. 59,533 in 1994. However, when these per capita annual earnings are considered in terms of the U.S.A. dollar the picture changes. It is only during the first six years of the 1980s that the people in Mtwara had comparatively satisfactory

purchasing power. The sudden fall of the value of the T.shilling in 1986 and onwards meant the population in the region actually earned 50 - 60 percent less in terms of US dollar than they did in 1982.

TABLE II-I THE GDP AND PER CAPITA GDP OF MTWARA REGION AT CURRENT PRICES AND PERCENTAGE CHANGE 1980-1994

Year	G.D.P. at current prices TShs million	% change	Per Capita GDP			% change	% Ave contribution to National GDP
			TShs	Exchange rate	U.S.A Dollars		
1980	1,099	-	1,385	8.22	168	-	3
1981	1,354	23.20	1,683	8.35	202	20.24	3
1982	1,734	28.06	2,125	9.52	223	10.40	3
1983	1,873	8.02	2,264	12.44	182	- 18.39	3
1984	2,254	20.34	2,687	18.16	148	- 18.68	3
1985	2,890	28.22	3,397	16.50	206	39.19	3
1986	3,886	34.46	4,505	51.70	87	- 57.77	3
1987	5,198	33.76	5,943	83.70	71	- 18.40	3
1988	9,763	87.82	11,002	125.00	88	23.94	3
1989	15,342	57.14	16,812	192.00	88	0.00	3

1990	22,975	49.75	24,481	197.0 0	124	40.91	3
1991	29,330	27.66	30,390	234.0 0	130	4.84	4
1992	37,913	29.26	38,190	335.0 0	114	- 12.31	4
1993	49,786	31.32	48,776	480.0 0	102	- 10.53	4
1994	62,491	25.52	59,533	553.0 0	108	5.88	4
Ave	16,525.9		16,878. 2		136.1		3.27

Source: Planning Commission, Based on National Accounts of Tanzania 1976-1994, 11th Edition August 1995.

Fig. 12 (a): The GDP at current prices (million T.Shs), Mtwara region 1980-1994

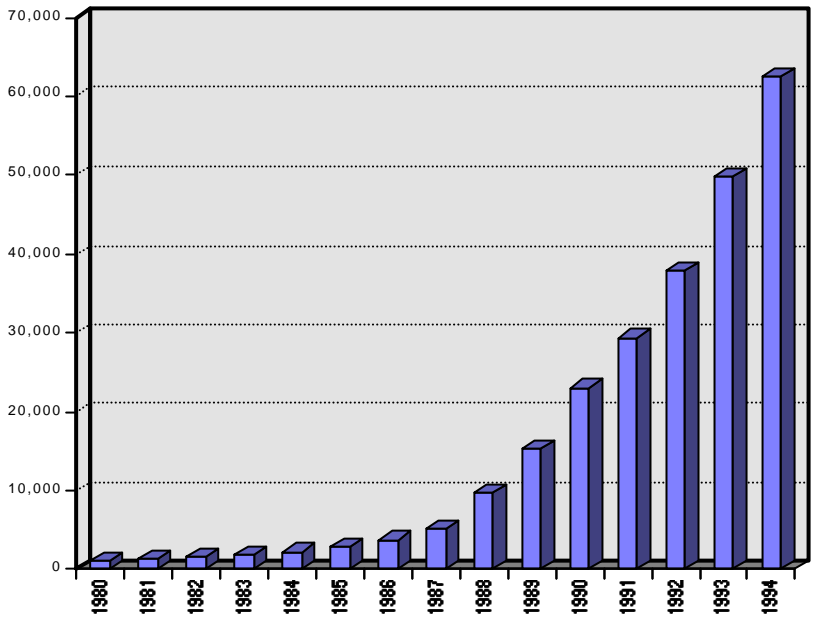
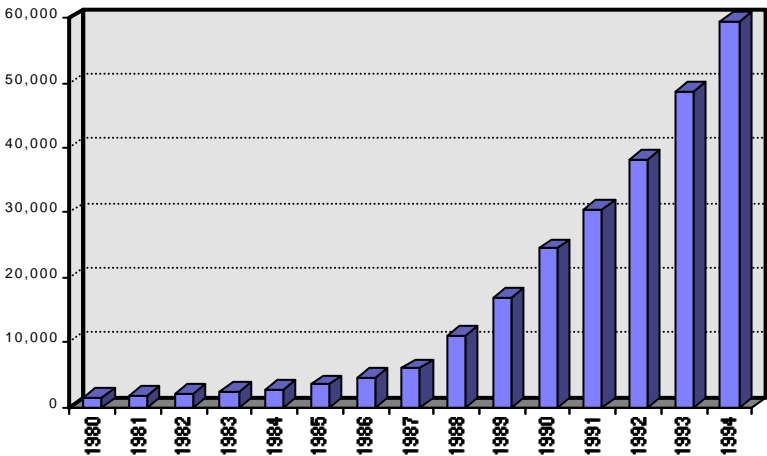


Fig. 12 (b): Per Capita GDP at current prices of Mtwara region 1980-1994



**TABLE II:2 AVERAGE ANNUAL REGIONAL GDP CONTRIBUTION
BY PERCENTAGE TO THE NATIONAL GDP 1980-1994**

Region	Average Annual GDP contribution %	GDP contribution Ranking
Mtwara	3.27	14
Dar es Salaam	20.33	1
Arusha	7.80	2
Mwanza	7.67	3
Mbeya	6,00	4
Shinyanga	5.80	5
Iringa	5.53	6
Tanga	5.52	7
Morogoro	4.67	8
Kagera	4.60	9
Kilimanjaro	3.67	10
Mara	3.47	11
Tabora	3.40	12
Ruvuma	3.33	13
Rukwa	3.13	15
Dodoma	3.07	16
Singida	2.87	17
Kigoma	2.53	18
Lindi	2.00	19
Coast	1.00	20
Total	100.00	

Source: Planning Commission Based on National Accounts of Tanzania 1976-1994 11th Edition, August 1995.

It is of interest to compare Mtwara region's GDP and per capita GDP against its neighbouring regions of Lindi, Ruvuma, Morogoro and Coast. These regions besides being neighbouring also have more or less similar agricultural based economies. Table II-3 shows the GDP and Per Capita GDP of each of these neighboring regions between 1980 and 1994. Morogoro region shows very outstanding positive generation of both GDP and Per Capital GDP during the entire period of 10 years under consideration. Major contributors to Morogoro regions economy are the sugar estates of Kilombero and Mtibwa. Mtwara region ranks second in economic development among these five regions. Mtwara's major contributors is the cashewnut crop which accounts for over 25 percent of the region's economy. Forty percent of the nation's output of cashewnut comes from Mtwara region.

Ruvuma ranks third. Maize is Ruvuma's main economic earner followed by coffee and tobacco. Lindi and Coast regions rank fourth and fifth respectively. Economic bases of these two regions are weak in having no major cash crop sufficiently developed to have an impact.

Morogoro region has other economic advantages in that during the period under discussion it had many operating factories. Output products and employment generation contributed enormously to the economic growth of the region. Mtwara on the other hand holds the position of the most important communication centre or transport mode for the whole southern zone, by having the Port of Mtwara.

**TABLE II-3 COMPARATIVE GDPs AND PER CAPITA GDPs
FOR MTWARA, RUVUMA, LINDI, MOROGORO
AND COAST AT CURRENT PRICES 1985-1994**

Year	Mtwara		Lindi		Ruvuma		Morogoro		Coast	
	Region		Region		Region		Region		Region	
	GDP (TShsmL)	Per capita GDP Tshs	GDP (Tshs ml.)	Per capita GDP Tshs	GDP (Tshs ML.)	Per capita GDP Tshs	GDP (Tshs ml.)	Per capita GDP Tshs	GDP (Tshs mil)	Per capita GDP Tshs
1985	2890	3397	1416	2336	3329	4691	4436	3946	1037	1735
1986	3886	4505	1295	2095	3886	5296	5182	4493	1295	2124
1987	5198	5943	7076	11222	9163	12077	6788	5737	1675	2689
1988	9763	11002	13204	20471	17210	22023	11977	9550	3128	4914
1989	15,342	16812	21103	31815	27412	34109	18669	14476	5014	7661
1990	22,975	24481	11153	16350	18063	21856	35881	27054	6637	9860
1991	29,330	30390	13860	19756	22909	26954	44974	32974	8372	12095
1992	37,913	38190	17962	24897	29567	33828	54969	39189	10504	14756
1993	49,786	48776	23299	31404	38638	42985	67846	47034	13312	18183
1994	62,491	59533	29253	38340	48565	52537	88073	59370	17033	22624

Compiled Data: Based on National Accounting of Tanzania 1976-1994 11th Edition, August 1995.

Fig.13 (a): Comparative GDPs (TShs. mill) Mtwara, Ruvuma, Lindi, Morogoro and Coast regions at current prices 1985-1994

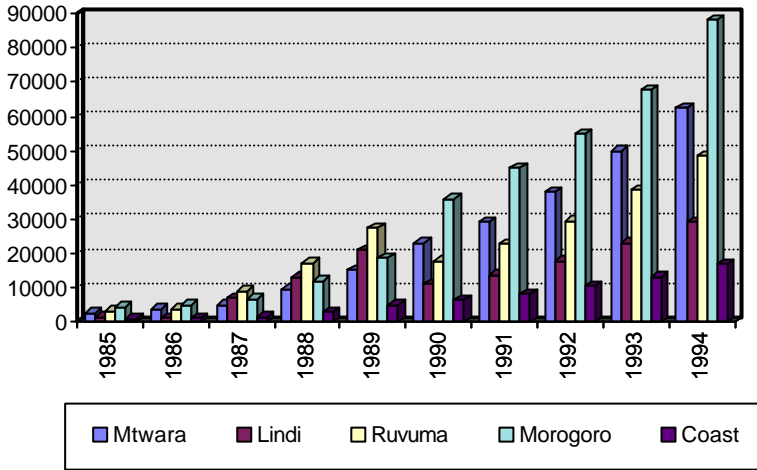
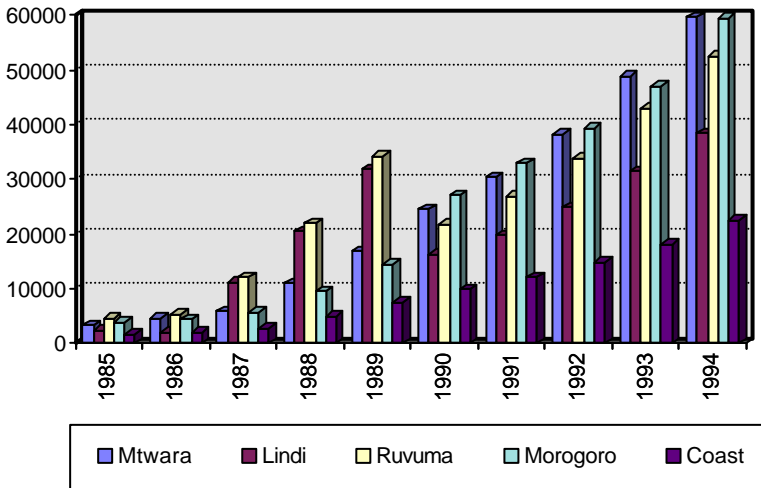


Fig.13 (b): Comparative Per Capita GDPs (TShs.) Mtwara, Ruvuma, Lindi, Morogoro and Coast regions at current prices 1985-1994



2.3 PRODUCTIVE SECTORS

2.3.1 AGRICULTURE

Agriculture is the predominant economic sector in Mtwara region .

About 90 per cent of the agricultural output is by small holder farmers. The main food crops being cassava, sorghum, millet and with increasing importance maize and paddy. Cashewnut is the most important cash crop. Sesame and groundnuts also contribute to the cash income of the peasant farmer. Coconut is important along the Coast. All these crops are produced over cultivated land of about 270,300 hectares. The total arable land is 599,500 Ha. (Rolling Plan and Forward Budget 1967/98-1999/2000) This implies that about 55 percent of the arable land is not yet exploited.

It is known that about two decades or so ago the region had chronic problem of food deficiency. Considerable food stuff had to be imported into the region. It is for this reason that food production strategies aimed at increasing food production at the district levels were formulated with the sole objective of achieving food sufficiency at the household level throughout the region. These district programmes were:-

ONJAMA of Masasi district aimed at eradicating food deficiency in the district. **TUTUMANE** a programme aimed at boosting up crop production in NewaLa district and **KUCHAKUMI** was to create food sufficiency in Mtwara rural district while **KIWAMI** was launched to increase food production in Mtwara urban district. All these programmes succeeded in their objective

through mobilisation of households for increased food production.

Not only did food production in these districts increase but there were reports of decreased severe malnutrition among children under 5 years.

Food Crops:

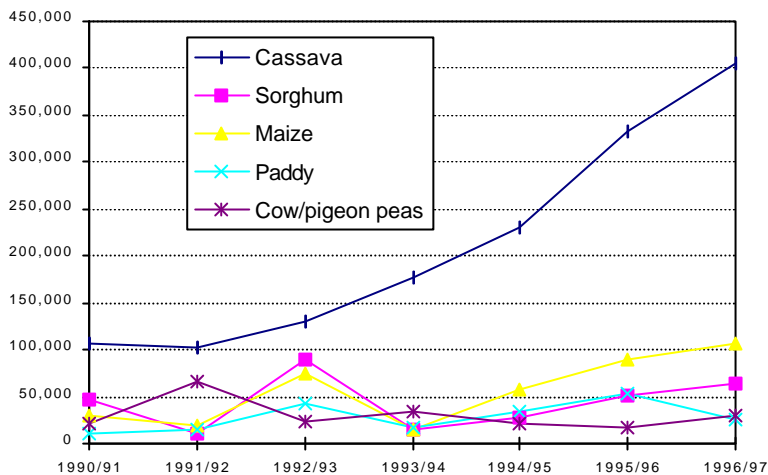
Major food crops produced in the region include cassava, sorghum, millet, paddy and maize. Leguminous crops grown extensively as protein sources are pigeon peas, cowpeas, bambaranuts and groundnuts. However, maize and paddy are grown in limited areas and quantity. Although a large number of the population prefer rice and maize as their main food crops, the regional authorities emphasise production of cassava and sorghum due to their tolerance to drought conditions which sometimes prevails in the region. Table II-4 highlights the general trend of food production between 1990-1997.

TABLE II-4: MTWARA REGION FOOD CROPS PRODUCTION IN TONES BY DISTRICTS

Crops	1990/9 1	1991/9 2	1992/9 3	1993/9 4	1994/9 5	1995/9 6	1996/9 7
Cassava	107,000	101,410	129,415	177,310	230,140	332,704	404,463
Sorghum	46,290	11,610	90,203	14,000	27,040	52,091	63,823
Maize	28,830	19,650	74,671	15,120	58,130	90,343	106,444
Paddy	11,180	15,300	43,592	17,440	33,620	53,612	24,716
Cow/pigeon peas	20,380	65,880	22,750	34,000	21,210	17,260	30,252

Source: Regional Agricultural Development Office, Mtwara 1997

Fig. 14: Mtwara Region Food Crops Production in Tones by Districts, 1990/91 - 1996/97



Cassava:

Production figures in Table II-4 clearly indicates how the cassava crop performs in the region. Production has increased steadily from the 1990/91 growing season to 1996/97. This increase in production is 278 per cent over the period of 7 years. Cassava constituted about 50 percent of total major food production in 1990/91 and 64 percent in 1996/97. In times of surplus production of other favoured food crops such as maize surplus, cassava experience difficulties of getting an attractive market price. This marketing problem has been experienced by peasant farmers in the last three growing season. This is partly due to the introduction of free market system and because of falling prices on the world market. A proposition of establishing cassava starch processing plants in the region could be of worthwhile consideration in widening the market for surplus cassava.

Sorghum:

Sorghum a drought resistant crop capable of being grown all over the region including areas of marginal rainfall. It takes second position in importance as a food crop. In spite of its drought resistance advantage the crop is not popular with peasants. Production data of sorghum during the years 1990-1997 indicated in Table II-4 shows an ups and downs growth pattern. A record production was experienced back in 1992/93 when about 90,203 tones were realised in the region. A year later 1993/94 production of the crop went down to 14,000 tones. This was close to its lowest level of 11,610 tons in 1991/92. From there on there has been a remarkable increase in production. It is clear that combined efforts of increased production of cassava and sorghum could be the permanent solution to the food crisis in the region that tends to reoccur every now and then.

This crop should continue to be campaigned for production as a hedge food crop in time of failures of other food crops for drought reasons or insect infestation as in the case of cassava mealy bug.

Maize:

Maize has recently gained popularity as a food grain in Mtwara region. In table II-4 one observes fluctuating maize production in the seven years (1990-1997). Maize popularity among the peasants farmers is gaining momentum. This is in contrast to sorghum which is declining. It is during the years 1991/92 and 1993/94 only that maize contributed less than 10 percent of total food crops. During the remaining years shown in Table II-4 maize

contributed between 13.5% in 1990/91 and 17% in 1996/97. It is a common phenomenon that maize has an ever demanding market in and outside the region. However, farmers should be well advised to blend their maize crop production with cassava and sorghum for the reasons given earlier.

Paddy:

The conditions in Mtwara region are good for paddy production. The crop can be grown in the fertile river valleys partly flooded during the rainy season. The crop is increasingly becoming an important food crop in the region. It ranks fourth after cassava, sorghum and maize. Table II-4 shows a fluctuating production trend for paddy, between 1990/91 and 1996/97. Paddy production contributed 10% and 12% of food production in 1992/93 and 1995/96 growing seasons respectively. In other years paddy contributed between 4% and 9%. It will be through the development of small scale irrigation that production of paddy will be speeded up. Therefore the region should embark on the development of potential river valleys for irrigation.

Cow/Pigeon Peas:

Cow peas and pigeon peas are the main pulses of Mtwara region. They are primarily grown for home consumption. Table II-4 shows fluctuating production between 1990/91 and 1996/97. Generally these pulses have contributed less than 10 percent of total main food crops. It is only during the year 1991/92 that they contributed about 30 percent. However, there is a need to increase production of these pulses for the sake of a balanced

diet. Adequate production of pulses which could encourage the positive trend of reduced severe malnutrition among the under fives in the region.

Food Adequacy:

Mtwara region experiences a serious problem of a high number of under weight babies at birth. Sources from the Ministry of Health had reported in 1995 that in the region out of 23,127 new born babies weighed, 850 babies had severe under weight (i.e. 60% below normal) and 4,138 babies were moderately under weight i.e. between 60% and 80% of normal. The total of 4,988 under weight babies at birth is equivalent to 22 per cent. This data is a direct reflection on the nutrition status of the mothers. Proper nutrition for expectants leads to normal weights of babies at birth. These mothers lacked adequate protein. It is common knowledge that Mtwara region has a very small livestock population of 15,046 cattle 84,864 goats and 14,519 sheep (Livestock Population Census 1984).

Taking Singida region for comparison with Mtwara region in respect of children under nutrition at birth, the following interesting information is revealed.

Parameters	Regions	
	Mtwara	Singida
Population (Projection 1996)	1,005,405	962,000
Livestock Units (1996 Est.)	52,500	1,592,826
Livestock Units per 1000 people	52	1,656
% Babies Severely under weight	3.7	1.2
% Babies Moderately Under weight	17.9	4.1

% Total Under weights	22.0	5.3
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Source: Compiled Data: Health Statistics Abstract, 1997.

The above table shows that 22% of children born in Mtwara region are under weight compared to only 5.3 for Singida region. The national average is 9 percent. This is enough evidence to show that there is no protein adequacy in Mtwara region. Requirements surpass availability. It is important that extra protein production of either form must be stepped up in the region. Since livestock keeping in the region is unaffordable by the majority and it is not a tradition among the population, the only alternative in the short run is to encourage production of more pulses than at present.

Cash Crops:

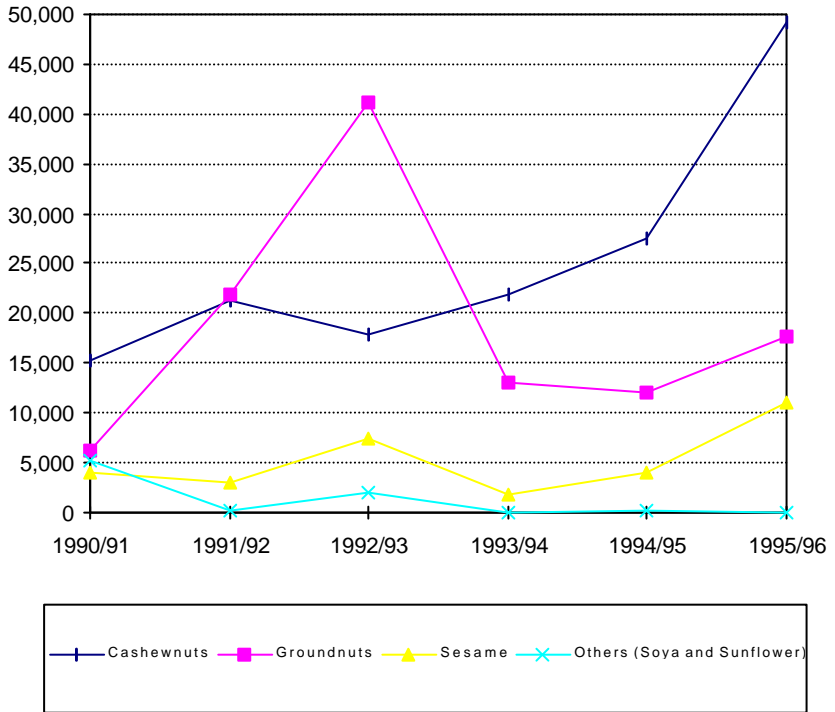
Major cash crops grown in Mtwara region are cashewnuts, groundnuts and sesame. Table II-5 shows general production trends of these major cash crops in the region between the years 1990/91 and 1995/96.

TABLE II-5: PRODUCTION OF MAJOR CASH CROPS 1990/91 - 1995/96 MTWARA REGION (TONS)

Crop	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96
Cashewnuts	15,209	21,286	17,943	21,834	27,463	49,106
Groundnuts	6,150	21,790	41,220	13,010	12,040	17,771
Sesame	4,020	2,940	7,380	1,860	3,920	10,965
Others (Soya and Sunflower)	5,270	230	1,948	-	170	95
Total	30,649	46,246	68,491	36,704	43,593	77,937

Source: Regional Agricultural Development Office, Mtwara, 1997.

Fig. 15: Production of major cash crops 1990/91 - 1995/96 Mtwara region (tons)



Cashewnut:

According to 1992 statistics of export crops, cashewnut accounted for 11 percent of agricultural commodities exported by the country. Leading crops were Cotton, Coffee, Tobacco, Tea and Sisal.

Cashew export for 1981 - 1991 were as follows: (Values in Million U.S. Dollars).

Years:	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Million U.S.A \$	60.48	25.55	12.98	28.82	13.43	15.77	13.96	19.48	13.70	12.27	16.70

Cashewnut is not only one of the sources of foreign exchange earnings for the country but it is also a regular source of income for producers of the crop, all of whom are smallholders. Cashewnut production in Tanzania is primarily produced for export purposes. A negligible amount of the crop is consumed domestically.

TABLE II-6: MTWARA REGION CASHEWNUIT PRODUCTION IN TONS BY DISTRICT 1990/91 - 1995/96:

District	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	Total	%
Newala	8,220	11,764	7,033	10,901	13,754	27,749	79,421	52
Masasi	4,409	5,538	5,960	7,894	10,722	10,319	44,842	29
Mtwara	2,580	3,984	4,950	3,039	2,987	11,038	28,578	19
Total	15,209	21,286	17,943	21,834	27,463	49,106	152,841	100

Source: Regional Agricultural Development Office, Mtwara 1997.

Fig. 16: Mtwara region cashewnut production in tons per district 1990/91 - 1995/96

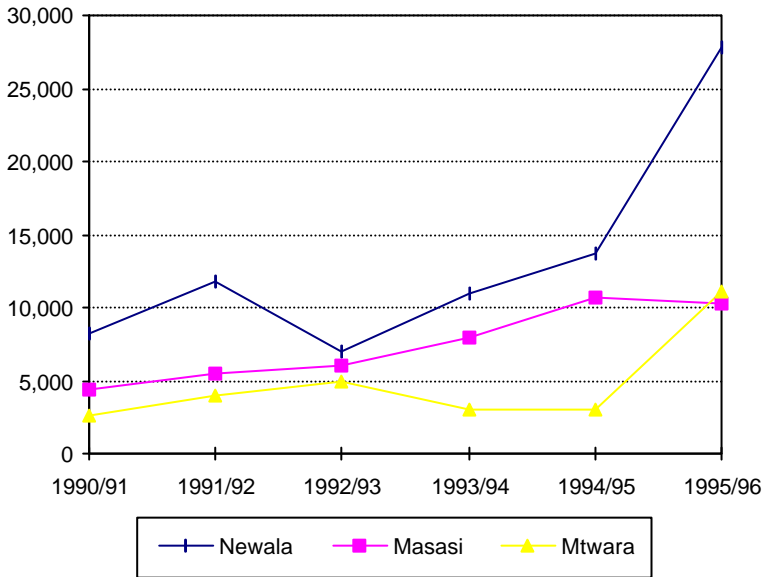


Table II-5 reveals that cashewnuts is the major cash crop in the region. It constituted an average of 50.9 percent of the total volume of cash crops raised during 1990/91 to 1995/96. 1992/93 was exceptional in that cashewnut constituted only 26% of total tonnage of cash crops in the region. Groundnuts in the same year recorded a very impressive figure of 41,220 tons equivalent to 60 percent of total cash crops grown. Groundnuts accounted for at least 20 percent of total tonnage of cash crops between 1990/91 - 1995/96. Sesame, Soya and Sunflower are also of economic importance in the region.

It is officially recognised that Mtwara region is the main cashewnut producer in the country. About 50 percent of national production comes from this region. Within the region over 50 percent of the

cashewnut crop comes from Newala district. Masasi ranks second with 29% contribution and Mtwara district the least with an average contribution of 19 percent (Table II-6).

In general production of cashewnut in the region has been increasing since the growing season of 1990/91. A slight drop was noted in 1992/93.

The increase in the region's production from 8,220 tons in 1990/91 to 27,749 tons in the 1995/96 season is the result of a sustained and vigorous cashewnut tree improvement campaign. The campaign focused on judicious use of sulphur as a fungicide combined with vigorous agricultural husbandry interventions which reinforced the benefits from sulphur spraying. The Cashewnut Improvement Programme (CIP) which started in 1990 and ended in 1996 played a major role in the revival of the cashewnut industry in the region. The programme packages comprised of cashew research efforts, distribution of improved seed and seedlings, marketing and availability of cashew inputs, in particular sulphur and relevant appliances. In this case, annual sulphur supply increased from 229 tons in 1989/90 to 1382 tons in 1994/95. Distribution of 10 tons of improved seed and 240,038 improved grafted seedlings to farmers between 1992 and 1996 greatly influenced increase of cashewnut output. The region however, has still a lot of work ahead to bring up production of the crop near to or to the levels reached in the early seventies when marketed/production of 60,000 tons of the crop were recorded (See Table II-7).

Cashewnut had been on decline since 1974/75 to reach low level of 7,200 tons in 1985/86. This decline is 88 percent fall in production against that of 1973/74. Cashewnut production showed positive growth from 1991/92 to 1995/96 at national level and in Mtwara region.

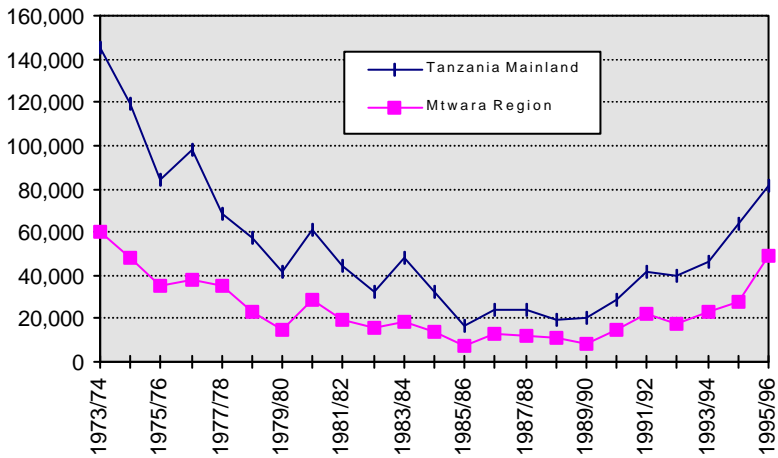
TABLE II-7: MTWARA REGIONAL CASHEWNUIT PRODUCTION AS COMPARED WITH TANZANIA MAINLAND PRODUCTION 1973/74 - 1995/96

Year	Production (Tons)		%
	Tanzania	Mtwara Region	
1973/74	145,000	60,000	41
1974/75	118,947	48,000	40
1975/76	83,734	35,000	42
1976/77	97,652	38,000	39
1977/78	68,383	35,000	51
1978/79	57,006	23,000	40
1979/80	41,510	14,926	36
1980/81	60,942	29,043	48
1981/82	44,539	19,508	44
1982/83	32,352	15,352	47
1983/84	47,960	18,601	39
1984/85	32,815	13,745	42
1985/86	16,548	7,200	44

1986/87	24,256	12,823	53
1987/88	24,275	12,423	51
1988/89	19,275	11,007	57
1989/90	19,935	8,500	43
1990/91	28,470	14,800	52
1991/92	41,238	22,100	54
1992/93	39,323	17,943	46
1993/94	46,598	23,000	49
1994/95	63,403	27,536	43
1995/96	81,729	49,107	60

Source: Mtwara Regional Commissioner's Office (1996)

Fig. 17: Mtwara Regional cashewnut production as compared with Tanzania Mainland production 1973/74 - 1995/96



The same picture of general cashewnut production decline nationally is observed from Table II-7. Since Mtwara region had been contributing more to national production than any other single region, its poor performance in the years between 1974/75 to 1989/90 directly affected the Mainland's total production. Poor performance of the cashewnut industry from 1974/75 onward has been explained to be due to three major causes. These factors combined together to make cashew an unattractive and unprofitable crop for most farmers. The reasons were:

- (i) The dramatic spread of Powdery Mildew (Odium anacardi) which significantly reduced production.
- (ii) Decline in producer prices as percentage of export parity price from 70% in the early seventies to 30% in 1987.
- (iii) The policy of villagization whereby farmers' homes were reallocated into villages far away from their farms.

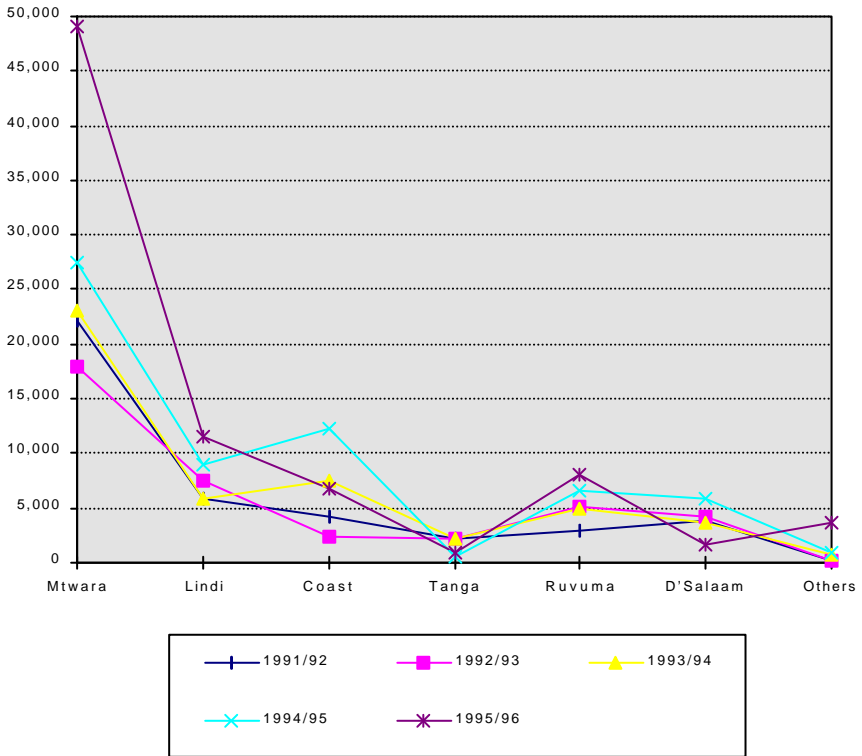
TABLE II-8: CASHEW NUT PRODUCTION (TONS) BY MAJOR PRODUCING REGIONS IN TANZANIA MAINLAND 1991/92 - 1995/96:

Region	1991/9 2	1992/9 3	1993/9 4	1994/9 5	1995/9 6	Total	As % of Total
Mtwara	22,100	17,943	23,000	27,536	49,107	139,686	51.1
Lindi	5,913	7,435	5,944	9,063	11,585	39,940	14.6
Coast	4,163	2,333	7,468	12,200	6,855	33,019	12.1
Tanga	2,246	2,122	2,148	500	978	7,994	2.9
Ruvuma	2,854	5,165	4,981	6,640	7,997	27,637	10.1
D'Salaam	3,840	4,131	3,576	5,864	1,591	19,002	7.0

Others	97	194	652	1,000	3,613	6,156	2.2
Total	41,213	39,323	47,769	62,803	81,726	272,834	100.0

Source: Ministry of Agriculture, 1997.

Fig. 18: Cashewnut production (tons) by major producing regions in Tanzania Mainland 1991/92 - 1995/96:



The table above tries to compare Mtwara region with other major cashewnut producing regions in the country. It is by far the biggest producer, accounting for 51.1 percent of all cashewnut produced in the country between 1991/92 to 1995/96. Lindi

region ranks second with 14.6 percent contribution, followed by Coast, Ruvuma, Dar-es-Salaam and Tanga regions in that descending order.

Irrigation:

Irrigation farming in Mtwara region is feasible and would greatly make up for the loss on agricultural production caused by seasonal and unpredictable rainfall. Currently very little development on irrigation has been undertaken though there exists several potential irrigable valleys. These are of the Ruvuma river in Mtwara, Newala and Masasi districts, Mbangala and Mtesei in Masasi, Mambi in Mtwara and Newala districts and Mbuo in Mtwara. Lack of capital, appropriate technology and will, stunts development of the irrigation option.

2.3.2 LIVESTOCK:

The standard of livestock keeping in Mtwara region is very low. For that reason the region experiences great deficiency of animal production of livestock origin. The livestock population status estimated in 1985 is presented in table II-9.

TABLE II-9: ESTIMATED LIVESTOCK POPULATION IN MTWARA REGION BY DISTRICT 1985:

District	Cattle	Goats	Sheep	Pigs	Poultry
Mtwara	2,820	14,919	3,382	151	105,965
Newala	2,621	67,947	2,346	186	1,205,353
Masasi	9,022	4,598	7,746	4,252	1,315,722
Total	14,463	88,464	13,470	4,589	2,627,040

Source: Regional Livestock Department records Mtwara region, 1985.

Fig. 19 (a): Estimated livestock population in Mtwara district, 1985

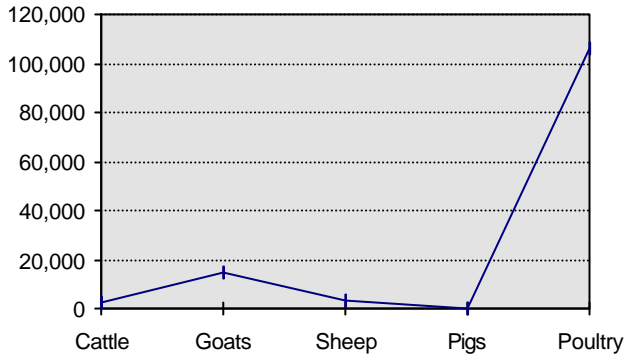


Fig. 19 (b): Estimated livestock population in Newala district, 1985

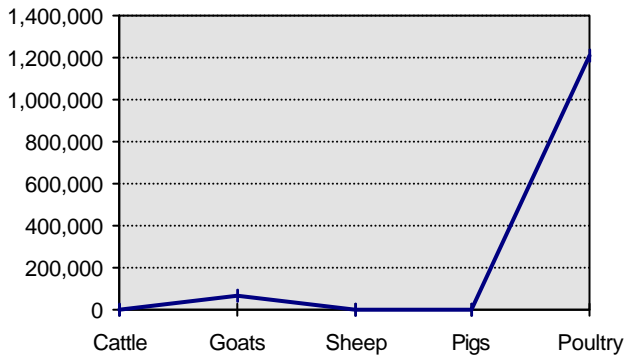
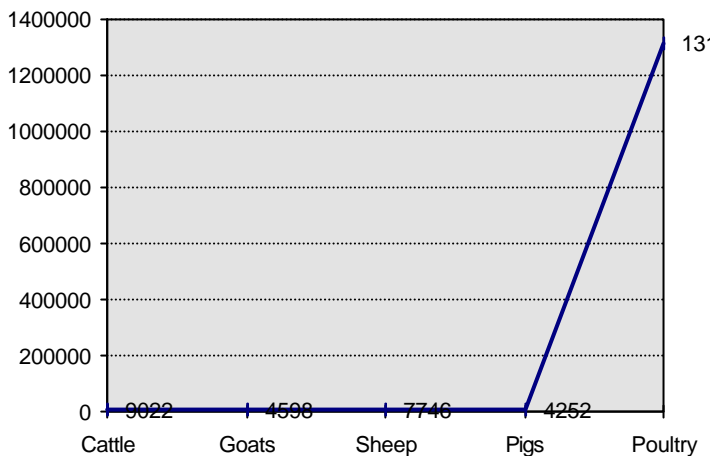


Fig. 19 (c): Estimated livestock population in Masasi district, 1985



General trend of livestock population from 1972 to 1994 is highlighted in Table II-10.

TABLE II-10: LIVESTOCK POPULATION IN MTWARA REGION FROM 1972 - 1994 (Estimate)

Year	Cattle	Goats and Sheep	Pigs	Poultry
1972	9,540	54,130	1,520	230,600
1985	14,463	88,464	4,589	2,627,040
1994	19,700	164,000	6,000	3,200,000

Source: Compiled Data: Regional Livestock Development Office, Mtwara Region 1997.

There is land available in the region for increased cattle keeping especially in Masasi and Mtwara districts. However, poor animal husbandry practices among the inhabitants, and common cattle

diseases mainly rinderpest and trypanosomiasis due to high tsetse fly infestation in the region have been singled out as possible causes for poor development of the livestock industry in the region. Goats require little care and for this reason they are more numerous than cattle especially in Newala district. Pigs are bred almost exclusively in Masasi district.

The slight increase in population over a period of about 10 years (table II-10) is credited to the established livestock rearing centres of Mbawala, Kitere and Nangaramo. The Mtwara Rural Integrated Project Support (RIPS) greatly contributed to distribution of goats to the rest of the region from its centre in Newala district. The strategy of the programme was "Loan a goat and repay a goat to another farmer". By 1994 about 148 participants had benefited from the programme.

It was reported in 1994 that meat consumption in the region ranged between 1 - 1.5 kg/annum per head of the population, while the national average was estimated at 8-9 kgs/annum per person. Milk too is hardly available to the majority of the people in the region.

The current status of livestock infrastructure in the region is not very clear. However, it was reported earlier in 1985 that there were a total of 30 dips, 20 crushes and one Ivestock research centre.

2.3.3 FORESTRY:

About 8.33 percent of regional land area of 1,672,000 Ha. is covered by forest reserves. This is 139,295 Ha. The biggest proportion of the forest cover in the region is in Masasi district. A total of 130,545 Ha. of forest reserves falls under central government. This is 93.7%. Another 8,749 Ha. or 6.3% of total forest reserves is owned by District councils. There are altogether 16 forest reserves in the region. Most of them are in Masasi district.

A large part of forest composition in these forest areas is of various valuable tree species like Mpingo (Dalbergia melanoxylo), Mninga (Pterocarpus angolensis) and Mvule (Mellicia excelsa). These forests are rich in valuable timber but their exploitation has, been very minimal. However, from an environmental point of view this low exploitation of forests is a blessing in disguise.

The existing exploitation of forests reserves is carried out by those dealing in lumbering and wood carving. Generally forest harvesting in the region for charcoal and firewood is carried out in open woodland areas and other forests outside the reserves.

Table II-11 shows revenue collected from forest products referred above.

TABLE II-11: REVENUE COLLECTED FROM FOREST PRODUCTS IN MTWARA REGION 1992 - 1997:

Year	Timber Volume Cubic Meters	Value T.shs.
1992/93	486.50	3,266,752
1993/94	326.80	1,238,637
1994/95	406.85	3,684,143
1995/96	416.00	7,420,019
1996/97	180.65	7,170,895
Total	1,816.80	22,780,446

Source: Mtwara Regional Forest Office, 1997.

Fig. 20(a): Timber Volume Cubic Meters produced, Mtwara region 1992/93 - 1996/97

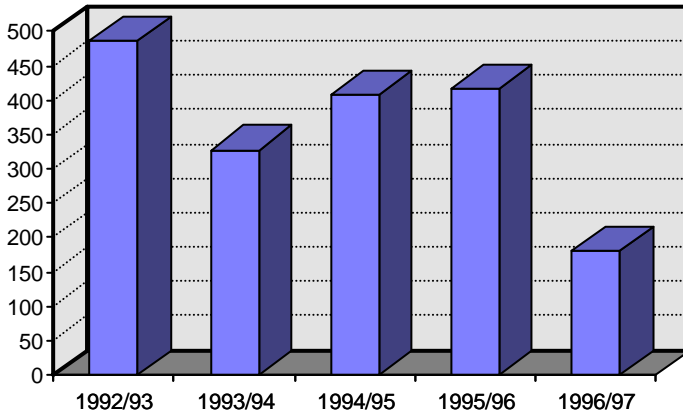
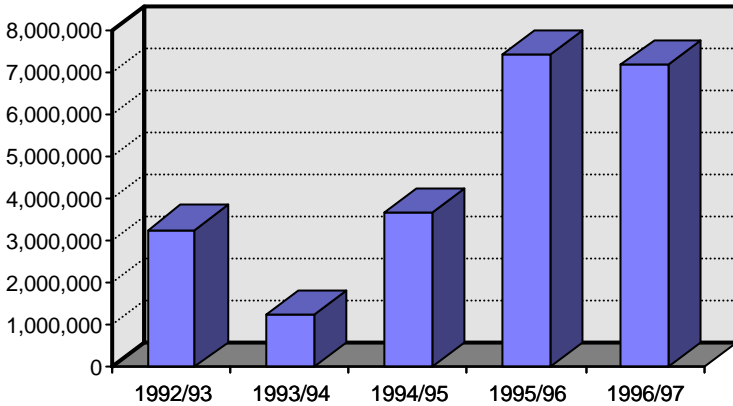


Fig. 20(b): Revenue collected from forests in Tshs. Mtwara region 1992/93 - 1996/97



The table reflects the low value of timber in 1992/93 through 1994/95. The year 1995/96 - 1996/97 experienced better prices for timber and especially so in 1996/97. Still the government earned very little revenue from the resource compared to what lies untapped.

Demand for forest products in the region mainly firewood, charcoal, building poles and timber is more than what the region can give out without replacement. This demand for wood products will continue to rise every year as the population increases and particularly so as long as shifting agriculture remains in favour. Some programmes have already started appearing on the scene. The region has been implementing for some years a programme of tree planting or establishment of community woodlots. These in essence are meant to meet the daily fuelwood requirements for the community and for other uses. The general trend towards implementing this objective is indicated in Table II-12.

TABLE II-12: MTWARA REGION AFFORESTATION PROGRAMME 1992/93 - 1996/97:

Year	Tree Seedling Production		Planted Area (Ha.)
	Target	Actual	
1992/93	500,000	422,800	248.7
1993/94	350,000	292,000	171.8
1994/95	75,000	65,934	38.8
1995/96	20,000	18,057	10.6
1996/97	300,000	259,000	152.4
Total	1,245,000	1,057,791	622.3

Source: Regional Forest Office, Mtwara 1997.

It is appreciated that some positive action is being taken to mitigate the end result of deforestation. But the pace appears to be too far behind the speed of destruction. For instance it took 5 growing seasons to establish 622.3 Ha. and by the same logic it means it would take 29 years to establish 18,250 Ha. deforested in 1988.

In this case, Mtwara region is required to take measures of planting more tree woodlots at both community and household levels. At the same time continue demarcating and reserving more forest reserves and up keeping the present reserves by preventing encroachment in these areas.

2.3.4 FISHERY:

Mtwara Coastline stretches from the Ruvuma River in the South to the Lindi region border, a distance of about 125 km. The area is characterised by a narrow continental shelf extending to no more than 8 km offshore. Fishing in the region has been carried out along this coast entirely at traditional subsistence level. To some extent there has been fishing activities along the Ruvuma river, in the inland lakes (Kitere and Chidya) and in some ponds constructed by individual villages. The amount of fish landed per head per year in Mtwara region remains very small indeed, at 2 kgs. The national average amount of landed fish is 12 kgs. During the past decade or so, returns from fishing have declined because resources close to the coast have been over exploited. Fishing can only be profitably carried out in the high seas where artisanal fishermen cannot reach.

In 1993 about 2,500 fishermen in about 19 villages along the Indian Ocean coastline were engaged in fishing. The fishing industry mainly along the coast not only provides the population with food (protein and fats) but also generates employment and income. Table II-13 shows returns of fish landed by artisan fishermen.

TABLE II-13: SALES IN TONS AND VALUE OF FISH CATCH LANDED BY ARTISAN FISHERMEN, MTWARA REGION 1991 - 1996:

Year	Amount of Fish (M.Tons)	Value T.Shs.
1991/92	13,143.99	1,147,789,440
1992/93	15,423.57	1,807,536,737
1993/94	16,194.75	2,711,314,624
1994/95	587.90	141,604,780
1995/96	589.90	141,694,700
Total	45,940.11	6,239,939,281

Source: Regional Natural Resources Office, Mtwara, 1997.

Fig. 21 (a): Sales in tons of fish catch landed by Artisan Fishermen, Mtwara Region 1991 - 1996

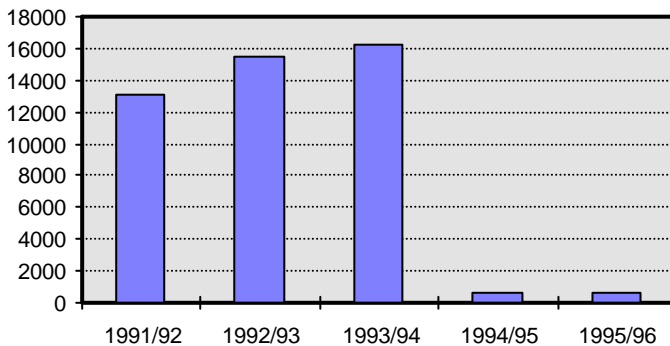
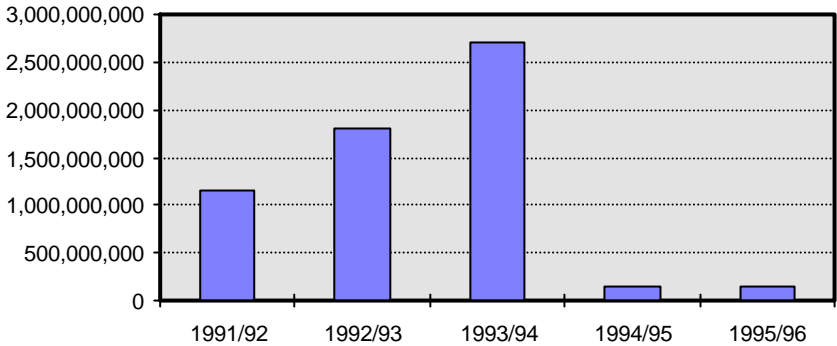


Fig. 21 (b): Value of fish (T.Shs.) catch landed by Artisan Fishermen, Mtwara Region 1991 - 1996



The value of landed fish is very modest considering the number of fishermen involved. There is a need for them to improve their fishing gear so as to maximise returns of their labour. Inefficient fishing gear have encouraged many fishermen in the area to resort to dynamite fishing. This is a very destructive way of fishing since it destroys the marine breeding environment.

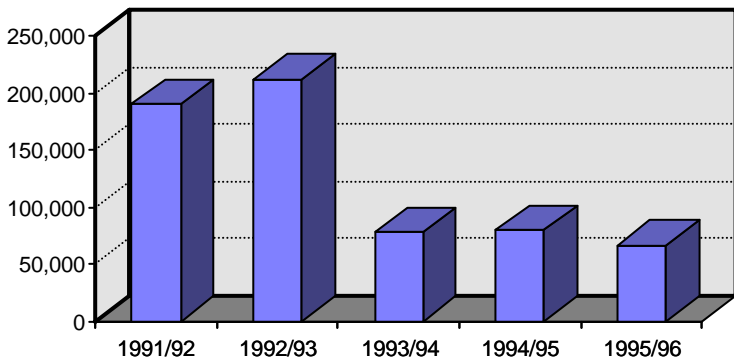
Table II-14 shows revenue to central government earned from exported sea products.

TABLE II-14: SEA PRODUCTS EXPORTED FROM MTWARA REGION 1991/92 - 1995/96:

Year	Amount of Sea Products (Metric Tones)	Value T.Shs.
1991/92	189,676	253,800,900
1992/93	212,156	482,744,000
1993/94	77,737	145,154,000
1994/95	79,104	348,439,500
1995/96	66,467	211,055,000
Total	624,140	1,441,183,400
Issued Licenses		10,550,928
Grand Total		1,451,734,328

Source: Regional Natural Resources Office, Mtwara, 1997.

Fig. 22: Amount of Sea Products (Metric Tones) Exported from Mtwara region 1991/92 - 1995/96



Most of the sea products which were exported included fish, prawns, shells, crustacea, shark fins and jaws.

The fishing industry in the region has not performed significantly in contributing to the regions economy. It has contributed less than 1 percent of regional annual GDP. Efforts already started and being implemented by RIPS through provision of credit facilities to fishermen should be expanded to enable more fishermen benefit from the facility. It is through this way artisan fishermen would be able to moderately modernise their fishing methods and improve their fish catch as a result. Furthermore, in order to increase supply of protein for up country districts in the region more fish-ponds could be encouraged, coupled with proper management techniques imparted to the farmers through demonstrations of properly managed fish-farms.

2.3.5 WILDLIFE:

About 3.91 percent of regional land area or 65,450 hectares is covered by two game reserves. These are Msanjesi (44,425 Ha.) and Lukwika/Lumesule (21,025 Ha) both of which are in Masasi district. The reserves contain a reasonable number of wild animals including elephants, lions, leopards, greater kudu, zebra, water bucks, sable antelope, wildebeest, impala, buffaloes, wild dogs and pig species. Also aquatic animals exist in Ruvuma river like hippos and crocodiles. Notwithstanding the abundance in wild life, these areas are still under utilised as tourist attractions. Gains to the regional economy through tourism hunting, game viewing and photography is very insignificant. Table II-15 shows the little government revenue collections from recovered trophies.

**TABLE II-15: REVENUE FROM RECOVERED GOVERNMENT TROPHIES
IN MTWARA REGION 1991/92 - 1995/96:**

Year	Number of Government Trophies	Weight in Kgs.	Value in T.shs.
1991/92	189	124.4	5,228,390
1992/93	98	89.2	1,957,600
1993/94	111	66.5	1,605,000
1994/95	160	150.0	2,722,000
1995/96	134	73.3	1,597,000

Source: Regional Natural Resources Office, 1997.

2.3.6 BEEKEEPING:

Because of many nectar yielding plant species including woodland miombos the potential for beekeeping in Mtwara region is good. Furthermore, the yielding period is long as cashewnut trees start flowering early in the dry season. Beekeepers in the region have more traditional beehives than modern ones. (See Table II-16).

**TABLE II-16: NUMBER AND TYPES OF BEEHIVES IN MTWARA
REGION 1991/92 - 1993/94:**

Year	Traditional Beehives	Modern Beehives
1991/92	12,000	440
1993/94	17,500	800

Source: Regional Natural Resources Office, Mtwara, 1996.

**TABLE II-17: BEEKEEPING PRODUCTS AND VALUE, MTWARA REGION
1991 - 1996:**

Year	Honey (Kgs)	Value T.shs.	Beewax (Kgs)	Value T.shs.
1991	10,130	5,005,000	12,218	14,661,000
1992	48,600	24,300,000	15,172	18,206,400
1993	135,820	67,910,000	21,914	21,914,000
1994	124,012	124,012,000	8,210	9,852,000
1995	11,008	1,108,000	12,924	19,386,000
1996	25,210	29,976,000	21,246	38,299,200
Total	354,780	252,311,000	91,684	122,319,200

Source: Regional Natural Resources Office, Mtwara, 1997.

Fig. 23 (a): Beekeeping Products (Kgs), Mtwara Region 1991 - 1996:

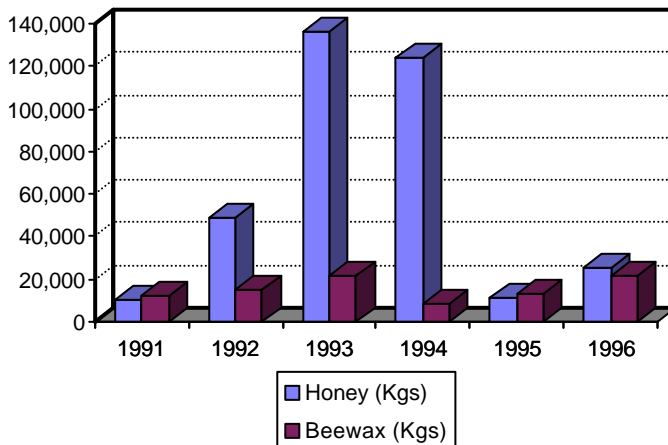


Fig. 23 (b): Beekeeping Value (T.Shs), Mtwara Region 1991 - 1996:

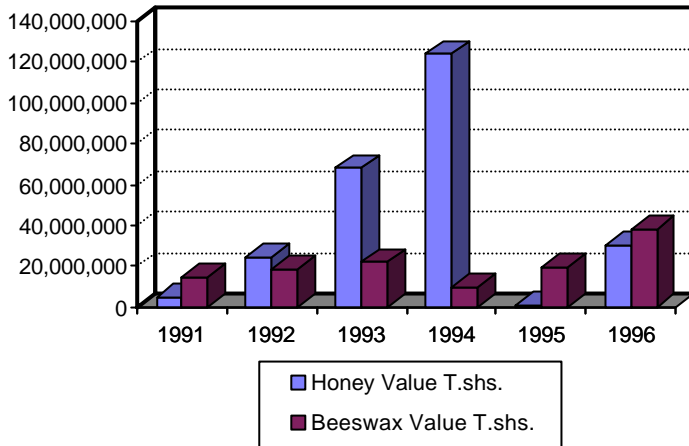


Table II-17 show the trend in incomes generated from sale of honey and beeswax from 1991 - 1996. The year 1993 recorded the highest total weight of 135,820 Kgs. of honey sold. In terms of income accrued from honey sales, the year 1994 was the best.

It appears in that year honey commanded a better price per kilogram than the previous year.

Decline in sales of honey during the period 1995 to 1996 lacks a clear explanation. But surprisingly it was during these two declining years the region realised the highest sales of beeswax totalling T.sh. 57,685,200. Beekeeping if taken seriously through use of better beehives and better management could significantly add to household incomes and provide a much needed employment outlet.

2.3.7 MINING:

The Southern Geological Zone Office in Mtwara has established that Mtwara region has potential in two major minerals. These are coral stones and gemstone.

Coral stone is excavated along the Indian Ocean shoreline in Mtwara district for the production of lime which is mainly used in house construction.

Gemstone is located at specific areas in the region. Important gemstones found in the region are shown in Table II-18.

TABLE II-18: MINERAL DEPOSITS IN MTWARA REGION, 1997:

District	Minerals
Newala	Rhodolite, Sapphire, Amethyst and Red Garnets
Tandahimba	Sapphire, Tourmaline, Red Garnets, Graphite
Masasi	Red Garnets, Sapphire, Marble, Chrysoberyl, Alexandrite, Tourmaline and Rhodolite.

Source: Southern Geological Zone Office, Mtwara, 1997.

Potentials of these minerals in the region has attracted a reasonable number of dealers from inside and outside the region and some foreign nationals. Exploration has not been done as thoroughly as it should be for this reason exploitation of these resources is still minimal. Authorities in the region also point out that low mining has been associated with inferior mining equipment. In 1996, a total of 21 Master Gemstone dealers were

licensed to mine minerals in the region but, hardly 50 percent of them have so far managed to carry out mining allegedly because of a lack of proper mining equipment.

The Government has taken steps to ensure that mining, selling and exports of precious stones are conducted according to regulations. By December 1996, 21 shops for Master Dealers and Lapidary had been opened and 37,466.97 grams of various precious stones worth T.shs. 72,333,660 had gone through the market. By 1997 50,514.11 grams of precious stones worth T.shs. 113,164,600 were marketed in the region.

2.3.8 INDUSTRIES:

There is at present very little industrial activities going on in the region apart from some small scale industries. The one time operating industries all being agro-based industries are faced with enormous operating problems. These are the five cashewnut processing and two sisal processing industries. The cashewnut industries were established in the late seventies but hardly any one performed as expected mainly because of capital liquidity.

These cashewnut industries are in the process of being privatised. However, the sisal processing plants are operating though at below capacities. The low price of sisal fibre in the world market is the main reason behind poor performance of the sisal industry in general .

SECTION III

3.0 SOCIAL SERVICES:

3.1 EDUCATION:

3.1.1 Pre-School Education:

It is only in recent years that pre-school education has gained popularity. There were only 50 nursery school in 1994 but by 1996 this had increased to 117 schools. So that it is estimated more than 10% of eligible 5 to 6 years old attended pre-schools in 1996. According to Table III-1 the balance between sexes is almost 50:50. The average number of pupils per class is 51 to the region and varies only slightly between districts. On the other hand the average number of pupils per teacher varies a lot. The regional average of 83 is high.

TABLE III-1: NUMBER AND ENROLMENT AT PRE-SCHOOL CENTRES, BY DISTRICT AND SEX, MTWARA REGION 1996:

District	Pre-School Centres	Number of Pupils			Pupils per Centre
		Boys	Girls	Total	
Mtwara/Mikindani	10	255	212	467	47
Mtwara Rural	20	488	516	1004	50
Masasi	37	1139	1215	2354	64
Newala	50	1040	1053	2093	42
Total	117	2922	2996	5918	51

Source: Mtwara Regional Education Office (1997)

Fig. 24: Number of pupils at Pre-School Centres by district and sex, Mtwara region 1996

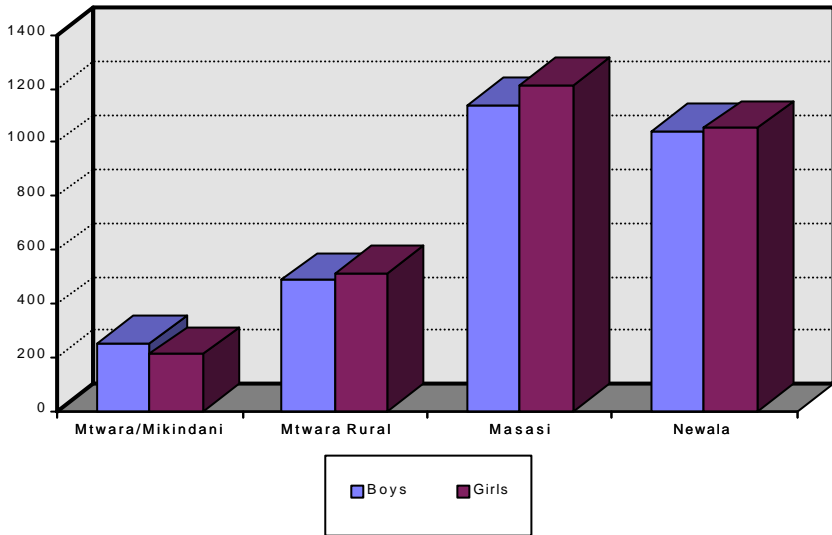


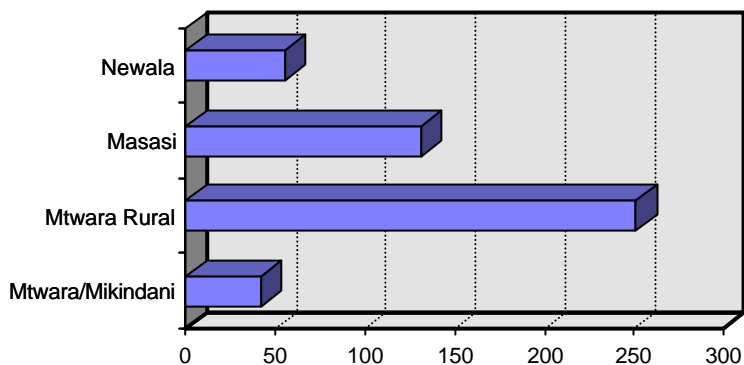
TABLE III-2: THE PUPIL/TEACHER RATIO, BY DISTRICT, MTWARA REGION PRE-SCHOOL EDUCATION, 1996:

District	Number of Teachers	Number of Pupils	Average Number of Pupils per Teacher
Mtwara/Mikindani	11	467	42
Mtwara Rural	4	1,004	251
Masasi	18	2,354	131
Newala	38	2,093	55
Total	71	5,918	83

Source: Regional Education Officer, Mtwara, 1997.

Mtwara/Mikindani has a reasonable ratio of 42. Newala too is not bad. But the figures of 131 and 251 for Masasi and Mtwara Rural respectively are far too high.

Fig. 25: Average number of pupils per teacher by district, Mtwara region Pre-school education, 1996



3.1.2 Primary School Education:

3.1.2.1 Enrolment:

The history of primary school education in Mtwara region is one of commendable development. In 1974/75 the region had 371 schools. By 1996 the number of schools had increased to 493. The total enrollment increased from 74,790 in 1974/75 to 141,167 in 1996. See Table III-3. The total enrollment in 1985 was 119,964 pupils.

TABLE III-3: NUMBER AND ENROLMENT IN PRIMARY SCHOOLS, MTWARA REGION, 1974/75 AND 1996:

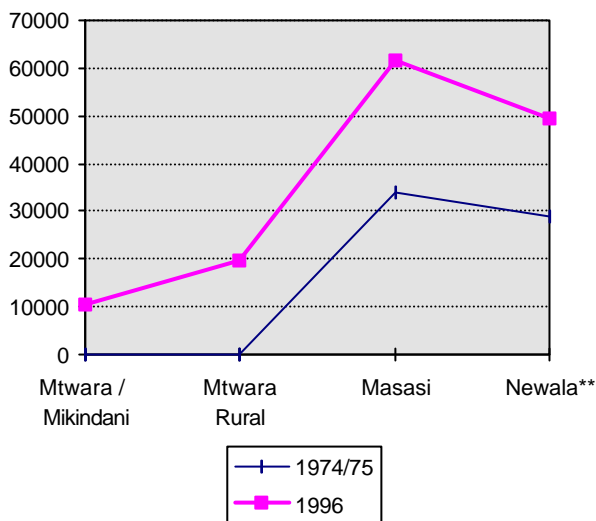
District	Number of Schools		Enrolment Total		Average Pupils per School	
	1974/75	1996	1974/75	1996	1974/75	1996
Mtwara/Mikindani	-	19	-	10,461	-	551
Mtwara Rural	-	82	11,740*	19,785	-	241
Masasi	-	193	34,110	61,573	-	319
Newala**	-	199	28,940	49,348	-	248
Total	371	493	74,790	141,167	202	286

* Included Mtwara/Mikindani district

** Included Tandahimba district.

Source: : Mtwara Regional Integrated Development Plan 1975 - 1980, Vol.I.
: Regional Education Office, Mtwara, 1997.

Fig. 26: Total enrolment in primary schools by district, Mtwara region 1974/75 and 1996



The average number of pupils per school has increased from 202 in 1975 to 286 in 1996 which is consistent with trends in other regions. The larger number of pupils per school in the urban district of Mtwara/Mikindani is again in tune with the rest of the country.

The trend in terms of classrooms is encouraging in that this shows slight improvement from an average of 50 pupils per classroom to 48. However, 61% of the classrooms quoted for 1996 were of a temporary nature.

TABLE III-4: NUMBER OF CLASSROOMS AND EMOLUMENT IN PRIMARY SCHOOLS, BY DISTRICT, MTWARA REGION 1974/75 AND 1996:

District	Number of Classrooms		Total Enrolment		Average Pupils per Classroom	
	1974/75	1996	1974/75	1996	1974/75	1996
					5	

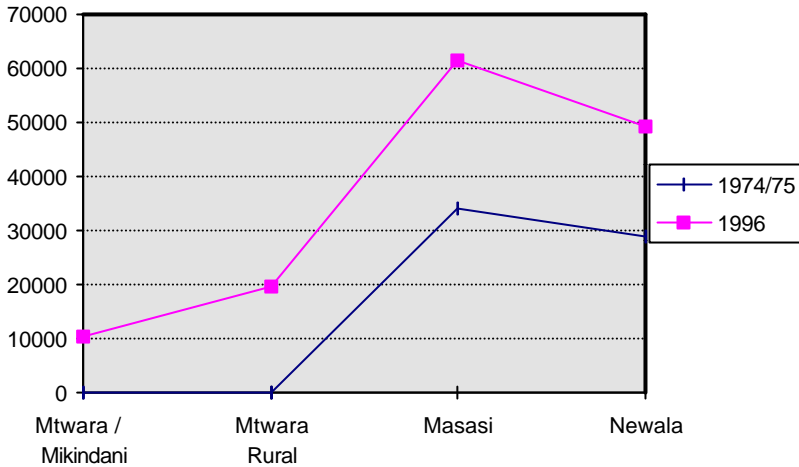
Mtwara/Mikindani	-	164	-	10,461	-	64
Mtwara Rural	292*	443	11,740*	19,785	40	45
Masasi	634	1,159	34,110	61,573	54	53
Newala**	559	1,172	28,940	49,348	52	42
Total	1,485	2,938	74,790	141,167	50	48

* Included Mtwara/Mikindani district

** Included Tandahimba district

Source: : Mtwara Regional Integrated Development Plan 1975 - 1980 Vol. I.
: Regional Education Office, Mtwara, 1997.

Fig. 27: Total emolument in primary schools by district, Mtwara region 1974/75 and 1996:



In 1996 the number of boys enrolled into primary schools was more or else equal to that of girls. See Table III-5. According to Table III-6 the region had 4,231 streams in 1996 giving an average of 33 pupils per stream. The differences between districts are not great. The Mtwara Regional Integrated Development Plan 1975 - 1980 quotes 1,796 streams for 1974/75 thus giving a regional average of pupils per stream of 42. Therefore 1996 showed an improvement.

TABLE III-5: ENROLMENT IN PRIMARY SCHOOLS, BY SEX AND BY DISTRICT, MTWARA REGION, 1996:

District	Enrolment to Std. I			
	Boys	Girls	Total	% Girls
Mtwara/Mikindani	1,051	1,014	2,065	49.1
Mtwara Rural	1,582	1,431	3,013	47.5
Masasi	4,865	5,119	9,984	51.3
*Newala	4,044	3,899	7,943	49.1
Total	11,542	11,463	23,005	49.8

* Included Tandahimba District.

Source: Regional Education Office, Mtwara, 1997.

Fig. 28: Enrolment to Std I in primary schools by district and sex, Mtwara Region, 1996:

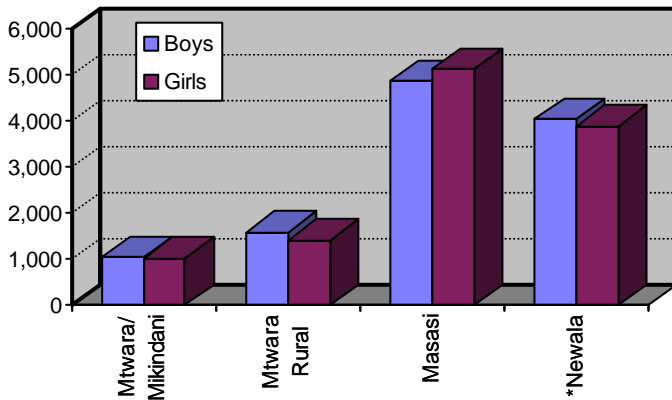


TABLE III-6: NUMBER OF STREAMS IN PRIMARY SCHOOLS, BY DISTRICT, MTWARA REGION 1996

District	Total Enrolment	Number of Streams	Pupils per stream
Mtwara/Mikindani	10,461	245	43
Mtwara Rural	19,785	591	33
Masasi	61,573	1872	33
Newala*	49,348	1523	32
Total	141,167	4231	33

Source: Regional Education office, Mtwara 1990

* Included Tandahimba

In 1974/75 the number of children of the school going age group (7 to 14 yrs) who were not attending school was 59,000 through that year's total enrolment was 74,790.

1.2.2 Primary School Dropouts:

Regional authorities reveal that dropouts are a problem in this region as elsewhere in Tanzania. The dropout percentage was as follows in recent years.

1993	-	2.3%
1994	-	2.1%
1995	-	1.2%
1996	-	2.4%

TABLE III-7: PRIMARY SCHOOL DROPOUTS BY DISTRICT AND SEX, MTWARA REGION, 1996

District	Boys	Girls	Total
Mtwara/Mikindani	1	5	6
Mtwara Rural	290	192	482
Masasi	146	120	266
Newala*	477	330	807
Total	914	647	1561

* Included Tandahimba district
 Source: Regional Education office, Mtwara, 1997

Fig. 29: Primary school dropouts by district and sex, Mtwara region, 1996

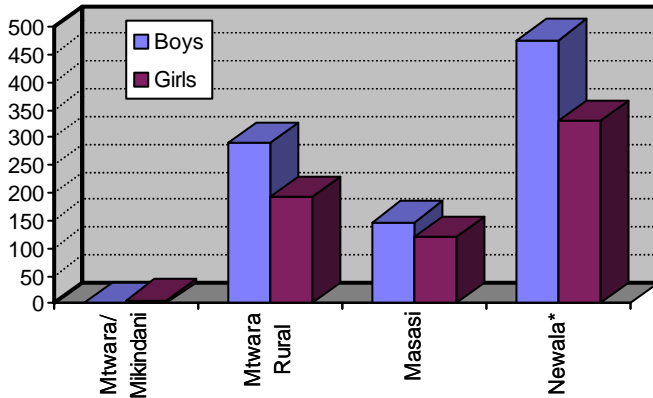


Table II-7 show that for 1996 girls accounted for 41% of all dropouts while boys were responsible for 59%. According to Ministry of Education and Culture national headquarters truancy accounted for 77.5% of all dropouts followed by pregnancies at

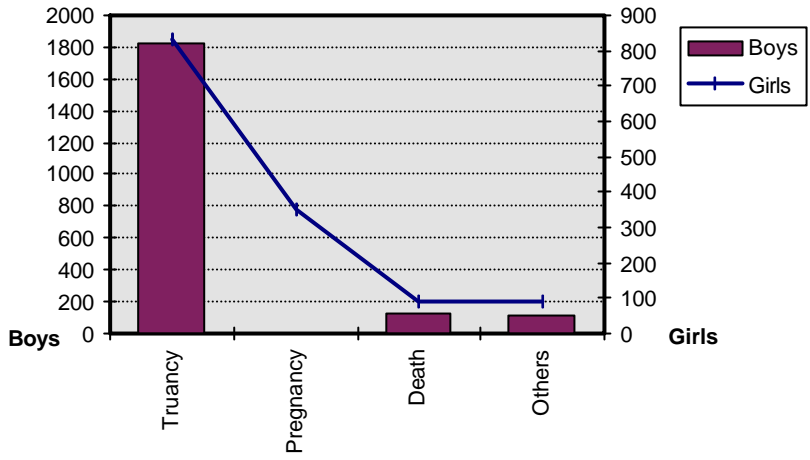
10.2%. Death and other causes accounted for 6.3% and 6.0% respectively. See Table III-8.

TABLE III-8: REASONS FOR DROPOUTS BY SEX, MTWARA REGION, PRIMARY SCHOOLS 1995

Cause	Number of Dropouts			% of Total
	Boys	Girls	Total	
Truancy	1820	831	2651	77.5
Pregnancy	0	349	349	10.2
Death	126	88	214	6.3
Others	113	93	206	6.0
Total	2059	1361	3420	100

Source: Ministry of Education and Culture, Dar es Salaam July 1996.

Fig. 30: Reasons for dropouts in primary schools by sex, Mtwara region, 1995



1.2.3 Primary School Teachers:

An adequate supply of teachers of adequate quality is one of the essentials of a successful primary education system. In 1974/75 the region had 1,191 teachers of all grades. The requirement of grade IIIA teacher in 1996 was 2,198 but only 1374 or 62.5% of the requirements were available. Grade IIIB teachers requirements were 2,466 while there were actually 2,681 teachers which makes a surplus of 215. Table III-9 demonstrates this.

TABLE III-9 REQUIREMENTS AND AVAILABILITY OF PRIMARY SCHOOL TEACHERS BY GRADE AND BY DISTRICT, MTWARA REGION 1996

District	Requirements			Availability			Deficit/Excess	
	IIIA	IIIB	Total	IIIA	IIIB	Total	IIIA	IIIB
Mtwara/Mi kindani	156	144	300	158	183	341	+2	+39
Mtwara Rural	321	304	625	204	365	569	-117	+61
Masasi	903	1,116	2,019	491	1,071	1,562	-412	-45
Newala	818	902	1,720	521	1,062	1,583	-297	+160
Total	2,198	2,466	4,664	1,374	2,681	4,055	-824	+215

Source: Regional Education office, Mtwara 1997.

As expected the urban district of Mtwara/Mikindani showed a surplus of teachers of all grades. All the rural districts had a deficit. But the situation is not so bad when viewed in terms of

pupils per teacher. The ratio is not drastically different between the urban district and the rural districts, except for Masasi. See Table III-10. The regional average number of pupils per teacher for 1996 is 35. It was 63 in 1974/75. This is a dramatic improvement.

TABLE III-10: THE NUMBER OF PUPILS PER TEACHER, BY DISTRICT, MTWARA REGION 1996:

District	Total Enrolment	Total number of Teachers	Number of pupils per teacher
Mtwara/Mikindani	10,461	341	31
Mtwara Rural	19,785	569	35
Masasi	61,573	1,562	39
Newala	49,348	1,583	31
Total	141,167	4055	35

Source: Regional Education Office, Mtwara 1997.

2.4 Primary education Infrastructure:

Classrooms are a key ingredient in primary education. Mtwara residents and authorities have done some work in the construction of classrooms. But if temporary classrooms are excluded, the region has only reached 32% of the regional target for permanent classrooms. The situation is particularly acute in the rural districts of Mtwara Rural, Masasi and Newala.

TABLE III-11: PRIMARY EDUCATION CLASSROOM REQUIREMENTS AND AVAILABILITY BY DISTRICT, MTWARA REGION 1996

District	Requirements	Available			Deficit of Permanent classrooms	
		Permanent	Temporary	Total	Number	%
Mtwara/Mikindani	192	138	26	164	54	28
Mtwara Rural	511	212	231	443	299	59
Masasi	1,572	510	649	1,159	1,062	68
Newala*	1,322	296	876	1,172	1,026	78
Total	3,597	1,156	1,782	2,938	2,441	68

* Included Tandahimba

Source: Regional education office, Mtwara 1997

Classrooms are not the only area where physical facilities are inadequate. According to the regional authorities the construction of “permanent” pit latrines as toilets for pupils is behind by 91%, cupboards by 78%, tables by 67%, desks by 54% and chairs by 50%. See Table III-12.

TABLE III-12: THE NUMBER OF TOILETS AND AMOUNT OF FURNITURE IN PRIMARY SCHOOLS, MTWARA REGION 1995:

Forestry	Requirements	Actual	Shortage	% Shortage
Toilets	5,125	458	4,667	91
Desks	76,778	35,089	41,689	54
Tables	12,997	4,281	8,716	67
Chairs	9,904	4,930	4,974	50
Cupboards	4,880	1,058	3,822	78

Source: Ministry of Education and Culture Report, 1995.

The above are not the only areas of concern. Teachers' houses are also important for primary education efficiency and teacher morale. This area is probably the one area where very little has been done. Newala district shows an appalling deficit of 81 percent. The other three district score a deficit which is much worse. It is 90 percent or higher. See Table III-3.

TABLE III-3: TEACHERS' HOUSES IN PRIMARY SCHOOLS, BY DISTRICT, MTWARA REGION, 1996:

District	Requirement	Available			Deficit of Permanent	
		Permanent	Temporary	Total	No	% Deficit
Mtwara/Mikindani	228	22	27	49	206	90
Mtwara Rural	562	56	202	258	506	90
Masasi	2019	161	768	929	1858	92
Newala	1694	324	343	667	1370	81
Total	4503	563	1340	1903	3940	87

* Included Tandahimba district.
Source: Regional Education Office, Mtwara, 1997.

3.1.2.5 Comparative Status of Primary Education in Mtwara Region:

It is interesting to compare the performance of districts in terms of the number of schools and total emolument relative to the district's population. At 1,639 people per primary school Newala shows to be the best covered district particularly when you consider the figure of 151 pupil per 1,000 population. There are probably relatively more children avoiding attending primary schools in

Mtwara/Mikindani and Mtwara Rural districts than in the other two districts of Newala and Masasi.

TABLE III-14: POPULATION COVERAGE BY PRIMARY SCHOOLS AND PRIMARY SCHOOL ENROLMENT, BY DISTRICT, MTWARA REGION, 1996:

District	Total Population	Number of Schools	Total Enrolment	Population per School	Pupils per 1,000 Population
Mtwara/Mikindani	103,815	19	10,461	5,464	101
Mtwara Rural	190,962	82	19,785	2,329	104
Newala*	326,207	199	49,348	1,639	151
Masasi	384,421	193	61,573	1,992	160
Total	1,005,405	493	141,167	2,039	140

* Included Tandahimba district.

Source: Compiled from data supplied by Regional Education Office.

Both Mtwara/Mikindani and Mtwara Rural have the worst coverage per school and the lowest number of pupils per 1,000 population.

TABLE III-15: PRIMARY EDUCATION IN MTWARA REGION AND IN SELECTED REGIONS 1996:

Region	Population per School	Pupils per 1000 People	Pupils per School	Pupils per Classroom	Pupils per Teacher	Pupils per Stream
Mtwara	2,039	140	286	48	35	33
Mwanza	2,671	144	385	85	45	NA
Lindi	2,757	109	299	52	22	37
Singida	2,710	139	378	77	38	NA
Mbeya	1,800	190	342	NA	37	NA
Dodoma	2,839	132	375	77	35	38
Shinyanga	2,473	139	344	197	56	38
Iringa	2,024	162	327	47	37	NA
Rukwa	2,467	125	308	59	34	NA
Morogoro	2,387	134	319	66	35	35

Source: Regional Socio-Economic Profile of Mwanza, Lindi, Singida, Mbeya, Dodoma, Shinyanga, Iringa, Rukwa, Morogoro.

A comparison of the status of primary education between selected regions shows up some interesting facts. For example when Mwanza is compared to Mtwara, Mwanza schools are overcrowded but proportionately slightly more children in the community in Mwanza go to school than in Mtwara. Lindi schools are also comparatively overcrowded compare to Mtwara even fewer pupils in the community to school. But surprisingly Lindi has lots of teachers compared to the number of pupils. Compared to Mtwara both Shinyanga and Singida have very

overcrowded schools but proportionately the same number of children go to school in the three regions. Mbeya has proportionately more schools in communities than Mtwara. But because a high proportion of school age children go to school, such schools are overcrowded when compared to Mtwara. Dodoma, Rukwa, Morogoro are like Lindi when compared to Mtwara. But the number of teachers relative to pupils is the same as in Mtwara. Although Iringa like Mbeya has many schools relative to the population it ends up to the same degree of overcrowding as Mtwara. This is because proportionately many more children of school going age attend schools.

Looking at the ten regions a child has a better chance for quality education in the regions of Mtwara, Lindi, Rukwa and Morogoro regions. When it comes to assessing the chances of that child to go school at all, the child has better chances in Mbeya, Iringa, Mwanza, Singida and Shinyanga regions.

3.1.2.6 Special Primary Schools

Mtwara region has taken the lead in Tanzania in establishing primary schools to cater for the special needs of disabled children. These children have as much right to education as other children. Disabilities catered for are:

- deafness
- blindness
- mental retardation
- leprosy

Distribution of such schools are given in table III-16 with Masasi district having the best coverage.

TABLE III-16 SPECIAL PRIMARY SCHOOLS FOR THE DISABLED, BY DISTRICT, MTWARA REGION 1996

District	Name of School	Type of Disability
Mtwara/Mikindani	Shangani	Mental retardation
Newala	Luchingu	Mental retardation
Masasi	Lulindi	Mental retardation
	Mwena	Leprosy
	Masasi	Blindness
	Migongo	Mental retardation
	Lukuledi	Deafness
	Mangaka	Mental retardation
	Ndanda	Mental retardation

Source: Regional Education Office, Mtwara 1997

3.1.3. Adult Education

Mtwara region ranks 13th among 19 position. Therefore, there is still much to be done to catch up with other regions let alone eradicate illiteracy. But it can be said with some pride that Mtwara has come a long way to reach 57.1% literacy. The rate was a mere 28% in 1967. See Table III-19

TABLE III-17 PERCENTAGE OF LITERACY FOR POPULATION AGED 10 YEARS AND ABOVE IN MTWARA REGION COMPARED TO OTHER REGIONS IN THE LAST THREE CENSUSES

Region	1967 Census	1978 Census	1988 Census	Ranking
Mtwara	28	51.4	57.1	13
Kilimanjaro	56	74.1	80.8	1
D'Salaam	60	73.3	80.7	1
Ruvuma	41	66.3	70.5	2
Tanga	40	60.6	66.0	4
Morogoro	37	58.6	62.8	6
Mara	35	56.4	63.9	5
Iringa	31	54.0	68.3	3
kagera	40	52.9	59.5	8
Dodoma	24	49.5	55.5	14
Mbeya	29	49.2	61.9	7
Rukwa	-	48.5	58.6	9
Lindi	-	48.4	53.8	16
Singida	24	46.7	57.4	11
Mwanza	25	44.3	57.3	12
Coast	26	44.0	51.1	17
Kigoma	19	43.7	55.1	15
Arusha	26	41.9	58.1	10
Tabora	27	40.5	50.5	18
Shinyanga	16	33.2	48.3	19

Source: 1988 Population census

The 1988 census also revealed that urban population tend to be more literate than rural populations in the region. Males also tend to be more literate than females. But unlike some regions the rate of literacy for rural males was higher than that of urban females. See table III-18

TABLE III-18 LITERACY RATE FOR RURAL AND URBAN POPULATIONS OF 10 YEARS AND ABOVE IN MTWARA REGION COMPARED TO OTHER REGIONS IN TANZANIA 1988 CENSUS

Region	Male			Female		
	Rural	Urban	Total	Rural	Urban	Total
Mtwara	65.5	77.9	67.3	46.3	61.6	48.5
Mbeya	69.9	87.5	73.3	48.4	70.4	58.5
Mara	73.7	88.0	75.3	53.7	71.5	55.6
Dodoma	61.5	85.4	64.3	45.1	73.7	48.2
Arusha	61.5	91.8	65.6	46.4	82.8	50.9
Kilimanjaro	84.5	90.3	85.5	75.7	83.6	76.9
Tanga	72.8	88.6	75.9	53.2	75.6	57.3
Morogoro	68.8	86.4	72.9	49.5	72.0	54.6
Coast	60.1	72.2	64.0	40.1	51.8	44.9
DSM	68.4	90.0	87.9	48.0	77.7	74.6
Lindi	62.4	75.9	64.6	42.0	60.2	44.8
Ruvuma	77.7	87.6	78.7	61.4	75.7	63.3
Iringa	80.1	87.4	84.9	57.2	70.4	58.5

Mwanza	63.7	83.7	67.6	43.4	66.9	47.8
Kagera	68.0	84.4	69.0	49.7	72.4	50.9
Shinyanga	57.9	85.9	59.9	36.2	67.7	39.3
Singida	65.0	85.5	66.8	47.2	70.8	49.3
Rukwa	69.1	84.3	71.3	43.9	66.4	47.3
Kigoma	65.1	83.1	67.4	43.1	62.7	45.5

Source: 1988 Population Census

The process of adult illiteracy eradication is an arduous one. It involves the identification of illiterates, persuasion and motivation. It involves identification of teachers, place and times for classes. It involves supervision, registration, examinations and even after literacy is attained, follow up exercises to ensure literates remain literate.

Table III-19 reveals a portion of this process to give an idea of the immensity of dropouts between registration and the passing of terminal literacy tests. For example in 1981 some 150,373 people registered but only 28,046 attained literacy i.e. 19% of those who registered or 21.8% of those who were examined.

TABLE III-19 NUMBER OF ILLITERATES REGISTERED EXAMINED AND PASSED, MTWARA REGION, 1975-1992 (SELECTED YEARS)

Year	Registered			Examined				Pass			
	Male	Female	Total	Male	Female	Total	% Examined	Male	Female	Total	% Passed
1975	103669	97556	201225	76500	97138	173638	86.3	23609	18930	42539	24.5
1977	61991	78453	140444	36074	40174	76248	54.3	11365	8115	19480	25.5
1981	57879	92494	150373	49600	79121	128721	85.6	16168	11878	28046	21.8
1983	45811	71344	117155	38559	61802	100361	85.7	22409	29134	51543	51.4
1986	28587	49065	77652	27607	47455	75062	96.7	21876	37741	59617	79.4

1992	38954	57485	96439	15999	24953	40952	42.5	6575	7808	14383	35.1
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Source: Regional Education Office, Mtwara, (1997).

Fig. 31: Number of illiterates Registered, Examined and Passed, Mtwara Region, 1975-1992 (Selected Years)

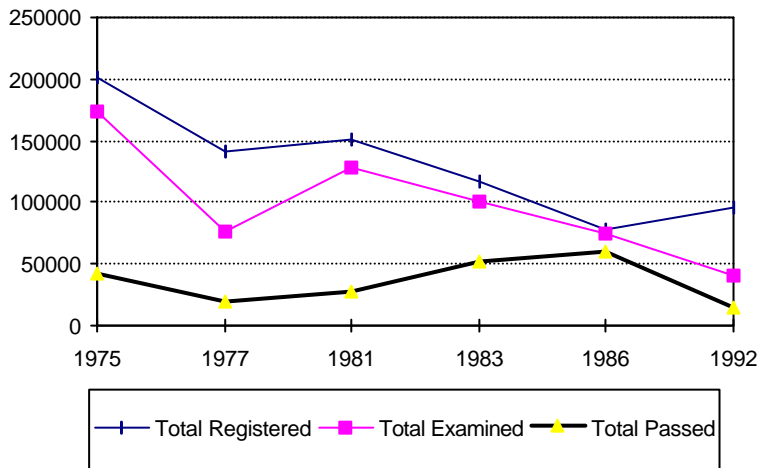


Table III-20 shows the kind of distribution of attendances at literacy classes by sex and also by district. Females outnumber males in attending classes. Mtwara rural and Masasi have the most candidates.

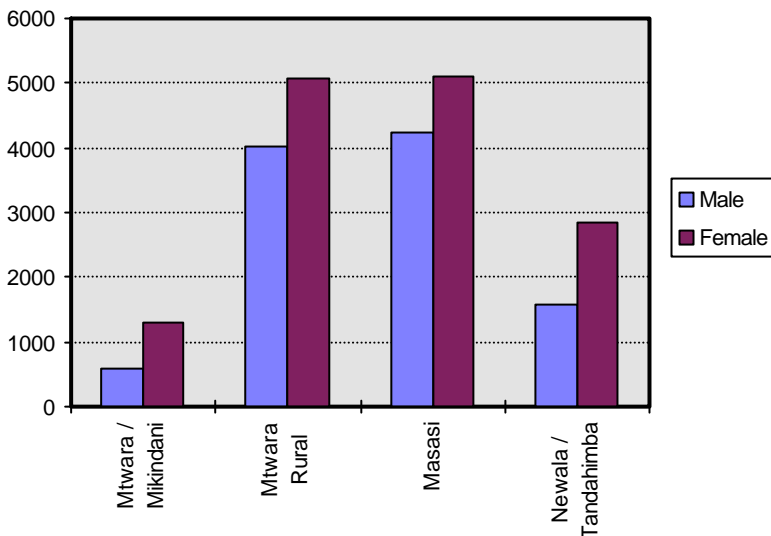
TABLE III-20 ATTENDANCE AT ADULT EDUCATION CLASSES, MTWARA REGION, DECEMBER 1995 BY DISTRICT

District	Attendance			
	Male	Female	Total	%
Mtwara/Mikindani	603	1286	1889	37.0
Mtwara Rural	4019	5062	9081	31.8
Masasi	4244	5117	9361	18.0

Newala/Tandahimba	1577	2850	4427	31.0
Total	10443	14315	24758	23.8

Source: Regional Education Office, Mtwara, (1997).

Fig. 32: Attendance at Adult Education Classes, Mtwara Region, December 1995 By District



Mtwara region boasted of 492 adult education centres in 1995 with 2612 classes and 3,583 teachers. Such recent figures on adult literacy should of course be taken with caution. See Table III-21.

TABLE III-21: DISTRIBUTION OF ADULT EDUCATION CENTRES CLASSES, TEACHER AND CURRICULUM CENTRES, BY DISTRICT, MTWARA REGION, 1995

District	Centres	Classes	No. of Teachers			Curriculum Centres		
			Primary School	Volunteers	Total	Old	New	Total
Mtwara (U)	19	23	19	5	24	4	10	14

Mtwara (R)	82	752	296	377	673	13	10	23
Masasi	187	1336	561	775	1336	6	4	10
Newala/Tandahimba	204	501	1047	50	1550	19	10	29
Total	492	2612	1925	1658	3583	42	34	76

Source: Regional Education Office, Mtwara, (1997).

1.4 Secondary School Education:

In 1996 primary school pupils who were examined for Form I entry were 11,415. Out of these 1,045 were duly selected which is 9.2% of the number of examinees. Sexwise 9.0% of the boys were selected and 9.3% of the girl examinees were also selected.

Mtwara/Mikindani, which is an urban district, had the best selection ratio of 18.6%. See Table III-22.

TABLE III-22: SELECTION FOR FORM I, BY SEX AND DISTRICT, MTWARA REGION, 1996:

District	Examinees			Non Examinees			Selected			
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	
									No.	%
Mtwara/Mikindani	480	553	1,033	1	1	2	104	88	192	18.6
Mtwara Rural	718	668	1,386	11	8	19	56	57	113	8.2
Masasi	2,150	2,546	4,696	25	26	51	186	194	380	8.1
Newala*	2,051	2,249	4,300	42	61	103	140	220	360	8.4
Total	5,399	6,016	11,415	79	96	175	486	559	1,045	9.2

* Includes Tandahimba district.

Source: Regional Education Office, Mtwara, 1997.

Fig. 33 (a): Examinees for Form I by district and sex, Mtwara region, 1996

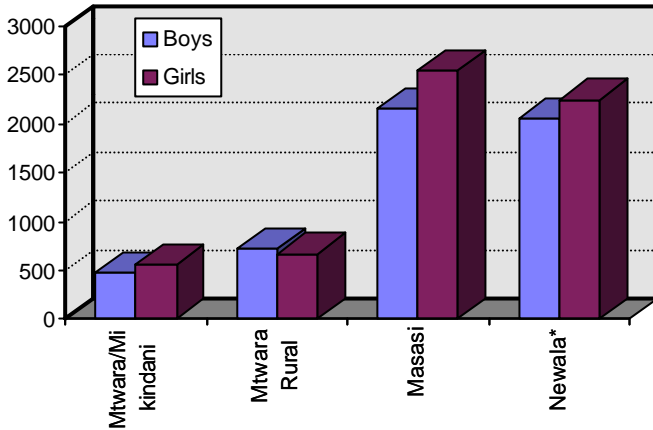
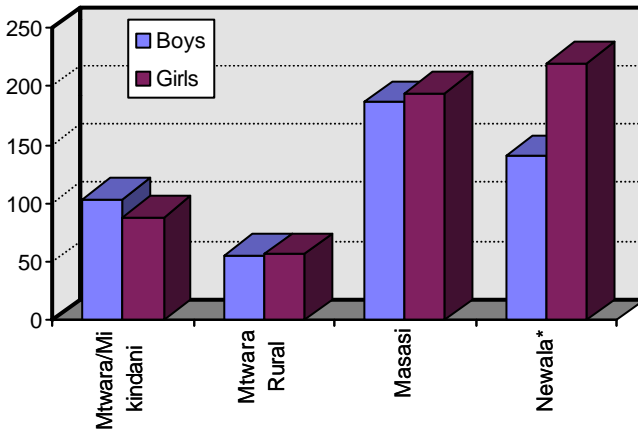


Fig. 33 (b): Selected for Form I by district and sex, Mtwara region, 1996



About 20% of the Secondary Education schools and streams are private. The region has a total of 13 school and 124 streams. Given an estimated population of 991,323 for 1995 there is one secondary school for every 76,256 people. This ratio is

unsatisfactorily high. It is borne out by the low figure of secondary school pupils per 10,000 population.

TABLE III-23: NUMBER OF SCHOOLS AND STREAMS IN SECONDARY SCHOOL, BY LEVEL AND OWNERSHIP, MTWARA REGION, 1995:

Ownership	Number of Schools	Streams						
		I	II	III	IV	V	VI	TOTAL
Public	10	24	22	22	22	4	4	98
Private	3	7	7	6	6	0	0	26
Total	13	31	29	28	28	4	4	124

Source: Basic Statistics in Education, Regional Data, 1995.

This is 42.0 ordinary level students and 1.6 advanced level students. See Table III-24 and III-25. The average number of pupils per stream is satisfactory. It is 36 for ordinary level and 20 for advanced level.

TABLE III-24: ENROLMENT IN SECONDARY SCHOOLS BY SEX, LEVEL AND OWNERSHIP, MTWARA REGION, 1995:

Ownership	Forms											
	I	II	III	IV	V	VI	Form I - IV			Form V - VI		
							Boys	Girls	Total	Boys	Girls	Total
Public	870	837	797	712	87	75	1,654	1,562	3,216	95	67	162
Private	244	254	204	225	0	0	473	454	927	0	0	0

Total	1,11 4	1,09 1	1,00 1	937	87	75	2,12 7	2,01 6	4,14 3	95	67	162
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Source: Basic Statistics in Education, Regional Data, 1995.

Fig. 34(a): Enrolment in secondary schools by ownership, Mtwara region, 1995:

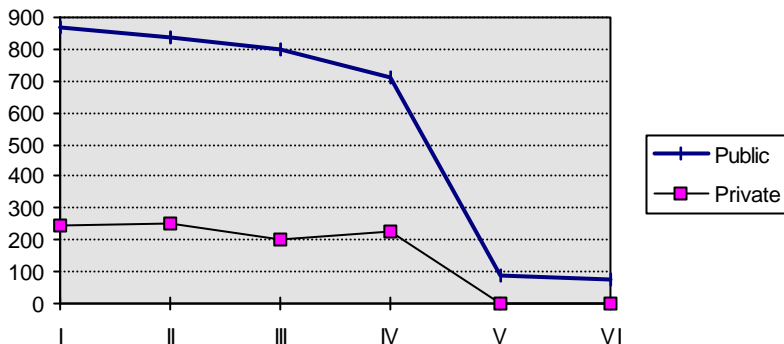


Fig. 34 (b): Enrolment in secondary schools (Form I - IV) by ownership and sex, Mtwara region, 1995

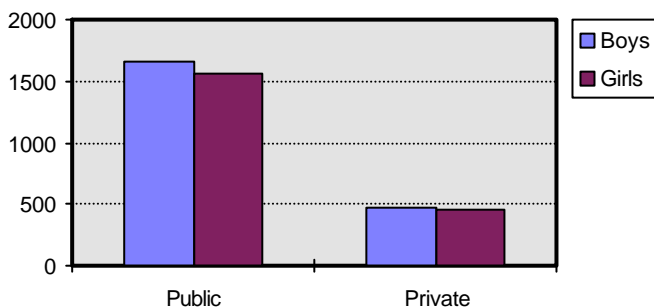


Fig. 34 (c): Enrolment in secondary schools (Form V - VI) by ownership and sex, Mtwara region, 1995

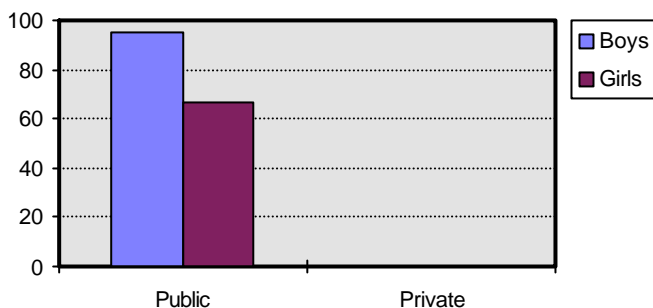


TABLE III-25: PUPILS PER STREAM AND PUPILS PER 10,000 POPULATION, MTWARA REGION, 1995:

Level	Population (Est.)	Total Enrolment	Streams	Pupils per Stream	Pupils per 10,000 people
Form I-IV	991,323	4,143	116	36	42.0
Form V-VI	991,323	162	8	20	1.6

Source: Compiled from Regional Education Office Data, Mtwara, 1997.

Looking at Table III-26 the number of teachers in public secondary schools is 209 while that of private schools is 32. This works out at 16 pupils and 29 pupils per teacher for public and private secondary schools respectively. The private sector ratio is unsatisfactory.

TABLE III-26: SECONDARY SCHOOL TEACHERS BY SEX, QUALIFICATION AND SCHOOL OWNERSHIP, MTWARA REGION, 1995:

Teachers' Qualifications	Public			Private		
	Male	Female	Total	Male	Female	Total
BSc. (Ed.)	10	8	18	0	0	0

BSc. (Gen.)	1	0	1	1	0	1
BA (Ed.)	6	3	9	1	0	1
BA (Gen.)	0	1	1	0	0	0
Dip. Science	64	21	85	5	0	5
Dip. Arts	76	12	88	5	0	5
Grade A	5	0	5	2	0	2
Others	2	0	2	18	0	18
Total	164	45	209	32	0	32

Source: Basic Statistics in Education, Regional Data, 1995.

3.2 HEALTH

3.2.1 Introduction

Although the three enemies of development: poverty, ignorance and disease are still with the region, a start has been made to eradicate them. The region's GDP per capita of Tshs 59,533 for 1994 is on the high side by Tanzania standards. Mtwara's 57.1% literacy by 1988 is middling by Tanzania standards. The status of the health of the region's residents on the other hand judged by Life Expectancy (the ultimate health indicator) is not so good even by national standards.

The health sector in Mtwara region is faced by a variety of basic problems which work against the development of a healthy and productive population. Poor communications, poor water supplies, poverty, poorly run health services and malnutrition are only some of the factors contributing towards ill-health. The

relative isolation of the region from development centres in the north has also under developed the region and consequently its ability to deliver good health services.

3.2.2 Morbidity and Mortality

The decline in the economy nationwide in the eighties and nineties was reflected in the health sector by deterioration in the maintenance of health infrastructure, inadequate and unreliable supply of drugs. Consequently there has been widespread lowering of morale among health workers. The impact of all these factors has been an increase in the region's morbidity and mortality from diseases.

The ten most common causes of morbidity are shown in Table III-27

TABLE III-27 THE TEN MOST COMMON CAUSES OF MORBIDITY AS A PERCENTAGE OF CASES, MTWARA REGION 1991

Disease	% of all cases	Ranking
Malaria	26.0	1
Diarrhoea	8.6	2
Eye diseases	7.2	3
Upper respiratory tract infections	6.6	4
Pneumonia	5.1	5
Accidents	3.1	6
Skin diseases	2.5	7

Intestinal worms	1.6	8
Gonorrhoea	1.4	9
Anaemia	1.3	10
Other diagnoses	15.4	-
Il defined symptoms	21.2	-
Total	100	-

Source: Regional Ministry of health Office, Mtwara 1997

On the ten most common causes of illness the main culprits are in order of importances: Malaria, diarrhoea and upper respiratory tract infections.

TABLE III-28 THE NUMBER OF CASES OF MOST IMPORTANT REPORTED CAUSES OF MORBIDITY AND MORTALITY, MTWARA REGION 1995 AND 1996

Diseases	Reported cases		Report ed deaths		Top 10 ranking	
	1995	1996	1995	1996	1995	1996
Malaria	236,673	236,713	850	271	1	1
Diarrhoea	41,844	211,441	124	124	5	2
Bloody Dysentery	1,210	20,286	33	41	-	8
Measles	42	33	0	0	-	-
Intestinal Worms	20,225	33,189	0	0	6	6
Skins Diseases	45,415	134,347	0	0	4	4
Gonorrhoea	13,395	26,039	0	0	7	7
ARI	71,157	45,958	0	0	2	5
Schistosomiasis	10,181	10,443	0	0	9	9
Eye Disease	46,930	139,626	0	0	3	3
Syphilis	11,996	0	0	0	8	-
Meningitis	1,082	803	158	165	10	10
Typhoid	8	0	0	0	-	-
AIDS	311	142	0	78	-	-
TB	1,592	137	0	99	-	-

Source: Taarifa ya Huduma za Afya Kinga Mkoa wa Mtwara, 1996

According to Table III-28 the list of the ten most important causes of illness had changed to some extent between 1991 and 1996. Anaemia and accidents were no longer among the top ten. Their place was taken over by meningitis, syphilis and bloody dysentery.

Communicable diseases form a different class of diseases which tend to come and go. But when in existence spread quick sometimes manage to reach epidemic proportions. Table III 29 and III-30 show the situation with respect to 1994 and 1995.

TABLE III-29 DISTRIBUTION OF COMMUNICABLE DISEASE CASES IN MTWARA AND NEIGHBORING REGIONS, 1994 and 1995

Region	Cholera		Meningitis		Dysentery		Rabies		Plague	
	1994	1995	1994	1995	1994	1995	1994	1995	1994	1995
Mtwara	33	0	191	1065	993	560	14	23	0	0
Lindi	129	0	657	343	238	187	0	0	0	0
Ruvuma	0	0	15	114	159	179	1	121	0	0
Iringa	0	0	11	18	4,197	147	0	50	0	0
Morogoro	0	0	99	177	586	77	267	134	0	0
Coast	0	0	0	14	2,250	304	0	87	0	0
DSM	3		11	0	1,867	0	2	1	0	0

Source: Health Statistics Abstract, 1997

TABLE III-30 DISTRIBUTION OF DEATHS CAUSED BY COMMUNICABLE DISEASES IN MTWARA AND NEIGHBORING REGIONS, 1994 AND 1995

Region	Cholera		Meningitis		Dysentery		Rabies		Plague	
	1994	1995	1994	1995	1994	1995	1994	1995	1994	1994
Mtwara	1	0	17	139	34	20	0	1	0	0
Lindi	7	0	68	39	5	0	0	0	0	0
Ruvuma	0	0	1	29	12	4	1	4	0	0

Iringa	0	0	5	4	10	0	0	0	0	0
Morogoro	0	0	9	9	12	1	21	2	0	0
Coast	0	0	0	3	23	8	0	1	0	0
DSM	2	0	0	0	15	0	0	1	0	0

Source: Health Statistics Abstract, 1997

The tables show that for Mtwara region the major communicable disease problems were meningitis and dysentery. In fact the region accounted for most of the meningitis cases and deaths in 1995 among the neighbours. Among the seven neighboring regions Mtwara accounted for 42% of all fatalities from the communicable diseases in the two years. Mtwara was then a high risk region. Aids, Tuberculosis and leprosy are the regions added health hazards.

On top of the above problems, young children have to contend with measles, pertussis, diphtheria, tetanus and polio. Malnutrition is the ever present underlying cause which exacerbates the risks from these diseases. Table III-3 shows just how serious was measles in Mtwara and its neighboring regions. At number 4 ranking Mtwara is a medium risk region among the seven neighbours, at least for 1992, 1993 and 1994.

TABLE III-31 DISTRIBUTION OF REPORTED CASES OF MEASLES IN MTWARA AND NEIGHBORING REGIONS 1992-1994

Region	Number of Cases				Ranking
	1992	1993	1994	Total	
Mtwara	232	819	222	1,273	4

Lindi	98	770	37	905	7
Ruvuma	1,379	497	208	2,084	2
Iringa	811	1,367	1,283	3,461	1
Morogoro	672	660	154	1,486	3
Coast	238	702	98	1,038	6
Dar-es-Salaam	437	725	66	1,228	5

Source: Health Statistics Abstract, 1997

3.2.3 Health Facilities

The distribution of health facilities between districts is shown in Table III-32. The majority of facilities are in Newala and Masasi which districts also have the largest populations. Distribution by ownership is a Table III-33. The pace of privatisation of the health delivery system is very slow in the region compared to the rest of the country.

TABLE III-32 DISTRIBUTION OF HEALTH FACILITIES, BY DISTRICT MTWARA REGION 1996

District	Hospitals	Health centres	Dispensaries	MCH Clinics
Mtwara/Mikindani	1	0	17	11
Mtwara Rural	0	4	28	33
Newala*	1	6	39	46
Masasi	2	4	42	43
Total	4	14	126	133

* Included tandahimba district

Source: Regional Ministry of Health office, Mtwara 1997

The coverage of the region's population by the existing health facilities as shown in Tables III-34 and III-35 show improvement over the corresponding values given by the 1978 population census.

TABLE III-33 DISTRIBUTION OF HEALTH FACILITIES BY OWNERSHIP, MTWARA REGION 1996

Facility	Ownership		
	Public	private	Total
Hospitals	3	1	4
Health Centres	12	2	14
Dispensaries	108	18	126

Source: Regional Ministry of Health office, Mtwara 1992

Whereas in 1996 the population per dispensary was 7,979 it was 8,039 in 1978. In 1978 the average population per hospital bed in the region was 844, this had improved to 690 by 1996. The number of dispensaries had increased by 31% from 96 to 126. Likewise the number of hospital beds increased by 50% from 914 to 1457. Districtwise both Masasi and Newala are poorly covered compared to the other two districts.

TABLE III-34: POPULATION COVERAGE OF HOSPITALS AND DISPENSARIES BY DISTRICT, MTWARA REGION, 1996

District	Pop 1996 (Est)	Number of hospitals	Pop per hospital	Number of Dispensaries	Pop per Dispensary
Mtwara/Mikindani	103,815	1	103,815	17	6,107
Mtwara Rural	190,962	0	0	28	6,820
Newala*	326,207	1	326,207	39	8,364
Masasi	384,421	2	192,211	42	9,153
Total	1005,405	4	251,351	126	7,979

* Included Tandahimba

Source: Compiled from data supplied by Ministry of Health and 1988 Population Census

TABLE III-35: DISTRIBUTION OF HOSPITAL/HEALTH CENTRE BEDS AND POPULATION COVERAGE OF HEALTH FACILITIES MTWARA REGION 1996

District	Pop 1996 (Est)	No of hospital/ H.C. Beds	No of Health facilities	Populati on per bed	Populati on per facility	Facilities per 10,000 people
Mtwara/Mikindani	103,815	n.a	18	n.a	5,768	1.7
Mtwara Rural	190,962	n.a	32	n.a	5,968	1.7
Newala*	326,207	n.a	46	n.a	7,091	1.4
Masasi	384,421	n.a.	48	n.a	8,009	1.2
Total	1,005,405	1457	144	690	6982	1.4

* Included :Tandahimba district

Note: :Health Facilities are hospitals, health Centres and dispensaries

Source: :Compiled from 1988 Population Census and Table III-32

:Health Statistics Abstract, 1997,

According to covered population per bed in Table III-36 Mtwara region is the best served after Ruvuma and Kilimanjaro, However when viewed in terms of the number of health facilities is not so well endowed. It ranks 16th. It is only better provided for than Mwanza, Kagera, Tabora and Shinyanga

TABLE III-36 NUMBER OF POPULATION PER BED BY REGION 1995

Region	Pop 1995 (Est)	Number of beds	Pop per bed	Ranking
Mtwara	991,801	1,457	681	3
Arusha	1,776,799	1,535	1,158	16
Coast	737,178	795	927	13
DSM	1,856,661	2,141	867	10
Dodoma	1,487,139	1,711	869	11
Iringa	1,460,498	2,005	728	5
Kagera	1,641,104	2,074	791	8
Kigoma	1,030,691	832	1,239	18
K'njaro	1,556,928	2,289	680	2
Lindi	741,479	980	757	7
Mara	1,232,112	1,072	1,149	15
Mbeya	1,759,814	1,854	949	14
Morogoro	1,475,604	2,088	707	4
Mwanza	2,351,233	2,867	820	9
Rukwa	996,903	861	1,158	17
Ruvuma	987,223	1,635	604	1
Shinyanga	2,225,069	1,537	1,448	20
Singida	961,038	696	1,381	19
Tabora	1,214,073	1,322	918	12
Tanga	1,457,756	1,935	753	6
Total	27,941,103	31,686	882	-

Source: Health Statistics Abstract, 1997.

TABLE III-37: POPULATION PER HEALTH FACILITY AND NUMBER OF HEALTH FACILITIES PER 10,000 POPULATION BY REGION, 1995:

Region	Population Estimate 1995	Number of Health Facilities	Population per Facility	Number of Facilities Per 10,000 Pop.	Ranking
Mtwara	991,801	139	7,135	1.4	16
Arusha	1,776,799	285	6,234	1.6	14
Coast	737,178	192	3,839	2.6	1
DSM	1,856,661	430	4,318	2.3	3
Dodoma	1,487,139	244	6,095	1.6	13
Iringa	1,460,498	285	5,125	2.0	5
Kagera	1,641,104	220	7,460	1.3	18
Kigoma	1,030,691	181	5,694	1.8	10
Kilimanjaro	1,556,928	395	3,942	2.5	2
Lindi	741,479	139	5,334	1.9	8
Mara	1,232,112	233	5,288	1.9	7
Mbeya	1,759,814	292	6,027	1.7	12
Morogoro	1,475,604	280	5,270	1.9	6
Mwanza	2,351,233	317	7,417	1.3	17
Rukwa	996,903	147	6,782	1.5	15
Ruvuma	987,223	195	5,063	2.0	4
Shinyanga	2,225,069	275	8,091	1.2	20
Singida	961,038	163	5,896	1.7	11
Tabora	1,214,073	161	7,541	1.3	19
Tanga	1,457,756	271	5,379	1.9	9
Total	27,941,103	4,844	5,768	1.7	-

Source: Compiled from 1988 Population Census data and Health Statistics Abstract (1997) data.

2.4 Child Immunization:

There are six early childhood diseases against which immunization can be given. They are tuberculosis, pertussis, diphtheria, tetanus, polio and measles. The number one target group for such immunization consist of new born children before they reach one year. The secondary target group are the under fives. The region expects to reach 100% immunization of one year olds by 1999.

The immunization of children under one year had by 1996 reached a very good coverage of 88.3% for BCG, 82.2% for DPT3, 83.1% for Polio3 and 83.5% for Measles.

TABLE III-38: DISTRIBUTION OF COVERAGE BY IMMUNIZATION OF CHILDREN UNDER ONE YEAR, BY DISTRICT, MTWARA REGION, 1996:

District	Target No. Children	BCG		DPT3		Polio 3		Measles	
		No.	%	No.	%	No.	%	No.	%
Mtwara/Miki ndani	3,426	2,623	76.6	2,375	69.3	2,399	70	2,454	71.6
Mtwara Rural	7,699	7,000	90.9	5,629	73.1	5,869	76.2	5,502	71.5
Newala	12,340	10,569	85.5	11,973	97.0	11,870	96.2	11,997	97.2
Masasi	15,438	14,145	91.6	12,004	78.0	12,196	80.0	12,543	81.2
Total (1996)	38,903	34,337	88.3	31,981	82.2	32,334	83.1	32,496	83.5
Total (1995)	39,765	34,855	87.7	38,341	96.4	32,633	82.1	32,087	80.7

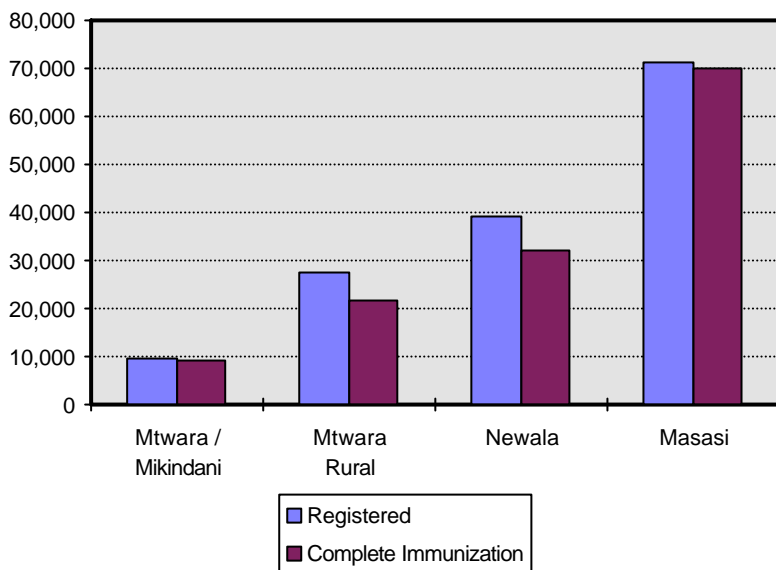
Source: Regional MCHCO Annual Report, Mtwara, 1996.

TABLE III-39: DISTRIBUTION OF COVERAGE BY IMMUNIZATION OF UNDER FIVE CHILDREN, BY DISTRICT, MTWARA REGION, 1996:

District	Target Number	Registered		Complete Immunization		Continuing with Immunization	
		Number	%	Number	%	Number	%
Mtwara/Mikindani	17,129	9,707	56.7	9,028	52.7	372	2.2
Mtwara Rural	38,521	27,486	71.4	21,789	56.6	5,699	14.8
Newala	61,695	39,129	63.4	31,922	51.8	7,207	11.7
Masasi	77,190	71,320	92.4	69,870	90.5	7,320	9.5
Total (1996)	194,535	147,642	75.9	132,609	68.2	20,598	10.6
Total (1995)	195,647	166,805	85.3	146,360	74.8	29,732	15.2

Source: Taarifa ya Huduma za Afya Kinga Mkoa wa Mtwara, 1996.

Fig. 35: Distribution coverage of number registred and complete immunization of under five children by district, Mtwara region, 1996



These percentages showed an improvement of over 1995 except for DPT3 which was 96.4% in 1995. But at this rate of improvement there is little hope that the target of 100% by 1999 will be attained. See Table III-38. The exception is Newala district which did extremely well in 1996.

With regard to the immunization of under fives Masasi district alone is performing well at 90.5 coverage by 1996. The other three districts are doing badly. The coverage of Mtwara/Mikindani, Mtwara Rural and Newala districts are 52.7%, 56.6% and 51.8% respectively. The 1996 performance is generally down from 1995.

3.2.5 Child Nutrition:

Under the section on "Food Adequacy" Mtwara region is compared to Singida region. The two regions have more or less an identical human population size and are not far apart in the quantity of pulses and oil seeds produced annually. Also neither region have a significant wildlife population. Yet the number of livestock units per 1,000 people is 52 for Mtwara and 1,656 for Singida. This means that expectant mothers and young children have better access to animal protein (milk, meat etc.) in Singida than their counterparts in Mtwara region. Availability or non-availability of protein has implications on the weight of babies born, nutritional status of under fives, the average height and general well being of a population. With the help of UNICEF a CSDP exercise was undertaken in various selected regions to monitor children nutritional status and educate mothers on child nutrition. Table III-40 shows the results of this intervention in the regions, Mtwara and Singida included.

TABLE III-40: PERCENTAGE OF CHILDREN BORN SEVERELY UNDERWEIGHT IN CSPD REGIONS, 1990 - 1994:

Region	1990	1991	1992	1993	1994
Mtwara	6.3	5.5	1.8	1.9	2.0
Singida	3.5	1.4	1.5	1.1	1.1
Coast	-	-	-	7.1	4.4
Morogoro	3.2	3.3	2.2	1.6	1.4
Iringa	1.7	1.4	1.3	1.1	1.1
Ruvuma	3.9	3.7	2.3	1.6	1.5
Kagera	2.0	2.1	1.6	1.2	1.2
Kilimanjaro	0.6	0.4	0.3	0.2	0.2
Mara	6.9	3.0	2.8	1.6	1.4
Mwanza	-	-	-	3.2	2.3
Shinyanga	2.0	1.4	1.5	1.1	1.1

Total	2.8	2.5	1.6	1.6	1.4
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Source: UNICEF Dar-es-Salaam Office, 1997.

Mtwara and Singida started in 1990 with 6.3% and 3.5% severe underweight respectively. Each region progressively reduced this ratio to reach 2.0% and 1.1% respectively by 1994.

TABLE III-41: NUTRITION STATUS OF CHILDREN AT BIRTH IN TANZANIA MAINLAND, BY REGION, 1995:

Region	Number weighed	Children Under Nutrition			
		Weight		Total	%
		<60%	60-80%		
Mtwara	23,127	850	4,138	4,988	22
Singida	31,254	376	1,276	1,652	5
Lindi	22,779	868	1,932	2,800	12
Ruvuma	26,630	646	2,599	3,245	12
Morogoro	51,239	1,045	3,215	4,260	8
Coast	22,934	734	2,607	3,341	15
Dar-es-Salaam	50,370	435	1,206	1,641	3
Iringa	45,459	847	8,083	8,930	20
Arusha	68,418	709	2,845	3,554	5
Dodoma	52,957	500	1,686	2,186	4
Kagera	60,417	1,002	4,606	5,608	9
Kigoma	42,408	1,392	5,227	6,619	16
Mbeya	84,231	1,528	10,062	11,590	14
Mara	45,944	651	1,918	2,569	6
Mwanza	89,166	1,416	4,648	6,064	7
Rukwa	33,454	876	3,611	4,487	13
Shinyanga	74,715	559	2,244	2,803	4
Tabora	45,648	431	1,734	2,165	5
Tanga	54,006	701	2,060	2,761	5
Total	968,091	15,777	66,665	82,442	9

Source: Health Statistics Abstract 1997.

By 1995, the nutritional status of new born children had improved so much that in the region only 22% of births were underweight. Still, this level was the worst in Tanzania Mainland. The Singida level was 5%. Of the 22% there was a core of severely

underweight children which accounted for 3.7% of all children weighed.

3.2.6 Infant and Under five Mortality:

Infant and Under five Mortality rates are a measure of the success of all those interventions which affect the health of infants and young children. Mtwara region's IMR and U5MR as reflected in Tables III-42 and III-43.

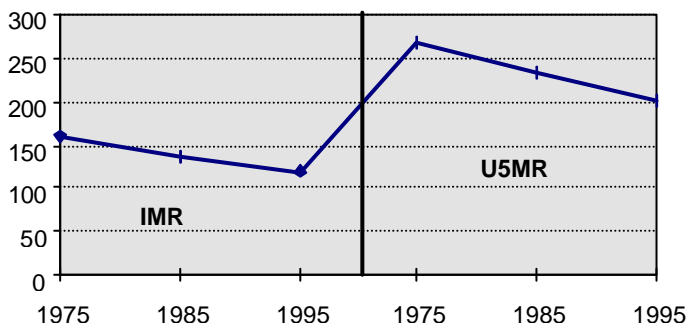
TABLE III-42: IMR AND U5MR IN TANZANIA MAINLAND BY REGIONS, 1975, 1985 AND 1995 (Est.)

Region	IMR			U5MR		
	1975	1985	1995 (est)	1975	1985	1995 (est)
Mtwara	161	138	119	267	233	202
Lindi	151	140	129	255	236	218
Ruvuma	145	113	88	245	188	143
Morogoro	140	124	96	267	209	163
Coast	121	113	105	204	189	174
Dar es Salaam	108	105	102	179	173	168
Iringa	152	130	111	257	220	189
Dodoma	133	132	130	225	222	220
Arusha	108	75	52	179	129	78
Kagera	133	130	127	225	219	212
Kigoma	163	115	81	269	192	137
Kilimanjaro	76	67	59	119	104	90

Mara	140	125	112	236	211	189
Mbeya	161	124	96	267	209	163
Mwanza	139	115	95	233	192	157
Rukwa	170	131	101	283	221	172
Shinyanga	150	110	81	252	183	131
Singida	137	96	67	231	157	106
Tabora	140	101	73	236	166	116
Tanga	112	106	100	187	176	166

Source: Health Statistics Abstract 1997.

Fig. 36: IMR and U5MR in Mtwara region, 1975, 1985 and 1995 (Est.)



The region ranks at the bottom along with Lindi region. The two regions have the worst IMR and U5MR. Another factor which becomes clear in studying Table III-43 is that urban areas have a lower IMR and U5MR than rural areas in Mtwara, as indeed in

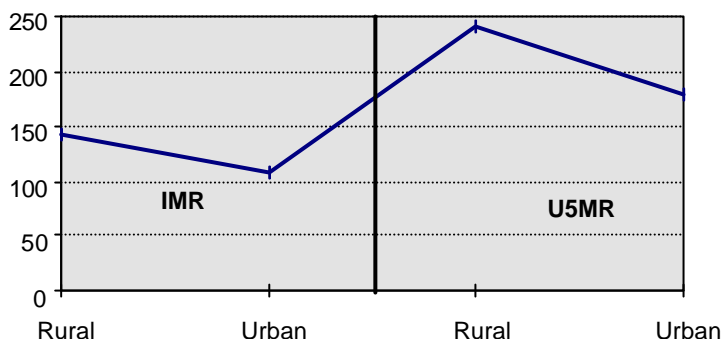
most of Tanzania. Rural areas are more risky healthwise for the young child.

TABLE III-43: IMR AND U5MR IN TANZANIA MAINLAND, BY REGIONS AND URBAN/RURAL CONFIGURATION, 1988:

Region	IMR			U5MR		
	Rural	Urban	Average	Rural	Urban	Average
Mtwara	143	108	138	241	180	233
Lindi	143	121	129	241	204	236
Ruvuma	114	107	113	190	177	188
Morogoro	134	94	125	226	153	211
Coast	115	104	113	193	172	189
Dar es Salaam	121	103	105	203	169	173
Iringa	130	135	130	219	229	220
Dodoma	136	94	132	230	154	222
Arusha	76	72	75	120	114	129
Kagera	130	116	130	220	193	219
Kigoma	116	109	115	194	181	192
Kilimanjaro	66	73	67	102	115	104
Mara	128	101	125	216	116	211
Mbeya	128	107	124	216	177	209
Mwanza	119	97	115	200	158	192
Rukwa	134	112	131	227	186	221
Shinyanga	112	92	110	186	150	183
Singida	99	81	96	161	129	157
Tabora	101	103	101	165	169	166
Tanga	109	89	106	182	144	176

Source: 1988 Population Census.

Fig. 37: IMR and U5MR in Mtwara region Rural/Urban configuration, 1988



From Table III-44 a similar picture to the Urban/Rural set up appears with respect to the sex of a child. Female children in Mtwara and most of Tanzania are less at risk from death than their male counterparts. They have a lower IMR and U5MR as a population than the male population.

TABLE III-44: IMR AND U5MR IN TANZANIA MAINLAND BY REGION AND BY SEX, 1988:

Region	IMR			U5MR		
	Male	Female	Average	Male	Female	Average
Mtwara	141	134	138	238	227	233
Lindi	140	139	140	237	235	236
Ruvuma	115	110	113	193	183	188
Morogoro	133	118	125	224	197	211

Coast	118	109	113	199	180	189
Dar es Salaam	109	100	105	181	165	173
Iringa	137	124	130	231	209	220
Arusha	79	82	75	126	131	129
Dodoma	136	127	132	230	114	222
Kagera	133	127	130	224	213	219
Kigoma	119	111	115	200	184	192
Mara	128	122	125	216	205	211
Kilimanjaro	67	67	67	104	104	104
Mbeya	130	118	124	220	197	209
Mwanza	122	108	115	204	178	192
Rukwa	137	125	131	232	211	221
Shinyanga	114	106	110	191	175	183
Singida	98	94	96	161	152	157
Tabora	103	99	101	169	163	166
Tanga	110	102	106	183	168	176

Source: 1988 Population Census.

3.2.7 Maternal Mortality:

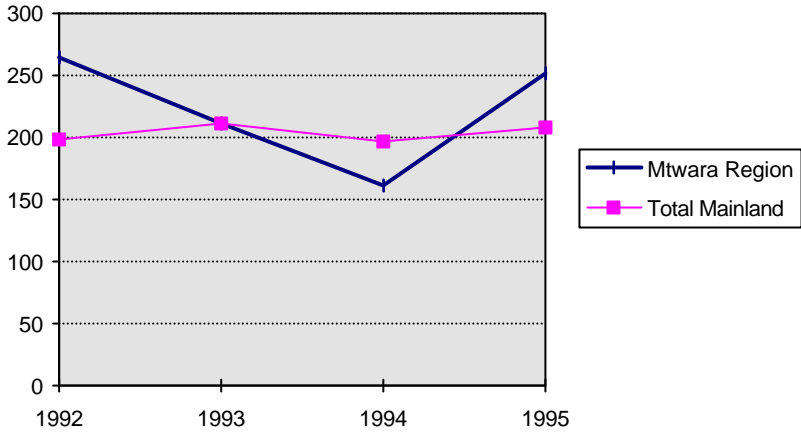
Death of women directly connected with child bearing is still a problem in developing countries and certainly in Mtwara region. Unlike for IMR and U5MR the Maternal Mortality Rate for Mtwara is average for the country. Since 1992 MMR has shown signs of some slight improvement.

**TABLE IV-45: MATERNAL MORTALITY RATE IN TANZANIA MAINLAND
BY REGIONS FOR 1992 TO 1995:**

Region	1992	1993	1994	1995	Rankin g
Mtwara	264	212	161	252	10
Lindi	262	289	193	264	14
Ruvuma	225	189	186	177	8
Morogoro	289	172	190	153	6
Coast	209	111	70	187	5
Dar es Salaam	220	398	237	328	19
Iringa	311	321	276	281	18
Arusha	102	158	114	159	4
Shinyanga	143	188	199	184	9
Singida	242	171	238	207	13
Dodoma	197	214	208	266	16
Kagera	304	343	190	242	12
Kigoma	144	155	105	87	2
Kilimanjaro	126	46	107	63	1
Mara	67	59	106	124	3
Mbeya	67	361	436	264	20
Mwanza	221	186	266	207	15
Rukwa	172	294	243	267	17
Tabora	151	185	130	216	7
Tanga	255	172	220	195	11
Total	199	211	197	208	-

Source: Health Statistics Abstract, 1997.

Fig. 38: Maternal mortality rate in Mtwara region to Total Mainland for 1992 to 1995



One way to reduce MMR is to ensure that all women of child bearing age are immunised against tetanus. Table III-46 shows how this exercise fared in 1996. A total 39.8% of this group of women had two or more vaccinations rendering them nominally immune. The rate for 1995 was 42.2%. Further efforts are required particularly in the district of Mtwara/Mikindani and Mtwara Rural, which districts scored rates of 24.4% and 26.2% respectively. This means only one quarter of women of the target group were immunised against tetanus in these two districts.

TABLE III-46: TETANUS VACCINATION OF WOMEN WITHIN THE CHILD BEARING AGE GROUP, MTWARA REGION, BY DISTRICTS, 1996:

District	Mtwara/Mi kindani	Mtwara Rural	Newala	Masasi	Total	
					1996	1995
Target Number	17,129	38,493	61,695	77,190	194,507	198,829
1st Vaccination: Number	2,865	6,138	14,720	11,415	35,138	55,495
:Percent	16.7	15.9	23.9	14.8	18.1	27.9
2nd Vaccination: Number	2,261	4,208	13,200	9,631	29,300	41,649
:Percent	13.2	10.9	21.4	12.5	15.1	20.9
3rd Vaccination: Number	1,138	2,876	11,483	10,965	26,462	25,466
:Percent	6.6	7.5	18.6	14.2	13.6	12.8
4th Vaccination: Number	525	1,970	7,292	5,013	14,800	12,490
:Percent	3	5.1	11.8	6.5	7.6	6.3
5th Vaccination: Number	248	1,021	3,596	1,921	6,786	4,253
:Percent	1.4	2.7	5.8	2.5	3.5	2.1
Two or More Vaccination: Number	4,172	10,075	35,571	27,530	77,348	83,858
:Percent	24.4	26.2	57.7	35.7	39.8	42.2

Source: Taarifa ya Huduma za Afya Kinga Mkoa wa Mtwara, 1996.

3.2.8 AIDS:

Acquired Immunity Deficiency Syndrome (AIDS) is gaining importance as a cause of death in the region. The first case of AIDS in the region was discovered in 1985. By 1996 the cumulative total of AIDS cases was 2,244 or 242 in every 100,000 population. See Table III-47 and III-48.

Compared to its neighbours the region has the least number of cases. Its ranking as number 13 on the national scale shows that its situation AIDSwise is better than average.

TABLE III-47 CUMULATIVE AIDS CASES BY REGION IN SELECTED NEIGHBORING REGIONS 1991-1996

Region	1991	1992	1993	1994	1995	1996
Mtwara	1361	1962	2090	2201	2267	2244
Lindi	842	1211	1691	1966	2173	2480
Ruvuma	1197	1807	2480	2847	3087	3345
Morogoro	2398	3598	4328	4575	4605	4605
Coast	1676	2215	2740	3023	3268	3373
DSM	8834	9295	10406	11050	11302	12983
Iringa	2281	3334	4462	4674	4785	4883
Dodoma	536	762	1028	1071	1090	1096
Total Mainland	44195	60066	73572	79445	83351	88467

Source: Health Statistics Abstract 1997

TABLE III-48 RATE OF AIDS PER 100,000 POPULATION BASED ON CUMULATIVE CASES IN SELECTED NEIGHBORING REGIONS 1992,1993 AND 1996

Region	1992	1993	1996	1996 Ranking in Tanzania Mainland
Mtwara	106	110	242	13
Lindi	95	112	328	7
Ruvuma	111	128	328	6
Morogoro	160	164	305	9

Coast	189	206	446	4
DSM	538	531	678	1
Iringa	144	161	325	8

Source: Health Statistics Abstract, 1997

The rate of new cases per year has slowed down possibly because health education is becoming effective. At 2244 cumulative cases the region has only 2.5% of the cumulative cases in the Mainland, although it has some 3.8% of the country's population.

3.2.9 Life Expectancy

Life expectancy is the ultimate measure of a region's health environment. In the case of Mtwara region life expectancy at birth averaged 40 years. That was in 1978. In 1988 this had increased to 44 and 48 for males and females respectively. These figures are below the national averages, and ranks Mtwara a low of number 16 being only better than Rukwa, Dodoma, Iringa and Kagera.

TABLE III-49 LIFE EXPECTANCY AT BIRTH TANZANIA MAINLAND BY SEX AND BY REGION 1978 AND 1988 IN YEARS

Region	Average 1978	1988			Ranking
		Average	Male	Female	
Mtwara	40	46	44	48	16
Lindi	42	47	46	48	13
Ruvuma	43	49	48	50	8
Morogoro	44	46	45	48	15

Coast	47	48	46	51	9
DSM	50	50	50	50	5
Iringa	41	45	44	47	19
Arusha	50	57	57	58	2
Dodoma	45	46	45	47	18
Kagera	45	45	44	45	20
Kigoma	40	48	47	49	11
Kilimanjaro	58	59	57	62	1
Mara	44	47	46	48	12
Mbeya	41	47	45	48	14
Mwanza	44	48	46	50	10
Rukwa	40	45	44	47	17
Shinyanga	42	50	48	51	6
Singida	44	55	54	55	3
Tabora	44	53	53	54	4
Tanga	49	49	48	51	7
Mainland	44		49	51	-

Source: 1988 Population Census

3.2.10 Other Health Issues

3.2.10.1 Tuberculosis and Leprosy

These two scourges are still with the region. The onset of AIDS has strengthened the spread of tuberculosis so much so that it is

on the increase. Table III-50 figures for TB rates are misleading, the slight decline in 1993 was only temporary since elsewhere in the country the disease has increased. The leprosy rates reflect the true trend consistent with the rest of the country. Leprosy is on the decline.

TABLE III-50 SWEAR POSITIVE PULMONARY TB AND LEPROSY CASE DETECTION RATE PER 100,000 POPULATION IN MTWARA AND NEIGHBORING REGIONS 1992 AND 1993

Region	TB Rates		Leprosy Rates	
	1992	1993	1992	1993
Mtwara	96	94	53.0	39.8
Lindi	61	64	24.0	18.3
Morogoro	47	58	27.0	15.4
Coast	58	78	11.0	17.0
DSM	126	213	0.0	10.4
Iringa	51	65	1.8	2.7
Total Mainland	48	57	13	11

Source: Health Statistics Abstract, 1997

Mtwara region has the highest case detection rate for leprosy in the country not only among neighboring regions. The region's rates are about four times the national averages.

3.2.10.2 Cost Sharing

Given the high cost of running health services by the public sector, and at the same time given the fiscal constraints, the government since 1994 has encouraged the public to share in the cost of running public facilities. It involves a change in attitude, so it is only slowly that people are coming to accept this reality. During 1994/95 and 1995/96 Mtwara residents paid user charges to the

tune of TSHs 10.7 million and TSHs 7.5 million respectively. A start has been made. Asking households to take care of part of health care bills is in line with government efforts to encourage the privatisation of the health sector.

3.3 WATER SUPPLY

3.3.1 Introduction

The sources of water in the region are dominated by rivers Ruvuma, Mbuo, Mambi and Mbangala and lakes Kitere and Chidya. But in order to supply the much scattered population ground water is also exploited as well as some harvesting of rain water.

Environmental degradation through uncontrolled cultivation and deforestation have taken their toll on water availability. Destruction of tree cover over spring water sources have dried up such sources. Twenty three water schemes out of 53 constructed between 1970 and 1980 have dried up this way.

3.3.2 Rural Water Supplies

The kinds of rural water supply facilities varies a lot from district to district. Mtwara rural has a rich mixture of piped system, boreholes, shallow wells and dams.

District	Status	Piped systems	Bore Holes	Shallow wells	Dams
Mtwara Rural	working	4	19	206	4
	not workers	16	26	134	2
	total	20	45	340	6
	% not working	80	58	39	33
Masasi	working	-	-	415	-
	not working	-	-	150	-
	total	-	-	565	-
	% not working	-	-	27	-
Newala*	working	40%	-	-	-
	not working	60%	-	-	-
	total	100%	-	-	-

* Includes Tandahimba District

Source: Regional Water Engineer, Mtwara 1997

Masasi on the other hand relies only on shallow wells and Newala on piped systems using electricity. See Table III-51

The water supply needs of the districts were met at the following level in 1996:-

Mtwara Rural	-	44%
Masasi	-	41%
Newala/Tandahimba	-	40%

Although 87% of the villages are covered by one or more safe water supply system, the quickest way to increase coverage in the future is the rehabilitation of systems now out of use. The general

deterioration of the nation's economy has also affected water supplies in Mtwara region.

In an effort to break away from reliance on government budgetary allocations for operating and maintenance of water systems village water committees have been set up. See Table III-52. Some 134 water committees have been set up among 24% of the region's villages. Water funds are in 102 or 19% of all villages are covered.

TABLE III-52 DISTRIBUTION OF VILLAGE WATER COMMITTEES AND VILLAGE WATER FUNDS, BY DISTRICT, MTWARA REGION 1996

District	Number of villages	Village water Committees		Village water Funds	
		Number	%	Number	%
Mtwara Rural	101	41	41	26	26
Masasi	214	47	22	47	22
Newala and Tandahimba	233	46	20	29	12
Total	548	134	24	102	19

Source: Regional Water Engineer, Mtwara 1997

3.3.3 Urban Water Supplies

Masasi town is dependent on four water sources: Mchema dam, 5 deep wells at Magumchila, 50 shallow wells dug within the town area and water catchment from Mwena and Mwili springs. A variety of sources also supply Mtwara and Mikindani townships. These are: 7 deep wells in Mtawanya valley, 2 deep wells within the Mikindani area and lastly the spring at Mchuchu. Newala

town is served by the extensive Makonde plateau piped water system which relies on electricity.

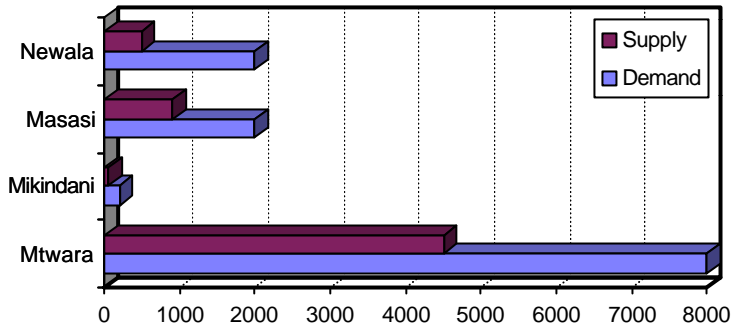
These four major towns of the region, i.e. Mtwara, Mikindani, Masai and Newala need 12.2 million litres of water each day. So far by 1996 only 6.0 million litres could be supplied. This is 49% of the demand. Once again fiscal constraints are to blame for this low coverage. See Table III-53.

TABLE III-53 DEMAND AND SUPPLY OF SAFE WATER BY TOWNS, MTWARA REGION 1996 ('000 litres per day)

Township	Demand litres	Supply litres	Shortage	
			Litres	%
Mtwara	8000	4500	3500	44
Mikindani	200	54	146	73
Masaki	2000	900	1100	55
Newala	2000	500	1500	75
Total	12200	5954	6246	51

Source: Regional water Engineer, Mtwara, 1997

Fig. 39: Demand and supply of safe water by towns, Mtwara region 1996 ('000 litres per day)



3.3.4 Sanitation

The 1988 Population Census gave for the first time a comprehensive picture of the sanitation situation in the region. The census revealed that 86.5% of all households or 89% of the region's population had access to toilet facilities.

TABLE III-54 ACCESS TO TOILETS BY HOUSEHOLD AND POPULATION MTHWARA REGION 1988

Type of Facility	Household		Population	
	Number	%	Number	%
with flush inside	2313	1.2	10,528	1.2
with flush outside/shared	1518	0.8	6318	0.7
with pit latrine	168,026	84.5	762,662	87.1
no toilet	26,974	13.5	96,430	11.0
not stated	9	0.0	44	0.0
Total	198,840	100	875,982	100

Source: 1988 Population Census

According to Table III-55 the district of Newala leads in having the least percentage of people without toilet facilities closely followed by Masasi. This is with respect to rural areas. The regional percentage of those without toilets is 11.9.

**TABLE III-55 ACCESS TO TOILETS BY DISTRICT AND POPULATION
MTWARA REGION RURAL AREAS 1988**

District	Total Population	Flush Toilet		Pit latrine		No Toilet		N.S
		Pop	%	Pop	%	Pop	%	Pop
Mtwara/Mikindani	9405	339	3.6	7581	80.6	1485	15.8	0
Mtwara Rural	161,576	1580	1.0	123,786	76.6	36210	22.4	0
Masasi	304,274	2306	0.8	269,809	88.7	32115	10.5	44
Newala*	275,595	2884	1.0	253,172	91.9	19,539	7.1	0
Total	750,850	7109	1.0	654,348	87.1	89,349	11.9	44

* Included Tandahimba District

Source: 1988 Population Census

In urban areas, the percent age of people without toilets is 5.6% for the region. As expected this figure is smaller than that of rural areas. Mtwara/ Mikindani has the largest proportion of its urban population without toilets. It is 7.7%.

TABLE III-56: ACCESS TO TOILET FACILITIES BY DISTRICT AND POPULATION, MTWARA REGION URBAN AREAS 1988:

District	Total Population	Flush Toilets		Pit Latrines		No Toilets		N.S.
		Population	%	Population	%	Population	%	Pop.
Mtwara/Mikindani	66,455	7,789	11.7	53,563	80.6	5,103	7.7	0

Mtwara Rural	6,613	54	0.8	6,321	95.6	238	3.6	0
Newala*	25,652	369	1.4	24,369	95.0	914	3.6	0
Masasi	26,412	1,525	5.8	24,061	91.1	826	3.1	0
Total	125,132	9,737	7.8	108,314	86.6	7,081	5.6	0

* Includes Tandahimba

Source: 1988 Population Census.

The combined rural plus urban access coverage for the region is 89%. Only 11% of Mtwara's population have no toilets or have no access to one. Mtwara Rural district has the worst record of a district. Some 21.6% of the district's population do not have access to toilet facilities. See Table III-57.

DISTRICT, MTWARA REGION 1988:

District	Total Population	Flush Toilets		Pit Latrines		No Toilets		N.S.
		Population	%	Population	%	Population	%	Pop.
Mtwara/Mikindani	75,860	8,128	10.7	61,144	80.6	6,588	8.7	0
Mtwara Rural	168,189	1,634	1.0	130,107	77.4	36,448	21.6	0
Newala*	301,247	3,253	1.1	277,544	92.1	20,453	6.8	0
Masasi	330,686	3,831	1.2	293,870	88.9	32,941	9.9	44
Total	875,982	16,846	1.9	762,665	87.1	96,430	11.0	0

* Included Tandahimba District.

Source: 1988 Population Census.

SECTION IV

ECONOMIC INFRASTRUCTURE

4.1 Introduction

Economic development is not possible without an adequate supporting economic infrastructure. Mtwara region has a lot of potential for development but it is also an open secret that the regions economic infrastructure is grossly underdeveloped. Take the example of communications. The region's communication links with the outside are rudimentary and tend to be seasonal. Within the region, the lack of maintenance make road transport between one corner of the region and another, both uncertain and hazardous. In spite of these set backs the region's average contribution to the national GDP is 3.27% way ahead of Rukwa, Dodoma, Singida, Kigoma and Coast regions. Improvement in the region's infrastructure will enhance the region's contribution to the national economy.

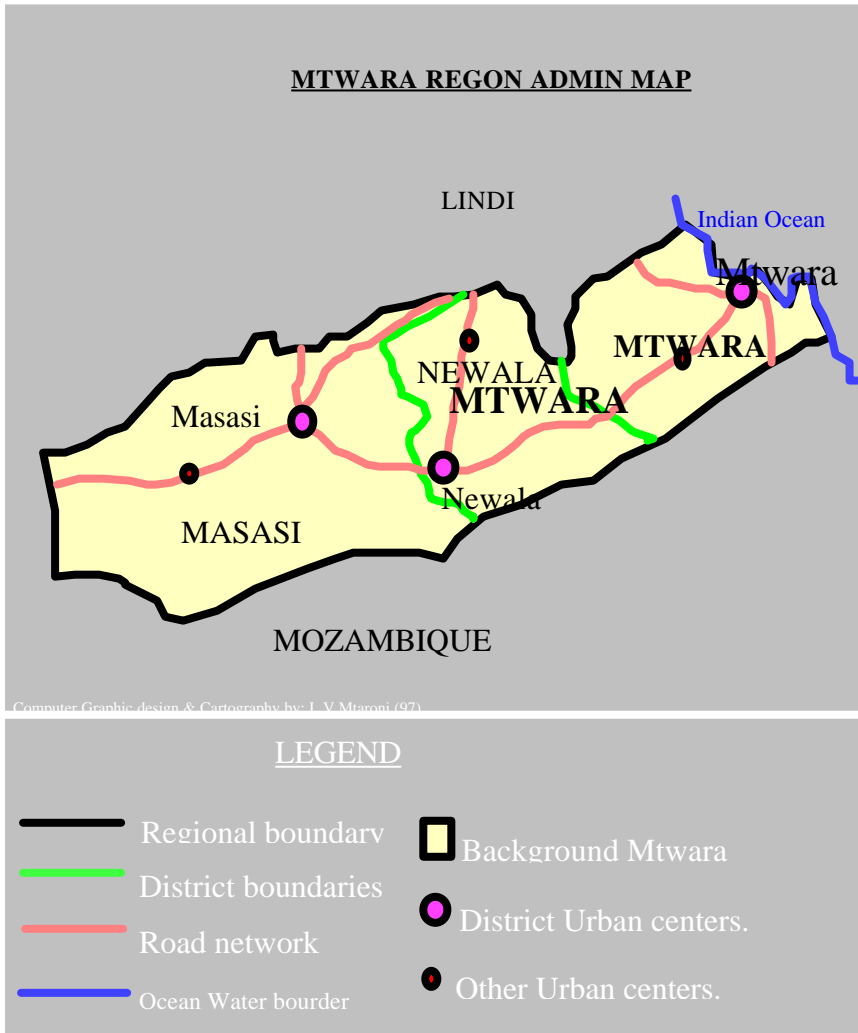
4.2 Roads

The region is connected to the outside by the following roads outlets:-

- The Mtwara, Lindi, Kilwa, Dar es Salaam, Coastal trunk road.
- The Mtwara, Songea, Makambako round about link to the Tanzam highway.

The friendship bridge over the Ruvuma river to Mozambique has still to be built.

ROAD NETWORK - MTWARA REGION MAP



All these links are subject to the vagaries of the weather so that they are nearly always impassable during the rainy season. Even during the dry season they are used with difficulty and are expensive of spares, fuel and time.

Intra-regional road links exist but suffer from maintenance. Hence, these too are travelled by road users at their own risk. Unlike their counterparts in Sukuma land who use bicycles as alternatives for light loads, the sandy terrain which predominates the region excludes this.

The absence of a sizeable cattle herd also excludes the use of oxcarts for the movement of farm inputs and crop produce. In many parts of the region walking with your load is the only alternative to car transport.

Mtwara region has 5,596 kms of roads which works out at a road density level of 0.335 kms per sq km of land. Table IV-I compares Mtwara region with certain selected regions.

TABLE IV-I; STATUS ROAD TRANSPORT IN MTWARA REGION AND SOME SELECTED REGIONS

Region	Total (Kms)	Roads	Earth (Kms)	Roads	% Roads	Earth	Road Km/Km ²	density
Mtwara		5596		5401		97		0.335
Lindi		6686		6444		96		0.100
Mwanza		6349		5147		81		0.315
Dodoma		4236		3384		80		0.103
Shinyanga		5670		4852		86		0.112
Morogoro		3742		-		-		0.315
Tanga		2778		1382		50		0.102
Mbeya		4831		3765		78		0.076

Source: Compiled from data supplied by Regional Engineer, Mtwara, 1997
 :Regional Socio-Economic Profiles, Lindi, Mwanza, Dodoma, Shinyanga, Morogoro, Tanga and Mbeya

TABLE IV-2 DISTRIBUTION ROADS BY DISTRICT AND BY TYPE OF SURFACE MTWARA REGION 1997

District	Type of Surface (Kms)			Total	Road Density Km/Km ²
	Tarmac	Gravel	Earth		
Mtwara	53	20	880	953	0.253
Newala	1.5	-	1,081	1,082.5	0.269
Masasi	80	40	3,440	3,560	0.398
Total	134.5	60	5,401	5,595.5	0.335

Source: Taarifa fupi ya hali ya maendeleo Mkoa wa Mtwara, April 1995

It is clear from table IV-I that in terms of road density Mtwara region has a better than average development. However table IV-2 shows that only some 200 kms of Mtwara region roads are either gravel or tarmac surfaced. That is only 3% of total road length. Some 97% of the roads are earth surfaced with the implication that they are generally impassable during the rainy season. By the time the rains stop and repairs are undertaken it leaves only 3 to 4 months of passable use. Three quarters of the time the roads are impassable or barely so because of rains or because they have yet to be repaired.

According to responsibility, trunk and regional roads are the responsibility of the Regional Engineer while district and feeder roads belong to district authorities. See Table IV-3. District councils throughout the country have showed little aptitude in

maintaining roads they are responsible for. Hence these feeder and district roads in Mtwara go largely impaired from one year to the next. Trunk and regional roads have a better track record for maintenances.

**TABLE IV-3 CLASSIFICATION OF ROADS,
MTWARA REGION, 1997**

Class	Kilometres
Trunk	395
Regional	778
District	1592
Feeder	2831
Total	5596

Source: Regional Engineer, Mtwara 1997:

Utekelezaji wa irani za CCM za Uchaguzi wa madiwani 1994 na Wabunge 1995

4.3. Air Services

Air transport for some months in the year is the only reliable link with the outside world that Mtwara region possesses. The only other alternative is marine transport. The rainy season renders most of road transport impassable. Of course, air transport can only cater for urgent or high value cargo and V.I.P. passengers. It is too expensive for ordinary use. Competition for space on marine boats is restrictive.

The region has the benefit of three aerodromes; one major airport, one minor airport and one airstrip. Mtwara is the major airport capable of handling Boeing 737 aircraft and regular commercial traffic. Masasi is a minor airport while Newala is a mere airstrip for use by light, non-commercial aircraft at irregular intervals.

According to Table IV-4 the general decline in the country's economy has also affected adversely the volume of air cargo and air passengers handled by Masasi and Mtwara airports in recent years. Nevertheless, the importance especially of Mtwara airport in Tanzania is still evident. It is the most busy airport after Dar es salaam, Kilimanjaro, Mwanza and Zanzibar. In terms of air cargo Mtwara was ahead of Zanzibar in 1991,1992 and 1993. See Table IV-5 and IV-6.

TABLE IV-4 THE TREND OF SCHEDULED COMMERCIAL AIR FREIGHT (TONS) AND SCHEDULED COMMERCIAL AND NON-COMMERCIAL AIR PASSENGERS HANDLED AT MTWARA AND MASASI AIRPORTS 1986-1993

Year	Mtwara		Masasi	
	Freight	Passengers	Freight	Passengers
1986	301.0	28,607	-	-
1987	329.3	28,918	-	-
1988	311.1	24,820	-	1,986
1989	322.6	19,950	-	668
1990	318.4	17,445	-	103
1991	235.0	20,138	-	72

1992	170.5	16,489	-	-
1993	156.7	18,886	-	1,842

Source: Transport Statistics 1993

Fig. 40: The trend of scheduled commercial Air Freight (tons) and scheduled commercial and non-commercial Air Passengers handled at Mtwara Airport 1986-1993

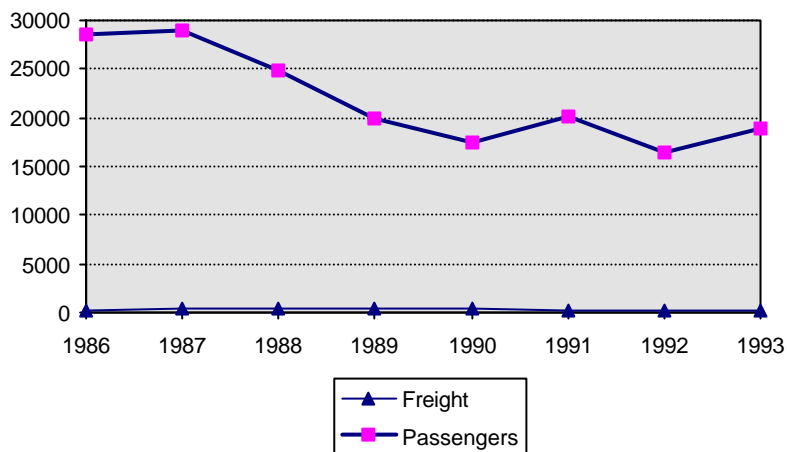


TABLE IV-5 COMMERCIAL AND NON-COMMERCIAL AIR TRAFFIC PASSENGERS HANDLED AT MAJOR AIR PORTS IN TANZANIA 1986-1993

Year	D'Salaam	K'njaro	Mwanza	*Zanzibar	Mtwara
1986	572,257	194,630	52,752	139,194	28,607
1987	580,591	206,476	74,840	133,981	28,918
1988	569,796	191,931	86,210	174,289	24,820
1989	471,163	175,409	56,151	81,225	19,950
1990	504,838	190,630	55,597	119,893	17,445
1991	510,716	195,171	71,743	129,200	20,138
1992	437,165	212,262	71,181	115,001	16,489
1993	*272,753	191,139	59,504	79,214	18,886

Source: Transport Statistics 1993

* Scheduled Commercial Traffic only

TABLE IV-6 COMMERCIAL AIR TRAFFIC FREIGHT HANDLED AT MAJOR AIR PORTS IN TANZANIA 1986-1993

Year	*DSM	K'njaro	Mwanza	Zanzibar	Mtwara
1986	7,047.9	841.7	236.4	474.9	301.0
1987	5,798.0	708.7	426.8	499.9	329.3
1988	8,225.4	1,287.5	837.4	1,202.9	311.1
1989	5,236.8	1,246.3	669.2	660.8	232.6
1990	7,657.9	1,348.2	627.6	319.2	318.4
1991	8,442.7	1,348.2	1,102.1	200.2	235.0
1992	5,517.2	683.1	737.7	69.2	170.5
1993	5,730.2	2,029.2	1,065.6	123.6	156.7

Source: Transport Statistics, 1993

* Scheduled commercial traffic only

4.4. Marine Services

Mtwara region has one major harbour and that is Mtwara port. This port is so strategically well placed that it could serve as an outlet for cargo to and from the southern regions of Mtwara, Ruvuma and Lindi as well as the countries of Malawi and Zambia.

Lack of good communication links with its hinterland has dimmed the development of this port's potential.

The harbour was built as long back as the pre-Independence years of 1950's primarily to service the British Overseas Food Corporation. O.F.C. was an ambitious colonial oil seed production scheme. This venture failed leaving the harbour with excess capacity. The harbour can accommodate two ships at a

time at its deep water berth as well as another three ships within the harbour and at its entrance channel. It has covered storage capacity of 15,000 tons and a 15,000 square meters of open yard that could be used for container storage. All in all the port can handle 400,000 tons of cargo a year. This can be extended to 750,000 tons if containerization is opted for. Actual utilization, however, has averaged 90,000 tons per annum over the last five years. Thus only one quarter of the harbour's capacity is utilized. Mtwara port is connected to Dar es Salaam port by some regular commercial freight and passenger services which need a lot of improvement. Such marine transport services do not offer a viable alternative to the road link between the northern and southern zones of the country. But they provide along with air services a crucial safety valve especially during the rainy season.

4.5 Telecommunication Network

Apart from Radio Tanzania services which are widely used and listened to, the Tanzania Telecommunications Company offers telephone and fax services. Some 900 customers in Mtwara town and 400 others in the districts are directly connected to the network. The total capacity is for 1550 telephone lines.

Radio calls and Postal mail services also exist and are widely used.

4.6 Energy

4.6.1 Electricity:

TANESCO provides commercial electricity services to Mtwara urban area and to Masasi and Newala towns. For Mtwara town the company generates 1.13 MWs though the demand is as high as 3.5 MWs. The Masasi power station produces only 3.0 MWs for Masasi and Newala since one of its generators capable of producing another 1.5 MWs broke down. The three towns are currently under supplied.

TABLE IV-7: ACCESS TO ELECTRICITY BY URBAN AREAS, BY DISTRICT, MTWARA REGION 1988

District	Total Pop.	Total Household	Pop covered	H/Holds covered	% Pop covered	% H/Holds covered
Mtwara/Mi kindani	66,452	15,705	15,451	3,410	23.3	21.7
Mtwara Rural	6,613	1,542	39	9	0.6	0.6
Masasi	26,411	6,289	2,042	440	7.7	7.0
Newala	25,648	5,830	638	122	2.5	2.1
Total	125,124	29,366	18,170	3,981	14.5	13.6

Source: 1988 Population census

TABLE IV-8: ACCESS TO ELECTRICITY BY RURAL AREAS MTWARA REGION, 1988

	Total Population	Total h/Holds	% Population	% H/Holds
With Electricity	3,745	285	0.5	0.2
No Electricity	747,064	168,588	99.5	99.8
Not stated	44	9	-	-

Total	750,853	169,482	100	100
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Source: 1988 Population census

Table IV - 7 reveals Mtwara Urban has the best coverage of any urban centre at 23.3% of population followed by Masasi at 7.7%. The average for urban areas is 14.5% of population and 13.6% of households have access to electricity. According to Table IV - 8 in rural areas only 0.5% of the population or 0.2% of households have electricity.

TABLE IV - 9: ACCESS TO ELECTRICITY MTWARA REGION, 1988

	Total Population	Total households	% of population	% of households
With electricity	21,915	4,266	2.5	2.2
No electricity	854,018	193,973	97.5	97.8
Not stated	-	9	-	-
Total	875,933	198,248	100	100

Source: 1988 Population Census

TABLE IV-10 ACCESS TO ELECTRICITY IN SELECTED REGIONS

Region	Number of h/holds with electricity	% of h/holds with electricity
Mtwara	4,266	2.2
Shinyanga	8,503	3.0
Iringa	6,032	2.4
Morogoro	16,883	7.4

Source: Shinyanga, Iringa, Morogoro Socio Economic Profiles.

Tables IV-9 and IV-10 shows that the number and proportion of households with access to electricity in the region is low even compared to some selected regions.

4.6.2 Fuelwood

The use of firewood in rural areas and charcoal in urban areas is the traditional way to the preparation of food, heating water etc. With only 2.2% the region's household gaining access to electricity, fuelwood is indeed the predominant energy source for domestic purposes. Intensive and extensive use of fuelwood is depleting the region's forest slowly but surely.

4.6.3 Other forms of Energy

Fossil fuels are important in that for domestic lighting purposes, kerosene is the number one source in both rural and urban areas.

Secondly, exploration for natural gas in Msimbati bay could yield the region and its neighbours with an abundant alternative source of domestic energy. The potential is there, hopefully.

4.7 Land development

The focus for land development has always been directed to urban areas where according to the 1988 census only 14.3% of the regional population live. This is a direct consequent of current land policy which is clear with respect to urban areas only and secondly, scarcity has created a market for the land in urban centres. Table IV-11 shows activities undertaken since 1995 to help along the process of land development in urban areas.

TABLE IV-II : LAND DEVELOPMENT SERVICES FOR URBAN AREAS, MTWARA REGION 1995/96 AND 1996/97

Services	1995/96	1996/97	TOTAL
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Townships, - Town Planning Maps - Plots	6 785	2 272	8 1057
Surveys - Plots	138	181	319
Title deeds Evaluation land Property and houses	140 3	107 1	247 4
- Institutions - private	22	13	35

Source: Regional Land Development Office, Mtwara, 1997

SECTION V

OTHER DEVELOPMENT ISSUES:

5.1 Women in Development:

5.1.1 Women at Household Level:

Mtwara along with its southern neighbour Lindi has a very high population of women compared to men. In both regions there are 52.3 women for every 47.7 men; say roughly 52:48. This is high by Tanzania standards. The average women to men ratio is 51:49 for the Mainland. This means women are even more vitally important for the economic and social welfare of Mtwara region than many other places in the country. Added to this the majority of indigenous residents of the region are by culture matrilineal. Such customs place the woman at the centre stage socially. According to the National Sample Census of Agricultural 1994/95 the proportion of agricultural household which are headed by females in the region is 23.0%. Only the regions of Dodoma, Coast/DSM, Iringa and Singida have higher proportions at 25.5%, 27.8%, 30.2% and 23.2% respectively. In these households women are exposed to leadership challenges and consequently to the decision making process they cannot duck.

Mtwara women as producers of wealth, and food for households are as active in the region as their counterparts elsewhere in Tanzania. This means most work in the fields and at home is done by women. The same Sample Census reported that Tanzania women handle:

64% of filling
 70% of sowing
 71% of weeding
 73% of harvesting
 56% of marketing.

These duties are in addition to searching for fuelwood, fetching water for the family, cooking and of course child bearing and rearing.

5.1.2 Women leadership at above household level:

Women like men have to be trained for and exposed to leadership situations right from childhood if they are to assume positions of responsibility in society. Recruitment of female children for primary and secondary education are just two such example. During this stage equity to men in terms of opportunity is the guiding principle. See Table V-1.

TABLE V-1: THE POSITION OF WOMEN TRAINING FOR AND IN LEADERSHIP IN MTWARA REGION, BY DISTRICT, 1996:

District		Mtwara/M ikindani	Mtwara Rural	Masasi	Newala*	Total
Primary School Enrolment STD I	Female	1,014	1,431	5,119	3,899	11,463
	Male	1,051	1,582	4,865	4,044	11,542
Primary School Enrollment (1995) (Total)	Female	n.a	n.a	n.a	n.a	65,734
	Male	n.a	n.a	n.a	n.a	64,664
Pupils Selected for Form I	Female	88	57	194	220	559

	Male	104	56	186	140	486
Secondary School Total Enrolment (1995): Form I-IV	Female	n.a	n.a	n.a	n.a	2,016
	Male	n.a	n.a	n.a	n.a	2,127
Form V - VI	Female	n.a	n.a	n.a	n.a	67
	Male	n.a	n.a	n.a	n.a	95
Adult Literacy % 1978	Female urban	n.a	n.a	n.a	n.a	47.6
	Male urban	n.a	n.a	n.a	n.a	75.4
	Female rural	n.a	n.a	n.a	n.a	38.2
	Male rural	n.a	n.a	n.a	n.a	63.1
Adult Literacy % 1988	Female urban	n.a	n.a	n.a	n.a	61.6
	Male urban	n.a	n.a	n.a	n.a	77.9
	Female rural	n.a	n.a	n.a	n.a	46.3
	Male rural	n.a	n.a	n.a	n.a	65.5
Primary School Teachers	Female	231	111	335	438	1,115
	Male	113	471	1,245	1,211	3,040
Secondary School Teachers (1995)	Female	n.a	n.a	n.a	n.a	45
	Male	n.a	n.a	n.a	n.a	196
District Councillor	Female	4	5	10	10	29
	Male	13	17	31	51	112
Member of National Assembly	Female	0	0	1	0	1
	Male	1	1	2	3	7

* Includes Tandahimba District.

Source: Basic Statistics in Education, Regional Data, 1995.
Regional Education Office, Mtwara, 1997.
Regional Commissioners office, Mtwara, 1997.

From this table the following facts can be deduced. Recruitment of pupils into primary schools gives equal opportunities to female and male children. When it comes to recruitment into Secondary Schools a deliberate policy of favouring female pupils comes into play to help reduce existing imbalance. A deliberate effort needs to be made to increase the adult literacy of women in both rural and urban areas to bring it to par with that of men. Although a good start has been made in increasing the number of women in junior positions e.g. teachers, further efforts are needed to redress existing inequality. Lastly, the elective process now recognises the potential women have as district councillor, members of the National Assembly etc.. but a lot remains to be done to achieve equity between the sexes.

5.1.3 Gender Issues and the Alleviation of Poverty:

Women especially in rural areas if left on their own are not capable of having an impact on the issue of redressing the inequalities between men and women. Committed individuals, non-governmental organisations, the government itself and others need to come forward and educate women of all walks of life to awaken them to take note of these injustices. Since this involves a change of attitude, it is a slow process. Nevertheless, a start has to be made.

In Mtwara region a start has been made. Women are encouraged to come together in groups. Further, members of these groups are exposed to discussions in gender equality and equity. Issues of poverty are discussed also. The end result of membership in these groups is to prepare the woman to awaken and do something about these two major concerns. This way then women start to come forward to contest leadership positions in society or get involved in income generating activities along with like minded colleagues. Table V-2 expresses how far the region has got in stimulating women towards these causes. Altogether, there are 459 women groups in region with 6,452 members involved in a variety of income generating activities including services, production, trading and processing.

TABLE V-2: DISTRIBUTION OF WOMEN INCOME GENERATING GROUPS BY DISTRICT, MTWARA REGION, MARCH 1997:

District	Number of Groups	Total Number of Members	Type of Economic Activity
Mtwara/Mikindani	113	1453	Tea rooms, salt processing, bread baking, rearing goats and cows, tailoring, porcelain making, fuelwood trading etc.
Mtwara Rural	52	1225	Flour milling, goat keeping, shop keeping, tea rooms, farming, tailoring, hair plaiting, porcelain making, beekeeping.
Newala	141	1215	Goat and poultry keeping, beekeeping, farming, hair salons, tailoring, cashewnuts decortication, flour milling, oil milling.

Tandahimba	87	610	Goat rearing, making porcelain articles, hair salons, tea rooms, farming.
Masasi	66	1949	Keeping goats, bees, poultry and fish. sorghum farming, hair salons, porcelain articles, flour milling, tea rooms, oil milling.
Total	459	6452	

Source: Regional Commissioner's Office, Mtwara, 1997.

Given that the region had 219,267 women of 15-44 years in 1996, the number of women now members of the women groups is very small. It works out at 2.9% of women in this age group. There are too many potential members now out in the cold.

Some of these groups have gone one step further. They have taken advantage of group security to obtain loans from various sources to improve their incomes. With respect to the Women's Fund 31 groups have so far benefited to the total of T.shs. 11 million in the course of 1995/96. Of this loan T.sh. 4 million has been paid back leaving a balance of T.sh. 9 million yet to be paid back as of 31 March 1997. The details are shown in Table V-3.

TABLE V-3: LOANS FROM WOMEN'S FUND TO WOMEN GROUPS, BY DISTRICT, MTWARA REGION, MARCH 1997:

District	Number of groups benefited	Purpose	Loan T.Shs. "000"	Paid Back December 1996	Balance to pay back "000"
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Mtwara/Mi kindani	6	Cattle keeping (1) Fuelwood trading (1) Tea rooms (4)	900 580 1,400	- 206.7 930	1,116 413 866
Sub Total	6		2,800	1,136.7	2,395.3
Mtwara Rural	12	Second hand cloth (1) Charcoal (1) Shopkeeping (1) Tea rooms (2) Farming (6) Other (1)	250 100 250 500 1,500 250	140 - 180 154 900 -	170 124 130 466 959 310
Sub Total	12		2,850	1,374	2,159
Newala/Tandahimba	2	Farming	2,580	620	2,579.2
Masasi	11	Vegetable gardening Tea Rooms Club Others	250 1,000 250 1,250	71 452 - 474	239 788 310 1,076
Sub Total	11		2,750	997	2,413
Grand Total	31		10,980	4,127.7	9,546.5

Source: Regional Commissioner's Office, Mtwara, 1997.

5.2 Environmental Conservation:

Mtwara region is the most densely populated region in the southern zone. In comparison with its neighbours, population per sq.km. is as follows for 1996:

Mtwara region	-	53.2
Lindi region	-	9.6
Morogoro region	-	17.0
Ruvuma region	-	12.0
Iringa region	-	21.3

Such density inevitably puts a lot of pressure on the environment. Forests in the region are getting depleted as people's demand for firewood and charcoal increase with each passing year. Demand for more land to put under the hoe pushes forests further and further away from settlements and the task of searching and fetching firewood gets more and more arduous. Uncontrolled cultivation especially on the Makonde Plateau has led to erosion so that the floods in 1990 were rendered more damaging to soils, vegetation and communications. The search for protein in the absence of reasonably sized regional livestock herd puts pressure on wildlife. So much so that in recent years wildlife has been hunted to near extinction. The only wildlife can now be found in two game reserves totalling a mere 4% of the region's land area.

Population pressure on land has also affected water supplies. Uncontrolled deforestation especially of vegetation around water catchment areas and water sources has resulted in the silting of dams and drying up wells. Twenty three water schemes out of fifty three constructed between 1970 and 1980 have dried up. It would appear others are to follow suit.

Small scale mining has come to the region. This of course, brings wealth to the region. But it has got to be monitored for such environmental damage like scarring of the countryside and the pollution of rivers and other water sources.

On the coast, dynamite fishing is on the increase. Dynamite damage to corals on the continental shelf is more or less permanent. It is a scenic disaster and destroys the breeding environment of thousands of useful marine species. Lastly, the mangrove forest belt also needs looking after to prevent over exploitation for poles. It is also the breeding ground for prawns.

5.3 Tourism:

Although this industry is still undeveloped, it can be transformed into a significant employment and foreign exchange earning sector.

The region has the necessary attractions. The two game reserves of Msanjesi and Lukwika/Lumesule are rich in such wildlife species as elephant, lions, leopards, greater kudu, zebra, water bucks, sable antelopes, wildebeest, impala, buffaloes, wild dogs and pig types. The Ruvuma river offers hippos and crocodiles.

The region also has 125 kms. of coast line where sandy beaches abound. In addition Msambati bay offers a unique scenic beauty ideal for photography tourism. The historical moments in Mikindani offers a glimpse into the past civilization along the coast.

So, the attractions are there what is needed is improvement of infrastructure such as suitable hotel accommodation, appropriate transport and communications. Promotion and the provision of the right entertainment follow automatically once the above are in place.

Lastly, cultural tourism could be given a try. The rich cultures of the Makonde, Makua, Yao and others provide opportunities which could prove appropriate. It should not be forgotten that Mtwara is the home of the now world, famous "Makonde Carvings". A lot can be built on that.

SECTION VI

POTENTIAL INVESTMENT AREAS:

6.1 Agriculture:

The general trend in food production and some years of food inadequacies clearly indicates how the performance of agriculture in the region has been below expectations. Production of starch foods, cassava and sorghum have generally been encouraging but more could have been done to encourage surplus production of these two crops. More serious problems in agriculture in the region lie in the very low production of leguminous crops more specifically pigeon peas and cowpeas. The two are well adapted to Mtwara conditions. The importance of these pulses in diet formulation as sources of protein cannot be over emphasized. Good nutrition status of the expectant mothers depend more on sufficient intake of protein as the case is with young children. It is clear that production of these legumes is lagging behind regional requirement.

As a result the region has been experiencing protein food scarcity in most times. This scarcity of legumes could be attributed to various limitations. It is proposed therefore that the region through its already established district programmes such as Onjama, Tutumane etc. meant to solve the problem of food in the region and to raise the standard of living of the people should give special campaign on production of these legumes because of their importance as sources of protein food in the human diet.

Rice production in the region is contributing between 4-9 percent out of the total food crops produced. More people in the region are becoming consumers of rice as a staple food. However regional production of this crop is very low. Rice has had to be imported in the region to meet the demand. To attain self sufficiency in rice production in the region can only be achieved if small scale irrigation schemes complement the present production level.

Mtwara region's economy depends heavily on cashewnut production. Stabilization of the regional economy so as to increase per capita income depends much on the development of the cashewnut industry. To do this will depend on the improvement of old cashewnut trees and the planting of new and better trees. Hence investment in agricultural production inputs to improve the existing cashewnut trees and establish new plantations will stimulate the regional economy.

6.2 Livestock:

Given the low livestock population in the region, serious planning and determination by the region is needed in investing in this sector. There is ample room for investment opportunities in livestock through stocking up with single purpose or dual purpose cattle for meat and milk. This proposal could best be implemented and most effectively through the establishment of cattle ranches in suitable areas in the districts. Livestock expansion in the region must go hand in hand with tsetse fly control programmes aimed at reducing their number so as to give cattle greater access to pasture areas.

6.3 Forestry:

Forest product demand in the region is very high compared to what the region is able to supply. This include demand for fuelwood, timber and building poles. This fact implies that if no proper actions are taken to control this situation the region is bound to experience environmental destruction. The region is therefore faced with the challenge of finding a balance between the exploitation of the forest resources and their replacement.

Management plans for forest resources in every district should be formulated to provide guidance required to keep exploitation within sustainable limits. Afforestation needs to go hand in hand with forest utilization.

6.4 Beekeeping:

Beekeeping being a tradition in Mtwara region has proved to be the kind of industry that lends itself well to self employment. More peasant farmers should be encouraged, motivated and trained for profitable beekeeping.

Market research for the honey and beeswax products should be carried out in an effort to provide easy access to markets by the beekeeping households. Proper processing could be the bottleneck.

6.5 Mining:

Full mineral exploitation in Mtwara region has not been achieved as yet. Availability of full information on mineral status through proper exploration is a prerequisite. Investors in the mine sector cannot afford to over gamble. Availability of a certain level of reliable data on deposits is paramount. For this reason, in order for the region to attract investors in this sector indicative exploration needs to be carried out soonest.

6.6 Industrial Development:

The privatisation of cashewnut processing factories is a logical step following the wind of change from public entrepreneurship to private enterprise. The raw material is there and the market for processed nuts is good. A search for the right technology could all that is required to make cashewnut processing on factory scale profitable. Other agro-based industries such as oil milling and flour milling are suitable areas of investment especially at village level to encourage income generation and lighten the burden on women. Now that gemstone mining is gaining importance mechanisation of the mining process opens a new venue for industrialisation.

6.7 Transport:

Road development especially the development of a national road highway connecting the regions of Lindi and Mtwara to the capital Dar-es-Salaam is perhaps the most felt need of the southern zone. Second to this priority is the upgrading of the whole road system. Tarmac could be better, gravel roads should be extended. Earth roads should progressively be transformed to gravel standard. As

it is now, all earth surfaced roads are impassable during the rainy season which means for 50% of the year. Road density is adequate but road quality is appalling. This jeopardises the movement of farm produce, goods, people and services between different points in the region.

For the future, the development another highway to Lake Nyasa could connect up Malawi with the Mtwara port which latter is currently grossly underutilised. The construction of a bridge connecting Tanzania and Mozambique at Nengomano (Mozambique) and Mtambaswala/Masunguru (Tanzania) needs capital to open up the big potential for trade between these two countries. Investment in ferries along the Ruvuma river especial the Kilambo (Tanzania)/Namoto (Mozambique) and Maparawe (Tanzania)/Namatili (Mozambique) crossing could also boost the commercial links.

6.8 Energy:

The supply of electricity is much below demand. Further investment in needed to boost up the supply of electricity if the region is to attract industries and provide enough power for water supplies and other domestic needs. In the long run Mtwara and Lindi regions have to be connected to the National Grid to solve the regions' long term energy problems. The existence of gas deposits at Songo Songo in Lindi region could provide the opportunity.

Oil exploration could be extended to Mtwara region especially the Msimbati bay area.

6.9 Health:

The health sector is already open for private investment. A start has been made but the pace is very slow compared to other areas in the country. In the long run this country's delivery of health care will be predominantly in the private sector. Hence, individuals, NGO's, companies and other private sector organisations are welcome to invest in the establishment and running of clinics, dispensaries, health centres and hospitals in the region. Other investment areas in the health sector are:

- The training of health personnel to boost the number of trained personnel or even short courses to improve productivity of existing personnel.
- The supply of drugs, vaccines, equipment and other medical supplies in order to improve the quality of medical care and so contain health problems. This is the area where even the small investor or donor can provide what little there is to give.
- Technical assistance is vital particularly in the initial stages of privatisation or establishment of a major health facility or health care system.

The containment of AIDS and HIV infection is a task for every one. The problem is gaining ground in Mtwara region. Health education and other preventive measures are desperately required

now. Well wishers are welcome to play their part alongside others already on the front line.

Parallel to AIDS are STDs. The region has a higher than normal level of infection of STDs. An easy access to appropriate drugs administered by qualified personnel could also have a positive impact on HIV infection. The supply of STD drugs at affordable prices or even the establishment of STD treatment centres in each ward could be the answer.

6.10 Education:

Like health, investment in the education sector at all levels from pre-school education to University is now open to all well wishers. There is still quite a significant portion of children of school going age who are not going to school because of distances and the quality of primary education. The average for Mtwara of the number of pupils per 1,000 population is 140 only. This means up to 100 children per 1,000 population are not going to school. The enrolment at secondary level is very, very low. Vocational training centres for youths are virtually non-existent. The number and quality of primary school teachers is unsatisfactory. So there is indeed a very large area in education for an investor to choose from. The quality of primary and secondary education is low. Even assistance to existing establishment in terms of infrastructure or teaching materials will have impact in raising the standard of education.

6.11 Water Supply:

Supply against demand for safe water is quite low for both urban and rural areas. It is about 40% for rural areas and 51% for towns. The giant Makonde Plateau Water Supply system is ailing through aging pipes, equipment and a shortage of electricity. So there is little hope of raising the supply of safe water unless new investment in terms of pipes and equipment for existing piped systems and pumping equipment for deep holes and shallow wells is forthcoming. Better still investment in the development of new water systems to supplement existing' systems would do a lot of good.

Shallow wells lend themselves very well for assistance even by the smaller investor.

Sanitation and sewerage is critical in urban areas because of overcrowding. A look at all Mtwara towns would reveal that all are in need of investment in the field of planned central disposal of water run off and domestic sewerage.

6.12 Environmental Protection:

Like elsewhere in Tanzania the forest resources of Mtwara region are taking a beating from demand for fuel by an increasing population. Given that Mtwara even by Tanzania standards is one of the more heavily populated regions, this pressure on the forests is more than normally damaging. Investment in afforestation is the most feasible alternative to the real threat of desertification. Increasing the access to electricity by the population can relieve some pressure on the forests. With regard to dynamite fishing damage to the coral reefs, a vigorous law enforcement regime is

the only answer, tempered by public education backed by patrol boats.

6.13 Women Development:

Though a start has been made further efforts are called for to increase awareness among the region's women population regarding gender issues and poverty alleviation. This can only be done by investment in more women groups to reach more women.

The use of income generation as a motivation tool means further and more loans and training to women.

6.14 Tourism and Wildlife:

For optimum effect tourism and wildlife development go hand in hand. Investment in wildlife protection benefits the tourism industry. On the other hand a booming tourist trade is ample justification for wildlife protection. Mtwara region has the attractions of two wildlife rich game reserves, virgin beaches on a 125 km. coast line, scenic Msimbati bay and the Mikindani historical monuments. But it needs investment in hotel accommodation, transport and access roads of acceptable standard. Cultural Tourism is another potential area for investment.

ANNEX A

MTWARA REGION IN A NUTSHELL

1.0 GENERAL:

1.1 Location:

Southern most part of Tanzania between longitudes 38° and 40° 30" east Greenwich, latitudes 10° 05" and 11° 25" south of the Equator.

1.2 Land Frontiers:

North - Lindi Region
East - Indian Ocean
South - Mozambique
West - Ruvuma Region

1.3 Land Area:

Land area 16,720 sq. kms. or 1.9% of Tanzania Mainland.
Smallest region of Tanzania Mainland after Kilimanjaro.
Some minor lakes.

1.4 Administrative Units:

- 5 districts of Mtwara/Mikindani Urban, Mtwara Rural, Masasi, Newala, Tandahimba.
- 21 divisions
- 98 wards
- 554 villages.

1.5 **Population:**

(a) **Population 1988 Census**

Total	=	875,977
Sex ratio	=	91.9
Growth rate	=	1.4%
Population density	=	52.4 per sq. km.
Average household size	=	4.4
Net lifetime Migration	=	-98,689
Urbanization	=	14.3%

(b) **Population Projections**

	<u>1996 A.D.</u>	<u>2000 A.D.</u>
Total =	1,005,405	1,078,848
Density =	60.1/km ²	64.5/km ²

(c) **Other Censuses**

1978	-	Total Population:	771,818
1967	-	Total Population:	621,293

1.6 **Ethnicity:**

Bantu groups indigenous to area:

Makonde	=	Newala, Tandahimba, Masasi and Mtwara Rural.
Makua	=	Masasi and Mtwara Rural.
Yao	=	Masasi.

1.7 **Climate:**

Rainfall November/December to April/May. Single peaked in January. 830 mm. to 1120 mm per annum rising with elevation. Temperatures moderated by Indian Ocean. High of 27°C at Coast in December down to 23°C in July.

1.8 **Agro-Ecological Zones:**

Zone I: South half of Mtwara Rural and South-East of Newala

1000 mm rainfall. Monomodal. 6 months growing season. Low altitude, Soils of low fertility.

Zone II: North half of Mtwara Rural

600 mm. rainfall. Monomodal. 6 months growing season. Mid altitude. Soils of low fertility but with medium moisture retaining capacity.

Zone III: The Whole of Masasi (except northern part) North and West parts of Newala

600 mm to 1000 mm. rainfall. Monomodal. 5 months growing season. Low altitude. Soils of low fertility.

Zone IV: The South - East of Mtwara Rural

Over 600 mm rainfall. Bimodal. 7 months growing season. Low altitude. Soils of high fertility and alluvial origin.

2.0 **ECONOMIC INFRASTRUCTURE:**

2.1 **Roads:**

- = 5,596 kms: 135 kms. tarmac, 60 kms gravel and 5401 kms earth
- = Road density: 0.335 km/km².
- = Seasonal.

2.2 **Airservices:**

- = Major airport at Mtwara capable Boeing 737 commercial traffic.
- = One other airport at Masasi and an airstrip at Newala.

2.3 **Marine Transport:**

- = One major port with deep water berths, capable of 400,000 tons per year.
- = Regular boat services to Dar-es-Salaam of doubtful reliability.

2.4 **Electricity (1988):**

- Urban areas: Coverage 18,170 people of 14.5% of urban population.
- Rural areas: Coverage 3,745 people or 0.5% of rural population.

3.0 **BASIC SOCIAL FACILITIES**

3.1 **Health 1996**

Hospital:	3 public 1 Private Total 4
Health Centres:	12 public 2 private Total 14
Dispensaries:	108 public 18 private Total 126.
MCH Clinics:	133 all public.

3.2 **Education (1996):**

Pre-Schools Number:	117 all private
Enrolment:	2,922 boys
	2,996 girls
	5,918 total.

Primary Schools Number:	493
Enrolment:	141,167

Secondary Schools Number:	13
Enrolment: I-IV:	4,143
V-VI:	162

3.3. **Water:**

(a) **Rural Water Supplies**

	Working	Not working	Total
Piped Systems	4	16	20
Makonde Plateau			
System for Newala	40%	60%	100%
and Tandahimba.			
Bore holes	19	26	45
Shallow Wells	621	284	905
Dams	4	2	6

(b) **Urban Water Supplies**

Bore holes	14	-	14
------------	----	---	----

Shallow Wells	50	-	50
Springs	3		-

Dams	1	-	3
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1

4.0 **PRODUCTIVE SECTOR FACILITIES**

4.1 **Agriculture (1996)**

600,000 ha. arable land

270,300 ha. under cultivation.

4.2 **Livestock**

a) **Livestock Units (1994)**

Cattle	=	19,700
goats/sheep	=	164,000
Pigs	=	6,000
Poultry	=	3.2 million

b) **Livestock facilities (1985)**

=	30 dips
=	20 crushes
=	1 livestock research centre

5.0 **SELECTED SOCIAL/ECONOMIC/INDICATORS (1996)**

5.1 **Education (Primary)**

Population	2,039
Pupils per 1,000 population	140
Pupils per school	286
Pupils per classroom	48
Pupils per teacher	35
Pupils per stream	33

% shortage of teacher to requirements 13

% shortage of teacher homes to requirements 87

% shortage of school toilets to requirements 91

	% shortage of classrooms to requirements	68
5.2	Education (Secondary)	
	Population per school	76,256
	Pupils per 10,000 people	
	"O" level	42.0
	"A" level	1.6
	Pupils per teacher	
	Public schools	16
	Private schools	29
5.3	Adult literacy	
	1967	28%
	1978	51.4%
	1988	57.1%
5.4	Health	
	a) Facilities	
	Population per hospital	251,351
	Population per dispensary	7,979
	Population per hospital bed	690
	Population per facility	6,982
	Facilities per 10,000 people	1.7
	b) Services	
	< 1 Child Immunisation Coverage	
	BCG =	88.3%
	DTP 3 =	82.2%
	Polio 3 =	83.1%
	Measles =	83.5%
	< 5 Child Immunisation Coverage:	68.2%
	Two or more T.T. vaccinations for women	39.8%

c)	Basic Indicators	
	Infant Mortality Rate (IMR)	
	1978	161
	1988	138
	1995 (Est)	119
	1988 IMR	
	Rural	143
	Urban	108
	Male	141
	Female	134
	Underfive Mortality Rate (U5MR)	
	1978	269
	1988	233
	1995 (Est)	202
	1988 U5MR	
	Rural	241
	Urban	180
	Male	238
	Female	227
	Maternal Mortality Rate (MMR)	
	1992	264
	1993	212
	1994	161
	1995	252
	Life Expectancy	
	1978 male	40 years
	1978 female	46 years
	1988 male	45 years
	1988 female	48 years

Acquired Immunity Defficiency Syndrom (AIDS)

Rate of AIDS per 100,000 population = 242

5.5 **Water**

Supply of safe water against demand:

Rural areas

Mtwara Rural district	44%
Masasi district	41%
Newala/Tandahimba district	40%

Urban areas

Mtwara town	56%
Mikindani town	27%
Masasi town	45%
Newala town	25%

Regional Total **49%**

5.6 **Sanitation (1988)**

Population covered with toilet facilities:

Rural Areas	=	88.1%
Urban Areas	=	94.4%
Regional average	=	89.0%

5.7 **Regional Economy**

a) Regional GDP at current Prices (Millions)

	Tshs.	US\$
1980	1,099	134
1985	2,890	175
1990	22,975	117
1994	62,491	113

b) Regional GDP per Capita (Current Prices)

	Tshs.	US\$
1980	1,385	168
1985	3,397	206

1990	24,481	124
1994	59,533	108

6.0 **OTHER ISSUES**

a) Women Income Generation/Gender Issue Groups

Groups	459
Members	6,452

b) Youth economic groups

Groups	94
--------	----

c) Tourist attractions

- = Msanjesi Game Reserve
- = Lukwika/Lumesule Game Reserve
- = Ruvuma River
- = 125 kms. coast line
- = Msimbati bay
- = Mikindani Historical Monuments.

ANNEX B

MTWARA/MIKINDANI DISTRICT SUMMARY (1996)

1.0 GENERAL:

1.1 Location/Borders

An eastern enclave on Indian Ocean Coast.
North and East - Indian Ocean
West, South, North - Mtwara Rural.

1.2 Land Area

Land = 163 sq. kms.
= No large water body.
= 1.0% regional land area.

1.3 Administrative Units

Division = 2
Wards = 13
Villages = 6

1.4 Population

(a) Population 1988 Census

Total = 75,857
Sex Ratio = 103.8
Growth rate = See Mtwara Rural
Population density = 745.1/km²
% Urban Population = 87.6

Average household size:

Urban = 4.2
Rural = 4.5
District = 4.3

(b) **Population Projections**

	<u>1996 A.D.</u>	<u>2000 A.D.</u>
Total	103,815	121,449
Density	636.9/Km ²	745.1/km ²

(c) **Other Census**

	<u>1967</u>	<u>1978</u>
Total Population	=	48,491
Growth Rate 1967/78	(See Mtwara Rural)	
Sex Ratio	=	102.8
% Urban Population	=	100

1.5 **Ethnicity (indigenous)**

Bantu mainly but mixed including Makonde, Makua and Yao.

2.0 **ECONOMIC INFRASTRUCTURE:**

(a) **Roads**

See Mtwara Rural District.

(b) **Marine/Air Transport Services**

One major Marine port
One major Air port
One minor port at Mikindani

(c) **Electricity (1988)**

Access to Electricity:
Households = 21.7%
Population = 23.3%

3.0 **BASIC SOCIAL FACILITIES:**

3.1 **Health**

Hospitals	=	1
Health Centres	=	Nil
Dispensaries	=	17
MCH Clinics	=	11

3.2 **Education**

Pre-Schools		
Number	=	10
Total emolment	=	467
Primary Schools		
Number	=	19
Total emolment	=	10,461

3.3 **Water**

Urban Water Supplies	
9 deep wells	
1 spring.	

4.0 **SELECTED SOCIAL/ECONOMIC INDICATORS**

4.1 **Education (Primary)**

Population per school	:	5,464
Pupils per 1000 population	:	101
Pupils per school	:	551
Pupils per classroom	:	64
Pupils per stream	:	43
Pupils per teacher	:	31
% Surplus of teachers to requirements:		6
% Shortage of teacher houses to requirements:		90
% Shortage of classrooms to requirements:		28

4.2 **Health**

(a)	Facilities		
	Population per dispensary		6,107
	Population per facility		5,768
	Facilities per 10,000 people		1.7

(b)	Services		
	Under One Children Immunisation Coverage		
	BCG	=	76.6%
	DPT3	=	69.3%
	Polio 3	=	70.0%
	Measles	=	71.6%
	Under Five Children Immunisation Coverage		= 52.7%
	Two or more T.T. Vaccinations for Women		= 24.4%

4.3 **Water**

	Supply of water against demand		
	Mtwara town	=	56%
	Mikindani town	=	27%

4.4. **Sanitation**

	Population Covered by Toilet Facilities (1988)		
	Rural areas	=	84.2%
	Urban areas	=	92.3%
	District average	=	91.3%

5.0 **OTHER ISSUES:**

(a)	Women Groups		
	Number	=	113
	Members	=	1,453

(b)	Youth Groups		
	Number	=	14

(c) **Tourist Attractions**

- = Msimbati bay
- = Mikindani Historical Monuments
- = Coast Line.

ANNEX C

MTWARA RURAL DISTRICT SUMMARY (1996)

1.0 GENERAL

1.1 Location/borders

Eastern part of the region

North - Lindi region

East - Indian Ocean

- Mtwara/Mikindani district

South - Ruvuma River/Mozambique

West - Newala district.

1.2 Land Area

Land = 3,597 sq.kms.

= No large water body

= 21.5% regional land area.

1.3 Administrative Units

Divisions = 6

Wards = 17

Villages = 101

1.4 Population

(a) Population 1988 Census

Total = 168,189

Sex Ratio = 91.4

Growth Rate = 2.4% (includes Mtwara/Mikindani)

Population density = 56.6/km²

% Urban population = 3.9

Average household size

Urban = 4.3

Rural = 4.5

	District	=	4.5
(b)	Population Projections		
		<u>1996 A.D.</u>	<u>2000 A.D</u>
	Total	190.962	203,480
	Density	53.1/km ²	56.6/km ²
(c)	Other Censuses		
		<u>1967</u>	<u>1978</u>
	Total Population	=	144,033
	Growth Rate 67/78 (Includes Mtwara/ Mikindani)	=	2.2%
	Sex Ratio	=	94.8
	% Urban Population	=	0.0%

1.5 Ethnicity (indigenous)

Bantu mainly : Makonde and Makua.

2.0 ECONOMIC INFRASTRUCTURE

- (a) Roads (Includes Mtwara/Mikindani)
 53 kms Tarmac
 20 kms Gravel
 880 kms Earth
 953 kms Total
 Road density - 0.253 km/km².
- (b) Marine/Air Transport Services
 None
- (c) Electricity (1988)
 Access to electricity:
 Households - 0.6%
 Population - 0.6%

3.0 BASIC SOCIAL FACILITIES

3.1 Health

Hospitals	-	Nil
Health Centres	-	4
dispensaries	-	28
MCH clinics	-	33

3.2 Education

Pre-Schools		
Number	-	20
Total enrolment	-	1004
Primary Schools		
number	-	82
total enrolment	-	19,785

3.3. Water

Rural Water Supplies	Working	notworking	Total
Piped Systems	4	16	20
Bore Holes	19	26	45
Shallow wells	206	134	340

4.0 PRODUCTIVE SECTOR FACILITIES

Livestock Units (1985) includes Mtwara/Mikindani

cattle	-	2,820
Goats	-	14,919
Sheep	-	3,382
Pigs	-	151
Poultry	-	106,000

5.0 **SELECTED SOCIAL/ECONOMIC INDICATORS**

5.1 Education (Primary)

Population per school	:	2,329
Pupils per 100 population	:	104
Pupils per school	:	241
Pupils per classroom	:	45
Pupils per stream	:	33
Pupils per teacher	:	35
% shortage of teachers to requirements	:	5
% shortage of teacher houses to requirements	:	90
% shortage of classrooms to requirements:	:	59

5.2 Health

a) Facilities

Population per dispensary:	6,820
Population per facility	5,968
Facilities per 10,000 people	1.7

b) Services

Under one children immunisation coverage

BCG	-	90
DPT3	-	73.1%
PORIO	-	76.2%
Measles	-	71.5%

Under five children Immunization Coverage	56.6%
Two or more T.T. Vaccinations for women	26.2%

5.3 Water

Supply of water against demand	
Mtwara rural district	44%

5.4 Sanitation

Population covered by toilet facilities (1988)

Rural areas	=	77.6%
Urban areas	=	96.4%
District average	=	78.4%

6.0 **OTHER ISSUES**

(a) Women groups

Number	=	52
Members	=	1,225

(b) Youth groups

Number	=	22
--------	---	----

(c) Tourist Attractions

=	Ruvuma River
=	Coast line.

ANNEX D

NEWALA DISTRICT SUMMARY

(Including Tandahimba 1996)

1.0 GENERAL

1.1 Location/Borders

Middle of the region:

North East	-	Lindi Region
North West	-	Masasi District
East	-	Mtwara Rural District
South	-	Ruvuma River/Mozambique
West	-	Masasi District.

1.2 Land Area

Land	=	4,020 sq. kms.
	=	No large water body
	=	24.0% of regional land area.

1.3 Administrative Units

Division	=	6
Wards	=	38
Villages	=	233

1.4 Population

(a) Population 1988 Census

Total	=	301,247
Sex Ratio	=	85.5
Growth Rate	=	1.0%
Population density	=	74.9/km ²

% Urban population = 8.5

Average household size

Urban = 4.4

Rural = 4.5

District = 4.5

(b) **Population Projections**

	<u>1996 A.D.</u>	<u>2000 A.D.</u>
Total	326,207	339,439
Density	81.1/km ²	84.4/km ²

(c) **Other Censuses**

	<u>1967</u>	<u>1978</u>
Total Population	=	307,385
Growth Rate 67/68	=	1.1
Sex Ratio	=	94.8
% Urban Population	=	10.0

1.5 **Ethnicity (indigenous):**

Bantu mainly: Makonde.

2.0 **ECONOMIC INFRASTRUCTURE**

(a) **Roads**

1.5 kms Tarmac

1081 kms Earth

1082.5 kms Total

Road density = 0.269 kms/km²

(b) **Marine/Air Transport Services**

One airstrip.

(c) **Electricity (1988)**

Access to electricity		
Households	=	2.1%
Population	=	2.5%

3.0 **BASIC SOCIAL FACILITIES**

3.1 **Health**

Hospitals	=	1
Health Centres	=	6
Dispensaries	=	39
MCH Clinics	=	46

3.2 **Education**

Pre-Schools		
Number	=	50
Total enrolment	=	2,093

Primary Schools		
Number	=	199
Total enrolment	=	49,348

3.3 **Water**

Both rural and urban areas supplied from electricity powered Makonde Plateau Water Supply system.

4.0 **PRODUCTIVE SECTOR FACILITIES**

Livestock Units (1985)

Cattle	=	2,621
Goats	=	67,947
Sheep	=	2,346
Pigs	=	186

Poultry 1.2 million

5.0 SELECTED SOCIAL/ECONOMIC INDICATORS

5.1 Education (Primary)

Population per school	-	1,639
Pupils per 1,000 population	-	151
Pupils per school	-	248
Pupils per classroom	-	64
Pupils per stream	-	32
Pupils per teacher	-	31

% shortage of teachers to requirement	:4
% shortage teacher houses to requirements	:81
% shortage of classrooms to requirements	:78

5.2 Health

a) Facilities

Population per dispensary	:	8,364
Population per facility	:	7,091
Facilities per 10,000 people	:	1.4

b) Services

Under one children Immunization Coverage

BCG	-	85.6%
DPT3	-	97.0%
Polio3	-	96.2%
Measles		97.2%

Under five children Immunization Coverage - 51.8%

Two or more T.T. vaccination for women -

5
7
.
7
%

5.3	Water		
	Supply of water against demand		
	rural areas	-	40%
	Newala town	-	25%
5.4	Sanitation		
	Population covered by toilet facilities (1988)		
	rural areas	-	92.9%
	urban areas	-	96.4%
	District average		93.2%

6.0 OTHER ISSUES

- a) Women Groups

member	-	228
members	-	1,825

- b) Youth groups

number	-	30
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- c) Tourist Attractions

Ruvuma river

ANNEX E

MASASI DISTRICT SUMMARY

1.0 GENERAL

- 1.1. Location/borders
Western area of the region
North-Lindi region
East-newala district
South-Ruvuma River/Mozambique
West-Ruvuma region
- 1.2 Land Area
Land - 8,940 sq km
- no large water body
- 53.5 of regional land area
- 1.3 Administrative Units
Divisions - 7
Wards - 30
Villages - 214
- 1.4 Population
Population 1988 Census
- | | | |
|--------------------|---|-------------------------|
| Total | - | 330,684 |
| Sex Ratio | | 93.6 |
| Population density | | 46.4 /km ² . |
| % urban population | | 8.0 |
- Average household size
- | | | |
|----------|---|-----|
| Urban | - | 4.2 |
| Rural | - | 4.3 |
| District | - | 4.3 |

b)	Population projections		
		<u>1996 A.D.</u>	<u>2000 A.D.</u>
	Total	384,421	414,480
	Density	43.0 / km ²	46.4/km ²

(c) **Other Censuses**

		<u>1967</u>	<u>1978</u>
	Total Population	=	271,909
	Growth Rate 67/78	=	2.2%
	Sex Ratio	=	95.4
	% Urban Population	=	4.8

1.5 **Ethnicity (indigenous)**

Bantu mainly: Makua and Yao.

2.0 **ECONOMIC INFRASTRUCTURE:**

(a) **Roads**

80 kms Tarmac

40 kms Gravel

3,440 kms Earth

3,560 kms. Total

Road density = 0.398 kms/km²

(b) **Marine/Air Transport Services**

One air port.

(c) **Electricity (1988)**

Access to electricity:

Households = 7.0%

Population = 7.7%

3.0 BASIC SOCIAL FACILITIES:

3.1 Health

Hospitals	=	2
Health Centres	=	4
Dispensaries	=	42
MCH Clinics	=	43

3.2 Education

Pre-Schools		
Number	=	37
Total enrolment	=	2,354

Primary Schools		
Number	=	193
Total enrolment	=	61,573

3.3 Water

(a) Rural Water Supplies

	Working	Not Working	Total
Piped systems	-	-	-
Boreholes	-	-	-
Shallow wells	415	150	565
Dams	-	-	-

(b) Urban Water Supplies (Masasi town)

1 Dam
5 Deep wells
50 Shallow wells.

4.0 **PRODUCTIVE SECTOR FACILITIES**

Livestock Units (1985)

Cattle	=	9,022
Goats	=	4,598
Sheep	=	7,746
Pigs	=	4,252
Poultry	=	1.3 million.

5.0 **SELECTED SOCIAL/ECONOMIC INDICATORS**

5.1 **Education (Primary)**

Population per school:	1,992	
Pupils per 1000 population:	160	
Pupils per school:	319	
Pupils per classroom:	53	
Pupils per stream:	33	
Pupils per teacher:	39	
% Shortage of teachers to requirements:		13
% Shortage of teacher houses to requirements:	92	
% Shortage of classrooms to requirements:	68	

5.2 **Health:**

a) **Facilities**

Population per dispensary:	9,153
Population per facility:	8,009
Facility per 10,000 people:	1.2

(b) **Services**

Under One Children Immunisation Coverage

BCG	=	91.6%
DPT3	=	78.0%
Polio 3	=	80.0%
Measles	=	81.2%

Under Five Children Immunisation Coverage = 90.5%
Two or More T.T. Vaccinations for Women = 35.7%

5.3 **Water:**

Supply of water against demand.

Rural areas: 41%

Masasi town: 45%

5.4 **Sanitation:**

Population Coverage by toilet facilities (1988)

Rural areas = 89.5%

Urban areas = 96.9%

District average = 90.1%

6.0 **OTHER ISSUES:**

(a) Women groups

Number = 66

Members = 1,949

(b) Youth groups

Number = 28

(c) Tourist Attractions

= Msanje Game Reserve

= Lukwika/Lumesule Game Reserve

= Ruvuma river.

ANNEX H

1.0 GENERAL INFORMATION ABOUT TANZANIA

Location: (29⁰E-41⁰; 1⁰S - 12⁰S)

Land Frontiers:

To the North: Kenya and Uganda
To West: Burundi, Rwanda and Zaire
To South: Zambia, Malawi and Mozambique
To East: Indian Ocean

AREA OF MAINLAND

Land area 881,289 Sq.Km.
Water area (Inland) 61,495 Sq.Km.
Tanzania area 942,784 Sq.Km.

TANZANIA MAINLAND AREA BY REGIONS (SQ KM)

Total	942,784		
Arusha	84,567	Morogoro	70,799
Coast	32,407	Mwanza	35,248
Dodoma	41,311	Lindi	66,046
Iringa	58,936	D'Salaam	1,393
Kigoma	45,066	Rukwa	75,240
Kagera	39,627	Ruvuma	66,477
Kilimanjaro	13,309	Shinyanga	50,781
Mara	30,150	Singida	49,341
Mbeya	62,420	Tabora	76,151

Mtwara 16,707 Tanga 26,808

Population

TOTAL POPULATION AND LIFE EXPECTANCY FOR TANZANIA - BY REGIONS, 1967, 1978, 1988, 1996:

REGION	TOTAL POPULATION				LIFE EXP. 1988	
	1967 (No.)	1978 (No.)	1988 ('000)	1996** ('000)	M Yrs	W Yrs
Dodoma	709,380	972,005	1,234.9	1,472.5	57	58
Arusha	610,474	926,223	1,348.4	1,784.0	46	51
Kilimanjaro	652,722	902,437	1,106.0	1,703.5	50	50
Tanga	771,060	1,037,767	1,307.3	1,521.8	45	47
Morogoro	682,700	939,264	1,254.0	1,519.4	44	47
Coast	428,041	516,586	636.5	740.9	44	45
Dar es Salaam	356,286	843,090	1,357.6	1,945.7	47	49
Lindi	419,853	527,624	645.0	744.8	57	62
Mtwara	621,293	771,818	887.4	976.7	46	48
Ruvuma	395,447	561,575	781.4	1,001.3	46	48
Iringa	689,905	925,044	1,206.0	1,472.9	45	48
Mbeya	753,765	1,079,864	1,472.7	1,857.0	45	48
Singida	457,938	613,949	789.9	949.4	44	48
Tabora	502,068	817,907	1,033.8	1,232.6	46	50
Rukwa	276,091	451,897	693.3	954.7	44	47
Kigoma	473,443	648,941	857.8	1,047.6	48	50
Shinyanga	899,468	1,323,535	1,768.6	2,194.83	48	51
Kagera	658,712	1,009,767	1,358.8	1,659.5	54	55
Mwanza	1,055,883	1,443,379	1,874.4	2,270.9	53	54
Mara	544,125	723,827	968.6	1,202.0	48	51
Tanzania Mainland	11,958,654	17,036,499	22,582.4	28,252.2	49	51
Zanzibar North	56,360	77,017	97.1	119.0	46	47
Zanzibar South	39,087	51,749	70.2	91.8	45	50
Zanzibar Urban	95,047	142,041	208.4	290.4	46	52
Pemba	72,015	106,290	137.4	172.6	46	48
Pemba	92,306	99,014	127.7	160.4	45	50
Zanzibar Is.	354,815	476,111	640.7	834.2	46	49
Tanzania United Rep.	12,313,469	17,512,610	23,223.1	29,086.4	47	50

Note: The projections are based on the national Population Census of 1988, and the calculated growth rates since the 1978 census.

Source: Bureau of Statistics.

Land Use

	(Ha. millions)	Proportion
Small holder cultivation	4.1	5%
Large scale agriculture	1.1	1%
Grazing Land	35.0	39%
Forest and Wood Lands	44.0	50%
Other Lands	4.4	5%
Total	88.6	100%

Arable Land:

Arable Land (Ha) 3,634,000

Lakes

Victoria	34,850 sq km
Tanganyika	13,350 sq km
Nyasa	5,600 sq km
Rukwa	2,850 sq km
Eyasi	1,050 sq km
Natron	900 sq km
Manyara	320 sq km

Mountain summits (metres above sea level)

Kilimanjaro	5,895
Meru	4,566

Climate

(a) Rainfall

Main rain season on the coast is between March and May and the second season is between October and December. Rainfall is well distributed throughout the year but there is a peak during March and May.

Average maximum temperature (degrees centigrade)

	Jan.	Apr.	July	October
Dar es Salaam	31.6	30.1	28.6	31.3
Arusha	28.9	25.3	21.1	27.3
Dodoma	31.4	28.4	26.0	30.2

Average minimum temperature (degrees centigrade)

	Jan.	Apr.	July	October
Dar es Salaam	23.3	22.9	18.3	31.3
Arusha	12.2	16.9	12.6	27.3
Dodoma	19.2	13.5	16.2	30.2

Gross Domestic Product at factor cost (billion Shs.) 1992.

At current price	688.0
At constant prices	32.2
GDP growth rate at 1976 prices 1985-92	3.69%
Per capita	27,355
At current price	27,355
At constant price	1,280

1.2 SOCIAL SERVICES

HEALTH FACILITIES

YEAR	HOSPITALS	RHC	DISPENSARIES
1960	98	22	975
1980	149	239	2,600
1990	173	276	3,014

Education: Enrollment rates 1995 compared with other East Africa countries

COUNTRY	GROSS ENROLLMENT	
	PRIMARY	SECONDARY
KENYA	94	28
UGANDA	76	20
TANZANIA	67	13

NATIONAL PARKS

National Parks (area in sq km)

PARK	LOCATION AND PARTICULARS
<p>(i) SERENGETI NATIONAL PARK</p>	<p>LOCATION: At the border of Arusha & Mara Region, about 32 km from Arusha town</p> <p>AREA SIZE: 14,763 square km. It is the largest and oldest Park in Tanzania having been established under the British Colony in 1951. It contains the greatest and most spectacular concentration of plain animals left any where in Africa.</p> <p>MAJOR ATTRACTIONS: Wildebeest about 1.7 million, Lions 3,000. About 35 species of animals and 500 species of birds, Buffalos, Chetah, Leopards etc.</p>
<p>(ii) LAKE MANYARA NATIONAL PARK</p>	<p>LOCATION: Some 125 Kilometres South West of Arusha town. It was officially established and gazzetted as a National Park in 1960.</p> <p>AREA: Lake Manyara National Park covers a total area of 320 square kilometres, 230 kilometres constituting Lake Manyara itself.</p> <p>MAJOR ATTRACTIONS: The Rift Valley edge on the West with the vast lake underneath. Natural forest with many natural rivers and springs. Tree-climbing lions, various species of animals plus about 360 species of birds, Elephants, Hippos, Leopards, Baboons etc.</p>
<p>(iii) TARANGIRE NATIONAL PARK</p>	<p>LOCATION: South of Arusha town along the Dodoma Highway. It was established in 1970.</p> <p>AREA: Tarangire National Park covers some 2,600 Square kilometres.</p> <p>MAJOR ATTRACTIONS: Tree climbing pythons, zebra, kongoni, elephant, buffalo, waterbuck, gazettes and oryx.</p>

<p>(iv)ARUSHA NATIONAL PARK (MOMELA)</p>	<p><u>LOCATION:</u> The Park is located between Mount Meru and Mount Kilimanjaro. Formally Ngudoto National Park until 1967. Was commissioned as National Park in 1960.</p> <p><u>AREA:</u> The park covers some 137 square Kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Ngurdoto Crater, Lake Momella, Mount Meru and the Natural Momela Forests. There are many species of Animals and birds. The most common being African elephant, colobus and velvet monkey, hippo, duicker and a number of bird species.</p>
<p>(v)KILIMANJARO NATIONAL PARK</p>	<p><u>LOCATION:</u> The Kilimanjaro National Park which derived its name from Mount Kilimanjaro is part and parcel of the Mountain. It was established in 1973.</p> <p><u>AREA:</u> The boundaries of the Park include the natural forest under and around the Mountain. It covers some 760 square Kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Mount Kilimanjaro with its three peaks Shira (3,962 metres) Mawenzi and Kibo (5,149 and 5,895 metres respectively) above sea level form the largest part of the Park's attraction. There are also various species of Animals, plants and birds.</p>
<p>(vi)MIKUMI NATIONAL PARK</p>	<p><u>LOCATION:</u> It is situated some 216 km along the Dar - Zambia Highway. It was established in 1964.</p> <p><u>AREA:</u> Mikumi National Park which borders with Africa's largest Game reserve, the Selous is the third biggest National Park after Serengeti and Ruaha National Park and covers 3230 sq km.</p> <p><u>MAJOR ATTRACTIONS:</u> The plains surrounding River Mkata which are rich in flora and fauna are by themselves a wonderful scenarial. The common animals found in the park include zebra, buffalos, elephants, Hippos, lions and the Impalas.</p>

<p>(vii)UDZUNGWA NATIONAL PARK</p>	<p><u>LOCATION:</u> This Park is located South of Mikumi National Park along the Mikumi-Ifakara Highway. The Park was established in 1992.</p> <p><u>AREA:</u> The Park which derives its identity from the famous Udzungwa mountain has an area of 1990 square kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Its unique species of Fauna and Flora which called for its declaration as a National Park. The Udzungwa Mountains and Forests are a good source of Rivers and springs, one of them being the famous Kilombero River, which constitutes the essential part of the multi-hactoral its total Kilombero Sugar Plantations. Additional attractions: Lions, Buffalos, Giraffes etc.</p>
<p>(viii)RUAHA NATIONAL PARK</p>	<p><u>LOCATION:</u> The name Ruaha, is derived from the Hehe word "Luvaha" meaning a river.</p> <p><u>AREA:</u> Park covers an area of 12,950 square kilometres, the second largest in the country. Ruaha National Park which was established in 1964 is situated some 130 km west of Iringa town.</p> <p><u>MAJOR ATTRACTIONS:</u> The Ruaha River by itself is an attraction, leave alone some hundreds of species of Flora which sorround it. Besides there are a lot of Crocodiles, Hippos, Elephants etc.</p>
<p>(ix) KATAVI NATIONAL PARK*</p>	<p><u>LOCATION:</u> It is located in Mpanda District, Rukwa Region. It was established in 1974.</p> <p><u>AREA:</u> The Katavi National Park which is about 40 kilometres South -East of Mpanda town covers an area of 2,253 square kilometres.</p> <p><u>MAJOR ATTRACTION:</u> Lakes Chala and Chada plus other springs and rivers whose waters feed into lake Rukwa constitute a unique environment. Animals in the park include zebra, sable, eland, leopard, buffalo, lion, antelops etc. Animals like, Buffalos, Elephants, Zebras and BushBucks are a good attraction to visitors.</p>

<p>(x)MAHALE NATIONAL PARK</p>	<p><u>LOCATION</u> Located some 120 south of Kigoma town along the shores of lake Tanganyika, Mahale National Park is yet another attraction in Tanzania's Natural Heritages.</p> <p><u>AREA:</u> Mahale nation Park has about 1,613 square kilometres and was gazzetted in 1948.</p> <p><u>MAJOR ATTRACTIONS:</u>Chimpanzees are a major attraction. Also there is a good number of monkey species including red colobus monkeys. It is estimated that there are 700 Chimpanzees in Mahale and 15 species of monkeys whose habits tally with those of the Chimps.</p>
<p>(xi) GOMBE NATIONAL PARK</p>	<p><u>LOCATION</u> Gombe National Park is situated 16 km north of Kigoma town in western Tanzania. It is a narrow strip of mountainous country bounded in the east by the eastern rift valley escarpment and by lake Tanganyika in the west</p> <p><u>AREA:</u> Covering some 52 square kilometres. National park, was commssioned in 1968.</p> <p><u>MAJOR ATTRACTIONS:</u>Ever green forests and primates. These include Chimpanzees, Baboons, blue monkey red tails and red colobus.</p>
<p>(xii) RUBONDO NATIONAL PARK</p>	<p><u>LOCATION:</u> The Park which form park of a number of archipelagos in Lake Victoria covers some 240 square Kilometres. it was established in 1977</p> <p><u>MAJOR ATTRACTIONS:</u> The Chimpanzees. But other attractions include, Hippos, Giraffes, and Elephants. the absence of man-eaters such as Lions & Leopards ensures a safe walk in Rubondo Park even some fishing activities with boats under Park wardens are carried out.</p>
<p>(xiii) NGORONGORO</p>	<p><u>LOCATION:</u> It is situated west of Arusha town some 230 kms.</p> <p><u>AREA:</u> The park covers 8320 sq km</p> <p><u>MAJOR ATTRACTION:</u> Wildebeest, Lions, Buffalos, Leopards, Variety of birds species, Giraffes, elephants etc</p>

