



THE UNITED REPUBLIC OF TANZANIA

MOROGORO REGION SOCIO-ECONOMIC PROFILE



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

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FOREWORD

1. *As we approach the 21st Century the problems facing rural areas in developing countries like Tanzania are numerous and formidable. Social and Economic services are deteriorating and proving to be unsustainable; school enrollment rates are declining; food situation is precarious; infant and maternal mortality rates continue to be high; unemployment is on the rise triggering off mass migration of youth from the rural areas into already overcrowded urban centres; in Morogoro 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 Morogoro Region Socio-Economic Profile. I would also like to thank both the Planning Commission and Morogoro 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

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SECTION I

1.0 LAND, PEOPLE AND CLIMATE

1.1 Geographical Location:

Morogoro Region is one of the 20 Regions in Tanzania Mainland. The Region lies between latitude 5° 58" and 10° 0" to the South of the Equator and longitude 35° 25" and 35° 30" to the East. It is bordered by seven other Regions. Arusha and Tanga regions to the North, the Coast Region to the East, Dodoma and Iringa to the West, and Ruvuma and Lindi to the South.

1.2 Land Area:

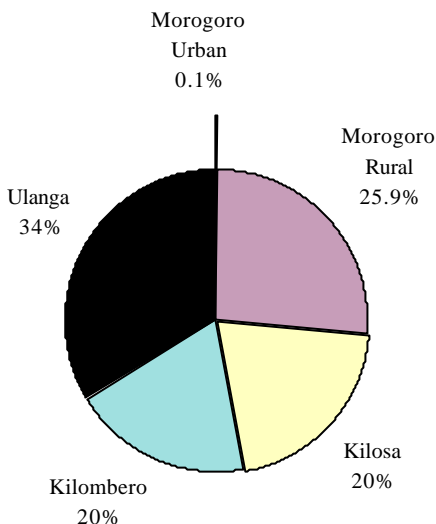
Morogoro Region occupies a total of 72,939 square kilometres which is approximately 8.2% of the total area of Tanzania mainland. It is the third largest region in the country after Arusha and Tabora Regions.

TABLE I-1: AREA AND ADMINISTRATIVE STRUCTURE OF MOROGORO REGION.

District	Area Km ²	Number of Divisions	Number of Wards	Number of Villages
Morogoro Urban	260	1	19	-
Morogoro Rural	19,056	10	42	214
Kilosa	14,918	9	36	132
Kilombero	14,246	5	19	46
Ulanga	24,460	5	24	65
Total	72,939	30	140	457

Source: Regional Planning Department, Morogoro region, 1997.

Fig. 1: Distribution of land area in Km² by districts in Morogoro region



1.3 Administrative Units

Administratively Morogoro region has five districts. The districts are divided into thirty divisions, these in turn are further sub-divided into 140 wards. There are 457 villages in the region (Table I -1). Ulanga district is the largest, being 33.6 percent of the total regional area, but it is the one with the least number of villages (14.2 per cent of the total). Morogoro rural has the most of the divisions (33%), wards (30%) and villages (47%).

1.4 Ethnic Groups:

The main ethnic groups in Morogoro region are the Waluguru, Wasagara, Wakaguru, Wandamba and the Wapogoro. The

Walugulu dominate in Morogoro rural district, Wasagara/Wakaguru in Kilosa, Wandamba are the majority in Kilombero and Wapogoro in Ulanga district.

1.5 Population Size, Growth and Density

Morogoro had a population of 1,220,564 in 1988 (population census 1988). This was about 5.27 percent of the total Tanzania mainland population of 23,174,443. Table I-2 highlights 1967, 1978 and 1988 population census by district. The table also gives population projections by district up to the year 2000.

Table I-2: POPULATION SIZES, 1967, 1978, 1988 AND POPULATION PROJECTIONS UP TO THE YEAR 2000 BY DISTRICTS, MOROGORO REGION

District	1967	1978	1988	Percent Growth Rate	Population Projections		
					1996	1988	2000
Morogoro (U)	24,999	74,114	117,601	4.6	168,525	184,386	201,740
Morogoro (R)	291,373	337,023	430,202	2.2	512,011	534,788	558,577
Kilosa	193,810	274,220	346,526	2.3	415,663	435,003	455,244
Kilombero	74,222	132,510	187,593	3.4	245,121	262,073	280,197
Ulanga	100,700	113,580	138,642	2.0	162,441	169,004	175,831
Total	685,104	931,447	1,220,564	2.6	1,503,761	1,585,254	1,671,589

Source: 1967, 1978 and 1988 Population Censuses.

Fig. 2: Population sizes, 1967, 1978 and 1988 by districts, Morogoro region

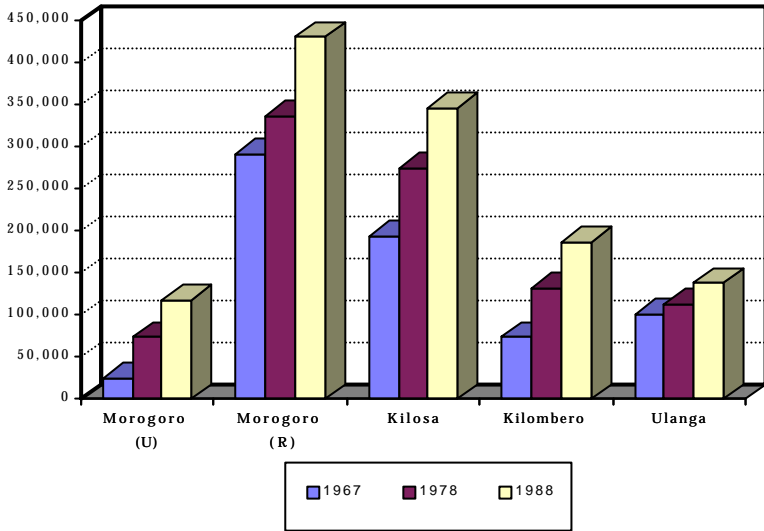


Fig. 3: Population projections 1996, 1988 up to the year 2000 by districts, Morogoro region

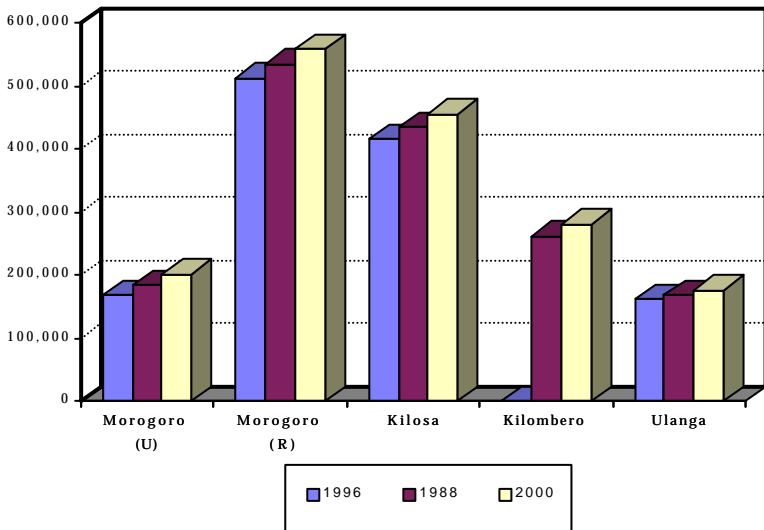


Fig. 3: Percent Growth Rate by districts, Morogoro region

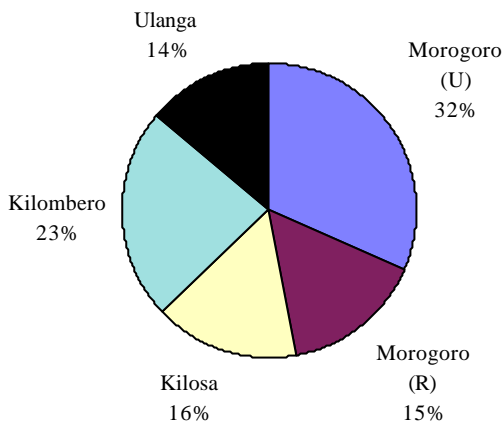


Table I-2, and I-5 show that the region's 1988 population is unevenly distributed, Morogoro rural district being the most populous, accounting for 35.2 percent of the regions population. Kilosa district follows second by having 28.4 percent. Ulanga district is the least populated. It is further observed in Table I-2 that the regions population increased by 44 per cent from 1967 to 1988, and by 23.7 percent from 1978 to 1988. It is projected that by the year 1998 and 2000 the region's population will be 1,585,254 and 1,671,589 respectively. The Morogoro Urban district population is unusually high because of its metropolitan characteristics which attracts many people looking for employment in industries and surrounding sisal estates as well as services, hotels, offices etc.

Table I-3 compares population densities of mainland regions in both 1978 and 1988 population censuses. The region's population density was 13.3 people per sq km in 1978 and increased to 17.3 by 1988. Morogoro region's population density is very low when compared to densely populated

regions such as Mwanza and Kilimanjaro which had 95.4 and 83.7 population densities respectively.

TABLE I-3: POPULATION DENSITY AND PERCENT INCREASE BY REGION, 1978 AND 1988 CENSUSES TANZANIA MAINLAND

Region	Density per Sq Km		% Increase 1978-1988
	1978 Census	1988 Census	
Dar es salaam	553.2	976.9	77
Mwanza	73.3	95.4	31
Kilimanjaro	68.1	83.7	22
Mtwara	46.2	53.2	15
Tanga	38.9	48.1	23
Kagera	35.5	46.6	32
Mara	33.2	43.7	49
Shinyanga	26.1	34.9	34
Dodoma	23.5	30.0	28
Mbeya	17.9	24.5	37
Kigoma	17.5	23.1	32
Iringa	16.2	21.3	31
Coast	15.9	19.6	24
Morogoro	13.3	17.3	30
Arusha	12.4	16.5	29
Singida	11.3	16.0	45
Tabora	10.7	13.6	27
Ruvuma	8.9	12.3	38
Rukwa	8.0	10.1	23
Lindi	6.6	9.8	53
Total	19.8	26.2	32

Source: 1988 National Profile. Analytical Report (1988 census)

Fig. 4: Populatin Density of Morogoro Region compared to the National Population Density per Sq. Km, 1978 and 1988 Censuses.

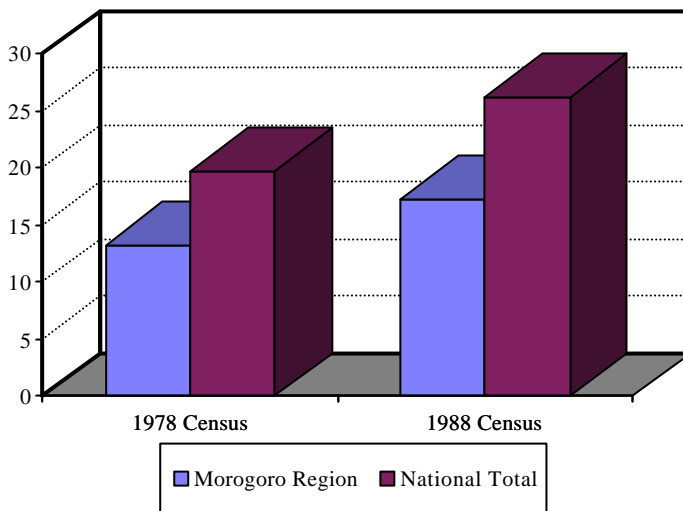


Table I-4: POPULATION DENSITY AND DISTRIBUTION BY DISTRICT, MOROGORO REGION, 1988.

District	Land Area KM ²	1988 Population	Population Density 1988	Population projection 1988	Estimated Pop Density 1988	Population projection 2000	Estimated population Density 2000
Morogoro (U)	260	117,601	452.3	184,386	709.2	201,740	77.6
Morogoro (R)	19,056	430,202	22.6	534,788	28.1	558,577	29.3
Kilosa	14,918	346,526	23.2	435,003	29.2	455,244	30.5
Kilombero	14,245	187,593	13.2	262,073	18.4	280,197	19.7
Ulanga	24,460	138,642	5.7	169,004	6.9	175,831	7.2
Total	72,939	1,220,564	16.7	1,585,254	21.7	1,671,589	22.9

Source: Compiled Data Based on 1988 population Census.

Fig. 5: Population Density and Estimated Population Density by districts, 1988 Morogoro region

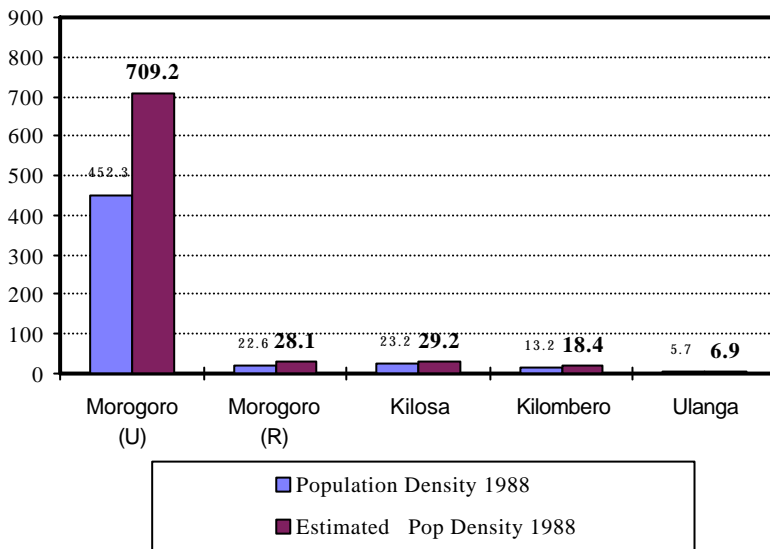


Fig. 6: Population Projections to the year 2000 by districts, Morogoro region

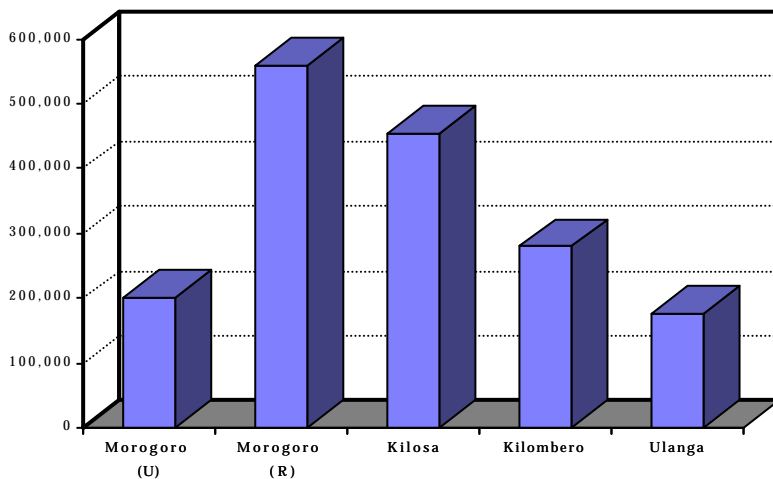


Fig. 7: Estimated Population Density to the year 2000 by districts, Morogoro region

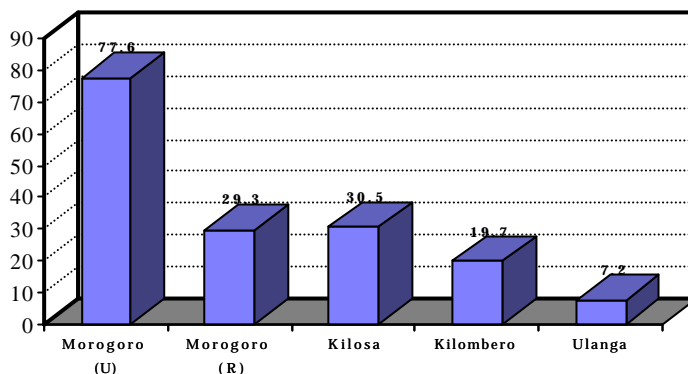


Table I-4 reveals that Kilosa and Morogoro rural districts comparatively are more densely populated than the other two rural districts, and that Ulanga district is the least. These four rural districts do not experience any form of land pressure. The region has plenty of ample land enough to absorb any form of in-migration.

Table I-5: POPULATION OF EACH DISTRICT AS A PERCENTAGE OF THE MOROGORO REGIONAL TOTAL 1967, 1978 AND 1988.

District	1967		1978		1988	
	Population	Percentage	Population	Percentage	Population	Percentage
Morogoro (U)	24,999	3.7	74,114	8	117,601	9.6
Morogoro (R)	291,373	42.5	337,023	36.2	430,202	35.2
Kilosa	193,810	28.3	274,220	29.4	346,526	28.4
Kilombero	74,222	10.8	132,510	14.2	187,593	15.4
Ulanga	100,700	14.7	113,580	12.2	138,642	11.4
Total	685,104	100	931,447	100	1,220,564	100

Source: Compiled data from 1967, 1978 and 1988 Population Census.

Table I-6: POPULATION OF MOROGORO REGION BY DISTRICT, SEX AND URBAN/RURAL FOR 1988.

District	Rural			Urban			Grand Total
	Male	Female	Total	Male	female	Total	
Morogoro (U)	-	-	-	58,450	59,151	117,601	117,601
Morogoro (R)	193,033	215,294	408,327	10,457	11,418	21,875	430,202
Kilosa	142,996	143,626	286,622	29,532	30,372	59,904	346,526
Kilombero	64,752	66,462	131,214	27,116	29,263	56,379	187,593
Ulanga	60,893	64,786	125,679	6,175	6,788	12,963	138,642
Total	461,674	490,168	951,842	131,730	136,992	268,722	1,220,564

Source: 1988 Population Census

Fig. 8: Population distribution of Morogoro region by districts and sex in Rural for 1988

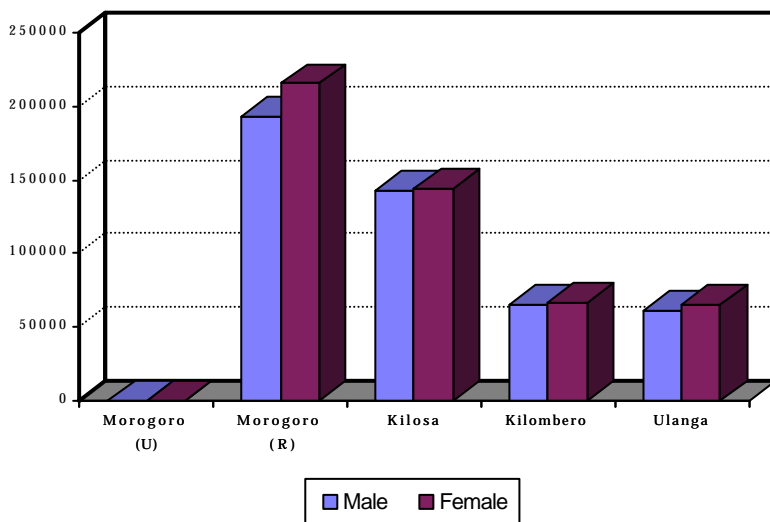


Fig. 9: Population distribution of Morogoro region by districts and sex in Urban for 1988

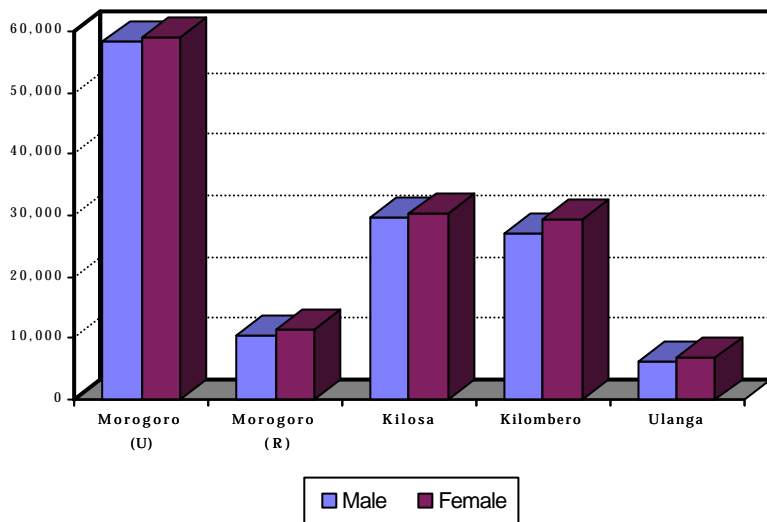


Table I-6 shows the region's population structure by district, sex and rural/urban distribution. There are more residents in rural area (78 percent) than in urban area (22 per cent). However, the proportion between the sexes in both rural and urban areas closely related at the ratio of 51.4: 48.6 female to males respectively.

Table I-7: DISTRICTS POPULATION BY SEX, NUMBER OF HOUSEHOLD, AVERAGE HOUSEHOLD SIZE IN MOROGORO REGION, 1988.

District				Number of Household	Average Household size
	Male	Female	Total		
Morogoro (U)	58,450	59,151	117,601	26,702	4.4
Morogoro (R)	203,490	226,712	430,202	81,893	5.3
Kilosa	172,528	173,998	346,526	63,694	5.4
Kilombero	91,868	95,725	187,593	33,338	5.6
Ulanga	67,068	71,574	138,642	22,078	6.3

Total	593,404	627,160	1,220,564	227,705	5.4
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Source: Morogoro Regional Statistical Abstract 1993.

Table I-7 shows that there were a total of 227,705 households in the region. District household distribution indicates that Morogoro rural district had the highest number of 81,893 households followed by Kilosa district with 63,694. One striking point to note is that there is virtually no difference in household size among the region's rural districts which ranges between 5.3 to 5.6 with the exception of Ulanga district which has an average size of 6.3. Morogoro Urban has the smallest household size of 4.4 which is much below the regional average of 5.4. It is not known with certainty why Ulanga district had such a big size of household.

Table I-8: DISTRICT POPULATION BY AGE GROUPS IN MOROGORO REGION 1988:

Age group	District					Total
	Kilosa	Morogoro Urban	Kilombero	Ulanga	Morogoro Rural	
0-4	53,737	68,062	29,404	22,717	16,179	194,099
5-9	53,212	68,725	29,514	23,063	15,370	189,884
10-14	47,000	55,965	24,568	19,929	14,854	162,316
15-24	64,457	70,593	33,817	24,539	27,313	220,719
25-34	44,333	52,183	25,194	16,582	20,519	158,811
35-44	29,437	37,140	16,048	10,884	11,447	104,956
45-54	21,518	29,178	12,295	6,910	5,897	75,798
55-64	16,070	22,129	9,020	6,819	3,277	57,315
65	16,762	26,227	7,733	7,199	2,745	100,078
Total	346,526	430,202	187,593	138,642	117,601	1,220,564

Source: 1988 Population Census, Regional Profile Morogoro

Fig. 10: Population by Age Groups in Kilosa District, 1988

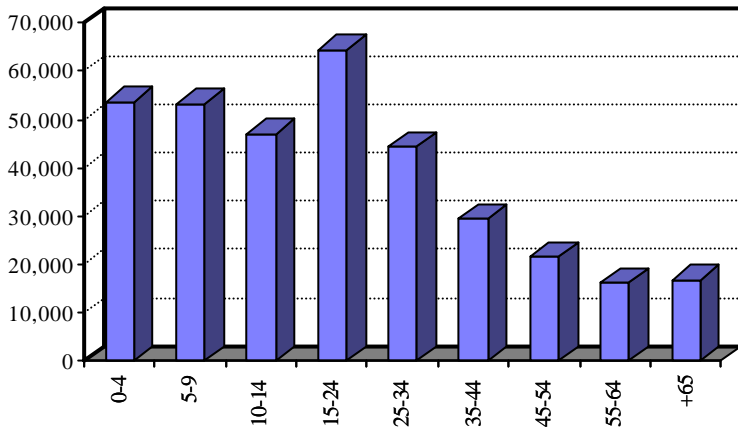


Fig. 11: Population by Age Groups in Morogoro Urban, 1988

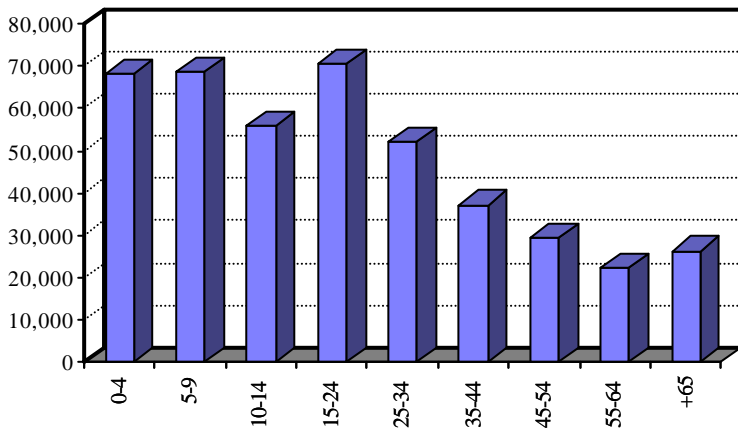


Fig. 12: Population by Age Groups in Kilombero District, 1988

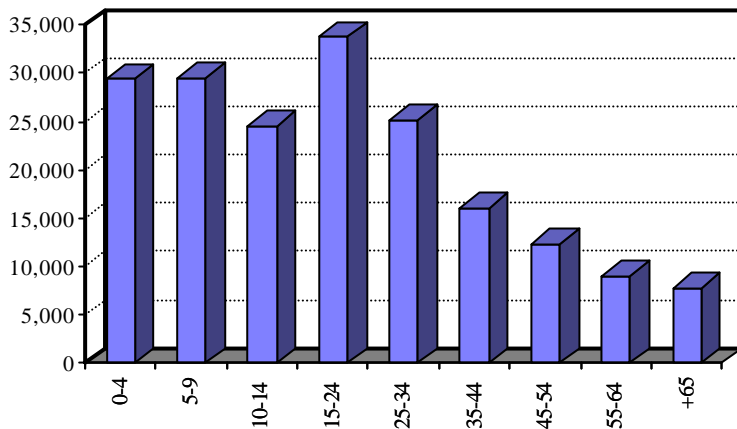


Fig. 13: Population by Age Groups in Ulanga District, 1988

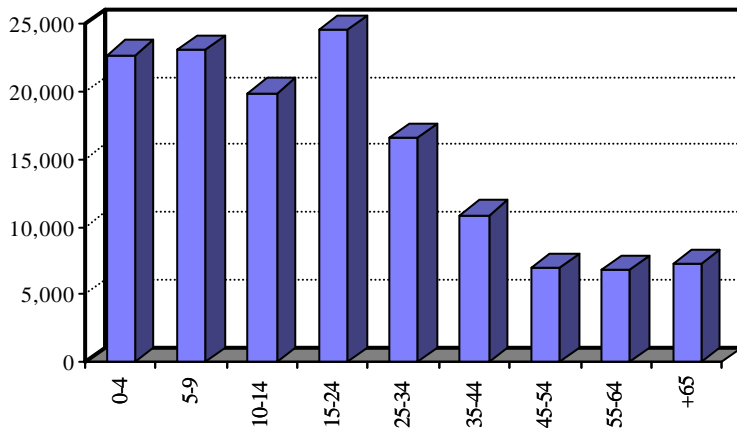


Fig. 14: Population by Age Groups in Morogoro Rural District, 1988

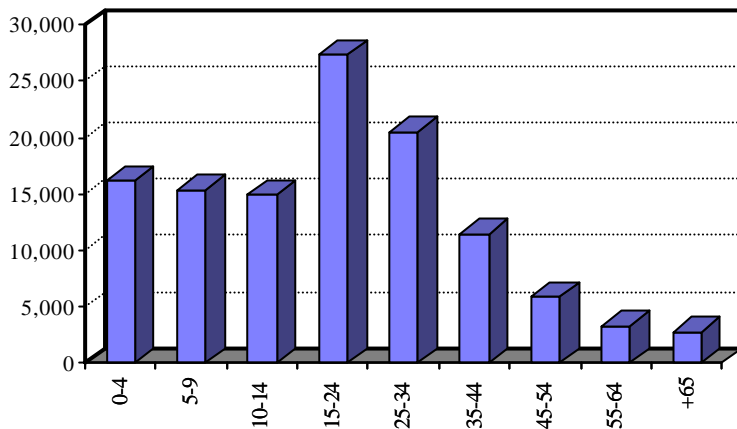


Fig. 15: Total Population by Age Group in Morogoro Region, 1988

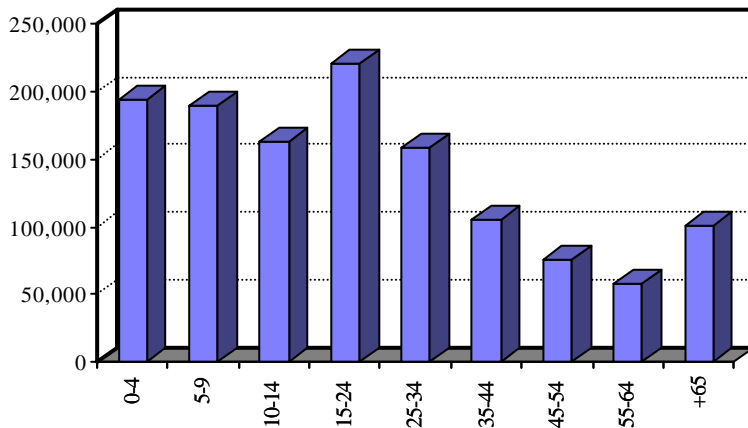


TABLE I-9: PERCENTAGE DISTRIBUTION BY AGE GROUP 1988, MOROGORO REGION.

Age Group (Years)	Total	Percentage
0-4	190,099	15.6
5-14	352,599	28.9
15-44	464,599	38.1
45-64	113,588	9.3
Above 65	100,078	8.1
Total	1,220,564	100.0

Source: Compiled Data: 1988 Population Census, Morogoro Regional

Fig. 16: Total distribution by age group in Morogoro region, 1988

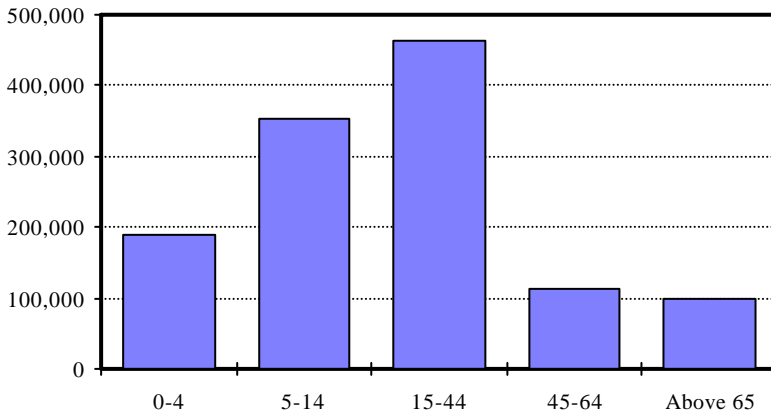


Fig. 17: Population percentage by age group in Morogoro region, 1988

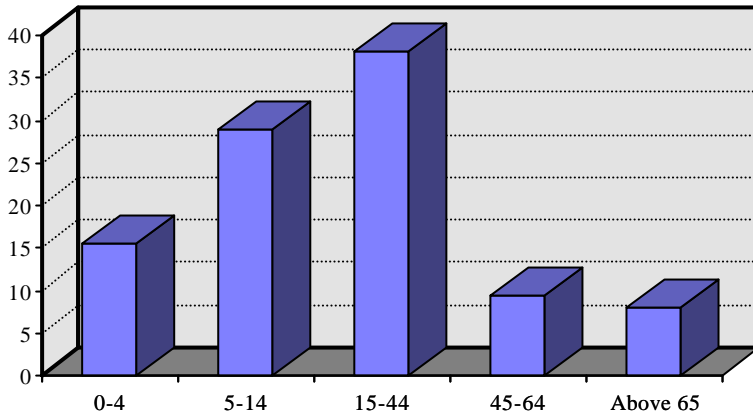


Table I-8 shows the regional population distribution by district and age groups. Table I-9 summarizes the above information in that the regional population reflects youthful characteristics, with the 0-14 years of age group constituting 44.5 percent of the population. This figure compares very well with the national average of 45.7 percent. The 15-64 years age group which is normally depended upon economically forms 47.5 percent of the regional population. This figure is slightly lower than the national figure of 50.0 percent (1988 Population Census, National Profile - The Analytical report). The 65 years and above age group constitutes 8.1 percent while the national average figure is 4.3 percent. It is a serious situation indeed in that 52.6 percent of the regional population depending for its livelihood upon the 47.4 percent of the population. This figure too reflects a regional dependency ratio of 0.9:1.

1.6 Migration:

Population migration is another factor which affects both population growth and density. Natural factors directly related to a changing population are births and deaths. In most cases births bring very substantial changes. It is a common phenomenon in Tanzania that a section of the population migrate for various reasons. Some of them are: search for new farming land, better pasture and water for their livestock and lastly but not least in search for a better life through employment opportunities elsewhere.

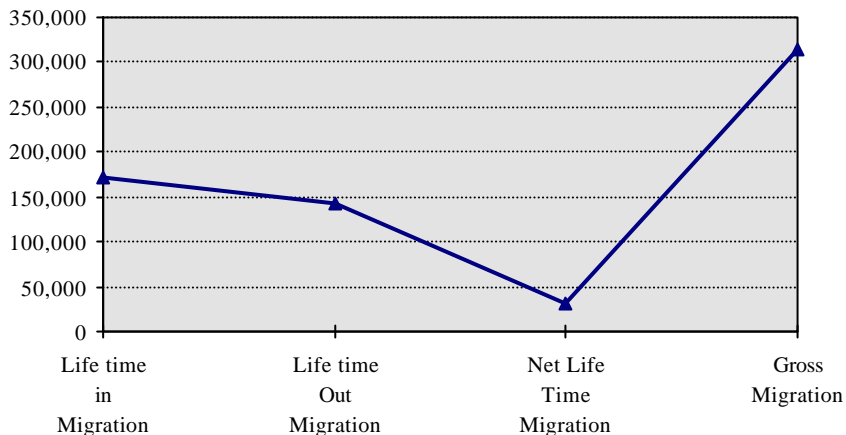
Table I-10 on Lifetime Migration by region, Tanzania (1988 Census), Morogoro region compares with other regions. Data indicate that Morogoro region had lifetime outmigration of 141,956 people while lifetime immigration was 172,393. This means there was a net lifetime in migration of 30,437 people. The positive figure reflects the many opportunities available in the region that attracted more people into the region than out. The population groups that moved in were the pastoralists in search of pasture for their livestock and the job seekers in the then booming industries and farms.

Table I-10: LIFE TIME MIGRATION BY REGION, TANZANIA (1988-CENSUS)

Region	Life time in Migration	Life time Out Migration	Net Life Time Migration	Gross Migration
Dodoma	89,900	190,985	-101,085	280,885
Arusha	218,427	76,703	141,724	295,130
Kilimanjaro	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
Lindi	95,200	145,031	-49,831	240,231
Mtwara	46,299	144,988	-98,689	191,287
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	278,755
Singida	86,651	130,531	-63,880	237,182
Tabora	241,729	175,359	66,370	417,088
Rukwa	87,599	49,294	38,305	136,898
Kigoma	26,795	129,718	-102,923	156,513
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	75,982	115,865	-39,878	191,852
Total	3,025,983	3,106,414	-80,431	6,132,397

Source: 1988 population Census, National Profile Analytical report.

Fig. 18: Life Time Migration in Morogoro Region, 1988 Census



1.7 Employment:

TABLE I-11: NUMBER OF EMPLOYEES IN INDUSTRIES ENGAGING 10 OR MORE PERSONS IN MOROGORO REGION 1987 - 1990.

Industrial Activity	Years			
	1987	1988	1989	1990
Food Products	15,087	16,230	11,573	9,675
Textile and leather	5,092	4,210	4,459	4,348
Wood products	361	388	292	250
Paper print	64	68	265	49
Chemicals	32	24	25	22
Non metallic products	419	298	430	20
Machinery	497	497	520	450
Electricity	374	382	658	829
Total	21,926	22,097	18,222	15,643

Source: Morogoro regional Statistical Abstract 1993.

Fig. 19: Number of employees in food products industries engaging 10 or more persons in Morogoro region 1987 - 1990

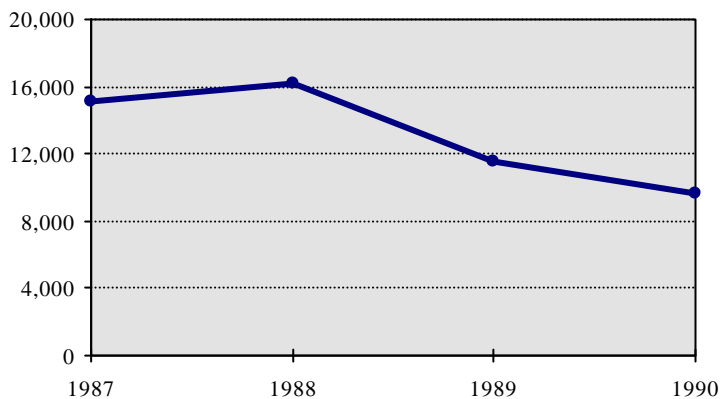


Fig. 20: Number of employees in textile and leather industries engaging 10 or more persons in Morogoro region 1987 - 1990

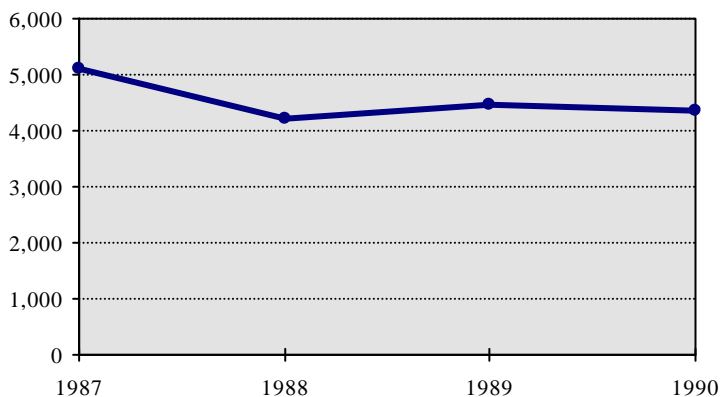


Fig. 21: Number of employees in wood products industries engaging 10 or more persons in Morogoro region 1987 - 1990

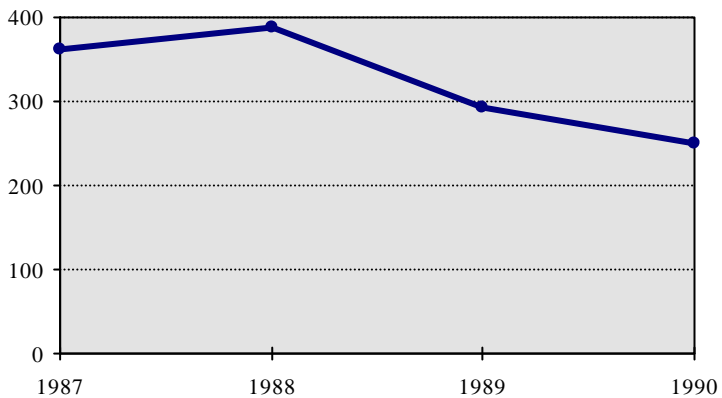


Fig. 22: Number of employees in paper print industries engaging 10 or more persons in Morogoro region 1987 - 1990

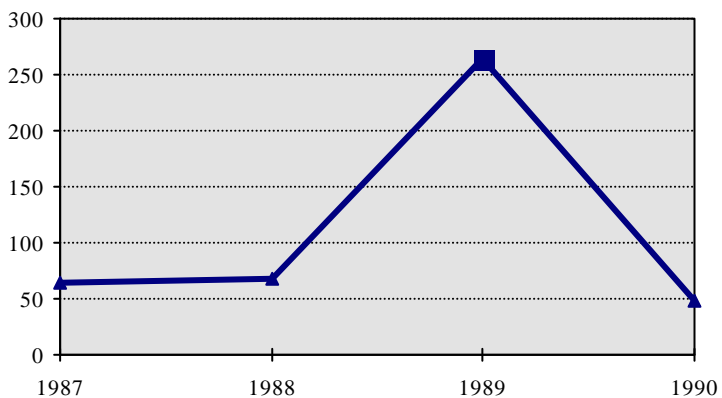


Fig. 23: Number of employees in chemicals industries engaging 10 or more persons in Morogoro region 1987 - 1990

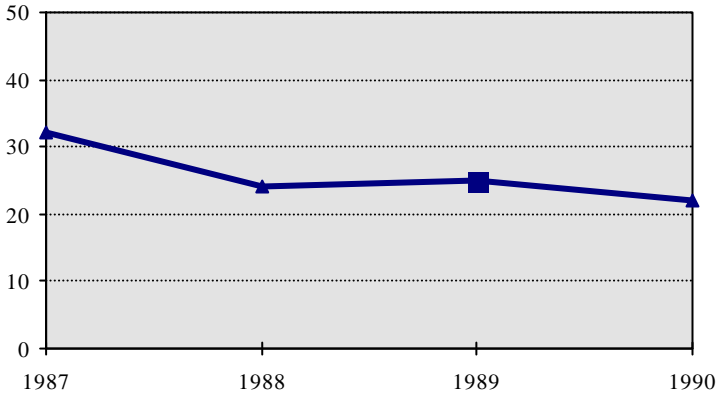
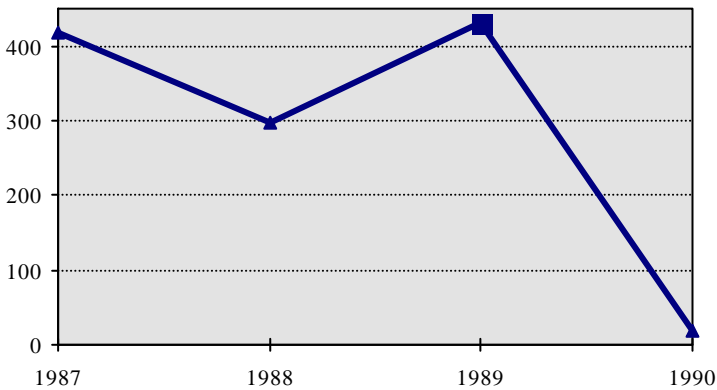


Fig. 24: Number of employees in non metallic products industries engaging 10 or more persons in Morogoro region 1987 - 1990



There were more people employed in industries related to food products followed by those engaged in textile leather products. These were major employers in the years 1987 -1990 employing over 90 per cent of total employees engaged by various industrial activities. The number engaged in these industries however, started to decline in 1989. This was true with most industries in

the country when many employees got retrenched and some factories completely closed down. It is not known when this trend is going to reverse.

Fig. 25: Number of employees in machinery industries engaging 10 or more persons in Morogoro region 1987 - 1990

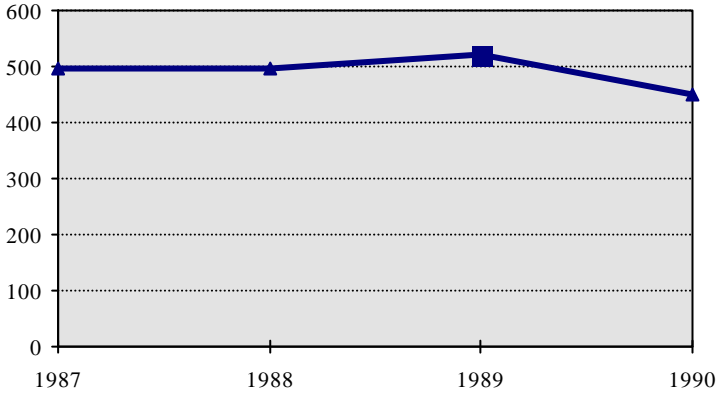
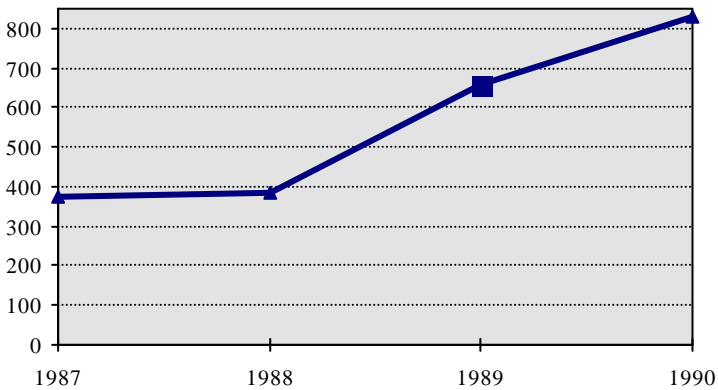


Fig. 26: Number of employees in electricity industries engaging 10 or more persons in Morogoro region 1987 - 1990



1.8 Climate:

The annual rainfall ranges from 600mm in low lands to 1200mm in the highland plateau. However, there are areas which experience exceptional droughts (with less than 600mm of rainfall and these areas are in Gairo and Mamboya divisions in the North of Kilosa District and Ngerengere Division in the East of Morogoro Rural District).

The mean annual temperatures vary with altitude from the valley bottom to the mountain top. The average annual temperature varies between 18⁰C on the mountains to 30⁰C in river valleys. In most parts of the region, the average temperatures are almost uniform at 25⁰C. In general the hot season runs from July to September.

1.9 Agro-ecological Zones:

Zone	Area covered	Crops	Livestock raised
Highlands 600m	Nguru, Mahenge, Rubeho, Udzungwa and the Ubena mountains	Maize, Vegetables, Fruits, Coffee, Cocoa, Citrus	Poultry, Pigs, Goats, Sheep
Plateau 300-600m	Major part of Kilosa District and part of the middle of Morogoro South	Maize, sorghum, sweet potatoes, cotton, sunflower, simsim, citrus, paddy, cassava and banana	Cattle, sheep, chicken
Lowland and River valleys	Kilombero Wami, Mkindo, Ngerengere, Mgeta, Luwegu and Luhomberovalleys	Paddy, maize, sugarcane, bananas, cocoyams, cassava and sweet potatoes.	Mainly poultry

SECTION II

REGIONAL ECONOMY

2.1 Introduction:

The economy of the Region is dominated by agriculture and the allied activities. The major activities include:

- (i) Small Scale farming (food and cash crops production- subsistence farming)
- (ii) Cattle keeping (mainly indigenous livestock)
- (iii) Plantations and estates (sisal, sugar). There is however growth of small capital intensive urban sector whose main activities include:
 - (i) Manufacturing and
 - (ii) Provision of services - offices, hotels, petty trading etc.
- (iv) Traditional fishing is practiced along the Kilombero and Wami rivers as well as Mindu dam.
- (v) Some mining is carried out at Lukande village in Ulanga District and at Matombo in Morogoro rural district. The region is rich in three types of minerals, gemstones; construction minerals (such as sand, gravel and stones) and industrial minerals (including renicull lime stone, mica and graphite).

However, Agriculture is the major economic activity in the Region.

It engages about 80- 90 percent of the region's labour force.

Agriculture involves both small and large scale farmers. Large scale farms are the Kilombero and Mtibwa sugar estates. Sisal estates are large scale paddy farms in Dakawa, Morogoro Rural District, Mngeta in Kilombero District and Kilangali in Kilosa district. Maize and paddy are the major staple food crops. Other food crops in the region include sorghum, sweet potatoes, beans, cassava, millet, groundnuts, tomatoes, fruits and vegetables.

The main cash crops in the Region are cotton, coffee, sisal, onions, oil seeds (such as simsim, sunflower and a some cocoa along the mountain slopes.

2.2 Regional GDP and per Capita GDP:

In Morogoro Region poverty is the major problem which affects the community at large. The poverty indicator is per capita income.

Fig. 27: The GDP at current prices in (T.Shs. millions) of Morogoro region 1980 - 1994

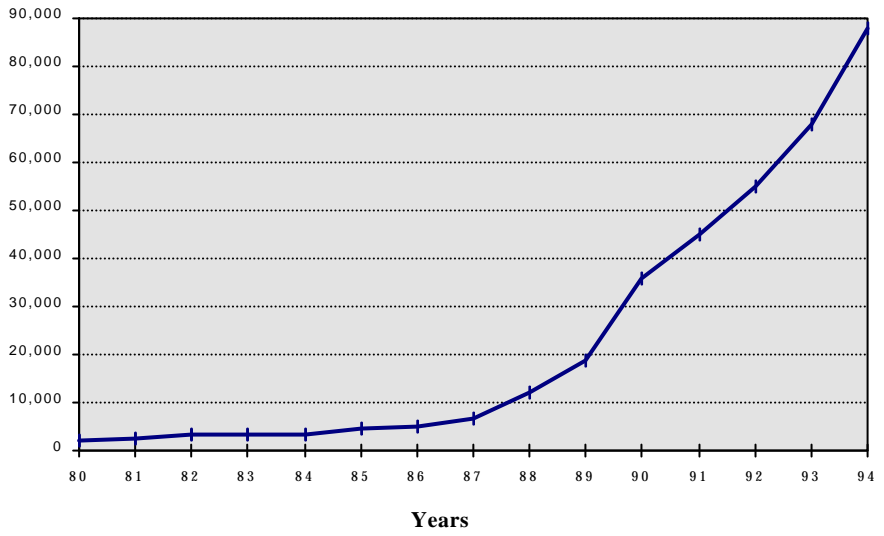


Table II-1: THE GDP AND PER CAPITA GDP OF MOROGORO REGION AT CURRENT PRICES AND PERCENTAGE CHANGE 1980 - 1994.

Year	GDP at current prices in (Tshs millions)	% change	Per capita GDP at current Prices (Tshs and in U.S.A Dollars)			% change	Average % Contribution to National GDP
			T.Shs	Exchange Rate Tshs/Dollar	USA Dollars		
1980	1,955	-	1,977	8.22	241	-	5
1981	2,521	29.00	2,485	8.35	298	23.65	5
1982	3,139	24.51	3,016	9.52	317	6.38	6
1983	3,137	-10.00	2,937	12.44	236	-25.56	5
1984	3,359	7.10	3,065	18.16	169	-28.38	4
1985	4,436	32.10	3,946	16.50	239	41.42	4
1986	5,182	68.17	4,493	51.70	87	-63.60	4
1987	6,788	31.00	5,737	83.70	69	-20.69	4
1988	11,977	76.44	9,550	125.00	76	10.14	4
1989	18,669	55.87	14,476	192.00	75	-1.32	4
1990	35,881	92.20	27,054	197.00	137	82.77	5
1991	44,974	25.53	32,974	234.00	141	2.92	5
1992	54,969	22.22	39,189	335.00	117	-17.02	5
1993	67,846	23.43	47,034	480.00	98	-16.24	5
1994	88,073	29.81	59,370	553.00	107	9.18	5
Average	23,527.1		17,153.5		160		4.7

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

Fig. 28: Per capita GDP at current prices (T.Shs.) of Morogoro region, 1980 - 1994

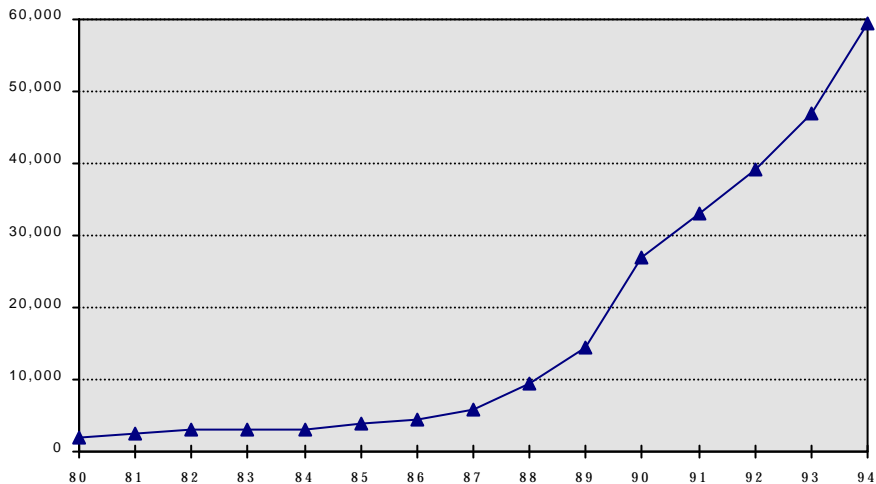


Fig. 29: Average % contribution to National GDP of Morogoro region 1980 - 1994

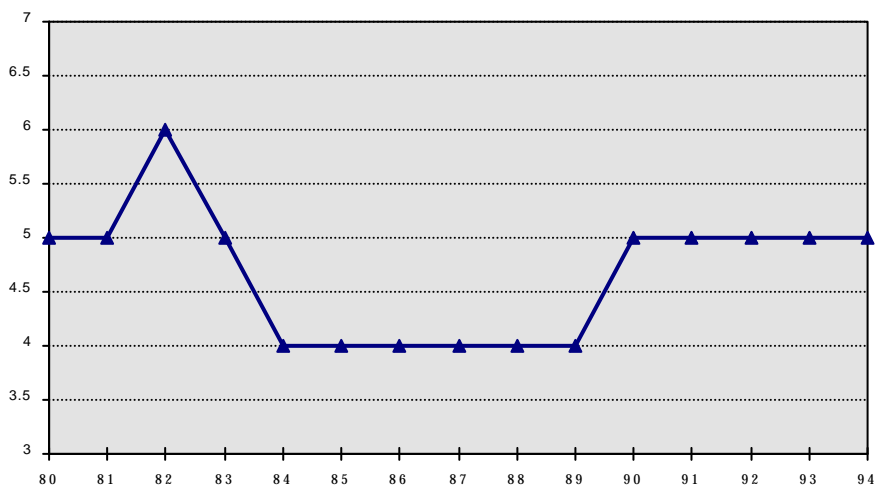
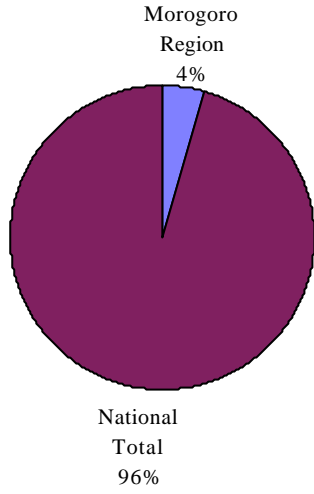


TABLE II-2: REGIONAL GDP AND CONTRIBUTION RANKING, 1980 - 1994.

Region	Average Annual GDP Contribution %	GDP Contribution Ranking
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
Mtwara	3.27	14
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	100.0	

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

Fig. 30: Contribution of Regional GDP to the National Total GDP, 1984 - 1994



The region shows a growing economy indicated by the region's GDP earning from T.shs. 1,955 million in 1980 to Tshs 88,073 million in 1994 (Table II-1). The region's contribution to national economical growth stood at an average of 4.7 per cent and the 8th in rank nationally. Table II-1 shows also that there has been a similar trend in growth in per capita income during the same period. An increase of per capita GDP at current prices from Tshs 1,977/- in 1980 to T.shs. 59,370/= in 1994. This apparently healthy economic situation was a reality only in the first 3 years (1980 - 1982) when per capita income earning was USA Dollars 241 in 1980 and climaxed to 317 in 1982. Thereafter per capita income dropped gradually in different variations and eventually reached its lowest level of 69 dollars in 1987. Since then the situation has not significantly reversed though there has been some moderate stimulated economic improvement from 1990. This however, has not improved the individual's economic power. People in the region were economically better off almost twice as much in 1980 - 1983 than they were the years thereafter.

2.3 Productive Sectors:

Productive sectors include: Agriculture, Livestock, Forestry, Fisheries, Beekeeping, Wildlife, Mining and Industries.

2.3.1 Agriculture:

The region's arable land totals 5,885,700 Ha, but only 1.2 million hactres are cultivated which is about 20 per cent of the total arable land. The region's agricultural sector is essentially of peasant farmers and more than 80 per cent of its total population of 1,220,564 (1988 census) depend on agriculture for its livelihood. It has beed stated earlier that with the exception of few areas of privately owned estates and parastatals, the region is characterised by relatively small farms of an average size of 1.2 hectares. Yields from these farms are generally low due to poor methods of farming employed by these farmers who produce at the subsistence level. The use of improved seeds, in-organic fertilizers and pesticides are in very limited use. The system of shifting agriculture is a common phenomenon among the tribes in the region. This system involves cutting trees to give room for crops. Major food crops grown in the region are: Maize, paddy, sorghum, beans, cassava, peas, bananas, sweet potatoes and millets.

The main cash crops are cotton, coffee and sugar-cane.

TABLE II-3: MOROGORO REGION PRODUCTION TRENDS OF VARIOUS CROPS (IN METRIC TONS) 1989/90 - 1994/95.

Crop/Year	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
Food Crops						
Maize	195,325	214,585	240,959	319,385	200,462	221,986
Paddy	120,292	129,329	110,820	109,273	97,800	139,290
Sorghum	21,552	23,164	57,135	53,280	35,655	31,500
Beans	20,148	21,890	9,332	75,177	12,278	12,300
Cassava	124,955	120,528	140,405	67,850	50,400	63,500
Cowpea	2,976	424	1,565	7,130	3,927	5,880
Banana	11,460	64,900	96,800	13,180	24,400	41,000
Sweet potatoes	11,600	9,240	39,020	25,000	20,992	31,800
Finger Millet	51	65	56	-	-	-
Bulrush millet	-	100	-	1,000	2,233	1,935
Cash Crops						
Cotton	18,264	11,324	16,590	8,092	1,600	3,450
Coffee	2,616	3,182	392	386	337	325
Sugar cane	88,352	114,750	7,766	43,681	281,986	299,874
Oil seeds						
Castor oil	422	1,004	73	105	1,022	1,008
Sunflower	1,669	715	507	269	357	366
Simsim	225	545	370	97	261	455
Green gram	70	135	38	41	34	35
Groundnuts	765	1,009	346	155	164	299
Pigeon Pea	880	82	842	361	1,070	1,094

Source: Morogoro Regional Agricultural and Livestock Office - 1977.

Fig. 31: Production trend of major food crops (maize, paddy and sorghum) (in metric tons) in Morogoro region, 1989/90 - 1994/95

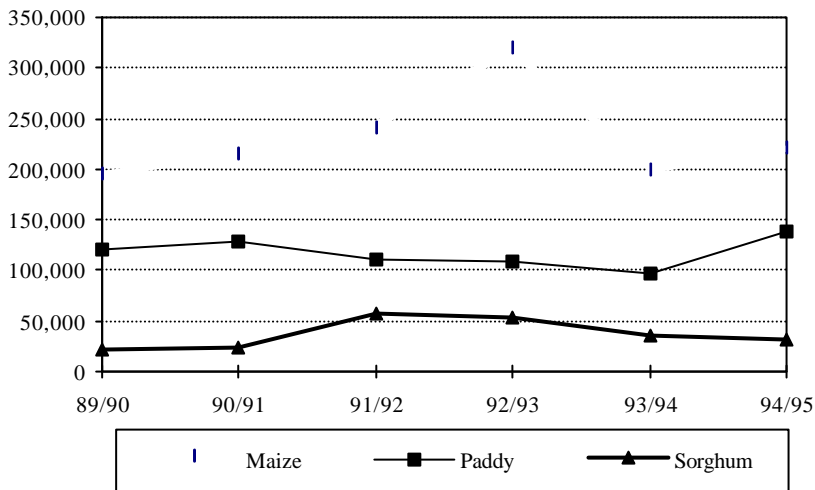


Fig. 32: Production trend of major food crops (beans, cassava and cowpea) (in metric tons) in Morogoro region, 1989/90 - 1994/95

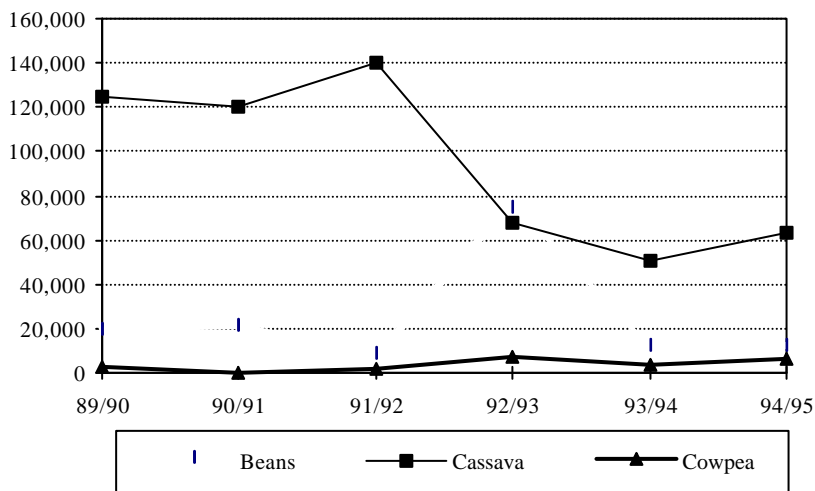


Fig. 33: Production trend of major food crops (banana and sweet potatoes) (in metric tons) in Morogoro region, 1989/90 - 1994/95

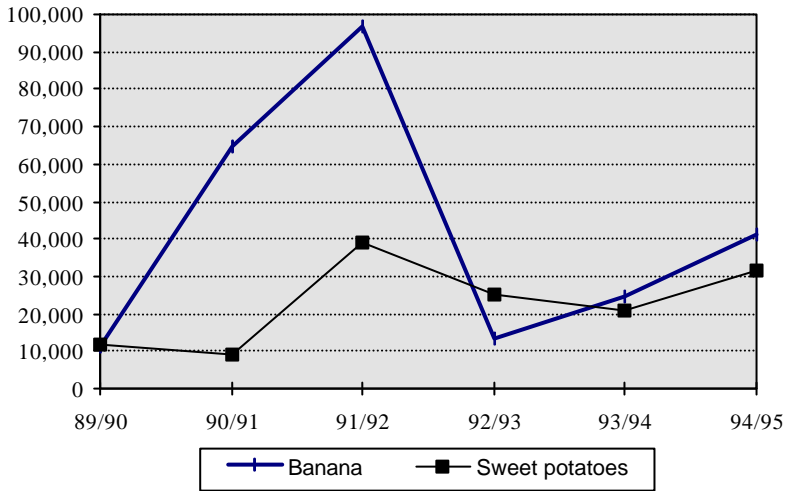


Fig. 34: Production trend of major food crops (finger millet and bulrush millet) (in metric tons) in Morogoro region, 1989/90 - 1994/95

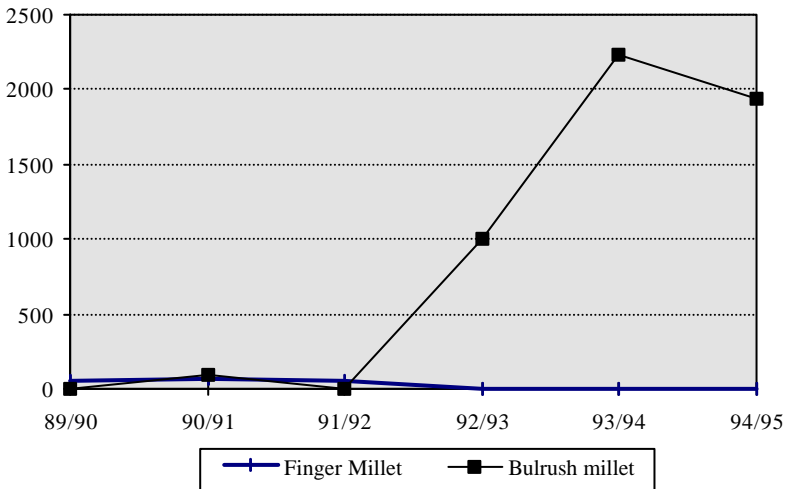


Fig. 35: Production trend of main cash crops (cotton and coffee) (in metric tons) in Morogoro region, 1989/90 - 1994/95

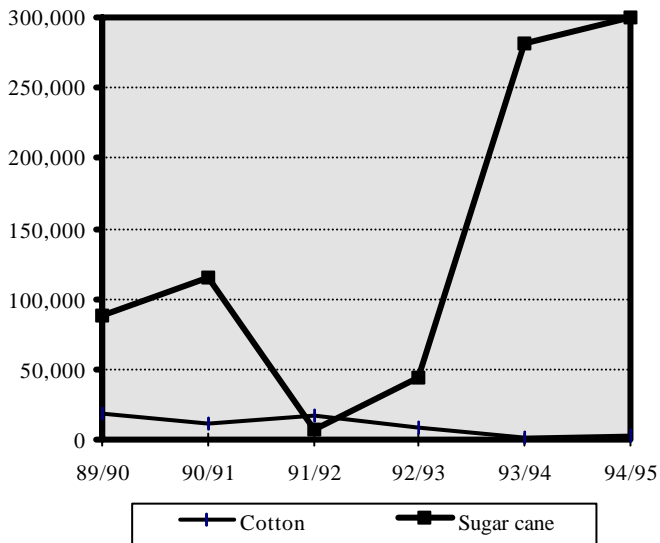


Fig. 36: Production trend of main cash crop (sugar cane) (in metric tons) in Morogoro region, 1989/90 - 1994/95

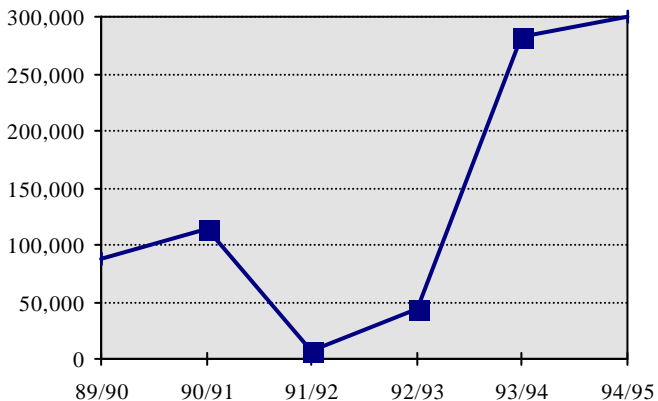


Fig. 37: Production trend of oil seeds crop (castor oil) (in metric tons) in Morogoro region, 1989/90 - 1994/95

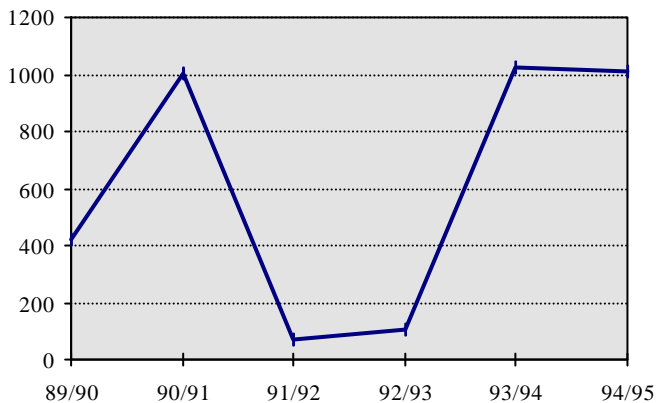


Fig. 38: Production trend of main cash crop (sunflower) (in metric tons) in Morogoro region, 1989/90 - 1994/95

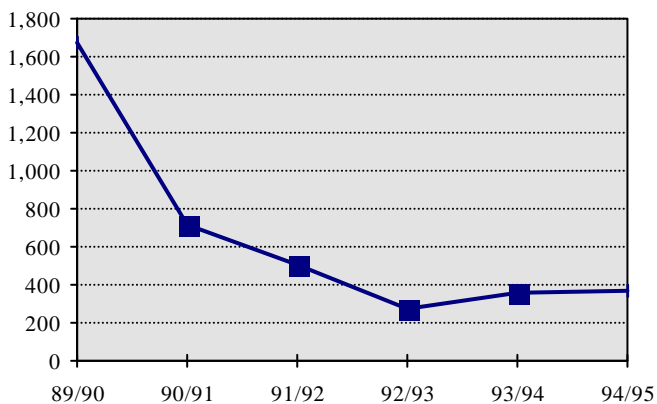


Fig. 39: Production trend of main cash crop (simsim) (in metric tons) in Morogoro region, 1989/90 - 1994/95

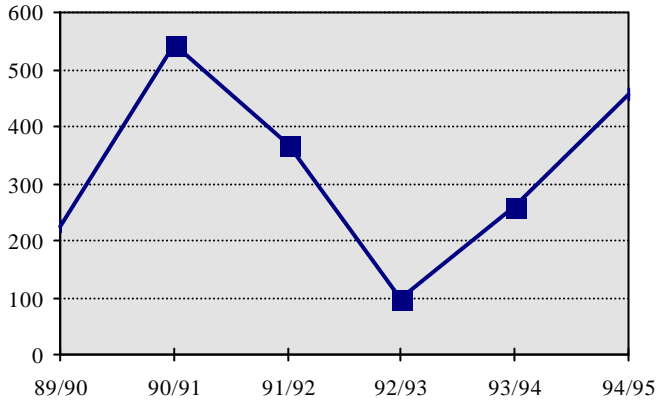


Fig. 40: Production trend of main cash crop (green gram) (in metric tons) in Morogoro region, 1989/90 - 1994/95

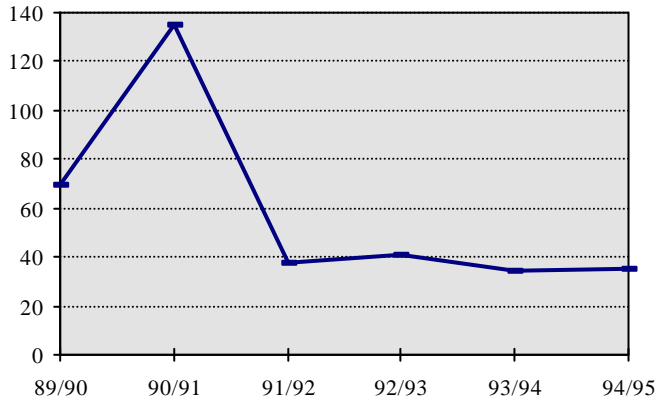


Fig. 41: Production trend of main cash crop (groundnuts) (in metric tons) in Morogoro region, 1989/90 - 1994/95

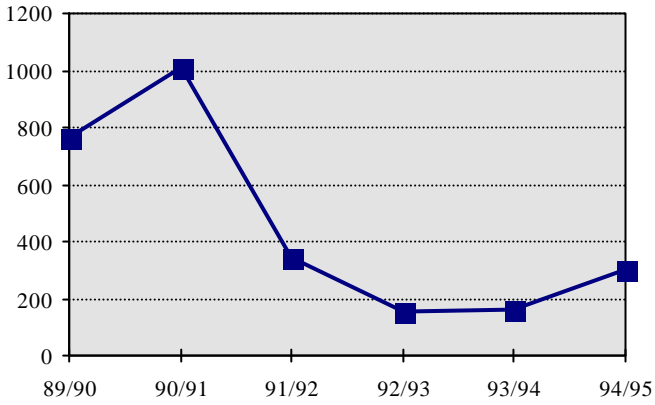
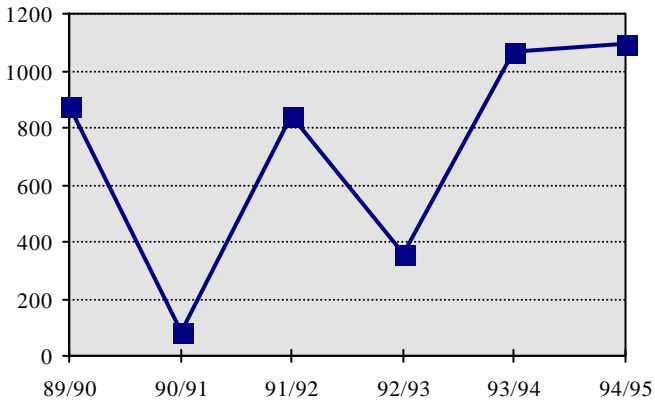


Fig. 42: Production trend of main cash crop (pigeon pea) (in metric tons) in Morogoro region, 1989/90 - 1994/95



Crop Production Trend:

The table above (Table II-3) showing trends of production of various crops reveals the following: with the exception of cassava,

all other food crops exhibited increasing trend with minor fluctuations, these could be associated with changes in climatic conditions.

Unlike food crops, production of most cash crops have been on the decline. For instance, cotton production declined from 18,364 tons in 1989/90 to 1,600 tons in 1993/94. Coffee production also exhibited a similar declining trend. However, sugarcane production increased from 88,352 tons to 299,874 tons in 1989/90 and 1994/95 respectively. It is probably because of the lack of reliable markets that cash crop production has declined.

No wonder then that farmers have shifted emphasis from production of cash to food crops. Production response to climatical conditions is evident from the fact that most crops had their peak in 1991/92 crop season, an exceptionally good growing season.

Production of oil seeds declined from 1991-93 seasons and then picked up 1994/95. The intitial decline could be explained by the closure of the oil processing company, MOPROCO. Liberalization of markets has created new markets and emergence of small processors which encouraged production in the latter years.

Quantity wise, maize and paddy are the most important food crops. These are staples in the region. Sugar cane seems to be gaining importance especially to farmers living around the major sugar factories of Mtibwa and Kilombero.

Trends in crop areas: in (Ha)

Changes in levels of production could be attribute expansion in cultivated area, technology used and consequently productivity or improved climatical conditions.

Table II-4 below shows that with the exception of cassava, hactorage of all food crops has been increasing in the past 6 years with some fluctuations. Changes in crop areas could be the result of population growth, response of farmers to increased demand or changes in technology for instance intensive versus extensive production technologies.

Crop areas for cotton and coffee have been declining while sugar cane areas have been increasing. These trends are very similar to production trends in the region which emphasizes the postulate that farmers have shifted their priority from cash to food crops.

TABLE II-4: MOROGORO REGION TREND IN CROP AREA (IN HA) 1989/90 TO 1994/95.

Crop/Year	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95
Food Crops						
Maize	114,898	122,692	110,847	116,414	125,892	130,580
Paddy	63,312	66,418	61,567	70,081	55,200	80,170
Sorghum	23,947	25,093	35,722	30,732	35,655	31,500
Beans	21,947	22,874	18,665	24,779	24,555	24,600
Cassava	32,456	31,244	29,681	17,683	20,165	25,400
Cowpea	1,853	264	3,131	3,298	1,870	2,800
Banana	1,273	7,212	9,685	1,318	8,148	8,200
Sweet potatoes	2,000	1,575	3,982	2,500	5,248	5,300
Finger Millet	-	104	90	-	-	-
Bulrush millet	-	60	-	1,040	2,326	2,150
Cash Crops						
Cotton	20,384	11,930	16,607	8,092	1,600	3,430
Coffee	3,270	3,983	3,594	3,532	3,369	3,252
Sugar cane	4,016	4,590	353	1,573	10,180	13,038
Oil seeds						
Castor oil	300	5,024	52	74	730	720
Sunflower	2,782	1,021	1,013	3,920	5,200	5,232
Simsim	450	1,221	1,852	485	1,305	2,273
Green gram	100	183	40	41	34	35
Groundnuts	800	1,051	361	411	456	747
Pigeon Pea	1,799	167	1,077	361	1,070	1,094

Source: Morogoro Regional Agricultural and Livestock Office 1997.

Fig. 43: Morogoro region trend in food crop areas (in ha.) of maize, paddy and sorghum, 1989/90 to 1994/95

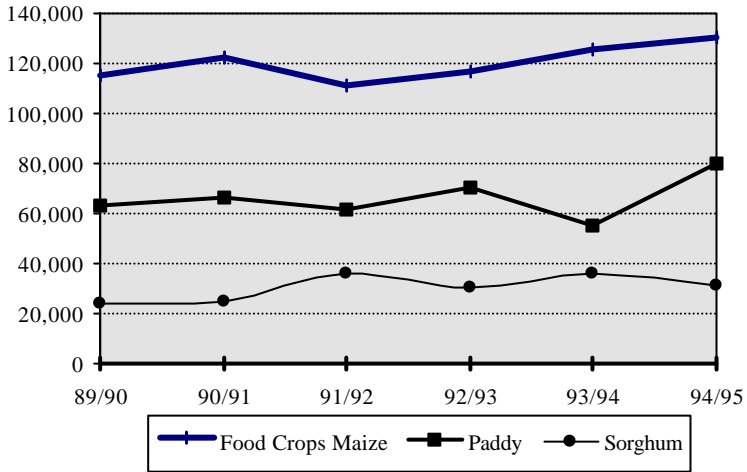


Fig. 44: Morogoro region trend in food crop areas (in ha.) of beans, cassava and cowpea, 1989/90 to 1994/95

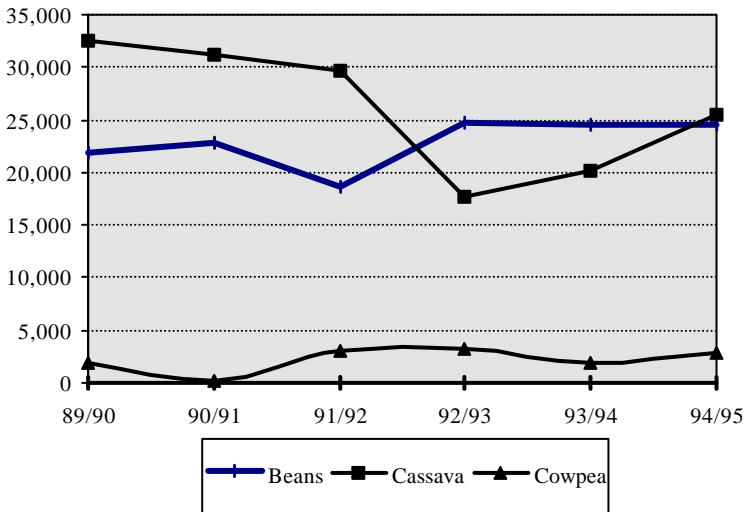


Fig. 45: Morogoro region trend in food crop areas (in ha.) of banana and sweet potatoes, 1989/90 to 1994/95

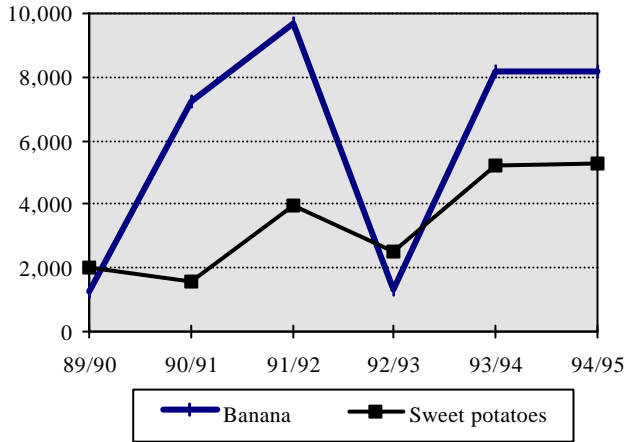


Fig. 46: Morogoro region trend in cash crop areas (in ha.) of cotton coffee and sugar cane, 1989/90 to 1994/95

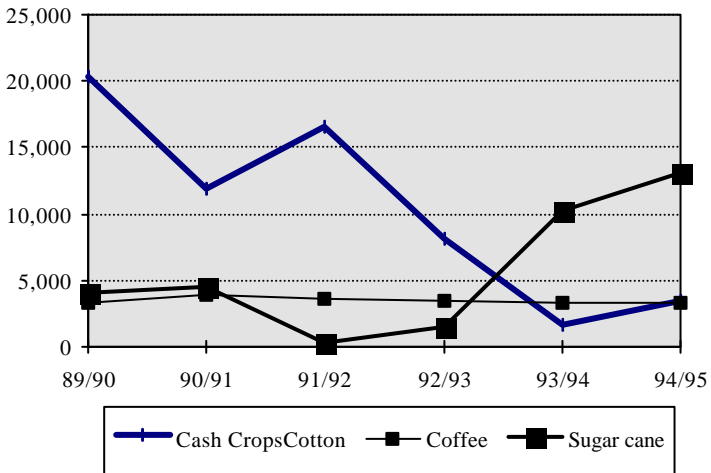


Fig. 47: Morogoro region trend in oil seeds area (in ha.) of castor oil 1989/90 to 1994/95

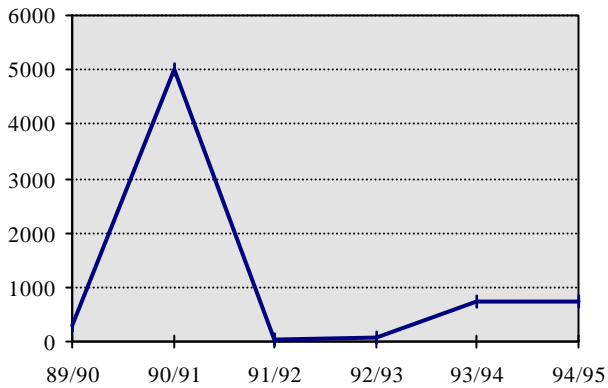


Fig. 48: Morogoro region trend in oil seeds area (in ha.) of sunflower 1989/90 to 1994/95

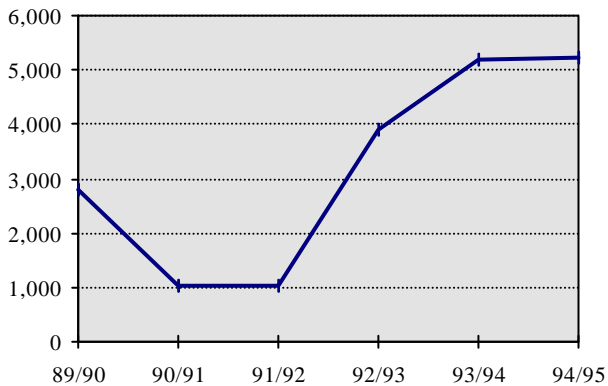


Fig. 49: Morogoro region trend in oil seeds area (in ha.) of simsim 1989/90 to 1994/95

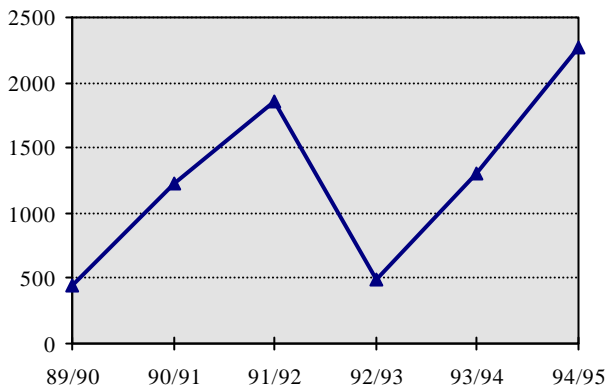


Fig. 50: Morogoro region trend in oil seeds area (in ha.) of green gram 1989/90 to 1994/95

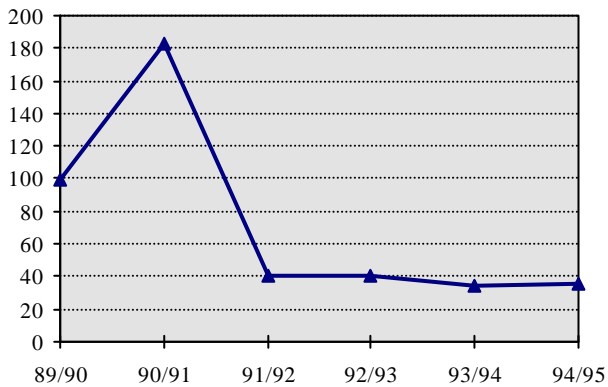


Fig. 51: Morogoro region trend in oil seeds area (in ha.) of groundnuts 1989/90 to 1994/95

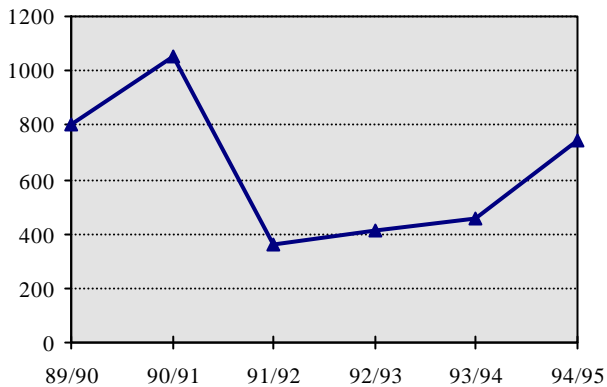


Fig. 52: Morogoro region trend in oil seeds area (in ha.) of pigeon pea 1989/90 to 1994/95

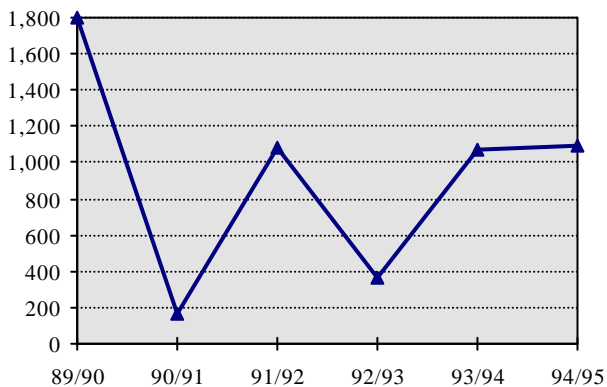


TABLE II-5: PRODUCTION (IN TONS) OF SISAL FIBRE, MOROGORO REGION, 1974 - 1991:

Year	Morogoro Region	Tanzania (National)	% Contribution to the Nation
1974	27,918	143,442	19.4
1975	26,344	127,840	20.60
1976	21,748	113,698	19.13
1977	18,181	105,015	17.31
1978	15,895	91,873	17.28
1979	13,804	81,384	16.96
1980	14,804	85,975	16.34
1981	12,983	73,753	17.60
1982	11,357	60,635	18.73
1983	7,206	42,204	17.07
1984	5,416	38,225	14.16
1985	4,558	32,270	14.12
1986	4,859	30,151	16.12
1987	4,667	33,170	14.06
1988	4,206	33,268	12.64
1989	4,047	32,265	12.54
1990	4,250	33,743	12.60
1991	4,534	36,001	12.59

Source: Agriculture Statistics, 1989 URT Bureau of Statistics.

Fig. 53: Production (in tons) of sisal fibre, Morogoro region to the Tanzania (National) , 1974 - 1991

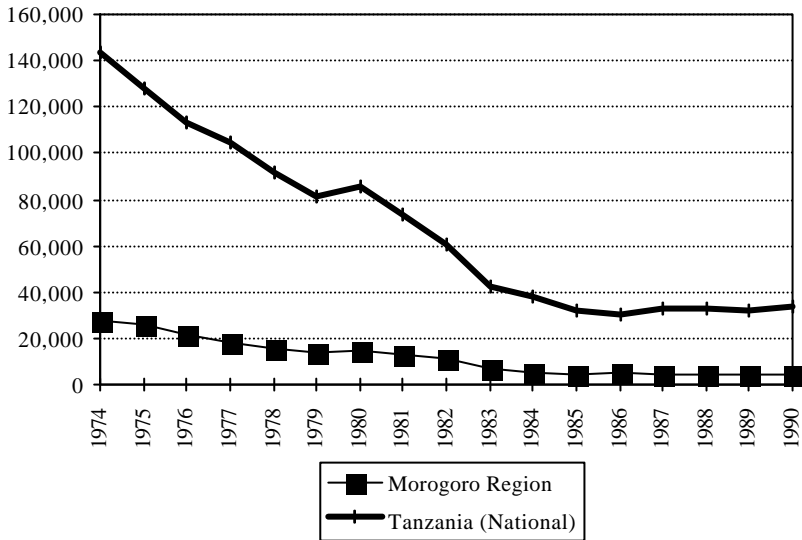


Table II-5 above shows production trend for sisal fibre. The crop has been treated separately due to the fact that it is produced only in large scale farms. Like the rest of the country, Morogoro region has experienced a steady decline in sisal fibre production over two decades. In addition the contribution of the region to the country's production decreased from 20.6 percent in 1975 to 12.59 per cent in 1991.

Farm Input Usage:

Input usage especially fertilizers in Morogoro region is very low relative to overall country demand and use. Table II-6 below shows the actual supply between 1985 to 1990. However, fertilizer demand seems to have improved in late 80s'. A recent study shows that the largest proportion of fertilizers is applied to the maize crop and very little is applied

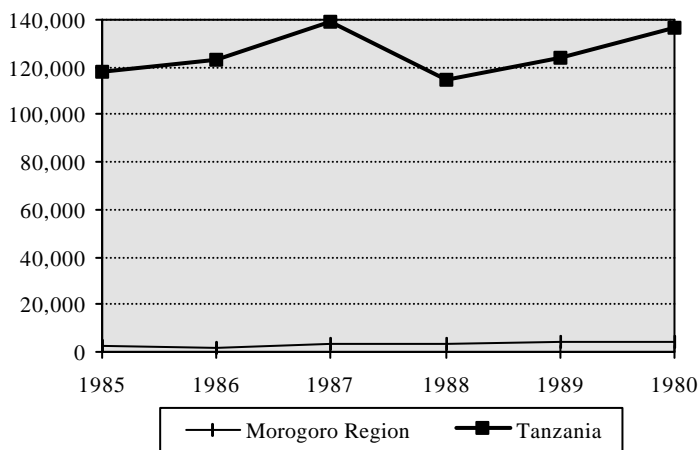
to other crops. The study has also shown that, though rice is one of the major crops in the region, very little inputs are applied to the crop and farmers who use fertilizers apply it below the recommended standards. The situation has been aggravated by removal of input subsidies.

TABLE II-6: FERTILIZER DISTRIBUTION:

Year	Morogoro	Tanzania	% Use in Morogoro compared to the rest of the country
1985	2,902	117,969	2.5
1986	2,080	123,360	1.7
1987	3,232	139,278	2.3
1988	3,045	114,432	2.7
1989	4,233	123,930	3.4
1990	3,991	136,510	3.0

Source: Regional Agricultural and Livestock Office, Morogoro, 1996.

Fig. 54: Fertilizer distribution of Morogoro region to the Tanzania (National) 1985 - 1990



Producer Price:

Table II-7 indicates producer prices in the region for major food crops during the month of December in the past four years (1992 - 1995). In general all crop producer prices have been increasing steadily. The largest increase of nearly or above 100 per cent are observed in finger millet, maize and rice, in that decreasing order.

Maize and rice are staples and they also serve as sources of income. High demand in near by Dar-es-Salaam market affects the Morogoro prices of these three crops.

TABLE II-7: CROP PRICES DURING DECEMBER FOR EACH YEAR (1992-1995) MOROGORO:

Commodity/Measure/Price	1992	1993	1994	1995
Maize 1 bag of 90 Kgs at farm gate price	6,000/= - 6,200/=	7,000/= - 7,500/=	8,000/= - 9,000/=	10,000/= - 10,100/=
Paddy 1 bag of 70 kgs at farm gate price	6,500/= - 8,000/-	8,000/= - 9,000/=		
Rice 1 bag of 100 Kg at farm gate price	16,000/= - 17,500/=	18,000/= - 19,000/=	25,000/= - 26,000/=	28,000/= - 29,000/=
Sorghum 1 bag at farm gate price	5,000/= - 5,500/=	5,000/= - 6,000/=	10,000/= - 11,000/=	6,000/= - 7,000/=
Finger millet 1 bag at farm gate price	10,000/= - 12,000/=	7,000/= - 8,000/=	15,000/= - 16,000/=	22,000/= - 23,000/=

Source: Regional Agricultural and Livestock office, Morogoro 1997.

TABLE II-8: FOOD ADEQUACY: CROP PRODUCTION 1995/96

Crop	Cultivated Area Ha.	1995/96 Production (Tons)
Maize	139,482	223,171
Paddy	98,356	181,628
Cassava	16,603	41,509
Sorghum	55,512	35,500
Banana	7,336	86,682
S.Potatoes	1,793	10,760
Finger millet	-	-
Bulrush millet	1,086	978
Beans	25,970	12,985
Cow pea	4,324	8,649
Greengram	101	101
Pigeon pea	1,400	1,400

Source: Regional Agricultural and Livestock Office, Morogoro 1997.

In 1995/96 season, the region had a total population of 1,503,761. Food requirement was 409,549.7 tons per year. According to 1995/96 production data, the region produced a total of 580,228 tons (maize, paddy, sorghum, bulrush and cassava etc), for this reason Morogoro Region produced a surplus of 97,442 tons of food requirement.

On legumes (beans, cow pea, greengram and pigeon pea) the region that year required 136,516 tons. The amount of legumes

produced was less than required. However this, deficit could be supplemented by other sources of protein such as fish and meat.

Irrigation in the Region:

It is envisaged that, successive regional development plans, apart from social services, concentrated efforts on the improvement of the food crop sector. The main constraints have been low technology, dependence on rain-fed agriculture and poor infrastructure. Various investigations have been made on how to utilize the considerable water resources potential in the region with a view to removing undue dependence on rain-fed agriculture and subsequently improve food crop production.

The Region undertook various irrigation projects in the past years, but due to inadequate finance, unavailability of manpower and lack of equipment, it has had little success.

With the assistance of FAO and the Netherlands Government, in early 1980's four villages were selected. The objective being the raising of incomes. This assistance concentrated on small scale irrigation schemes in the following villages:

- | | | | |
|----|-----------|---|-------------------------|
| 1. | Mgongola | - | Morogoro Rural District |
| 2. | Kilangali | - | Kilosa District |
| 3. | Lumuma | - | Kilosa District |
| 4. | Mtimbira | - | Ulanga District |

1. Mgongola Irrigation Scheme:

The potential irrigation area is more than 4,000 hectares (Ha) and consists of three main areas:-

- (i) The area between Mkindo and Dizungu rivers covering about 300 acres.
- (ii) The area between Dizungu and Mgongola rivers covering between 800 - 1,000 acres.
- (iii) The area South West of Mgongola river covering approximately 9,000 acres.

2. **Kilangali Irrigation Scheme:**

The Kilangali village irrigation scheme is situated alongside the Kilangali National Rice seed project, sixteen miles south east of Kilosa Township. The potential irrigable area is 2,500 acres. The surveyed area which is partially under irrigation is 1,150 acres. The source of irrigation water is the Miyombo river which has a minimum flow of 0.82m³/sec which is adequate for irrigating 3,500 acres.

3. **Lumuma Irrigation Scheme:**

This is the oldest irrigation scheme in the region and was started in 1948 with a potential irrigable area of 1,300ha. The main cash crop is onions, while food crops such as maize and beans are also grown. Sufficient water to irrigate the whole potential area and even more, is available from the Lumuma river. While it is believed that the irrigation project is feasible, a major bottleneck exists in the inaccessibility of the area. To overcome this major constraint, three options have been identified by the Region and it is important that the viable option selected and implemented.

4. **Mtimbira Irrigation Scheme:**

The scheme is located 100km West of Mahenge town on the Lupiro-Malinyi road. Accessibility from Morogoro is limited to six months of the year due to annual flooding of the Kilombero river. The future development of Ulanga District is severely restricted by this phenomenon and has been a subject of numerous appeals to the central government by the regional authorities. It has been recommended to link the execution of the irrigation scheme to the construction of a bridge across the Kilombero river at Ifakara.

The potential irrigable area is 400ha. The source of water is Mtimbira river, which is perennial with a minimum discharge of 1.1m³/sec. There is therefore enough water to irrigate the whole area and more.

Other Irrigation Schemes

Name of Scheme	Potential area for Irrigation	Area under Irrigation	Crops grown under irrigation
1. Mgeta Irrigation scheme	Potential irrigable area of 2,000ha. Scattered all over the Uluguru mountains in Mgeta Division of Morogoro rural district. There are over 23 intakes of the free flowing type requiring constant repairs. Each intake capable of irrigating an average of 6ha.	Scattered irrigable plots	Mainly vegetables such as cabbages; round potatoes, maize and fruits.

2. Mkindo scheme (Morogoro rural district)	About 650 ha. may be available for irrigation. Some development has been done through assistance of the Netherlands government. More work is needed to be done.	Over 60 hectares	Paddy
3. Mkula scheme (Kilombero district)	An estimated 60 ha. is suggested as the potential for irrigation. It is an old scheme of the 1980s. Irrigation is practiced by a few water users including a school farm.	Less than 60ha.	Paddy
4. Mwega scheme	This scheme is divided into three sub-schemes with a total of about 1,400 ha potential irrigable area. However very little of this has been developed.	Less than 50 per cent of the area is developed	Horticultural crops and other minor crops such as paddy.

Future irrigation development involving improvement of traditional irrigation has received keen interest by the Japanese Government which has earmarked 4 irrigation schemes for future development.

These earmarked schemes are: Mgongola, Mgeta, Mkula and Malolo.

2.3.2 Livestock:

Morogoro region traditionally is not a livestock region, large number of cattle, sheep and goats are kept by pastoral tribes like the Masai, Sukuma and Barbaigs who move in and out and through the region in search of pasture. The Kaguru and Sagara tribes men also rear some of these livestock. Livestock mortality in the region is high during droughts and during period of heavy disease attacks. Commercial livestock production is relatively

new in the region and only limited to national ranches of Mkata (fattening ranch), Ngerengere Dairy Farm (fattening and dairy), Kingolwira Prison Farm (dairy and fattening), Wame and Idete. Government training Institutes, such as SUA, MATI and Ilonga Nutrition Institute also keep livestock. Sangasanga a privately owned farm with dairy animals.

Livestock Population:

Morogoro region has a total land area of 72,939 sq km, this covers 8.2 per cent of the total mainland area of 885,987 sq km. The region's livestock units of 326,632 (1993/94) makes for a very low livestock regional density of 4.6 livestock per sq.km. This figure is of dramatic contrast with data pertaining to Mwanza region. Mwanza region has a land area of 20,095 sq.km; almost 3.6 times less than Morogoro but has 1,652,159 L.S.U. (1993/94). This results in a livestock density of 82.2. The Morogoro region data tries to emphasise that the region has a very small livestock population in relation to its large land area. Table II-8 compares livestock population and density among Tanzania mainland regions in 1993/94.

Livestock population trends in the region over a period of four years (1989-92) compared to actual livestock population of 1984 when the livestock census was carried out is depicted in table II-9 that follows:

Fig. 55: Population distribution of livestock in Morogoro region to the total National



TABLE II-9 (a): POPULATION AND LIVESTOCK DISTRIBUTION AND DENSITY BY REGIONS 1993/94:

Region	Land Area (Sq.Kms)	Population (1)	Population Density per sq. km.	Rank	Livestock (2) (L.S.U) Density	Livestock Density	Livestock Density Rank
Mwanza	50,760	1,763,960	34.9	8	1,866,027	36.8	4
Shinyanga	20,095	1,878,271	93.5	1	1,652,153	82.2	1
Dodoma	41,311	1,235,277	30.0	9	1,600,275	38.7	3
Arusha	82,098	1,352,225	16.5	14	1,399,189	17.0	8
Kilimanjaro	13,309	1,108,699	83.7	2	485,540	36.5	5
Tanga	26,677	1,280,262	48.1	5	1,087,459	40.8	2
Morogoro	70,799	1,222,737	17.0	13	326,632	4.6	14
Pwani/DSM	33,800	1,998,865	59.1	3	51,312	1.5	16
Lindi	66,040	642,364	9.8	19	1,245	0.02	19
Mtwara	16,710	887,583	53.2	4	58,080	3.5	15
Ruvuma	66,477	783,327	12.0	17	52,341	0.8	18
Iringa	56,850	1,193,074	21.3	12	449,749	7.9	12
Mbeya	60,350	1,476,261	24.0	10	911,069	15.1	9
Singida	49,341	791,814	16.0	15	1,382,333	28.0	7
Tabora	76,151	1,036,293	14.0	16	547,286	7.2	13
Rukwa	68,635	704,050	10.1	18	548,111	8.0	11
Kigoma	37,040	853,263	23.1	11	32,097	0.9	17
Mara	21,760	952,616	43.7	7	746,966	34.3	6
Kagera	28,456	1,313,639	46.6	6	419,730	14.8	10
Total	885,987	23,174,443	26.1		13,617,595	15.4	

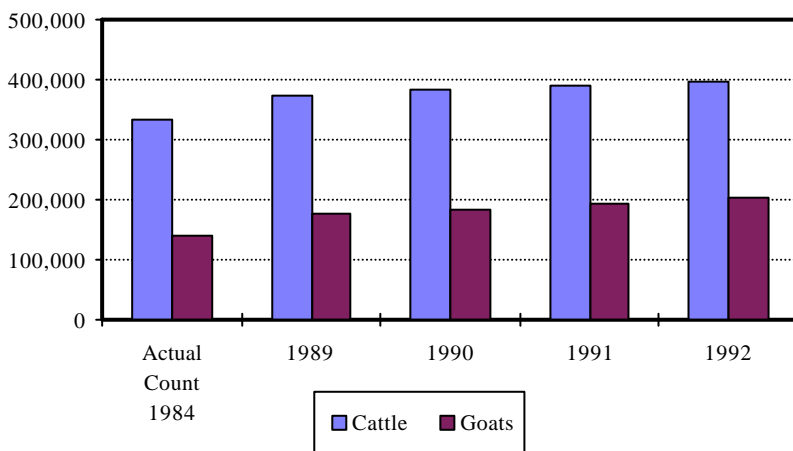
Source: 1. 1988 Population Census
2. National Sample Census of Agriculture 1993/94 Tanzania Mainland Report Vol.II Ministry of Agriculture and Cooperative Development.

TABLE II-9 (b): THE NUMBER OF LIVESTOCK IN MOROGORO REGION 1989 - 1992.

Type	Actual Count 1984	1989	1990	1991	1992
Cattle	332,683	374,100	382,400	390,000	397,700
Goats	139,948	176,200	184,100	192,200	204,500
Sheep	53,274	N/A	N/A	N/A	N/A
Livestock Unit	371,327				

Source: 1. Basic Data Agriculture and Livestock Sector 1983/84 - 1987/88.
 2. Basic Data Agriculture and Livestock Sector 1986/87 - 1991/92.

Fig. 56: The number of livestock (cattle and goats) in Morogoro region 1989 - 1992



It is observed from the data above that there is a natural increase in number of livestock in the region. Unfortunately figures for sheep population trends is not available. The region experiences little pressure on land for pasture. What little pressure exists is because there are areas infested with tsetse fly, making some otherwise good pasture land unsuitable.

The 1984 National livestock census indicates that the total number of livestock unit (L.S.U) in Tanzania mainland is 13,617,595 (Source: National Sample Census of Agriculture 1993/94 Tanzania Mainland Report Vol.II) and among these, 371,327 L.S.U. are in Morogoro region. The number is about 2.7 per cent of the country's L.S.U. Taking the region's number of households which is 227,705 this gives an average of 1.6 L.S.U per household by 1984.

TABLE II-10: LIVESTOCK POPULATION (1996) BY DISTRICT - MOROGORO REGION:

Type	Districts					
	Morogoro (U)	Morogoro (R)	Kilosa	Kilombero	Ulanga	Total
Cattle	2,618	89,071	267,704	19,017	9,617	388,027
Goat	1,949	19,542	33,651	2,586	462	58,190
Sheep	264	8,458	4,230	476	3,032	16,460
Pigs	988	5,017	3,063	2,349	37	11,454

Source: Regional Livestock Development Office Morogoro 1997.

Fig. 57: Livestock population (cattle and goats) by districts , Morogoro region, 1996

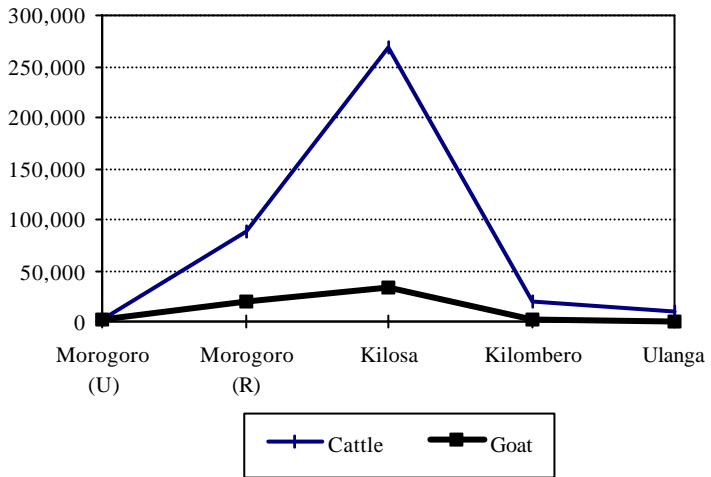
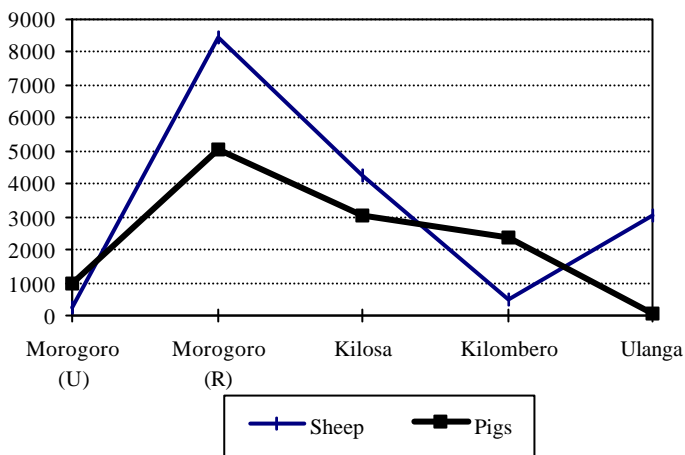


Fig. 58: Livestock population (sheep and pigs) by districts , Morogoro region, 1996



Kilosa district takes the lead in the number of livestock, with an average of 69.0 per cent of total cattle in the region. Morogoro rural district account's for 23 per cent of region's cattle population.

Morogoro rural district leads in having the highest number of sheep and pigs. The dairy industry in the region is far from being developed, the majority of dairy cattle in the region is under the ownership of government institutions (Refer to earlier notes under livestock).

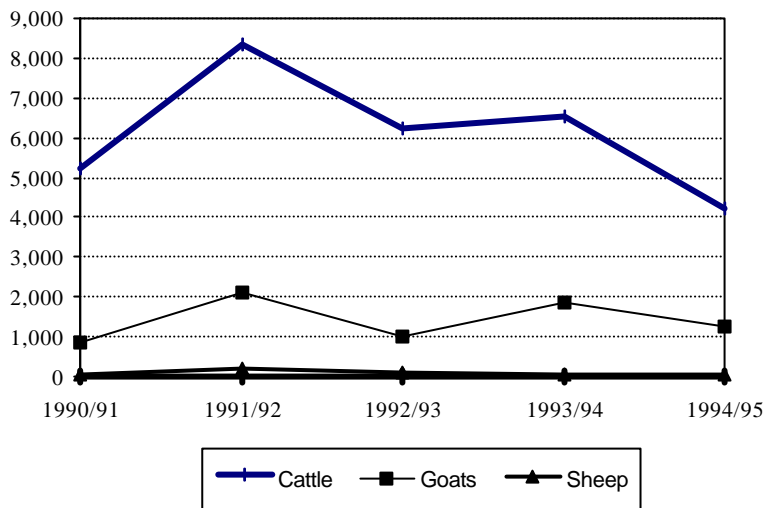
Livestock Market:

TABLE II - 11: LIVESTOCK - REPORTED NUMBER MARKETED IN THE REGION 1990/91 - 1994/95.

Year	Cattle	Goats	Sheep
1990/91	5,225	873	42
1991/92	8,322	2,113	178
1992/93	6,228	1,010	80
1993/94	6,528	1,850	51
1994/95	4,221	1,248	36

Source: Regional Livestock Development Office, Morogoro, 1996.

Fig. 59: Livestock reported number marketed in Morogoro region 1990/91 - 1994/95



The table above reflects the number of marketed cattle, goats and sheep for 1990/91 -1994/95, but unfortunately their values are not known. The annual sales through official markets is relatively low in number in relation to the number of livestock in the region. There is generally one weakness in the marketing system of livestock, and that is the presence of middlemen and the distances the cattle owner is forced to walk to get to these markets.

TABLE II-12: HIDES AND SKINS MARKETED IN MOROGORO REGION 1990/91- 1994/95.

Year	Cattle hides	Goats skin	Sheep skin
1990/91	18,499	1,434	N/A
1991/92	23,783	577	57
1992/93	27,577	898	14
1993/94	27,181	725	14
1994/95	24,811	1,773	16

Source: Regional Livestock Development Office, Morogoro 1996.

Fig. 60 (a): Cattle hides marketed in Morogoro region 1990/91 - 194/95

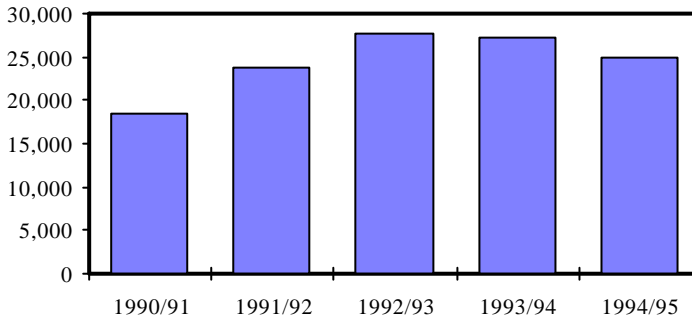


Fig. 60 (b): Goats skin marketed in Morogoro region 1990/91 - 194/95

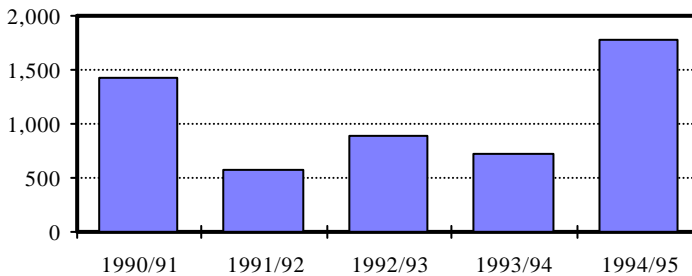
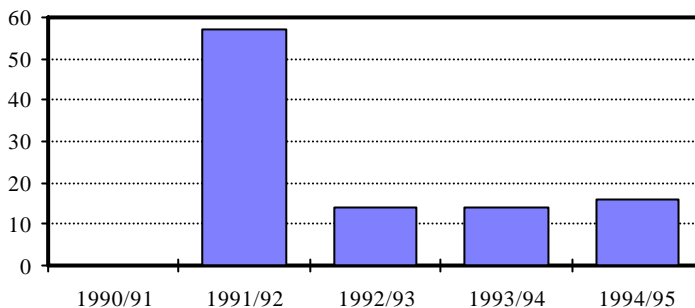


Fig. 60 (c): Sheep skin marketed in Morogoro region 1990/91 - 194/95



With the increase of improvised hide sheds, more and more hides and skins are prepared and sold. There is a general increase in the number from 1990/91 - 1994/95 particularly for hides. Goat skins show no general trend and sheep skin is insignificant. It is estimated that about 40 per cent of the hides and skins in the pastoral tribe-areas are wasted due to lack of transport and the wet-salting method in the wet season is literally unknown.

Animal Health:

The incidence of livestock diseases is high in the region. The high level of subsistence cattle -keeping and cattle movements make a high vaccination coverage or economic bush clearing almost impossible. Dips are not sufficient in number, long distances to dips (over 5km), under strength dips (ticks acquiring resistance to acaricides) and lack of water for replenishment of dips hampers adequate tick-control coverage in the region.

Cattle mortality rate is fairly high. It is believed to range between 25 and 30 per cent. The main causes of livestock mortality in the

region are frequent occurrences of common cattle diseases which include:

- Anaplasmosis
- East Coast fever
- Babesiosis
- Foot and Mouth diseases.

Table II-13: LIVESTOCK DISEASES AND NUMBER OF DEATHS IN MOROGORO REGION 1987/88 - 1992/93.

Diseases	Total Number	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Anaplasmosis	Affected	1,002	614	727	766	1,144	1,464
	Deaths	489	269	236	240	459	345
East Coast Fever	Affected	1,958	1,444	1,393	1,231	2,109	3,545
	Deaths	1,430	1,020	837	994	2,009	2,022
Babesiosis	Affected	333	267	254	199	491	428
	Deaths	81	78	40	9	67	104
Heart water	Affected	89	92	132	100	104	201
	Deaths	28	21	56	34	56	55

Source: Regional Livestock Development Office, Morogoro 1996.

Table II-13 shows statistics of major livestock diseases prevailing in the region. The most serious disease claiming a heavy toll on livestock is East Coast Fever. An average of 73 per cent of all livestock affected by this disease between 1987/88 - 1992/93 died. The second serious disease is Anaplasmosis, followed by Babesiosis and Heart water.

Therefore, in order to save these animals from these diseases and increase productivity, both the regional authorities and cattle owners need to take drastic measures aimed at controlling these fatal diseases. This calls for establishment of new and

rehabilitation of depiladated livestock infrastructures such as dips, veterinary health centres and crushes.

TABLE II - 14: LIVESTOCK FACILITES OR INFRASTRUCTURES IN MOROGORO REGION 1996

Type of Facility	District					
	Morogoro Urban	Morogoro Rural	Kilosa	Kilombero	Ulanga	Total
Dips	1	31	45	4	5	86
Health centres and clinics	1	-	1	1	1	4
Dips Testing centres	1	1	1	-	-	3
Crushes	-	4	8	1	1	14
Livestock laboratories	-	1	1	1	1	4

Source: Regional Livestock Development Office, Morogoro 1996.

The number of dips in Morogoro rural is adequate, unfortunately their status and their distribution within the district is not known. Kilosa district may need additional dips even if the figure indicated in the table above are all functioning well. Adequacy of the rest of the facilities in the region may raise some concern, bearing in mind the size of the districts and accessibilities to most villages in the region.

2.3.3 Forestry:

The region's land area is divided as follows:

Forest area	36,959 sq.kms
National Parks and Selous Game Reserve area	31,000 sq.kms
Other Public land area	5,000 sq.kms.
Total	72,959 sq.kms.

According to a 1974 FAO report 88% of Morogoro region's land area is covered by forest. This is 64,160 sq.kms of forests including Selous and the National Parks. The areas under forests from a utilization point of view are divided into:

- Forest reserves area
- Public land area
- Forest plantations area

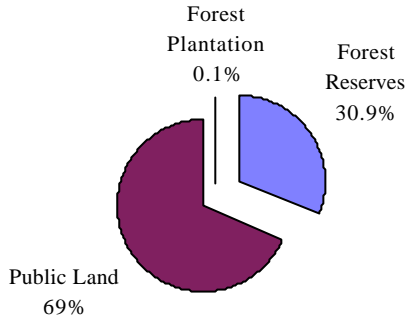
Table II-15 shows how this forest land is divided between the three categories of forest.

TABLE II - 15: FOREST LAND BY DISTRICT AND CATEGORY, MOROGORO REGION, 1992 (SQ.KMS).

Category	District					Total
	Kilosa	Morogoro Urban	Kilombero	Ulanga	Morogoro Urban	
Forest Reserves	3,670	1,752	1,278	4,927	0	11,627
Public Land	4,115	2,733	7,960	10,493	0	25,301
Forest Plantation	16	15	0	0	0	31
Total	7,801	4,500	9,238	15,420	0	36,959

Source: Regional Natural Resources Office, Morogoro, 1997.

Fig. 61: Total distribution of forest land by category, Morogoro region 1992



The vegetation in the forest reserves consists of closed forest, woodlands and grasslands. The exact vegetation covers of individual forest reserves is unknown, but previous estimates covering all reserves together indicate that approximately 13% is closed forest, 84% woodland and 3% is grassland. Some of the forest reserves are for protective purposes, in which case clear felling is avoided in order to protect slopes against erosion and to safeguard the water sources of towns and villages. Other reserves are for productive purpose and protection at the same time. They protect against soil erosion and they are there for the production of timber, poles and fuelwood. The extent and classification of each Forest Reserve is given by district in Tables II - 16 to II-19.

TABLE II-16: FOREST RESERVES IN MOROGORO DISTRICT, AREA BY HECTARES AND CLASSIFICATION 19975:

Name of the Forestry Reserve	Protective Mountain Catchment			Productive C	Remarks
	A-1	A-2	Lowland Catchment B		
Kanga	6,664	-	-		
Lusunguru	-	-	-	2,274	National Plantation Project
Mtibwa	-	-	-	882	-do-
Maleta	-	-	-	1,026	-do-
Pamgale	-	-	-	12,950	-
Nguru South	18,793	-	-	-	-
Mkindo	-	7,542	-	217	-
Mbogo	-	-	-	92	-
Morogoro Fuel Rese.	-	-	-	12,950	-
Nguru ya Ndege	-	-	2,407	-	-
Dindili	-	-	1,107	-	-
Kitulangholo	-	-	4,678	-	-
Mindu	-	-	2,285	-	-
Uluguru North	8,357	-	-	-	-
Uluguru South	16,428	-	-	-	-
Pangawe E and W	-	-	775	-	-
Ruggles Brice	-	-	-	42	42
Nyandiduma	-	-	57	-	Planted
Tangeni River	-	-	231	-	-
Konga	-	-	-	5	Planted
Bunduki	-	-	104	-	Planted
Vigoza	-	-	26	-	Riyerain Forest
Vigoregore	-	-	-	-	-
Mkungwe	-	-	6,640	-	-
Mkulazi	-	-	68,627	-	-

Ruvu	-	-	3,092	-	-
Shikurufani	-	-	3,092	-	-
Kilengwe	-	-	996	-	-
Nemele	-	-	10	-	-
Mabundi	-	-	57	-	-
Kwangolo	-	-	34	-	-
Nalonga	-	-	34	-	-
Mnkangata	-	-	23	-	-
Diwala	-	-	23	-	-
Milongwe	-	-	17	-	-
Kisalasala	-	-	6	-	-
Kisego	-	-	12	-	-
Luhengwe	-	-	-	58	-
Malanga	-	-	-	26	-
Total	50,242	7,542	91,886	31,351	-

Source: (DTH) the Hague 1975.

TABLE II -17: FOREST RESERVE IN KILOSA DISTRICT AREA BY HECTARES AND CLASSIFICATION 1975.

Name of Forest Reserve	Protective			Productive	Remarks
	Mountain Catchment		Low Land Catchment		
	A1	A2	B	C	
Talagwe			1,085		National Plantation Project recently closed 11 ha planted
Mamboya			204		
Ikwamba	889				
Mamboto	149				
Uponera	292				
Milindo	3,087				
North Mamiwa Kisara	6,941				
South Mamiwa Kisara	6,266				
Kihotori			208		
Ukwiva	54,635				
Pata	10,619				
Chonwa			705		
Total	82,878		2,202		

Source: DTH the Hague 1975.

TABLE II -18: FOREST RESERVE IN KILOMBERO DISTRICT AREA BY HECTARES AND CLASSIFICATION, 1975.

Name of Forest Reserve	Productive			Productive C	Remarks
	Mountain Catchment		Low Land Catchment		
	A1	A2	B		
Mwanikana	17,993				Ground water reserve
Magombela			1,578		
Kalinga			761		
Kilombero River				158,365	
Nyanganje	18,988				Game reserve
Iwonde	14,749				
Ikanga			3,467		
Matundu	17,656				
Iyondo	27,960				11 ha planted
Uzungwe Scarp	P.M.				
Njerera	P.M.				
Masagati			6,472		
Total	97,346		12,278	158,365	

Source: (DHT) the Hague 1975.

TABLE II - 19: FOREST RESERVES IN ULANGA DISTRICT AREA BY HECTARES AND CLASSIFICATION, 1975.

Name of project reserve	Protective			Productive	Remarks
	Mountain Catchment		Lowland catchment		
	A ₁	A ₂	B	C	
Nambiga			1,390		Game reserve
Myowe			93		
Mahenge Scarp			388		
Nawenge			169		
Kwiro			134		
Mzelezi			771		
Mahulu			987		
Sali			983		
Luhombero				296,948	
Ngindo				535,531	
Total			4,931	832,479	

Source: Ministry of Foreign Affairs Directorate of Technical Assistance (DTH) the Hague 1975.

Enrichment of some forest reserves is being done. Some 1,500 ha. of A1 protective forest reserve of Milindo in Ukaguru mountains have been planted with soft woods since 1957. When in full production and managed on a 25 - year rotation, the plantation will be able to produce some 25,000 cubic metres of soft wood timber per annum. At present only a few cubic meters are being harvested.

Apart from the 1,500ha of forest plantation in Milindo within a protective catchment forest reserve, there are other plantations excised from public land or in productive forest reserves . In Morogoro district Teak plantations can be found in Mtibwa and Lusunguru forest reserves. About 1,500 ha have been planted and thinnings are being harvested as poles. The Teak Company (E.U) by 1997 will have planted 1,000 ha in Kilombero district and 2,000 ha in Ulanga district.

Some small plantations exists as for example some 40ha in lowland protective catchment areas of Kihiliri in Kilosa and Nawenge in Ulanga. In Bunduki, a mountain protective catchment area on the slopes of Uluguru mountains, some 150ha. have been planted.

Efforts at afforestation by the general public to counteract the efforts of environmental degradation on public land are being helped by many NGOs such as the MALIHAI CLUB. These efforts are focused at the Uluguru Mountains and the divisions of Ngerengere in Morogoro Rural district and Gairo in Kilosa district.

TABLE II-20: RECORDED ANNUAL PRODUCTION AND SALES OF FOREST PRODUCE FOR THE YEARS 1971, 1973 AND 1995.

Product/Year	1971	1973	1995
Saw timber in M ³	28,500	39,900	12,968
Poles (number)	54,100	20,000	25,550
Fuel wood in M ³	7,500	22,000	12,220
Charcoal (number of bags)	55,900	52,000	22,642

Source: Regional Natural Resources Office, Morogoro 1997.

Fig. 62 (a): Recorded annual production of saw timber in M³ 1971, 1973 and 1995 in Morogoro region

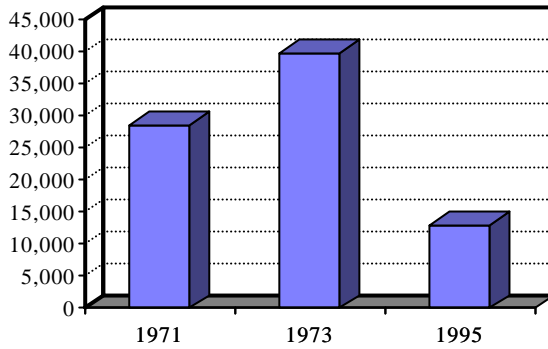


Fig. 62 (b): Recorded annual production of number of poles , 1971, 1973 and 1995 in Morogoro region

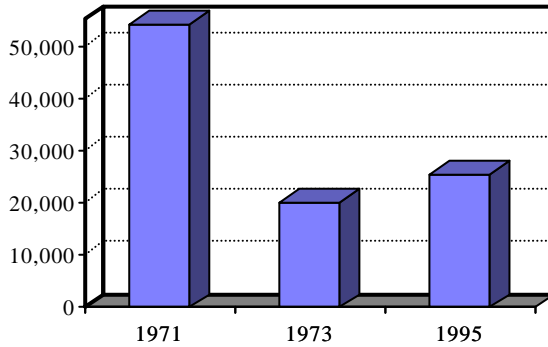


Fig. 62 (c): Recorded annual production of fuel wood in M³, 1971, 1973 and 1995 in Morogoro region

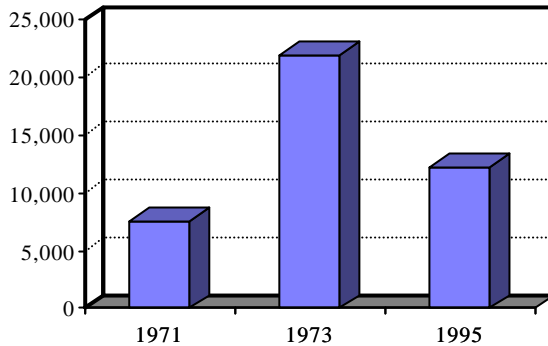


Fig. 62 (d): Recorded annual production of charcoal (number of bags) 1971, 1973 and 1995 in Morogoro region

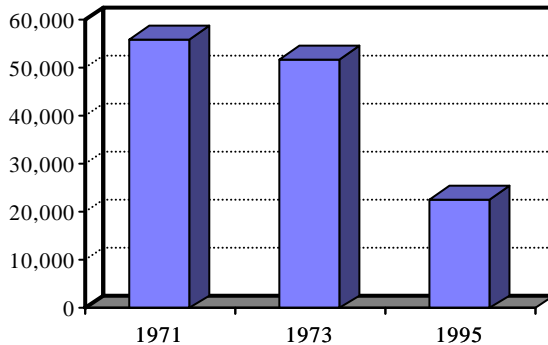


Table II -20 shows how the region has benefited from various forest products for the years 1971, 1973 and 1995. For some un-explained reason records of 1995 production and sales are much lower than would be expected.

Table II -21 shows government revenues from forest products for the two years of 1990 and 1992.

TABLE II -21: GOVERNMENT REVENUES FROM VARIOUS FOREST PRODUCTS, MOROGORO REGION, 1990 AND 1992: (T.SHS'000)

Type	Year	
	1990	1992
Round wood (logs)	5,540	21,008
Bush-five wood	294	1,041
Charcoal	974	1,156
Bushpoles	12	9
Others	432	977
Total	7,252	24,191

Source: Regional Natural Resources office Morogoro 1996.

Note: Others includes miscellaneous products and fines for contravening forests laws.

2.3.4 FISHERIES:

Morogoro region has no large bodies of water from where fishery activities could be carried out. However, the region is blessed with numerous rivers, ponds and minor lakes/dams/reservoirs. It is well watered.

Rivers are mainly the Kilombero, Ruaha, Wami, Ruvu and Luwegu and their many tributaries. Morogoro Rural boast of 450 man-made ponds while there are too such ponds in Kilosa. Also in the region are lakes/dams of restricted size, especially in the north east and south west of Kilosa district and northern Morogoro Rural. Fisheries activities are also carried out in

Morogoro Urban area following the construction of Mindu dam within the district.

Inland fisheries have been developed in the Region primarily on the Kilombero river and its tributaries. Fishermen, predominantly from Ifakara, go to the river and stay in provisional camps at various distances from Ifakara for periods of two or more weeks. Most of the fishing is done in the months from June to December and occasionally in January. The other months only minor fishing activities are carried because of floods. The number of fishermen varies from season to season. The average number of fishermen total about 1,000 and the total number of camps is usually about 20. The furthest camp is approximately 15 miles from Ifakara. Fishing is done by seining, gillnets, traps and hooked lines with many hooks. The mesh width of the nets is generally 3in. The report of ILACO in 1967 estimate annual catch to be 2,400,000 fish with an approximate weight of 1,200,000 kgs. fresh. However a rough estimation done by (DTH) the Hague in 1975 estimated a catch of 4,000,000 fish with a total weight of 2,000,000 kgs fresh weight. The main species caught are Tilapia and clarias. The fish is smoked in the camp or along the borders of the river and then transported to Ifakara.

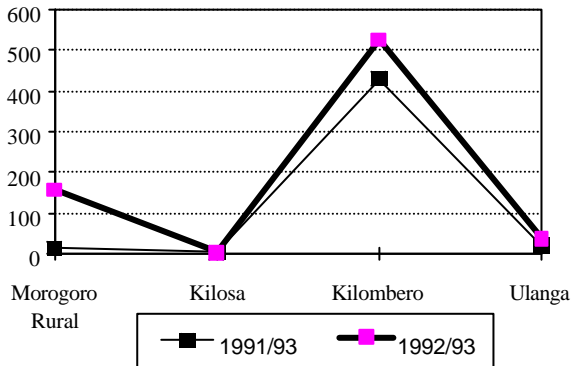
The weight and value of fish caught during 1991/92 and 1992/93 seasons is given by Table II -22. It is clear from this table that Kilombero district accounts for the bulk of catches in the region followed by Morogoro Rural. The price per kilogram of fish was shs. 128 and shs 237 in 1991/92 and 1992/93 respectively. .

TABLE II-22: DISTRIBUTION OF FISH CATCHES BY DISTRICT, MOROGORO REGION 1991/92 AND 1992/93.

District	1991/92		1992/93	
	Tons	Shs (000)	Tons	Shs (000)
Morogoro Rural	15.0	3,228	158.2	61,397
Kilosa	5.0	4,330	4.8	705
Kilombero	430.0	47,072	526.1	95,381
Ulanga	21.0	5,607	37.7	14,840
Total	471.0	60,237	726.8	172,323

Source: Regional Natural Resources Office, Morogoro, 1997.

Fig. 63: Distribution of fish catches by district, Morogoro Region 1991/92 and 1992/93.



To show the trend in the amount of fish caught each year and its value, Table II-23 demonstrates this for the past 11 years. Though the total earnings has increased dramatically over the years, the amount of fish caught has stagnated around 2,500 tons a year.

TABLE II-23: PRODUCTION AND VALUE OF FISH, MOROGORO REGION, 1986 TO 1996.

Year	Tons	Tshs (000)	Average Price per kilogram Tshs.
1986	2,229.55	9,363.7	4.20
1987	1,620.00	8,102.5	5.00
1988	2,721.90	107,354.3	39.44
1989	2,184.40	165,899.5	75.95
1990	2,682.40	220,312.4	82.44
1991	2,682.72	191,455.6	71.37
1992	-	194,724.0	-
1993	-	-	-
1994	2,405.25	495,097.4	205.84
1995	2,977.70	1,002,275.9	336.59
1996	2,203.50	575,274.5	261.07

Source: Regional Natural Resources Office, Morogoro, 1977.

In addition to the 2,500 tons or so caught within the region every year, the region also receives fish from other regions of Tanzania notably Mwanza, Kigoma, Tabora, Dodoma, Iringa and Dar-es-Salaam. Table II -24 shows how much was received in 1996. In that year the region received as much fish as it produced at half the price. In some good years the region also exports fish to other regions. In 1992/93 it exported 33 tons valued at T.Shs. 4,483,100.

TABLE II-24: FISH RECEIVED BY MOROGORO REGION FROM OTHER REGIONS BY DISTRICTS, 1996.

District	Tons	Value (T.shs.)	Average value per kg. T.shs.
Morogoro	1,564.00	210,770,000	134.76
Kilosa	22.00	5,405,000	245.68
Kilombero	416.00	46,073,000	110.75
Ulanga	21.00	5,637,000	268.43
Total	2,023.00	267,885,000	132.42

Source: Regional Natural Resources Office, Morogoro, 1997.

Fig. 64: Fish received (tons) by Morogoro region from other regions by districts, 1996

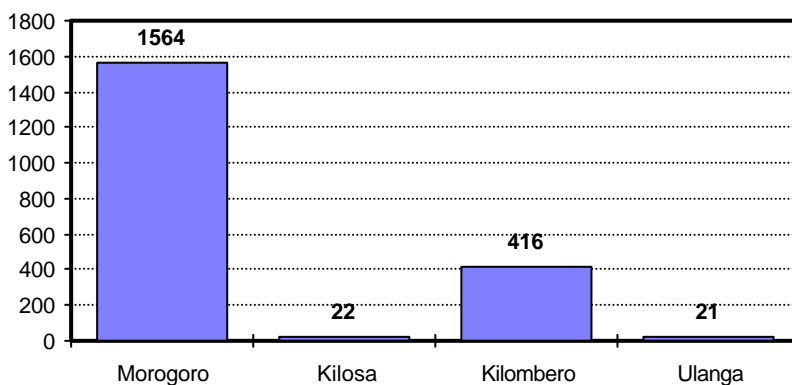
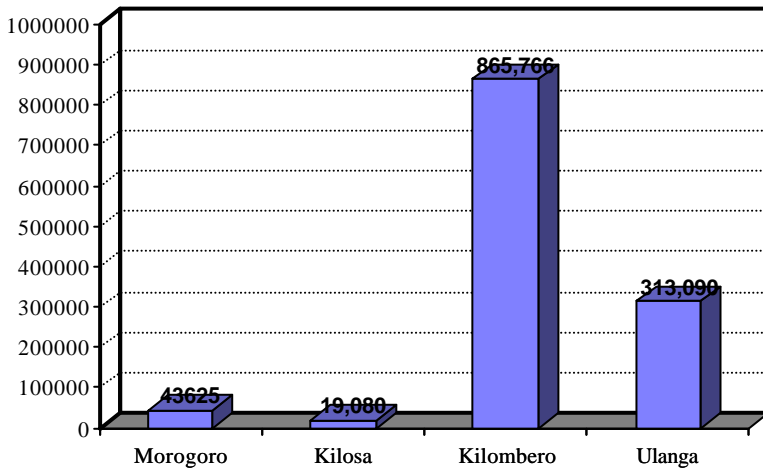


TABLE II-25: GOVERNMENT REVENUE FROM FISH INDUSTRY BY DISTRICTS, MOROGORO REGION, 1996. (T.SHS).

District	Morogoro	Kilosa	Kilombero	Ulanga	Total
Fishing licences	16,440	19,080	215,700	80,150	331,370
Other	27,185	-	650,066	232,940	910,191
Total	43,625	19,080	865,766	313,090	1,241,561

Source: Regional Natural Resources Office, Morogoro 1997.

Fig. 65: Total government revenue from fish industry by districts, Morogoro region, 1996 (TShs.)



The revenue collected by the government from fish products is quite modest.

2.3.5 Beekeeping:

Beekeeping is particularly well suited to the region given its extensive forest cover and well watered lands. It is an area also well suited to providing employment at short notice to unemployed or under- employed youths in the rural areas.

But in spite of this industry's great potential it has been barely exploited. Table II-26 shows that only recently has honey topped the 100 ton level.

TABLE II - 26: PRODUCTION OF HONEY AND BEESWAS, MOROGORO REGION, 1985-1995.

Year	Honey		Beeswax		Total
	Kgs	T.shs.	Kgs	T.shs.	
1985	29,705	501,000	2,672.5	24,750	525,750
1986	16,641	832,050	1,290	77,400	909,450
1987	17,422	616,888	1,323.5	213,160	830,048
1988	18,628	807,200	669	40,080	847,280
1989	22,469	2,246,900	951	113,120	2,360,020
1990	20,290	2,019,000	953	133,950	2,152,950
1991	62,750	9,412,650	2,070	520,000	9,932,650
1992	83,300	4,165,000	2,776	555,200	4,720,200
1993	116,900	11,690,000	3,896	519,000	12,209,000
1994	127,150	12,715,000	4,200	6,300,000	19,015,000
1995	123,100	12,300,000	4,000	8,000,000	20,300,000

Source: Regional Natural Resources Office, Morogoro, 1997.

Fig. 66 (a): Production of honey in Kgs. Morogoro region, 1985 - 1995

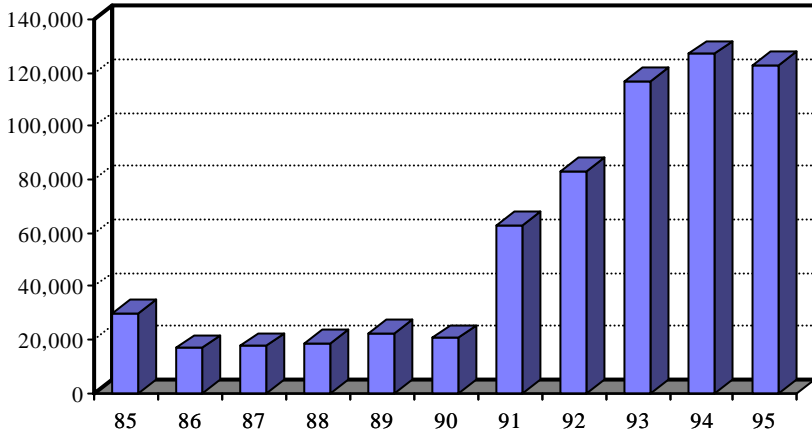
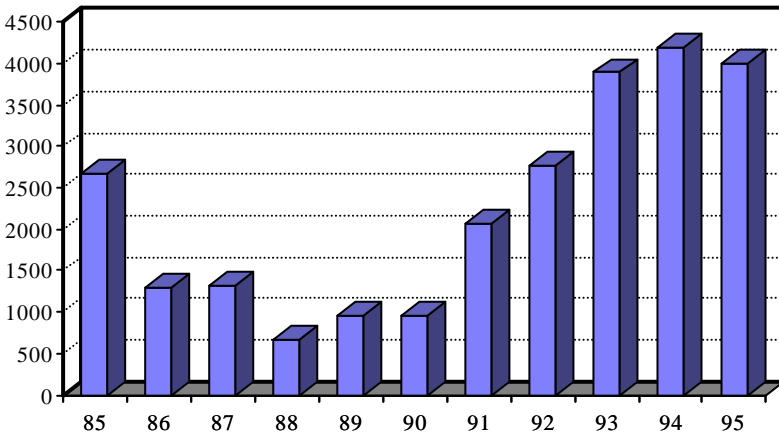


Fig. 66 (b): Production of beeswax in kgs Morogoro region, 1985 - 1995



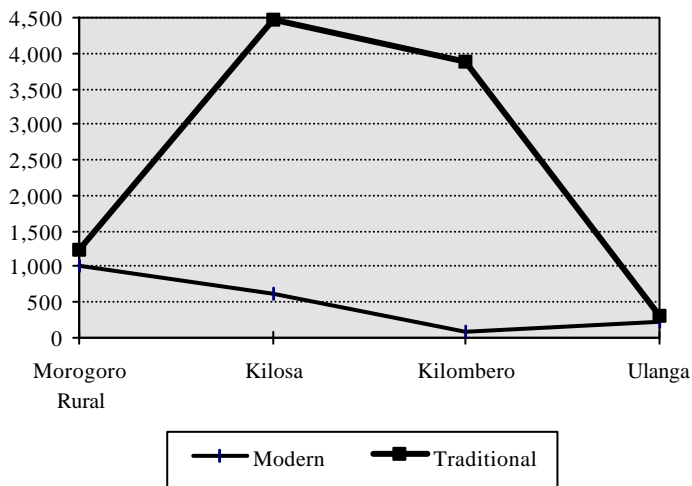
District-wise Kilosa leads in the number of beehives, but that Morogoro Rural has the most of modern beehives. See Table II-26.

TABLE II-27: DISTRIBUTION OF BEEHIVES BY DISTRICT, MOROGORO REGION: 1991.

District	Modern	Traditional	Total
Morogoro Rural	1,006	1,248	2,254
Kilosa	610	4,464	5,074
Kilombero	93	3,894	3,987
Ulanga	237	315	552
Total	1,946	9,921	11,867

Source: Regional Natural Resources Office, Morogoro 1997.

Fig. 67: Distribution of beehives by districts, Morogoro region, 1991



2.3.6 Wildlife:

Morogoro region is to be envied in having an abundance of wildlife for both viewing and hunting.

A large fact of the biggest game reserve in Africa is in the region. This is the Selous Game Reserve, since hunting for pleasure and meat was closed, the status of the roads has deteriorated greatly particularly the southern half of the reserve. The northern part of the Game Reserve used to provide some excellent game viewing both on land and on the waters of the Rufiji River. Tented accommodation used to be available at a camp on the banks of the Mezini River. Selous is favoured in that it shows no conflict between agriculture and livestock development and wildlife. This state of affairs is attributed to poor soils and tsetse infestation. However, poaching is a problem.

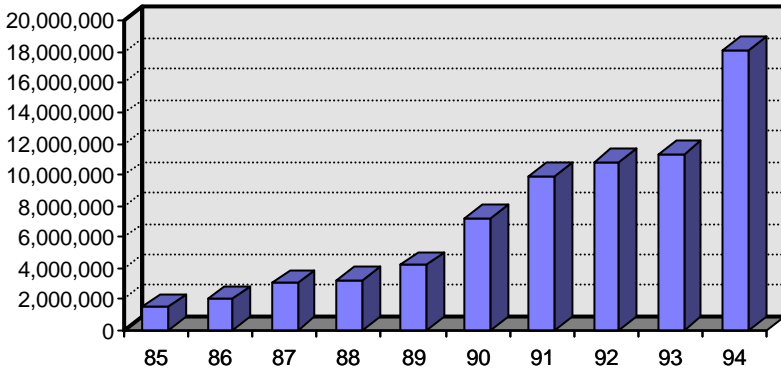
Table II-28 shows government revenues from hunting licenses.

TABLE II -28: GOVERNMENT REVENUE FROM HUNTING LICENSES, MOROGORO REGION 1985 TO 1994.

Year	T. Shs.
1985	1,433,315
1986	1,983,263
1987	2,999,449
1988	3,206,500
1989	4,155,058
1990	7,252,360
1991	9,967,067
1992	10,807,332
1993	11,375,328
1994	18,088,795

Source: Regional Natural Resources Office, Morogoro, 1997.

Fig. 68: Government revenue from hunting licences, Morogoro region 1985 to 1994, T.Shs.



Other protected areas rich in wildlife are the National Parks of Mikumi, Ruaha and Udzungwa.

2.3.7 Industrial Development:

Industries in the region can be classified into two groups: Medium sized and small scale industries. Between 1988 to 1990 Morogoro region had more than 19 medium scale industries and well over 100 small scale industries. These establishments absorbed some 15,000 people in employment. From the early 1990s to date many of these industries have closed down or are on the brink due to liquidity problem poor management and lack of outlets for finished products. An estimated 12,000 people have lost employment as a consequence. The current measure by the government of privatization could revive some of these collapsed industries.

A list of already privatized medium industries is as follows: Moproco, Morogoro shoes, Morogoro Tanneries Ltd and the Morogoro Tobacco Factory. Others in various stages of

privatization include: Canvas mill, Polytex, Gunny bag, Ceramic, Kilombero and Mtibwa Sugar factories, Kilosa Carperts Industry and Mang'ula MMT.

There are several small scale industries in the region operating under different capacities and producing various products. These include weaving, fibre processing, metal works, pottery, oil processing, milling, cart manufacturing, Fruit and vegetable canning and many others.

2.3.8 **Mining:**

The region has not played a significant part in mineral production recently. The sector however, could contribute greatly to regional economy if proper mineral investigations are carried out, the technology is right and the capital available. A little mining is currently taking place for ruby in Mahenge district and Matombo in Morogoro district. In the past mining for mica used to be carried out extensively. This is no longer the case although mica deposits are still plentiful.

The region is endowed with three types of minerals. These are precious stones e.g. sapphire and ruby, semi precious stones are rhodolite, green tourmaline and amethyst. These are the coloured gemstones. The region is also rich in construction materials such as sand, gravel and stones. Thirdly, there are the industrial minerals of limestone, mica and graphite.

SECTION III

ECONOMIC INFRASTRUCTURE

3.1 ROAD NETWORK

The region has a total road network of 3, 742 kms. Out of this total 55 kms are trunk roads, 961 kms regional roads, 1043 kms district roads and 1,179 kms feeder roads. See Table III.1. The trunk and regional roads are in good shape, although they still need some maintenance. District and feeder roads are in a poor state. Feeder roads especially are in an appalling situation which requires urgent attention. Generally speaking all trunk roads are tarmac, regional and district roads are of gravel standard and feeder road are made of earth material.

TABLE III: 1 ROAD NETWORK DISTRIBUTION BY DISTRICT AND TYPE, MOROGORO REGION, 1993

District	Trunk Roads	Regional Roads	District Roads	Feeder Roads	Total
Kilombero	74	271	188	67	600
Kilosa	230	215	397	666	1,508
Morogoro Rural and Urban	187	331	335	310	1,163
Ulanga	68	144	123	136	471
Total	559	961	1,043	1,179	3,742

Source: Morogoro Regional Statistical Abstract, 1993

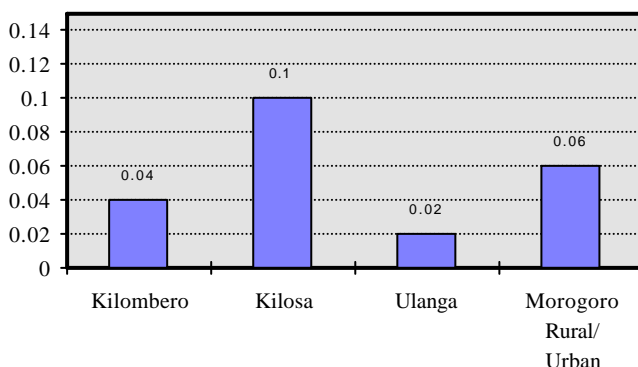
With respect to road density table III.2 shows that the best favoured is Kilosa district. But since Morogoro Urban was excised from Morogoro Rural if data was available the data would show that the urban district of Morogoro is the best covered given its urban nature. Hence, the Morogoro Rural/Urban data in that table should be interpreted with reservation. This does not distract from the fact that Ulanga district is the worst served at 0.02 km/sq. of land area.

TABLE III. 2: ROAD DENSITY BY DISTRICT MOROGORO REGION 1996

District	Land Area Sq. km.	Total/ Roads kms.	Road/ Density km/sq. km.	Ranking
Kilombero	14,245	600	0.04	3
Kilosa	14,918	1,508	0.10	1
Ulanga	24,460	471	0.02	4
Morogoro Rural/Urban	19,316	1,163	0.06	2
Total	72,939	3,742	0.05	-

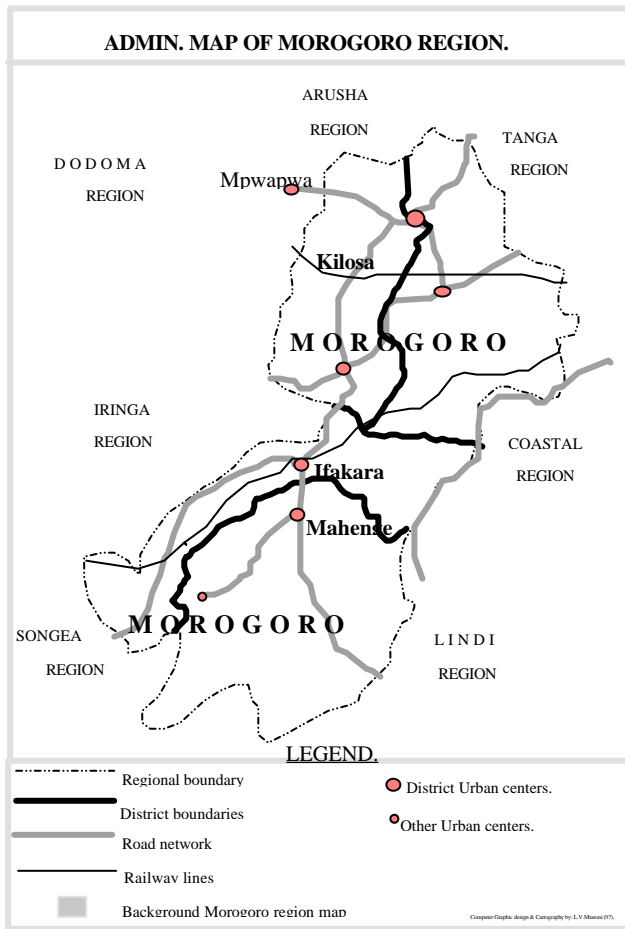
Source: Regional Engineer's Office, Morogoro, 1997

Fig. 69: Road density km/sq. km by districts, Morogoro region 1996



Compared to Mwanza region's average density of 0.315 km/sq. km. Morogoro's road network is very underdeveloped at 0.05 kms/sq. km of land.

ROAD NETWORK - MOROGORO REGION



3.2 Railway Network:

The Central Railway line passes through the middle of Morogoro town which is the major town of the region hence connecting the two northern districts of the region -Kilosa and Morogoro rural with Dodoma Region in the west and Coast Region in the east. TAZARA Railway line also passes through the south of Morogoro rural district with its major station of Kisaki connecting Morogoro district with Kilombero District in the south. This line however acts as a good link between Kilombero district and Makambako in Iringa region and also between the Southern part of Morogoro district with the Coast region as well as Dar es Salaam.

3.3 Air Transport

Morogoro Region is served by 5 airstrips. There is one in the town and one in each of the four districts. The Ulanga strip is in the Selous Game Reserve. The Morogoro Rural district strip is at Bwagala Hospital in Turiani division. In Kilosa district the strip is in Kilosa town and in Kilombero district the strip is at KATRIN. Most of the strips are small and made of gravel, hence they are only used by small planes. There is no commercial air service to the region.

3.4 Communication Network

The Postal service in Morogoro region boasts of 10 regular post offices and 21 other postal agencies with a total of 6,625 letter boxes. The telephonice service has the installed capacity of 4,010

service lines out of which 3,169 have been taken up. There are also 102 Fax lines, 35 Telex lines and 8 e-mail lines in operation.

3.5 ENERGY

3.5.1 Electricity

Morogoro region is the main sources of hydro-electric power for the National Grid System. A total of 190 MW are provided by the Kidatu Hydroelectric Power Station. Another hydroelectric power station is under construction at Kihansi in Kilombero district. When completed Kihansi is expected to produce about 200 MW for national use and will be connected to the Kidatu Hydroelectric Power Station. All the districts are served by electricity from Kidatu. 15,926 people are currently enjoying this service in the region.

The total supply of electric energy to the region for domestic, commercial industrial and public lighting is given Table III - 4. In all 68,719,000 KWHs were supplied in 1991 and this was increased to 85,092,000 KWHs in 1992.

TABLE: III - 4: ELECTRICITY GENERATED AND SOLD BY TYPE OF USE IN MOROGORO REGION 1991 - 1992 - (KWH "000")

TYPE OF USE	1991		1992	
	KWH "000"	% OF TOTAL SOLD	KWH "000"	TOTAL SOLD
Domestic	19,439	28.3	21,620	25.4
Commercial	6,616	9.6	8,618	10.1
Industrial	42,369	61.7	54,479	64.1
Public Lighting	210	0.4	298	0.4
Total Sold	68,634	100	85,015	100
Power Station and Transmission Losses	85	-	77	-

TOTAL GENERATED	68,719	-	85,092	-
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Source: Regional TANESCO, Office, Morogoro

Table III.3 shows that region- wise 7.4% of Morogoro's households had electricity in 1988. Morogoro urban district had the highest percentage at 40.4% while Ulanga has the lowest at 0.4%

TABLE III-3: SUPPLY OF ELECTRICITY BY HOUSEHOLDS AND BY DISTRICT, MOROGORO REGION, 1988

DISTRICT	Electricity supply to households			Total households	% with electricity (of total)
	Served	Not served	Not Stated		
Kilosa	4,021	59,582	91	63,694	0.6
Morogoro Rural	976	80,762	135	81,873	1.2
Kilombero	991	32,312	35	33,338	3.0
Ulanga	99	21,125	854	22,078	0.4
Morogoro Urban	10,796	15,896	10	26,702	40.4
Total	16,883	209,677	1,125	227,705	7.4

Source: Planning Commission compiled data from morogoro Regional Statistical Abstract, 1993.

3.5.2 Fuelwood.

Fuelwood as a source of energy for cooking is also important in this region. In fact it is the dominant source of energy for domestic purposes. The Natural Resource office in Morogoro region reports that in 1990 and 1992 fees collected for the sale of charcoal in the region was T.shs. 974,000 and 1,156,000

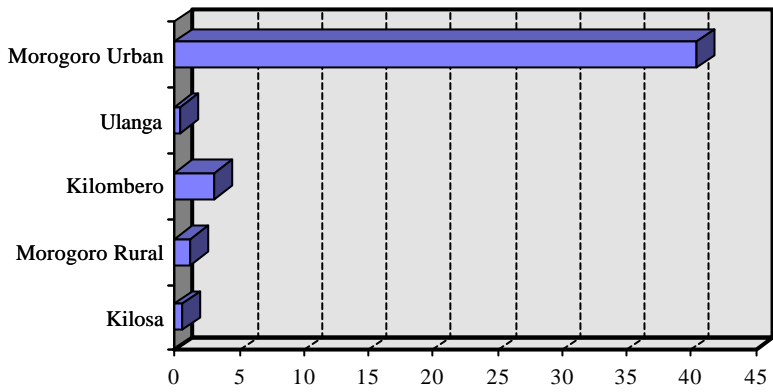
respectively. This represents a small part of the picture. It does not include charcoal and firewood gathered by the population in the rural areas. The rural population constitute 78% of the whole population of the region.

On the supply side although 19.4% of the region's land area is given over to forest reserves the remaining public land is also well wooded. An FAO report in 1994 indicated that about 88% of the total region's land area was covered with forest. So there are some 53,000 sq. kms. of forest cover in the public lands where the charcoal and firewood comes from. This is a huge potential which with proper planning and good management can meet the demands for fuelwood, poles and timber of the region for decades to come.

3.5.3 Fossil fuels

In 1988 only 7% of the region's households had electricity in their homes. The large majority of households i.e. 93% use kerosene and firewood for domestic lighting. Kerosene is widely used for lighting in rural areas and some urban areas. Other uses of petroleum products are for transport, industrial and commercial purposes.

Fig. 70: Percent with electricity (of total) by districts, Morogoro region, 1988



SECTION IV

SOCIAL SERVICES

4.1 EDUCATION SECTOR

4.1.1 Pre-schools (Nursery Schools)

The recent record shows that there are 147 nursery schools in the region with the capacity to admit a total number of more than 8000 children of both sexes. Information from the Regional Education Officer indicates that in 1996 a total number of 7,293 pupils being 4345 boys and 3848 girls were admitted in the pre-schools.

There are currently 159 teachers for pre-schools in the region. These schools are very important in the region as they are normally used to prepare children for joining primary schools. The schools admit children of the ages of 3 - 6 years. The following table IV - 1 shows the number of schools, children in the schools by sex and the number of teachers by district in 1996.

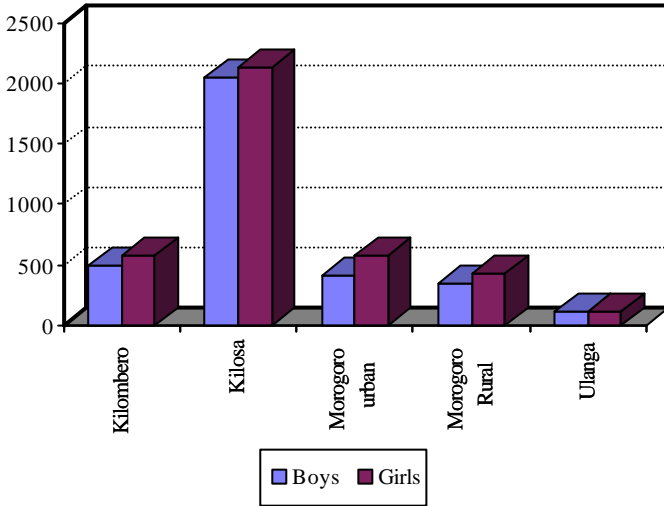
TABLE IV - 1: PRE-SCHOOLS, NUMBER OF PUPILS BY SEX AND NUMBER OF TEACHERS PER DISTRICT. MOROGORO, 1996.

DISTRICT	NUMBER OF SCHOOLS	NUMBER OF PUPILS			NUMBER OF TEACHERS
		BOYS	GIRLS	TOTAL	
Kilombero	24	499	578	1,077	24
Kilosa	82	2,053	2,135	4,188	82
Morogoro urban	15	420	585	1,005	26
Morogoro Rural	20	355	434	789	21
Ulanga	6	118	116	234	6

Total	147	3,445	3,848	7,293	159
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Source: Regional Education Office, Morogoro 1997

Fig. 71: Pre-schools number of pupils by districts and sex, Morogoro region, 1996



4.1.2 Primary School Education

4.1.2.1 Number of Schools and Enrolment

Since Independence, primary school education has always been given priority by government. This is reflected in the dramatic increase in the number of such schools between 1965

TABLE IV - 2: EXPANSION OF PRIMARY EDUCATION (1965, 1975, 1985, 1996) IN MOROGORO

GRADE	1965				1975				1985				1996			
	SCHOOLS	B	G	T	SCHOOLS	B	G	T	SCHOOLS	B	G	T	SCHOOLS	B	G	T
I	105	3001	2859	5860	214	5819	5544	11363	510	16497	15718	32215	630	17965	17117	35082
II	105	2788	2679	5467	214	5405	5195	10600	510	15323	14729	30052	630	16687	16040	32727
III	105	2498	2405	4903	214	4843	4664	9507	510	13732	13221	26953	630	14954	14398	29352
IV	105	2384	2326	4710	214	4622	4511	9133	510	13103	12789	25892	630	14269	13927	28196
V	105	2013	2036	4049	214	3903	3948	7851	510	11064	11193	22257	630	12049	12189	24238
VI	105	2240	2120	4360	214	4344	4110	8454	510	12317	11651	23968	630	13413	12688	26101
VII	105	1878	1863	3741	214	3640	3613	7253	510	10320	10242	20562	630	11239	11153	22392
TOTAL	105	16,80	16,28	33,09	214	32576	31585	64161	510	92356	89543	18189	630	10057	97512	19808
		2	8	0								9		6		8

Source: Data Compiled from Regional Education Office data, Morogoro Region, 1997 and 1996 as shown by Table IV - 2. (B = Boys, G = Girls and T = Total)

Between 1965 and 1975 the number of primary schools increased by 104%. In comparison the increase in the number of schools between 1975, 1985 and 1996 was 138% and 24% respectively.

This shows that the momentum given by the universal Primary Education (U.P.E) is stabilizing.

Given the census populations for the years 1967, 1978, 1988 and 1996 estimates one builds a picture to measure the volume of population per primary school. See Table IV - 3.

TABLE IV - 3: POPULATION COVERED PER PRIMARY SCHOOL, MOROGORO REGION, 1965, 1975, 1985 AND 1996.

YEAR	1965	1975	1985	1996
Population	685,104	931,447	1,220,564	1,503,761
Number of primary schools	105	214	510	630

Polulation per primary school	6,525	4,353	2,393	2,387
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Source: Data compiled from 1967, 1978, 1988 censuses and from the Regional Education office data Morogoro, 1997.

Table IV - 3 reveals that the population to primary school ratio has been improving all these years to reach a low of 2,387 people per primary school.

TABLE IV-4: PERCENTAGE INCREASE IN THE NUMBER OF PRIMARY SCHOOLS AND PUPIL ENROLMENT FOR THE YEARS 1965 TO 1966

Years Compared	1965 - 1975	1975 - 1985	1985 - 1996
Percent Increase in number of primary schools	104	138	24
Percent Increase in primary school enrolment	73	184	8

Source: Data compiled from Regional Education office data Morogoro, 1997.

From Table IV - 4 it is seen that school enrolment had its most dramatic increase between the years 1975 and 1985. Since then the situation has stabilised.

Table IV - 5 shows that enrolment has stabilised at around 80% of all children eligible to enrol. This has been like that since 1992 todate.

TABLE IV - 5: PRIMARY SCHOOL ENROLMENT RATES AND TARGETS FOR MOROGORO REGION FOR 1992 AND 1996 BY DISTRICT.

District	Grade I ENROLMENT TARGETS		GRADE - 1 ACTUAL ENROLMENT			
	1992	1996	1992	% of target	1996	% of target
Kilombero	8,847	8,765	6,989	79	6,574	75
Kilosa	8,942	11,144	7,857	88	8,804	79
Morogoro Rural	13,277	15,766	11,597	87	11,036	70
Morogoro urban	4,270	6,323	3,416	80	5,058	80
Ulanga	5,958	5,912	4,936	83	4,611	78
Total	41,294	47,910	34,795	84	36,083	75

Source: Data compiled from Regional Education office data Morogoro, 1997

Fig. 72 (a): Primary school grade I enrolment targets by sex, 1992 and 1996 by districts

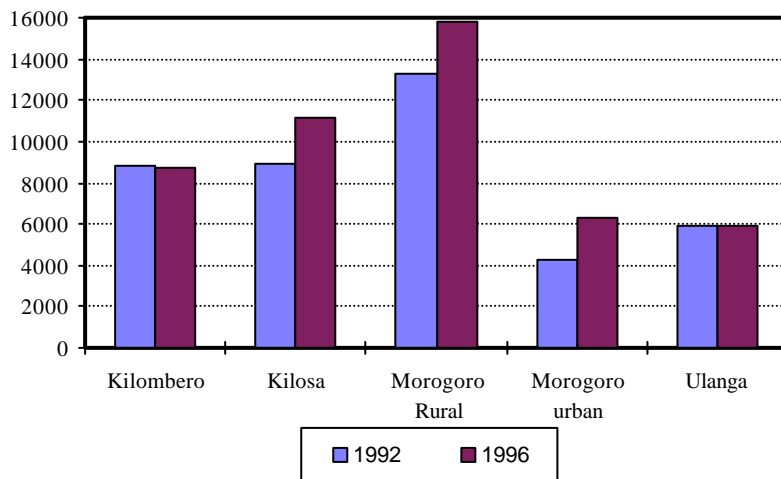
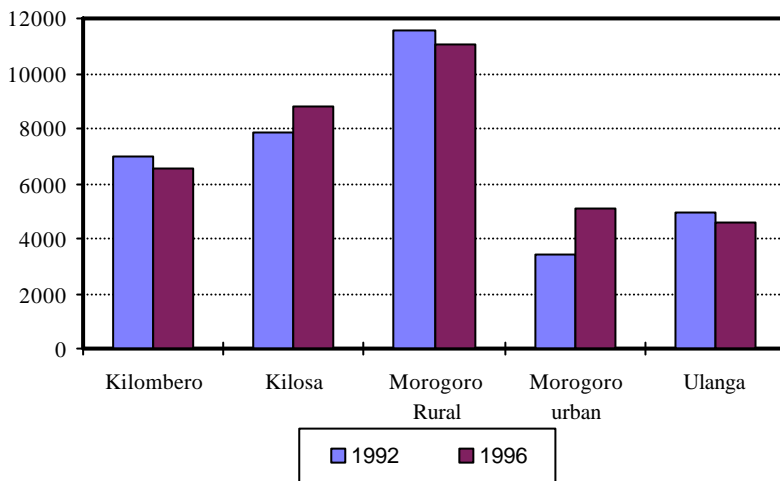


Fig. 72 (b): Primary school grade I actual enrolment by sex, 1992 and 1996 by districts



actual enrolment is showing a tendency to deteriorate in relation to the targets as the years go by.

TABLE IV - 6: ENROLMENT IN PUBLIC PRIMARY SCHOOLS BY SEX AND GRADE, MOROGORO REGION, 1987 - 1993

SEX	YEAR	CLASS							
		I	II	III	IV	V	VI	VII	TOTAL
BOYS	1987	13419	11707	12743	10858	10,545	9977	10220	79469
	1988	13742	11993	11446	11737	8220	9760	9670	76568
	1989	16806	13090	11595	12177	9927	8344	9387	81326
	1990	16829	16078	14620	15169	10734	9551	8914	91895
	1991	17570	15830	14563	15151	10262	9544	9186	92106
	1992	17912	16724	14793	16407	10994	9811	9255	95896
	1993	16575	16111	16341	16194	12819	10592	9483	98115
GIRLS	1987	13214	11735	11882	11123	11520	10933	10572	80979
	1988	11467	11282	11679	12617	9027	10872	10180	77124
	1989	15617	10704	14620	12468	9864	9155	9652	82080
	1990	15961	15202	13260	13912	10832	9792	9196	88155
	1991	16747	14806	13563	14522	10089	9581	9030	88338
	1992	16883	14819	13697	15416	10368	9531	9180	89894
	1993	15786	15261	14360	15362	12594	10114	9290	92767
TOTAL	1987	26633	23442	24625	21981	22065	20910	20792	160448
	1988	25209	23275	23125	24354	17247	20632	19,850	153692
	1989	32423	23794	26215	24645	19791	17499	19039	163406
	1990	32790	31280	27880	29081	21566	19343	18110	180050
	1991	34317	30636	28126	29673	20351	19125	18216	180444
	1992	34795	31543	28490	31823	21362	19342	18435	185790
	1993	32361	31372	30701	31556	25413	20706	18773	190882

source: Regional Education Office, Morogoro, 1997

Fig. 73 (a): Enrolment in public primary schools for boys by grade, Morogoro region 1987 - 1993

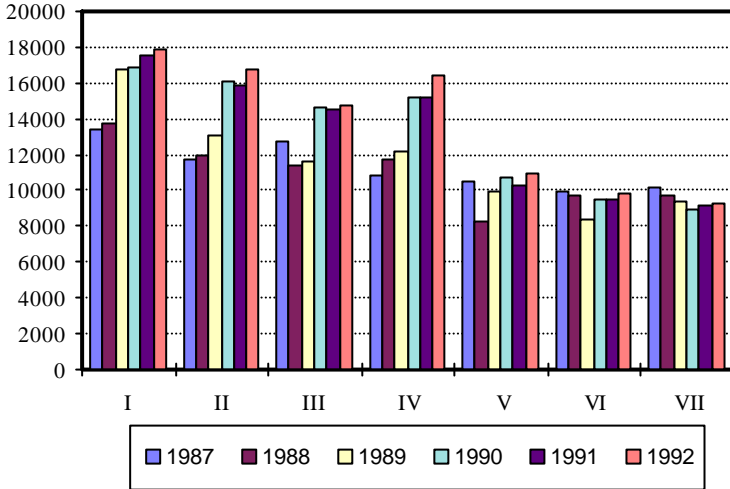
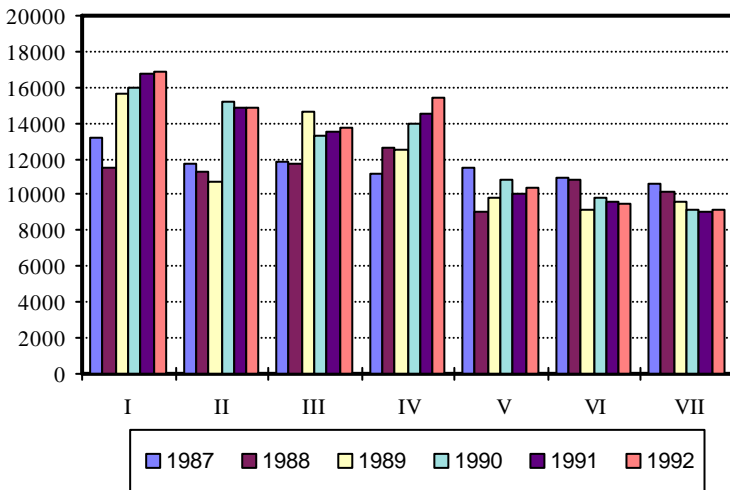


Fig. 73 (b): Enrolment in public primary schools for girls by grade, Morogoro region 1987 - 1993



Over the period 1987 to 1993 the total yearly enrolment increase has barely managed to keep up with the population increase. This

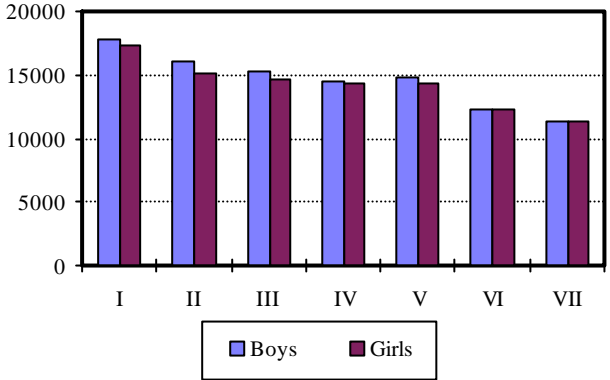
total figure masks the fact that the enrolment increase for girls is below that of the population rate of increase. This is made up by an increase in the enrolment of boys which is faster than the population rate of increase.

TABLE IV - 7: DISTRIBUTION OF PRIMARY SCHOOL EROLMENT BY DISTRICT, SEX AND GRADE, MOROGORO REGION 1996.

DISTRICT	SEX	I	II	III	IV	V	VI	VII	TOTAL
K/MBERO	BOYS	3031	2509	2921	2487	2116	1915	1785	16764
	GIRLS	2955	2440	2986	2459	2033	1762	1674	16309
	TOTAL	5986	4949	5907	4946	4149	3677	3459	33073
KILOSA	BOYS	4192	3868	3452	3181	3688	3140	2714	24235
	GIRLS	4297	3849	3449	3208	3740	3232	2732	24507
	TOTAL	8489	7717	6901	6389	7428	6372	5446	48742
MOROGOR(U)	BOYS	2166	2061	1955	2105	1813	1620	1455	13175
	GIRLS	2183	2117	1949	2196	1840	1809	1583	13677
	TOTAL	4349	4178	3904	4301	3653	3429	3038	26852
MOROGORO (R)	BOYS	6006	5643	5202	4882	5360	4208	3932	35233
	GIRLS	5514	4836	4559	4575	4800	3928	3954	32166
	TOTAL	11520	10479	9761	9457	10160	8136	7886	67399
ULANGA	BOYS	2457	1917	1821	1878	1840	1456	1454	12823
	GIRLS	2385	1895	1749	1818	1925	1527	1403	12702
	TOTAL	4842	3812	3570	3696	3765	2983	2857	25525
	BOYS	17852	15998	15351	14533	14817	12339	11340	102230
	GIRLS	17334	15137	14692	14256	14338	12258	11346	99361
	TOTAL	35186	31135	30043	28789	29155	24597	22686	201591

Source: Regional Education office, Morogoro, 1997

Fig. 74: Total distribution of primary schools enrolment in Morogoro region by sex, 1996



In table IV - 7 and IV - 6 the ratio of boys to girls is about 1:1 showing that on the whole girls are having an equal chance of attending primary schools for their education. Only Morogoro Rural district needs to make an effort to attract more girls.

4.1.2.2 Pupil Dropouts:

From Table IV - 8 the following facts emerge. Generally speaking the number of dropouts increased between 1985 and 1998. But in the case of Ulanga the numbers actually dropped. By far the commonest reason for dropping out has been truancy, followed at a long distance by pregnancies and death, in that order.

**TABLE IV - 8 PRIMARY SCHOOL DROPOUTS IN MOROGORO
REGION, BY DISTICT, SEX AND REASON, 1985 AND
1996**

		1985			1996		
KILOSA	TRUANCY	B	G	T	B	G	T
		186	91	277	190	112	302
	PREGNANCY	-	47	47	-	51	51
	DEATHS	38	15	53	25	11	36
	ANY OTHER REASONS	11	7	18	10	5	15
	TOTAL	235	160	395	225	179	404
K/LOMBERO	TRUANCY	403	344	747	453	361	814
	PREGNANCY	-	116	116	-	126	126
	DEATHS	5	6	11	16	17	33
	ANY OTHER REASONS	2	8	10	19	12	31
	TOTAL	410	474	884	488	516	1004
MORO (R)	TRUANCY	110	70	180	119	75	194
	PREGNANCY	-	38	38	-	41	41
	DEATHS	34	31	65	35	19	54
	ANY OTHER REASONS	11	20	31	16	15	31
	TOTAL	155	159	314	170	150	320
MORO (U)	TRUANCY	42	38	80	50	40	90
	PREGNANCY	-	5	5	-	4	4
	DEATHS	5	7	12	8	6	14
	ANY OTHER REASONS	16	4	20	6	9	15
	TOTAL	63	54	117	64	59	123
ULANGA	TRUANCY	85	110	195	109	120	229
	PREGNANCY	-	13	13	-	28	28
	DEATHS	20	9	29	9	14	23

	ANY OTHER REASONS	11	6	17	4	5	9
	TOTAL	116	138	254	122	167	289
TOTAL	TRUANCY	826	653	1479	921	708	1629
	PREGNANCY	-	219	219	-	250	250
	DEATHS	102	68	170	93	67	160
	ANY OTHER REASONS	51	45	96	55	46	101
	TOTAL	979	988	1964	1069	1071	2140

Source: Regional Education Office, Morogoro, 1997

TABLE IV - 9: DROPOUTS AS PERCENT OF TOTAL ENROLMENT, BY REASON MOROGORO REGION, 1985 AND 1996

Reason	1985 Enrolment	Dropouts	%	1996 Enrolment	Dropouts	%
Truancy	181,899	1,479	0.81	198,088	1,629	0.82
Pregnancy	181,899	219	0.12	198,088	250	0.13
Deaths	181,899	170	0.09	198,088	160	0.08
Other	181,899	96	0.05	198,088	101	0.05
Total	181,899	1964	1.08	198,088	2,140	1.08

Source: Regional Education office, Morogoro, 1992

Table IV - 9 shows that dropouts as a proportion of total enrolment has remained remarkably steady over the eleven year period. This lack of elasticity suggests that dropping out of school is an endemic problems about which not much can be done.

Fig. 75(a): Total enrolment by reasons Morogoro region , 1985 and 1995

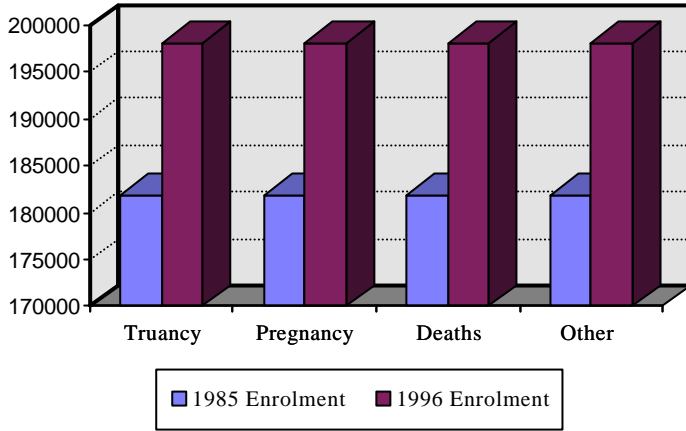


Fig. 75(b): Distribution of dropouts by reasons Morogoro region , 1985 and 1995

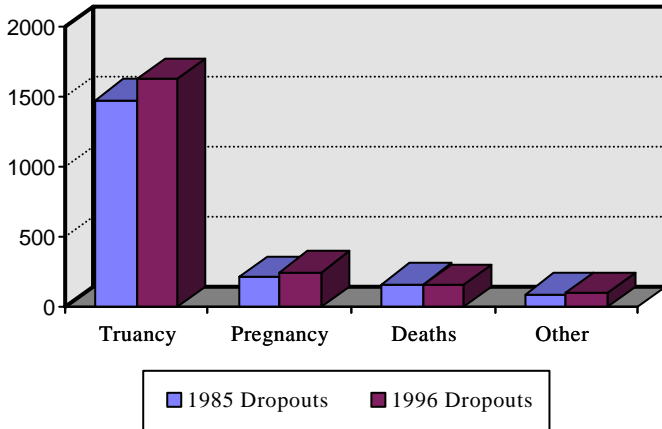


TABLE IV - 10: PRIMARY SCHOOL DROPOUTS BY DISTRICT, REASON AND PERCENT, MOROGORO REGION, 1996

DISTRICT	Reason For Dropout	DROPOUT NUMBER	%	% OF REGIONAL TOTAL DROPOUTS	RANKING
Kilosa	Truancy	302	75		
	Pregnancy	51	12		
	Deaths	36	9		
	Other	15	4		
	Total	404	100	19	4
Kilombero	Truancy	814	81		
	Pregnancy	126	13		
	Deaths	33	3		
	Other	31	3		
	Total	1004	100	47	5
Morogoro Rural	Truancy	194	61		
	Pregnancy	41	13		
	Deaths	54	17		
	Other	31	9		
	Total	320	100	15	3
Morogoro Urban	Truancy	90	73		
	Pregnancy	4	3		
	Deaths	14	12		
	Other	15	12		
	Total	123	100	6	1

Ulanga	Truancy	229	79		
	Pregnancy	28	10		
	Deaths	23	8		
	Other	9	3		
	Total	289	100	13	2
Total	Truancy	1629	76		
	Pregnancy	250	12		
	Deaths	160	7		
	Other	101	5		
	Total	2140	100	100	

Fig 76 (a): Distribution of reasons for dropouts in primary schools in Kilosa district, 1996

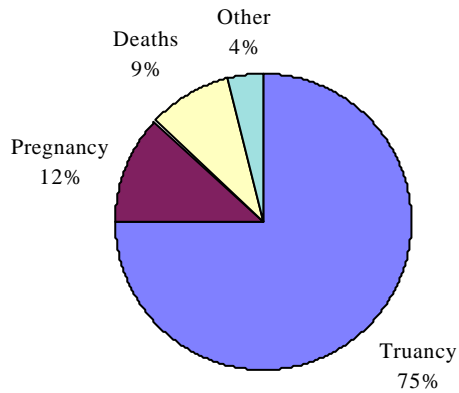


Fig 76 (b): Distribution of reasons for dropouts in primary schools in Kilombero district, 1996

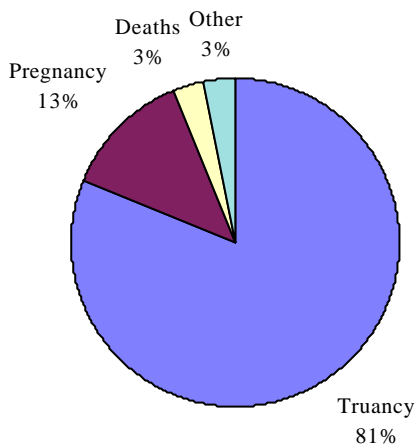


Fig 76 (c): Distribution of reasons for dropouts in primary schools in Morogoro Rural, 1996

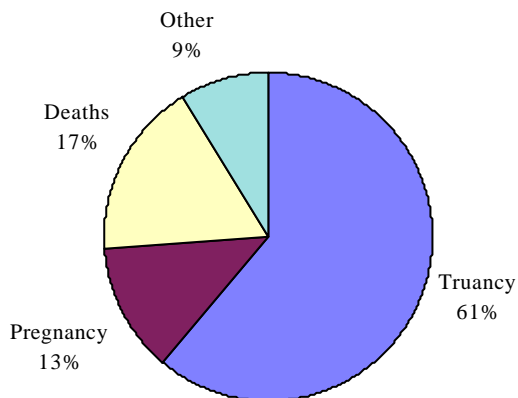


Fig 76 (d): Distribution of reasons for dropouts in primary schools in Morogoro Urban, 1996

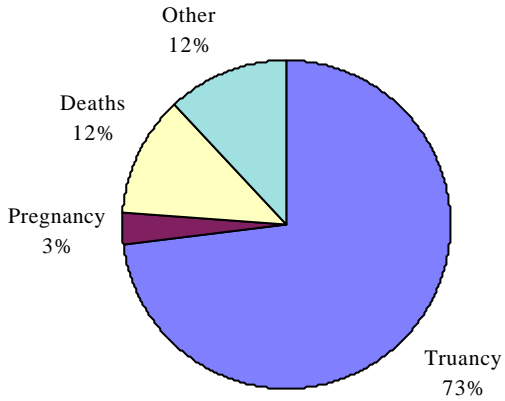
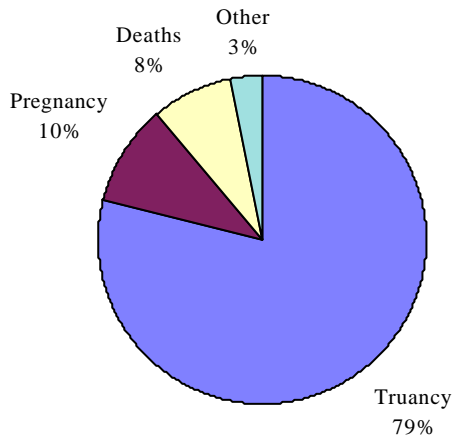
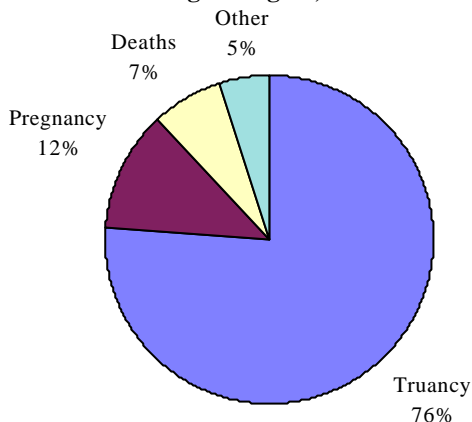


Fig 76 (e): Distribution of reasons for dropouts in primary schools in Ulanga district, 1996



**Fig 76 (f): Total distribution of reasons for dropouts in primary schools
Morogoro region, 1996**



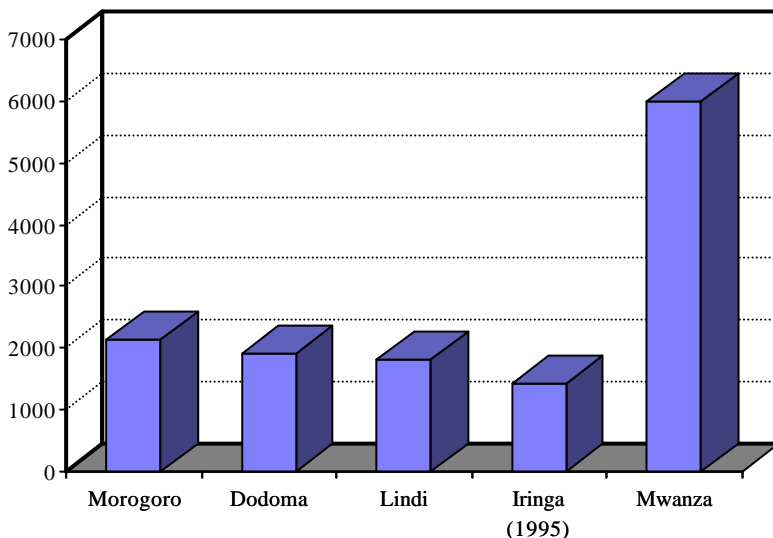
From Table IV - 10 it is revealed that kilombero district has the worst dropout record, the best being held by Morogoro Urban. Truancy accounts for $\frac{3}{4}$ of the cases of dropout in each district. Morogoro Urban district also shows the least rate for pregnancies on a reason for dropping out.

**TABLE IV - 11: DROPOUTS FROM PRIMARY SCHOOLS IN 5 SELECTED
REGIONS FOR COMPARISON 1996**

REGIONAL	TOTAL ENROLMENT	NUMBER OF DROPOUTS	DROPOUTS AS % ENROLMENT	RANKING
Morogoro	198,088	2,140	1.08	3
Dodoma	197,108	1,897	0.96	2
Lindi	80,807	1,814	2.24	5
Iringa (1995)	236,592	1,429	0.60	1
Mwanza	329,549	5,991	1.82	4

Source: Regional Education Office, Morogoro, 1997
:Regional Socio-Economic Profile, Dodoma, Lindi, Iringa, Mwanza.

Fig. 77: Number of dropouts from primary schools in five selected region for comparison, 1996



Where the region is held up for comparison with another four regions it shows middle ranking. At 2.24% Lindi region shows the worst ratio of the number of dropouts as a percentage of total enrolment for 1996. The corresponding rate for Morogoro is 1.08% (see table IV - 11)

4.1.2.3 Primary School Building

The most critical physical structures in any primary school are:

- classrooms
- teacher houses
- toilet facilities for pupils

Table IV - 12 shows the situation as it was as late as 1996.

TABLE IV - 12: PRIMARY SCHOOL BUILDINGS AVAILABLE COMPARED TO REQUIREMENTS BY DISTRICT AND BY TYPE, MOROGORO REGION, 1996.

District	Requirements			Available			Shortfall %		
	Classrooms	Teacher House	Toilets	Classrooms	Teacher houses	Toilets	Classrooms	Teacher Houses	Toilets
Kilombero	759	856	1,305	561	255	549	26	70	58
Kilosa	1,199	1,559	2,217	655	257	410	45	83	81
Morogoro Urban	541	883	1,074	344	107	288	36	88	73
Morogoro Rural	1,705	1,730	2,698	980	392	549	43	77	80
Ulanga	669	722	1,031	535	417	339	20	42	67
Total	4,873	5,750	8,325	3,075	1,428	2,135	37	75	74

Source: Regional Education Office, Morogoro, 1997

The situation with regards to primary school buildings in the region is grim. On the average there is a shortfall of 37% in classrooms. Some 1800 classrooms need to be built to cover current requirements. The situation on teacher houses and school toilets is even more grim. The shortfall is 75% and 74% respectively. Kilosa and Morogoro Urban have the worst records on teacher house building. On toilets Kilosa and Morogoro Rural are the worst offenders. Ulanga has the best record in the region for classroom and teacher houses building.

4.1.2.4 Teachers:

The region's primary schools are staffed by 5733 teachers 2090 of whom are Grade III A and 3643 are IIIB. Sexwise teachers are more or less equally divided between males and females. From Table IV - 13 it is also shown that whereas the region requires 6,738 teachers only 5,733 are available; a deficit of 1,005. The only district in good shape is Morogoro Urban which

has a surplus of teachers of both IIIA and IIIB grades. The regional deficit of 1,005 teachers is really a surplus of 292 grade IIIB teachers against a deficit of 1,297 grade IIIA teachers.

TABLES IV - 13: DISTRIBUTION OF TEACHERS IN PRIMARY SCHOOLS BY SEX, DISTRICT AND GRADE, MOROGORO REGION, 1996

DISTRICT	REQUIREMENTS			AVAILABILITY									TOTAL DEFICIT (-) SURPLUS (+)	
	IIIB TOTAL			IIIA			IIIB			TOTAL				
				M	F	TOTAL	M	F	TOTAL	M	F	TOTAL		
Kilombero	468	509	977	200	149	349	259	333	592	459	482	941	-119	83
Kilosa	919	916	1835	313	227	540	566	415	981	879	642	1521	-379	65
Morogoro Urban	418	413	831	90	335	425	51	392	443	141	727	868	7	30
Morogoro Rural	1112	1143	2255	313	216	529	670	437	1107	983	653	1636	-583	-36
Ulanga	470	370	840	178	69	247	327	193	520	505	262	767	-223	150
Total	3387	3351	6738	1094	996	2090	1873	1770	3643	2967	2766	5733	-1297	292

Source: Regional Education office, Morogoro, 1997.

4.1.2.5 Some Primary Education Criteria:

The population per primary school ratios in the four rural districts of the region are not too far different. However, Ulanga district has the edge at 1,825 people per primary school. The regional average is 2,383. (See table IV - 14). The number of pupils per school in the regional average is 319. Morogoro Urban at 746 shows over crowding. The three best ratios are for Kilosa, Morogoro Rural and Ulanga which stand at 280, 281 and 287 respectively.

TABLE IV - 14: COVERAGE OF PRIMARY SCHOOLS BY DISTRICT, MOROGORO REGION, 1996.

District	Population (1996 est.)	Total Enrolment	Number of schools	Population/school	Pupils/school
Kilombero	245,121	33,073	92	2,664	359
Morogoro Urban	168,525	26,852	36	4,681	746
Morogoro Rural	512,011	67,399	240	2,133	281
Kilosa	415,663	48,742	174	2,389	280
Ulanga	162,441	25,525	89	1,825	287
Total	1,503,761	201,591	631	2,383	319

Source: Regional Education Office, Morogoro, 1997

Fig. 78: Total enrolment of primary schools by district, Morogoro region, 1996

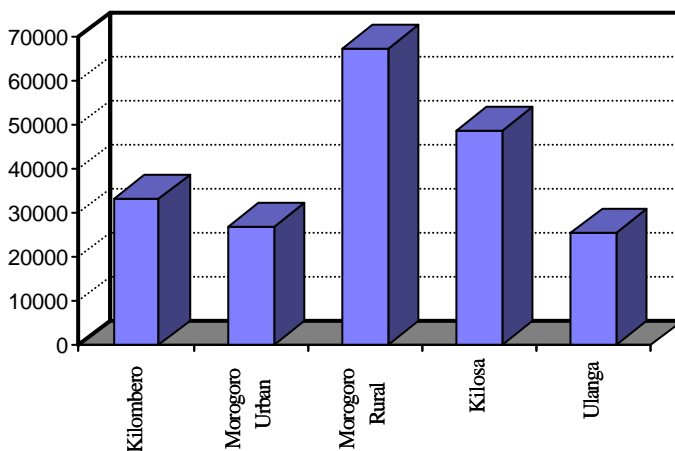


TABLE IV - 15: DISTRIBUTION AND COVERAGE, CLASSES AND STREAMS BY DISTRICT, MOROGORO REGION, 1996.

DISTRICT	TOTAL PUPIL ENROLLMENT	NUMBER OF CLASSROOMS	PUPILS PER CLASSROOM	NUMBER OF STREAMS	PUPILS PER STREAM
Kilombero	33,073	561	59	889	37
Morogoro Urban	26,852	344	78	674	40
Morogoro Rural	67,399	980	69	1,997	34
Kilosa	48,742	655	74	1,476	33
Ulanga	25,525	535	48	783	33
Total	201,591	3,075	66	5,819	35

Source: Regional Education Officer Morogoro, 1997

From Table IV - 15, the number of pupils per classroom is 66 which figure is mitigated by the stream system which gives 35 pupils per stream. Morogoro Urban has the worst pupils/classroom ratio at 78. Table IV - 16 shows the distribution of streams. The figure of 18.7

TABLE IV - 16: DISTRIBUTION OF PRIMARY SCHOOLS AND STREAMS BY DISTRICT, MOROGORO REGION, 1996

DISTRICT	NO. OF PRIMARY SCHOOLS	STREAM								STREAMS PER SCHOOL
		I	II	III	IV	V	VI	VII	TOTAL	
Kilombero	92	157	135	124	137	132	102	102	889	9.7
Kilosa	174	221	211	202	201	230	211	200	1,476	8.5
Morogoro (U)	36	109	105	98	108	92	86	76	674	18.7
Morogoro (R)	240	310	292	287	282	296	264	266	1997	8.3
Ulanga	89	135	114	109	113	114	100	98	783	8.8
Total	631	932	857	820	841	864	763	742	5,819	9.2

Source: Regional Education officer's Office Morogoro, 1997

Streams per school for Morogoro Urban is a reflection of the comparative over crowding that is seen in urban primary schools compared to those in rural areas.

TABLE IV - 17: DISTRIBUTION OF TEACHERS AND TOILETS IN RELATION TO THE NUMBER OF PUPILS, BY DISTRICT, MOROGORO REGION, 1996.

DISTRICT	TOTAL PUPIL ENROLMENT	NUMBER OF TOILETS	PUPILS PER TOILET	NUMBER OF TEACHERS	PUPILS PER TEACHER
Kilombero	33,073	1,305	25	941	35
Morogoro Urban	26,852	1,074	25	868	31
Morogoro Rural	67,399	2,698	25	1,636	41
Kilosa	48,742	2,217	22	1,521	32
Ulanga	25,525	1,031	25	767	33
Total	201,591	8,325	24	5,733	35

Source: Regional Education Office, morogoro, 1997

The pupils/toilet ratios between districts does not vary much. The regional average is 24 pupils per toilet facility. The pupil/teacher ratio average for the region is 35:1 Morogoro Rural has the worst ratio of 41:1 and Morogoro Urban the best at 31:1.

A comparison between Morogoro and some selected regions is made in Table IV - 18. On the basis of the three criteria: Pupils/School, Pupils/classroom and Pupils/teacher the Morogoro region is doing quite well compared to the selected regions.

TABLE IV-18: COMPARISON OF PRIMARY EDUCATION IN MOROGORO REGION AND SELECTED REGIONS, 1995/1996

Region	Number of schools	Total Enrolment	Number of classrooms	Pupils/school	Pupils/classroom	Pupils/teacher
Morogoro (1996)	631	201,591	3,075	319	66	35
Mwanza (1996)	864	332,787	3,930	385	85	45
Shinyanga (1995)	923	317,896	1,622	344	196	56
Dodoma (1996)	526	197,108	2,561	374	77	40
Iringa (1995)	723	236,540	4,987	308	47	37
Mara (1995)	541	208,394	2,576	385	81	38

Source: Regional Education Officer, Morogoro, 1997.
Regional Soci-economic Profile, Mwanza, Shinyanga, Dodoma, Iringa and Mara.

4.1.3 Secondary School Education:

Table IV-19 compares Morogoro region's secondary schools with that of neighbouring regions. The region comes off as number 4 among 8 regions. Comparison of enrolments does not affect overall ranking of the region. Some 11,000 students were enrolled in the regions 38 secondary schools. In addition to these in 1996, there were 641 evening class students studying for Form I to IV.

**TABLE IV-19: NUMBER AND STREAMS OF SECONDARY SCHOOLS
IN MOROGORO AND NEIGHBOURING REGIONS, 1995**

Region	Number of schools			Number of Streams			Ranking
	Public	Private	Total	Public	Private	Total	
Morogoro	26	12	38	146	127	273	4
Iringa	15	33	48	199	223	422	1
Dodoma	12	8	20	153	51	204	6
Arusha	15	26	41	131	238	369	2
Tanga	19	18	37	161	161	322	3
Coast	10	4	14	113	37	150	7
Lindi	12	1	13	79	12	91	8
Ruvuma	12	14	26	118	82	200	5

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

**TABLE IV-20: ENROLMENT IN SECONDARY SCHOOLS BY SEX AND
OWNERSHIP IN MOROGORO AND NEIGHBOURING REGIONS, 1995.**

Region	Public			Private			Total	Ranking
	Boys	Girls	Total	Boys	Girls	Total		
Morogoro	3030	2708	5738	3230	2300	5530	11,268	4
Iringa	5479	2965	8444	4407	3669	8076	16,520	1
Dodoma	3502	2508	6010	1157	849	2006	8,016	5
Arusha	3039	2169	5208	4699	4638	9337	14,545	2
Tanga	3680	2544	6224	3164	3149	6313	12,537	3
Coast	3243	1297	4540	797	488	1285	5,825	7
Lindi	1472	1302	2774	230	88	318	3,092	8
Ruvuma	2591	1698	4289	1217	1422	2639	6,928	6

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

Fig. 79 (a): Enrolment in secondary schools by sex and ownership in Morogoro and neighbouring regions, 1995

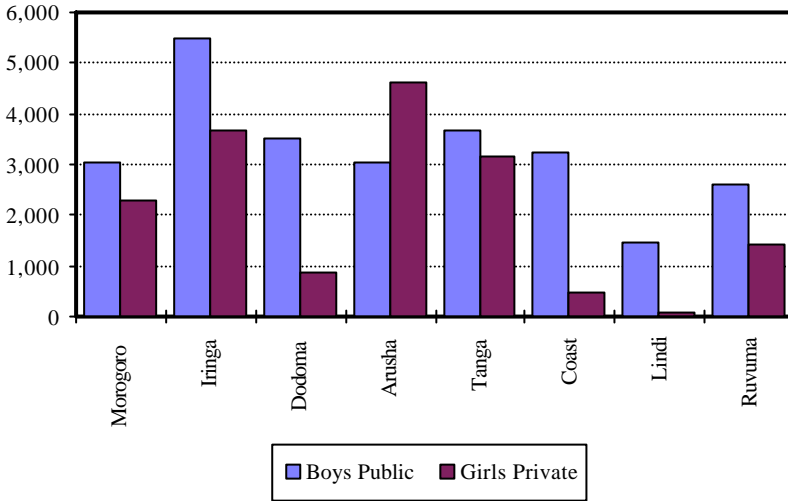
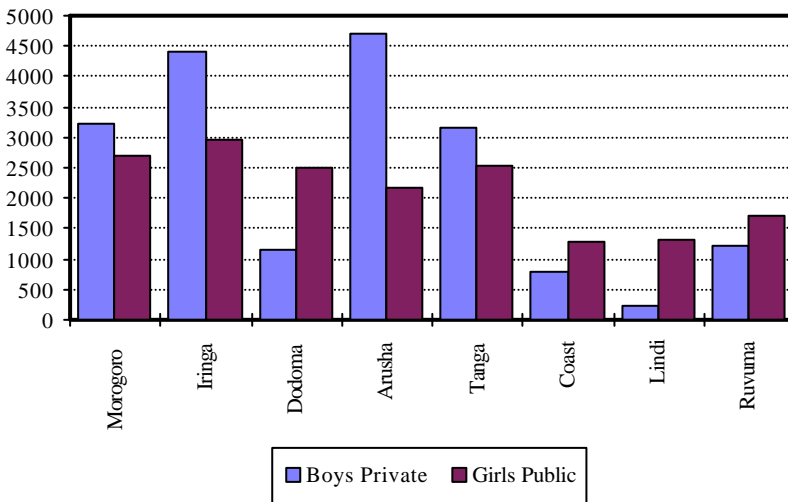


Fig. 79 (b): Enrolment in secondary schools by sex and ownership in Morogoro and neighbouring regions, 1995



The distribution of the secondary schools between the districts and according to ownership show that Morogoro Urban has the

majority of private schools whereas Morogoro Rural has the most public schools. (See table IV-21) Only 27 % of the schools are owned privately.

TABLE IV -21: DISTRIBUTION OF SECONDARY SCHOOLS BY DISTRICT AND OWNERSHIP, MOROGORO REGION, 1996

District	Public	Private	Total
Kilombero	3	-	3
Morogoro Urban	2	9	11
Morogoro Rural	11	-	11
Kilosa	6	2	8
Ulanga	4	-	4
Total	26	11	37

Source: Regional Education Office, Morogoro, 1997.

Advanced level secondary school enrolment has been increasing over the years. For example between 1990 and 1996 enrolment increased by some 60%. That of girls increased by some 180%. This increase, however, has not enabled girls to catch up in number with the boys. Even by 1996 girls formed only 36% of total enrolment (See Table IV-22).

TABLE IV-22: ENROLMENT IN ADVANCED LEVEL SECONDARY SCHOOLS BY SEX AND SCHOOL OWNERSHIP, MOROGORO REGION 1990 - 1996 (FORM V)

Year	Ownership	Enrolment		
		Boys	Girls	Total
1990	Public	285	60	345
	Private	231	76	307
	Total	516	136	652
1991	Public	280	79	359
	Private	229	93	322
	Total	509	172	681
1992	Public	325	156	481
	Private	377	215	592
	Total	702	371	1,073
1993	Public	268	151	419
	Private	408	156	564
	Total	676	307	983
1994	Public	266	179	445
	Private	359	181	540
	Total	625	360	985
1995	Public	291	198	489
	Private	352	138	490
	Total	643	336	979
1996	Public	304	183	487
	Private	374	195	569
	Total	678	378	1,056

Source: Regional Education Office, Morogoro, 1997.

Since 1991, the number of students selected to join Form I, in and outside the region has more than doubled. The share of girls rose from 49% to 55% by 1996. The total numbers increased by 140% between 1991 and 1996. The proportion of selected from the pool of candidates also increased from 5.6% to 10.9% over the same period. Table IV-23 refers.

TABLE IV-23: PUPILS SELECTED TO JOIN FORM I AGAINST THE NUMBER OF CANDIDATES, BY SEX, MOROGORO REGION, 1991-1996:

Year	Number of Candidates			Candidates selected			Percent Selected
	Boys	Girls	Total	Boys	Girls	Total	
1991	8,609	8,830	17,439	500	476	976	5.6
1992	8,819	8,995	17,814	700	370	1,070	6.0
1993	8,975	8,854	17,829	698	350	1,048	5.9
1994	9,793	9,223	19,016	975	859	1,834	9.6
1995	11,019	10,729	21,748	1,008	1,150	2,158	9.9
1996	10,781	10,536	21,317	1,043	1,291	2,334	10.9

Source: Regional Education Office, Morogoro, 1997.

Fig. 80 (a): Number of candidates sitting to join form I by sex, Morogoro region 1991 - 1996

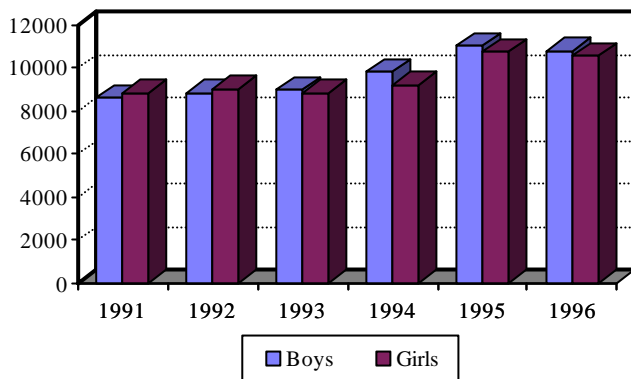
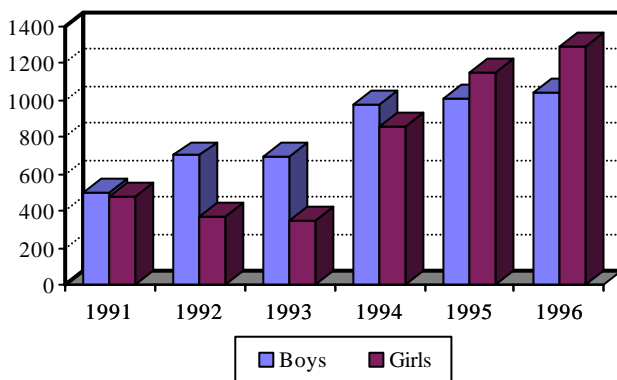


Fig. 80 (b): Candidates selected to join form I by sex, Morogoro region 1991 - 1996



4.1.4 Adult Education:

Successive Tanzania governments have placed priority on adult literacy along with primary and secondary education. As a result of this effort the country and the region of Morogoro have high literacy rates by this time. Table IV-24 shows the progress of literacy from 1967 to 1988 by region. As can be seen by 1988, the region was ranked a good number 6 for performance in this field.

**Fig. 80 (b): Total candidates and total selected to join form I
Morogoro region 1991 - 1996**

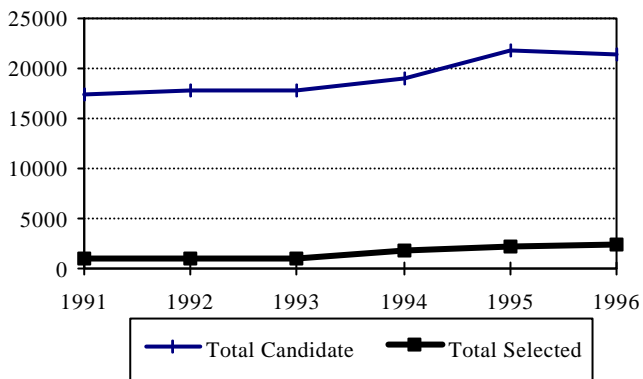


TABLE IV-24: PERCENTAGE OF LITERACY FOR POPULATION AGED 10 YEARS AND ABOVE IN MOROGORO REGION, COMPARED TO OTHER REGIONS IN THE LAST THREE CENSUSES.

Region	1967 Census	1978 census	1988 census	Ranking
Morogoro	37	58.6	62.8	6
Kilimanjaro	56	74.1	80.8	1
Dar-es-Salaam	60	73.3	80.7	1
Ruvuma	41	66.3	70.5	2
Tanga	40	60.6	66.0	4
Mara	35	56.4	63.9	5
Iringa	31	54.0	68.3	3
Kagera	40	52.9	59.5	8
Mtwara	28	51.4	57.1	13
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 (National Profile)

Table IV 25: reflects the differences in literacy rates between urban and rural areas and between males and females as revealed by the 1988 census. Males in Morogoro region are generally more literate than females. Urban people are have better rates of literacy than those in rural Morogoro region. This however, is the trend among neighbours from which Morogoro does not depart.

TABLE: IV-25: LITERACY RATES FOR RURAL AND URBAN POPULATIONS OF 10 YEARS AND ABOVE IN MOROGORO REGION COMPARED TO NEIGHBOURING REGIONS IN TANZANIA, 1988.

Region	Male			Female		
	Rural	Urban	Total	Rural	Urban	Total
Morogoro	68.8	86.4	72.9	49.5	72.0	54.6
Iringa	80.1	87.4	84.9	57.2	70.4	58.5
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
Tanga	72.8	88.6	75.9	53.2	75.6	57.3

Coast	60.1	72.2	64.0	40.1	51.8	44.9
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

Source: 1988 Population Census (National Profile)

Fig. 81 (a): Literacy rate for Rural populations of 10 years and above in Morogoro region compared to neighbouring regions in Tanzania, 1988

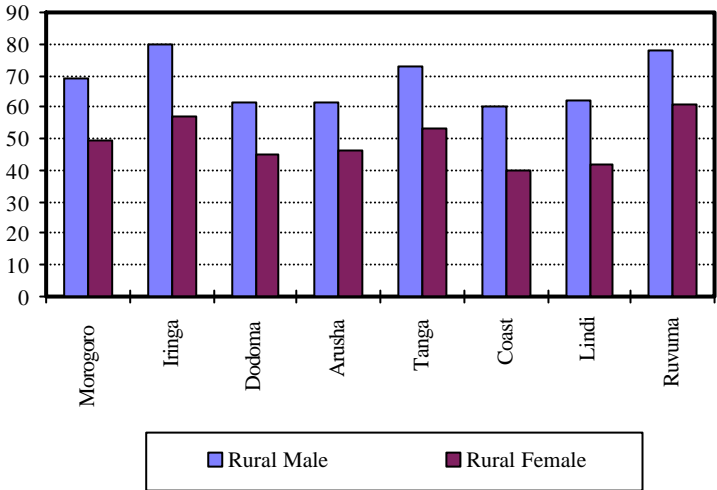
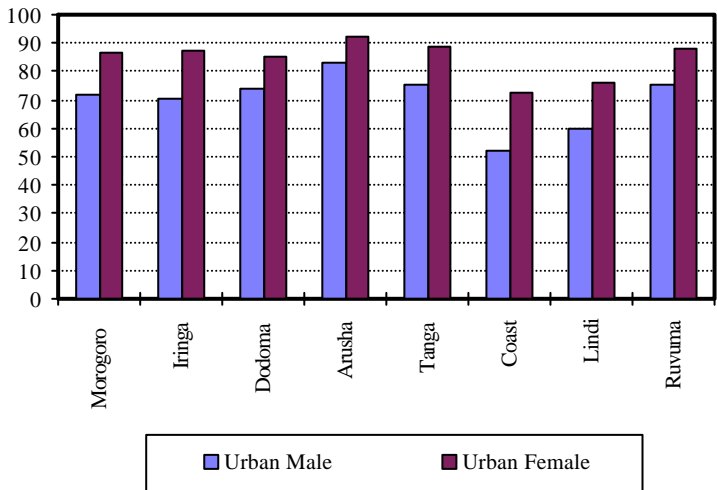


Fig. 81 (a): Literacy rate for Rural populations of 10 years and above in Morogoro region compared to neighbouring regions in Tanzania, 1988



Since 1988 it is difficult to tell the actual situation with respect to adult literacy. Has the region's rate increased and by how much?

Or has it dropped and by how much? The 1998 census could be the eye opener. Adult literacy work is currently plagued by truancy, unmotivated teachers, lack of finance and materials. Many of the classes registered are classes on paper only with little if any work being done.

4.1.5 Vocational Training:

In Morogoro region the age group that can contribute significantly to family production but which is plagued by a high level of unemployment or underemployment is that of 10 years to 24 years. This group includes primary and secondary school drop-outs and leavers. It is the group with least skill. It is the group that can benefit most from any skills training programme.

This group in 1988 was made up of 383,035 people or 31% of total population. Vocational Training could be an answer of this group's lack of employable skills. They could also be trained for self employment. Of course, the natural outlet for most of these youths is agriculture. But this sector is so underdeveloped that it offers little attraction to new generations of young people who feel the pressure to forge ahead beyond what their parents have achieved.

The number of vocational training centres, unfortunately is very small compared to demand. See Table IV-26, They are all public owned.

TABLE IV-26: VOCATIONAL TRAINING CENTRE IN MOROGORO REGION BY NAME AND SKILLS TAUGHT, 1996.

District	Name	Skills taught
Kilosa	1. Mikumi VTC	Carpentry, masonry, electricity and Mechanics
	2. Dakawa VTC	Carpentry, Masonary, Electricity and Sewing.
Morogoro Urban	1. Kihonda VTTC	Carpentry, Masonary, Electricity and Agro-mechanics
	2. Ujenzi Institute	Upgrading skills course
	3. Morogoro VTTC	Diploma courses for Teacher of VTCS

4.2 HEALTH SECTOR

4.2.1 Introduction

The general status of this sector in the region is one of falling standards. Public health facilities are old and unmaintained. The supply of drugs to these public facilities is inadequate and unreliable. The total effect has been the lowering of the morale of health workers and the general public. Cost sharing was introduced two years back in an attempt to rectify this undesirable state of affairs.

The ten most common causes of morbidity or illness are malaria, diarrhoea, upper respiratory tract infections followed by seven others as shown by Table IV -27.

TABLE IV-27: THE TEN MOST COMMON CAUSES OF MORBIDITY, MOROGORO REGION, 1996:

Disease	Number of cases
1. Malaria	908,093
2. Diarrhoea	188,441
3. Urti	93,079
4. Anaemias	86,157
5. Eye diseases	75,883
6. Skin diseases	67,373
7. Ear diseases	32,038
8. Normal Pregnancy complaints	21,428
9. Surgical conditions	14,890
10. Schistosomiasis	12,100

Source: Regional Medical Office, Morogoro, 1997.

4.2.2 Health facilities:

In 1996 the region had 14 hospitals ten of which were private. Of the 26 health centres eight were private. The total number of dispensaries and village health posts were 240 and 302 respectively. The 302 health posts were manned by 234 village health workers. Table IV -28.

TABLE IV-28: **THE DISTRIBUTION OF HEALTH FACILITIES BY DISTRICT, MOROGORO REGION, 1996:**

District/Facility	Hospitals		Health Centres		Dispensaries		Public Village Health Posts	Public VHW
	Public	Private	Public	Private	Public	Private		
Kilosa	1	1	5	1	41	27	96	78
Morogoro Rural	1	2	5	1	54	23	85	57
Kilombo	0	2	2	1	14	21	49	44
Ulanga	1	1	3	-	16	14	61	37
Morogoro Urban	1	4	3	5	4	26	11	18
Total	4	10	18	8	129	111	302	234

Source: Health Statistics Abstract, 1997.

The population covered per hospital and per health centre is shown in Table IV-29. The district of Morogoro Urban closely followed by Ulanga was the best covered at 33,705 and 81,201 people per hospital respectively. The worst case was Kilosa at 207,832. For health centres the best coverage was for Morogoro Urban once again at 21,066. The worst was Morogoro Rural at 85,335.

TABLE IV-29: POPULATION COVERED BY HOSPITALS AND HEALTH CENTRES BY DISTRICT, MOROGORO REGION, 1996.

District	Population Estimate 1996	Number of hospitals	Population per hospital	Number of health centres	Population per health centres
Kilosa	415,663	2	207,832	6	69,277
Morogoro Rural	512,011	3	170,670	6	85,335
Ulanga	162,441	2	81,221	3	54,147
Kilombero	245,121	2	122,561	3	81,707
Morogoro Urban	168,525	5	33,705	8	21,066
Total	1,503,761	14	107,412	26	57,837

Source: Planning Commission compiled data from Population census, 1988.

From Table IV-30, the picture emerges that Ulanga has the best coverages for both dispensaries and village health posts. Secondly, there is hardly much difference in dispensary coverage between districts. This shows that dispensaries are evenly distributed in the rural areas of the region. According to the 1978 Census the region had then 939,190 population and 184 dispensaries. The coverage per dispensary was one to 5,104 people. The average for the region is in 1996 one to every 6,266 people. The situation has deteriorated. The number of hospital beds was 1,364 in 1978 giving a coverage of one bed for every 689 people. According to Table IV-31 and IV-32 the average in 1992 and 1995 was 805 and 707 people per hospital bed respectively. This has remained more or less constant.

TABLE IV-30: POPULATION COVERED BY DISPENSARIES AND VILLAGE HEALTH POSTS BY DISTRICT, MOROGORO REGION 1996.

District	Population estimate 1996	Number of dispensaries	Population per dispensaries	Number of village health posts (v.h.p)	Population per v.h.p.
Kilosa	415,663	68	6,113	96	4,330
Morogoro Rural	512,011	77	6,650	85	6,024
Ulanga	162,441	30	5,415	61	2,663
Kilombero	245,121	35	7,003	49	5,002
Morogoro Urban	168,525	30	5,618	11	15,320
Total	1,503,761	240	6,266	302	4,979

Source: Planning Commission compiled data from Population Census, 1988.

TABLE IV-31: THE COVERAGE OF HOSPITAL BEDS MOROGORO REGION, 1987 TO 1992.

Year	Number of hospitals	Number of hospital beds	Population per hospital bed
1987	11	1,501	800
1988	11	1,501	824
1989	11	1,501	847
1990	12	1,682	781
1992	12	1,682	805

Source: Morogoro Regional Statistical Abstract 1993.

Compared to other regions on Tanzania Mainland the number of population per hospital and health centre bed for 1996 ranks Morogoro region at a high of No.4. Table IV-5.

TABLE IV-32: **COVERAGE OF POPULATION PER HOSPITAL HEALTH CENTRE BED AMONG REGIONS OF TANZANIA MAINLAND 1995.**

Region	Population Estimate 1995	Number of hospital beds	Number of H/Centres beds	Total Number beds	Population per bed	Ranks
Morogoro	1,475,604	1,802	286	2,088	707	4
Arusha	1,776,799	1,305	230	1,535	1,158	16
Coast	737,178	604	191	795	927	13
Dar-es-Salaam	1,856,661	1,906	175	2,141	867	10
Dodoma	1,487,139	1,381	330	1,711	869	11
Iringa	1,460,498	1,746	259	2,005	728	5
Kagera	1,641,104	1,709	365	2,074	791	8
Kigoma	1,030,691	637	195	832	1,239	18
Kilimanjaro	1,556,928	1,900	389	2,289	680	2
Lindi	741,479	809	171	980	757	7
Mara	1,282,112	840	232	1,072	1,149	15
Mbeya	1,759,814	1,506	348	1,854	949	14
Mtwara	991,801	1,243	214	1,457	681	3
Mwanza	2,351,235	2,200	667	2,867	820	9
Rukwa	996,903	451	410	861	1,158	17
Ruvuma	987,203	1,280	355	1,635	604	1
Shinyanga	2,225,069	1,185	352	1,537	1,448	20
Singida	961,038	666	30	696	1,381	19
Tabora	1,214,073	1,033	289	1,322	918	12
Tanga	1,457,756	1,571	364	1,935	753	6
Total	27,941,103	25,834	5,852	31,686	882	

Source: Morogoro Regional Statistical, Abstract 1993.

4.2.3 Life Expectancy:

Life expectancy at birth is the ultimate measure of a region's excellency of its health service and environment. Morogoro's performance is less than the national average when compared to other regions. But it shows improvement. See table IV-33.

TABLE IV-33: LIFE EXPECTANCY AT BIRTH BY SEX, 1978 AND 1988 IN MOROGORO REGION AS COMPARED TO OTHER REGIONS IN MAINLAND TANZANIA (YEARS).

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

Source: Population Census, 1988.

4.2.4 Infant and Under Five Mortality:

Unlike adults children are a great deal more at risk from death. The most vulnerable age is the first year of life followed by the next four years. In the region the ten most common causes of illness are among the big dangers. In addition immunizable early childhood disease can also take their toll. Malnutrition is an ever present danger which magnifies the dangers from disease infection.

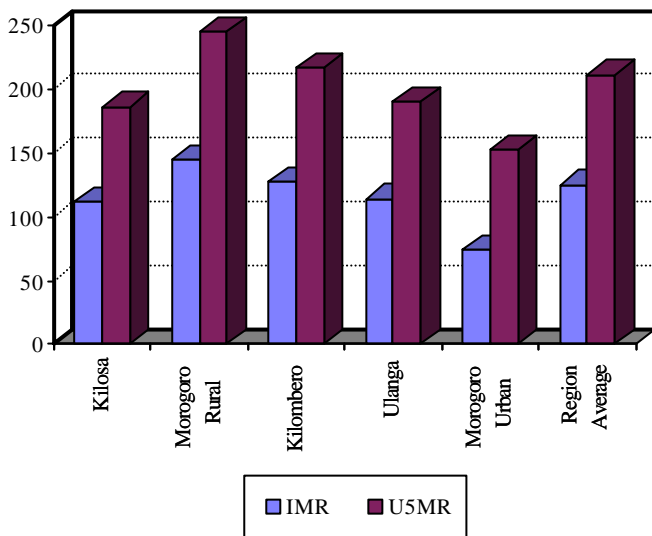
According to Table IV-34, the average IMR and U5MR for the region for 1985 was 125 and 211 respectively. But there is considerable variation between the districts of the region with Morogoro Urban district showing the most favourable rates at 94 for IMR and 153 for U5MR. Morogoro Rural is the worst at 145 IMR and 245 U5MR.

TABLE IV-34: INFANT AND UNDER-FIVE MORTALITY RATES BY DISTRICT. MOROGORO REGION- 1985. (DEATHS PER 1000 LIVE BIRTHS).

District	IMR	U5MR
Kilosa	112	186
Morogoro Rural	145	245
Kilombero	128	216
Ulanga	114	190
Morogoro Urban	74	153
Region Average	125	211

Source: Morogoro Regional Statistical , Abstract, 1993.

Fig. 82: Infant and under-five mortality rates by district. Morogoro region- 1985, (deaths per 1000 live births)



Male children are more at risk than female children. Thus the 1985 IMR for males in the region was 133 while that of females was 118. The U5MR for males was 224 and only 197 for females. This is a national phenomenon that is reflected throughout the neighbouring regions with the exception of Arusha region, which also has the lowest figure for IMR and U5MR. See Table IV -35. Compared to its neighbours Morogoro's position is middling.

TABLE IV - 35: IMR AND U5MR IN SELECTED NEIGHBOURING REGIONS FOR 1985 COMPARED WITH MOROGORO REGION.

Region	IMR		U5MR	
	Male	Female	Male	Female
Morogoro	133	118	224	197
Tanga	110	102	183	168
Coast	118	109	199	180
Lindi	140	139	237	235
Ruvuma	115	110	193	183
Iringa	137	124	231	209
Dodoma	136	127	230	114
Arusha	79	82	126	131

Source: 1988 Population Census.

There is also an urban rural orientation to IMR and U5MR as Table IV-36 shows. Children in rural areas carry an added risk from death by being in rural areas. The exception is Iringa region.

TABLE IV-36: INFANT AND UNDER-FIVE MORTALITY RATES IN SELECTED NEIGHBOURING REGIONS, 1985.

Region	IMR		U5MR	
	Rural	Urban	Rural	Urban
Morogoro	134	94	226	153
Tanga	109	89	182	144
Coast	115	104	193	172
Lindi	143	121	241	204
Ruvuma	114	107	190	177
Iringa	130	135	219	229
Dodoma	136	94	230	154
Arusha	76	72	120	114

Source: 1988 Population Census, National Profile.

Since the 1978 census there has been a steady decrease in IMR and U5MR in all regions, Morogoro included. Again compared to other regions Morogoro is somewhere in the middle. Refer to Table IV-37.

TABLE IV-37: IMR AND U5MR FOR MOROGORO REGION AS COMPARED FOR THE YEARS 1978, 1988, 1995 AND TO OTHER REGIONS IN TANZANIA MAINLAND.

Region	IMR			U5MR		
	1978	1988	1995	1995	1988	1995
Morogoro	140	125	112	236	211	189
Arusha	108	75	52	179	119	78
Coast	121	113	105	204	189	174
Dar-es-Salaam	108	105	102	179	173	168
Dodoma	133	132	130	225	222	220
Iringa	152	130	111	257	220	187
Kagera	133	130	127	225	219	212
Kigoma	163	115	81	269	192	137
Kilimanjaro	76	67	59	119	104	90
Lindi	151	140	129	255	236	218
Mara	140	125	112	236	211	189
Mbeya	161	124	96	267	209	163
Mtwara	161	138	119	267	233	202
Mwanza	139	115	95	233	192	157
Rukwa	170	131	101	283	221	172
Ruvuma	145	113	88	245	188	143
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, 1977.

4.2.5 Maternal Mortality:

The death of women from complications related to pregnancy is fairly common. In Morogoro region for every 100,000 live births 289 mothers died in 1992. This rate was one of the worst in Tanzania. By 1995, however, this rate was down to 153 which placed the region the 4th compared to the rest of the country, Table IV-38. This is very good performance. Given that the national average has not changed over the years.

TABLE IV-38: MMR IN MOROGORO REGION FOR 1992, TO 1995 AND COMPARED TO OTHER REGIONS IN MAINLAND TANZANIA.

Region	MMR			
	1992	1993	1994	1995
Morogoro	289	172	190	153
Arusha	102	158	114	159
Coast	209	111	70	187
Dar-es-Salaam	220	398	237	328
Dodoma	197	214	208	266
Iringa	311	321	276	281
Kagera	304	343	190	242
Kigoma	144	155	105	87
Kilimanjaro	126	46	107	63
Lindi	262	289	193	264
Mara	67	59	106	124
Mbeya	67	361	436	264
Mtwara	264	212	161	252

Mwanza	221	186	266	207
Rukwa	172	294	243	267
Ruvuma	225	189	186	177
Shinyanga	143	188	199	184
Singida	242	171	238	207
Tabora	151	185	130	216
Tanga	255	172	220	195
Total	199	211	197	208

Source: Health Statistics Abstract, 1997.

4.2.6 Immunization of Children:

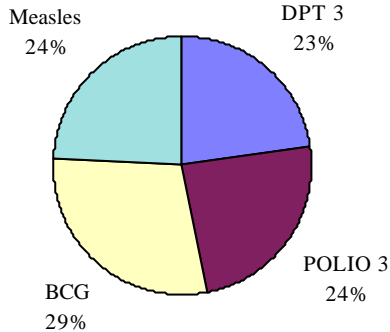
The region's coverage for the immunization against six early childhood disease of tuberculosis, Diptheria, Pertusis, Tetanus, Measles and Polio were as follows for children under 1 year and for 1993:

DPT 3 -	70.09%
POLIO 3 -	72.57%
BCG -	90.15%
Measles -	73.64%

Source: Ministry of Health MCH/FP department, 1997.

This performance level is commendable.

Fig. 83: Immunization of children under one year for 1993



4.2.7 Children Malnutrition:

Before the CSDP was launched in 1988, malnutrition among children in the region was high. The rate of malnutrition among under-fives recorded was 4.6% severe malnutrition and 45% moderate malnutrition.

Originally in 1988 the programme covered 42 villages with 15,173 under fives registered. In 1991 it was extended to cover 91 villages and 31,053 underfives registered. By that time severe malnutrition had been brought down to 2.8% and moderate malnutrition to 36%. The programme was again extended in 1992 to cover 217 villages. By 1996 severe malnutrition was a mere 1.1% and moderate malnutrition down to 24.4%. See Table IV - 39:

TABLE IV-39: REDUCTION OF UNDERFIVE CHILDREN MALNUTRITION UNDER CSDP IN MOROGORO REGION. 1988 - 1996.

Type of Malnutrition	Rate of Malnutrition			
	Before 1988	1991	1992	1996
Severe Malnutrition	4.6	2.8	1.5	1.1
Moderate Malnutrition	45	36	30.5	24.4

Source: UNICEF Dar-es-Salaam Office, 1997.

Table IV-40 shows the influence of CSDP on the weight of day olds born in CSDP areas. The trend is that the proportion of children born under weight got reduced further and further, Morogoro Region being one of these areas.

TABLE IV-40: PERCENTAGE OF SEVERE UNDER WEIGHT CHILDREN BORN IN CSDP REGIONS, 1990 - 1994.

Region	1990	1991	1992	1993	1994
Morogoro	3.2	3.3	2.2	1.6	1.4
Coast	-	-	-	7.1	4.4
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
Mtwara	6.3	5.5	1.8	1.9	2.0
Mwanza	-	-	-	3.2	2.3
Shinyanga	2.0	1.4	1.5	1.1	1.1
Singida	3.5	1.8	1.5	1.5	1.6
Total	2.8	2.5	1.6	1.6	1.4

Source: UNICEF Dar-es-Salaam Office, 1997.

4.2.8 AIDS:

AIDS is an increasing health, social and economic problem in Morogoro region. Morogoro region first recorded 11 cases in 1986. Since then some 11 years later in 1996 the number of reported cases was 286. See Table IV-41.

TABLE IV-41: REPORTED AIDS CASES IN MOROGORO REGION BY DISTRICT FOR 1986 - 1996.

District	Reported cases										
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Morogoro Urban	11	77	153	242	268	336	234	158	168	102	80
Morogoro Rural	-	-	-	8	50	114	166	160	121	79	63
Kilosa	-	3	5	37	28	30	166	106	63	54	18
Kilombero	-	-	65	129	134	415	359	280	168	84	93
Ulanga	-	-	25	65	71	86	91	73	96	53	32
Total	11	80	248	481	551	981	1,016	777	616	372	286

Source: Regional Medical Office, Morogoro 1997.

**TABLE IV-42: SEROPREVALENCE OF HIV AMONG BLOOD DONORS
1986, 1989, 1992 AND 1995 FOR MOROGORO REGION
BY DISTRICT.**

District	1986			1989			1992			1995		
	Number Donors	Number +ve	% +ve	Number Donors	Number +ve	% +ve	Number Donors	Number +ve	% +ve	Number Donors	Number +ve	% +ve
Morogoro Urban	522	43	8.2	1,293	32	2.5	2,185	95	4.3	1,500	92	6.1
Morogoro Rural	214	24	11.2	44	19	43.2	894	41	4.6	422	54	12.8
Kilosa	87	4	4.6	412	9	2.2	351	5	1.4	1,154	19	1.6
Kilombero	210	57	27.1	1,672	36	2.2	2,600	23	0.9	3,790	284	7.5
Ulanga	57	1	1.8	74	1	1.4	68	5	7.4	250	17	6.8
Total	1,090	129	11.8	3,495	97	2.8	6,098	169	2.8	7,116	466	6.5

Source: Regional Medical Office, Morogoro, 1997.

It would appear, from Table IV-41 that AID cases reached their peak in 1992 and thereafter there has been a general decline. It is important to note that these cases were those which were reported. The reported cases may not reflect the actual situation.

It is possible that because it is now common knowledge that medical intervention cures no AIDS, many people see little need to report for assistance at health facilities. Further a look at Table IV-42 shows that the level of HIV infection shows no sign of going down. AIDS and the HIV virus are still very much alive in the region.

When the region is viewed in relation to other regions in the country and the rate of AIDS per 100,000 population, the situation is getting progressively better. Morogoro ranked 5th in 1992 was 6th in 1993 and in 1996 was number 9. See Table IV-43.

TABLE IV- 43: RATE OF AIDS PER 100,000 POPULATION BASED ON THE CUMULATIVE CASES BY REGION.

Region	1992			1993			1996		
	Population	Rate	Rank	Population	Rate	Rank	Population	Rate	Rank
Morogoro	1,356,749	160	5	1,392,487	164	6	1,511,786	305	9
Arusha	1,573,566	61	16	1,634,512	70	16	1,826,547	153	17
Coast	693,924	189	4	708,650	206	4	756,056	446	4
Da-es-Salaam	1,648,902	538	1	1,729,979	531	1	1,914,376	678	1
Dodoma	1,362,540	31	19	1,395,637	37	19	1,497,586	73	20
Iringa	1,346,788	144	7	1,387,646	161	7	1,502,266	325	8
Kagera	1,477,431	280	3	1,517,865	289	3	1,674,586	444	5
Kigoma	956,124	86	14	983,274	98	14	1,061,458	215	15
Kilimanjaro	1,205,853	147	6	1,231,444	185	5	1,325,231	452	3
Lindi	700,399	95	13	714,548	112	12	757,361	328	7
Mara	1,090,364	55	18	1,122,447	59	18	1,221,963	122	18
Mbeya	1,671,081	337	2	1,723,695	353	2	1,940,033	638	2
Mtwara	940,727	106	11	953,990	110	13	1,008,236	242	13
Mwanza	2,084,130	118	8	2,139,028	129	8	2,326,964	274	11
Rukwa	825,405	31	20	861,672	37	20	1,013,529	87	19
Ruvuma	897,443	111	9	928,481	128	9	1,020,461	328	6
Shinyanga	1,990,565	55	17	2,049,137	64	17	2,269,337	169	16
Singida	875,090	78	15	897,243	85	15	978,203	218	14
Tabora	1,140,709	106	10	1,168,417	121	10	1,270,769	299	10
Tanga	1,396,120	99	12	1,425,748	113	11	1,519,499	267	12
Total	25,233,910	-	-	25,965,900	-	-	28,396,247	-	-

Source: Health Statistics Abstract, 1997.

4.2.9 Tuberculosis and Leprosy:

These two lingering diseases have a big economic impact on individual and household wellbeing. A deliberate programme focussing on their eradication is in place. The number of leprosy cases is on the decrease. Unfortunately, as in other regions, tuberculosis is on the increase. See Table IV-44. Morogoro region appear not be much worse off and better off than some neighbouring regions.

TABLE IV-44: **SMEAR POSITIVE PULMONARY TB AND LEPROSY CASE DETECTION RATE PER 100,000 POPULATION FOR MOROGORO REGION AND NEIGHBOURING REGIONS.**

Region	TB Rates			Leprosy rates	
	1992	1993	1994	1992	1993
Morogoro	47	58	2,262	27.0	15.4
Tanga	55	61	2,151	14.0	13.5
Coast	58	78	958	11.0	17.0
Lindi	61	64	702	24.0	18.3
Ruvuma	34	34	756	10.0	21.5
Iringa	51	65	1,788	1.8	2.7
Dodoma	35	34	1,380	8.0	4.4
Arusha	50	52	3,434	8.7	0.2

Source: Health Statistics Abstract, 1997.

4.2.10 Epidemics:

A look at the number of cases of notifiable communicable diseases for the years 1994 and 1995 reveal that Morogoro has one of the most serious problems with rabies, meningitis and dysentery in that order. Tanga has everything including cases of plague not shown in the table.

TABLE IV-45: DISTRIBUTION OF MAJOR COMMUNICABLE DISEASE CASES IN MOROGORO AND NEIGHBOURING REGIONS FOR 1994 AND 1995.

Region	Cholera		Meningitis		Dysentery		Rabies	
	1994	1995	1994	1995	1994	1995	1994	1995
Morogoro	0	0	99	177	586	77	267	134
Tanga	336	1400	17	21	2822	194 4	2	143
Coast	0	0	0	14	2250	304	0	87
Lindi	129	0	657	343	238	187	0	0
Ruvuma	0	0	15	114	159	179	1	121
Iringa	0	0	11	18	4197	147	0	50
Dodoma	785	59	10	13	212	56	0	0
Arusha	402	93	1	17	2178	413 8	268	349

Source: Health Statistics Abstract, 1997.

Measles epidemics are some of the most serious problems facing young children. A look at the distribution of this problem among Morogoro's neighbours shows that Morogoro faces an average level of infection.

TABLE IV-46: REPORTED CASES OF MEASLES IN MOROGORO AND NEIGHBOURING REGIONS FOR 1992, 1993 AND 1994.

Region	Number of cases		
	1992	1993	1994
Morogoro	672	660	154
Tanga	356	2,180	518
Coast	238	702	98
Lindi	98	770	37
Ruvuma	1,379	497	208
Iringa	811	1,397	1,283
Dodoma	330	148	3
Arusha	1,369	3,019	90

Source: Health Statistics Abstract 1997.

4.2.11 Cost Sharing:

Since 1994/95 the public is expected to contribute towards the cost of health care given by the government. Previously such services were given free of charge. Table IV-47 shows how the region has been performing with respect to neighbouring regions.

TABLE IV-47: USER CHARGES COLLECTIONS BY REGIONAL / CONSULTANT HOSPITALS FOR 1994/95 AND 1995/96 IN MOROGORO AND NEIGHBOURING REGIONS. TSHS.

Region	1994/95	1995/96
Morogoro	13,862,250	2,841,350
Tanga	5,197,050	2,105,350
Lindi	3,846,345	3,227,425
Ruvuma	5,015,657	0
Iringa	14,171,930	7,749,250
Dodoma	8,856,558	9,754,010
Arusha	17,108,560	12,006,350

Source: Health Statistics Abstract.

4.3 WATER SECTOR:

4.3.1 Introduction

Morogoro region is relatively well supplied with water resources. The population has resorted to a variety of sources including:

- Shallow wells, constructed or improved traditional
- Pipe water systems
- Streams and rivers
- dams
- springs
- bore holes
- hydrams

Not all these sources are safe. The nation's target is to supply adequate and safe water to within 400 meters of a household. A lot of work has been done in the past, but with deterioration in the

national economy water facilities have also suffered. Table IV-48 shows the current status of water supply schemes as of 1993. All bore holes are in working order. But 42% of the shallow well systems and 21% of piped water systems are out of order. These figures do not include Morogoro Urban district. Morogoro Rural district also includes 2 hydrants in working order.

TABLE IV-48: STATUS OF SAFE WATER SUPPLY SYSTEMS IN MOROGORO REGION (EXCLUDING MOROGORO URBAN) 1993.

District		Piped systems	Shallow wells	Bore holes
Kilosa	working	100	231	9
	not working	22	240	0
	total	122	471	9
	% working not	18	51	0
Morogoro Rural	working	272	270	1
	not working	93	98	0
	total	365	368	1
	% working not	25	27	0
Kilombero	working	210	154	21
	not working	36	33	0
	total	246	187	21
	% working not	15	18	0
Ulanga	working	74	136	37
	not working	22	240	0
	total	96	376	37
	% working not	23	64	0
Total Safe Water Supply Systems	working	656	791	68
	not working	173	611	0
	total	829	1,452	68
	% working not	21	42	0

Source: Morogoro Regional Statistical Abstract, 1993.

4.3.2 Rural Water Supplies:

The purpose to the supply of water in rural areas is to meet the demand for human domestic needs and that of the livestock population. The population covered this way with an adequate supply of potable water was 49%. This coverage is on the whole evenly distributed among rural districts. Morogoro Rural has a coverage of 40.3 at the lower end and Kilombero that of 65.5 at the high end. See Table IV-49:

TABLE IV-49: COVERAGE WITH SAFE WATER SUPPLIES IN RURAL AREAS OF MOROGORO REGION, 1993.

District	Total Population	Population served within 400m.	Percent served
Morogoro Rural	489,200	197,000	40.3
Kilosa	407,000	190,000	49.7
Kilombero	227,000	149,000	65.5
Ulanga	151,000	84,000	56.0
Total	1,274,200	620,000	49.0

Source: Morogoro Regional Statistical Abstract, 1993.

4.2.3 Urban Water Supplies:

When considering safe water supplies apart from normal domestic needs allowance has to be made for water for industrial and commercial needs. The concentration of the service sector also has a demand to be met. Some quantities of water also go towards the cleaning up of the crowded environment and for irrigation of urban grown horticultural crops. It is estimated that

64% of the region's urban population were served with clean water in 1993. This coverage is much better than that in rural areas as may be expected. Morogoro Urban district coverage at 65% is not much different from other urban areas.

4.3.4 Morogoro Town Water Supply:

Morogoro town is served by two gravity fed water supply systems which have two sources. One is the Morogoro River the other Mindu Dam. During the dry season the levels of both supply sources goes drastically down. This makes the supply of adequate water a problem. Yet the town is growing fast and industries are demanding an increasing supply of water. At 65% coverage residents of the town rely to a significant extent on unsafe open water systems wherever they can be found. This is particularly so during the dry seasons.

4.3.5 Sanitation

The most detailed recent information available on the sanitation status in the region is that worked out from the 1988 Population Census.

TABLE IV-50: HOUSEHOLDS BY DISTRICT AND TYPE OF TOILET IN MOROGORO REGION,1988.

District	Flush inside	Flush outside/shared	Pit Latrine	Other	% without facility	Total regional h/holds
Kilosa	844	751	56,779	10,175	16	63,694
Morogoro Rural	415	1,113	82,107	3,371	4	81,893
Kilombero	520	391	31,929	2,204	7	33,338
Ulanga	206	126	18,948	3,986	18	22,078
Morogoro Urban	4,844	865	22,110	89	-	26,702
Total	6,829	3,246	211,873	19,825	9	227,705

Source: Planning Commission compiled data from 1988 Population Census, Regional Profile, Morogoro.

Note: Some households had more than one type of toilet system.

From Table IV-50 it is indicated that regionally 9% of households had no toilet facility with Morogoro Urban having the lowest figure of less than 1% and a high of 18% in Ulanga district. Some households had access to more than one toilet facility, others shared facilities.

TABLE IV-51: PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY DISTRICT AND TYPE OF TOILET IN MOROGORO REGION, 1988.

District	Flush inside	Flush shared	Pit Latrine	Other	Total
Kilosa	1.3	1.2	89.1	16.0	107.6
Morogoro Rural	0.5	1.4	100.3	4.1	106.3
Kilombero	1.6	1.2	95.8	6.6	105.2
Ulanga	0.9	0.6	85.8	18.1	105.4
Morogoro Urban	18.1	3.2	82.8	0.3	104.4
Total	3.0	1.4	93.1	8.7	106.2

The large majority of the region's residents use pit latrines at 93.1%. Flush toilets account for 4.4%. As expected the crowded urban area of Morogoro Urban district has the best coverage for flush toilets at 21.3% of its households. Morogoro Rural carries the best coverage with pit latrines at 100.3% of its household. This shows some households had more than one pit latrine.

SECTION V

OTHER DEVELOPMENT ISSUES

5.1 WOMEN DEVELOPMENT:

In terms of global outlook, Tanzania along with other countries in the South and underdeveloped, under privileged and disadvantaged. When it comes to women in the context of Tanzania it can be said with that women as a group are the underdeveloped of the underdeveloped, the under privileged of the under privileged and the disadvantaged of the disadvantaged. Archaic tribal customs and spiritual outlooks have kept women at the level of second class citizens. Women are not equal to men before the law. Discrimination in employment, heritage, politics etc. is the order of the day. It is no wonder that they are also economically are a disadvantage. Morogoro women are no exception.

The rural population of the region which constitutes 78% has a majority nation of women to men of almost 52:48. These women carry out most of the agricultural work in addition to their traditional duties of looking for firewood and water. They also take in their stride as normal their responsibilities at child bearing and rearing. Yet their share of the economic benefits accruing from their labour is small compared to that of men who work less.

The lot of Morogoro women can only change through deliberate efforts at educating the community especially, the women themselves to an awareness of this inherent injustice. The organisation of women into groups for whatever purpose could

provide the spring board to women equality and equity with men. It is a long struggle but a start has to be made.

Table V-1 shows the kind of start that has been made. Given that Morogoro Urban is not included, the data show that only a very small proportion of economically active women have taken advantage of group membership so far. It is only 0.14%. Most of these groups organised their economic activities around agriculture. By 1996, the amount of loans made available to these groups had reached some T.shs. 22 million.

TABLE V-I: WOMEN GROUPS IN MOROGORO REGION - 1996.

District	Number of Groups	Total Membership	Women population 15-64 1996 estimate	Percent
Ulanga	8	40	39,473	0.10
Kilombero	6	31	64,246	0.05
Kilosa	18	251	105,911	0.24
Morogoro Rural	6	76	132,508	0.06
Total	38	398	342,138	0.12

Source: Planning Commission compiled data from Regional Commissioner's Office, Morogoro, 1997.

5.2 COOPERATIVES:

The cooperative movement in the region has a long tradition going back to pre-independence years. Since early years the first major change affecting these cooperatives was the abolition of all cooperative Unions in 1974. Morogoro had then one cooperative union. When unions were reinstated Morogoro gave birth to

Morogoro Cooperative Union (1984) Ltd. shored up by 61 primary agricultural marketing cooperative societies.

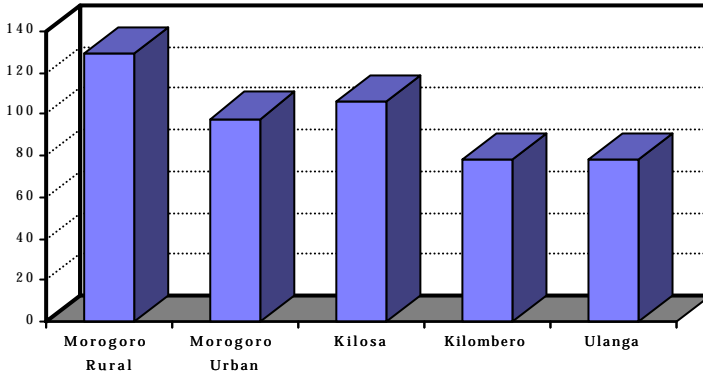
With the coming of the new cooperative set of 1991 that Union lingered on only to be dissolved in 1995 and three unions were born in its place. They are the Morogoro Farmers Cooperative Union (MOFACU) for Morogoro rural district, the Kilosa Cooperative Union (KICU) for Kilosa district and lastly the Ulanga Kilombero Cooperative Union (UKICO) for Ulanga and Kilombero districts. Since the birth of the Cooperative Act of 1991 quite a number of new cooperative societies have been formed. Agricultural marketing cooperative societies dominate. But the movement is active in savings and credit, small scale industries, transportation and housing. There also quite a number of cooperative shops, various rural schemes, small scale industries and services. Table V-2 shows the picture.

TABLE V-2: DISTRIBUTION OF PRIMARY COOPERATIVE SOCIETIES BY DISTRICT AND ACTIVITY, MOROGORO REGION, 1996.

Cooperative Activity	Morogoro Rural		Morogoro Urban		Kilosa		Kilombero		Ulanga		Total	
	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
Agricultural/marketing	62	32	2	2	49	12	27	13	36	15	176	74
Business/shops	3	3	38	10	12	6	12	3	4	4	69	26
Savings and credit	4	4	10	10	5	5	4	4	1	2	24	25
Rural scheme	8	8	-	-	6	6	4	4	3	3	21	21
Small scale industries	1	1	5	7	2	3	4	3	1	1	13	15
Transport	-	3	2	2	-	-	-	-	-	-	2	5
Housing	-	-	4	4	-	-	-	-	-	-	4	4
Services	-	-	1	1	-	-	-	-	4	4	5	5
Total	78	51	62	36	74	32	51	27	49	29	314	175

Source: Regional Commissioner's Office, Morogoro 1997.

Fig. 84: Total distribution of primary cooperative societies by districts, Morogoro region, 1996



From 175 old primary societies a greater number of new primary societies were born, another batch of new societies came into existence without any relationship to the old cooperative societies. Thus at present there are 314 cooperative primary societies where before stood 175.

5.3 NON-GOVERNMENTAL ORGANIZATIONS (NGOs).

Morogoro region has a fairly rich mixture of NGO activities which could be listed as:

- education
- bird protection
- agricultural production
- income generation
- health sector development
- water sector development
- rural credit
- small scale industries
- afforestation
- AIDS counselling

- environmental conservation
- promotion of gender issues.

District wise they are distributed as follows:

A: Morogoro Urban District:

Y.W.C.A	<ul style="list-style-type: none"> - pre primary education - sewing education - coconut nurseries - vegetable gardening
Finnish Tanzania	<ul style="list-style-type: none"> - dispensary construction - health technical/computer education
Friendship	<ul style="list-style-type: none"> - health equipment provision
C.D.T.F.	<ul style="list-style-type: none"> - income generation - finance and materials to health sector
Morogoro Women Focussed afforestation	<ul style="list-style-type: none"> - afforestation
Health for All Volunteers Trust Fund	<ul style="list-style-type: none"> - AIDS education and counselling
Swiss Contract	<ul style="list-style-type: none"> - finance and education to iron mongers and gerages
Christian Professionals of Tanzania (CPT)	<ul style="list-style-type: none"> - community development
CARITAS	<ul style="list-style-type: none"> - general assistance
Ulugulu Malihai Club	<ul style="list-style-type: none"> - tree nurseries - environmental education
Mgolole Orphanage	<ul style="list-style-type: none"> - care of orphans
Techno Gad	<ul style="list-style-type: none"> - gender issues and women development
CAPU Procura	<ul style="list-style-type: none"> - appropriate technology development

Royal Society for the Protection of Birds	- Uluguru slopes environmental protection
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B. Morogoro Rural District:

World Vision	- primary school rehabilitation - primary health care - primary school furniture - teacher house construction - water scheme rehabilitation - agricultural extension
Finnish Tanzania Friendship	- dispensary construction - health technical /computer education - health equipment provision
Morogoro Women Focussed afforestation	- afforestation
CARITAS	- general assistance
Ulugulu Malihai Club	- Tree nurseries - environmental protection education

C: Kilombero District:

Sister Erica	- weaving education - child care - primary school building and rehabilitation
Ulugulu Malihai Club	- Tree nurseries - environmental protection

D: Kilosa District:

C.D .T.F.	- income generation - finance and materials to health sector
Ulugulu Malihai Club	- tree nurseries - environmental protection education
CARITAS	- general assistance

E: Ulanga District:

C.D.T.F.	- income generation - finance and materials to health sector
Danish Volunteer Services	- development of a weaving school - development of weaving groups
Mine Company	- Ulanga district hospital water supply rehabilitation
Tanzania Nutfields Ltd	- development of 50,000 areas macadarmia nut trees

5.4 Regional Development Programmes Supported by Donors

The international community, represented by various bilateral and multilateral organisations is also quite active in Morogoro region. Current major efforts are summarized below:

UNICEF	- It carries out a region wide programme covering 335 villages to support - child health care - child education - income generation - health sector improvement - water sector development - environmental sanitation
Netherlands Government DHV/DWSP	- This Domestic Water Supply Programme backed by Dutch Volunteers intends to cover 232 villages out of a total of 457 in the districts of Morogoro Rural, Kilombero, Kilosa and Ulanga.

Irish Government	- This is water supply assistance to the two towns of Kilosa and Mahenge (for Ulanga). It also aims at providing intergrated assistance to the sectors of health, education, Works, Natural Resources and human resources in the two districts.
Swiss Government	- It covers all districts in the construction, rehabilitation and maintenance of rural roads; health sector improvement and in particular the rehabilitation, extension and upgrading of Morogoro Regional Hospital.
F.A.O.	- Agricultural mechanisation and food production programmes in all districts.
Commonwealth Development Cooperation	- Teak planting in Kilombero district.
DANIDA	- Provision of drugs and the rehabilitation of Lupala Health Centre in Ulanga district.
European Union	- Rehabilitation of primary schools and provision of learning and seaching materials.
International Development Agency.	- Construct and rehabilitate teacher houses and class rooms in some primary schools of Ulanga district.

5.5 Youth Development:

The 1988 census gave the population of young people in the region of the critical age group of 10 to 24 as 383,035. This is the age group in the region which is composed of primary and secondary school leavers and drop outs. This is the period most youths are trying to find their feet in the economic world. According to the 1988 census this is the group with the highest unemployment rates. Providing skills and employment for this

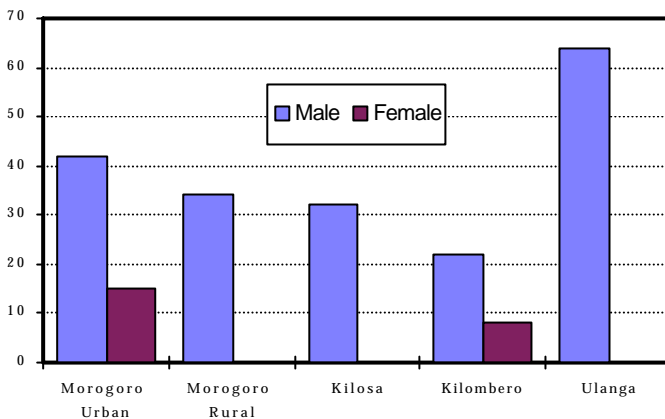
group is of utmost urgency otherwise antisocial behaviour takes possession of the group. Organising youths into groups whose objective is income generation and self employment is one of the methods in use in the region. Since 1994 various groups were organised. By 1995 a total of 333 groups were in existence. Of these 33 groups had access to loans amounting to T.shs. 27,500,000. Major sources for these loans were the Ministry of Youth, Labour and Social Welfare and the Youth Development Fund of the President's Office.

TABLE V-3: DISTRIBUTION OF YOUTH GROUPS BY DISTRICT, MOROGORO REGION, 1996.

District	Number of groups	Number of members			Population 10-24 years 1996 estimates	% of Population 10-24
		Male	Female	Total		
Morogoro Urban	9	42	15	57	60,433	0.09
Morogoro Rural	6	34	-	34	150,634	0.02
Kilosa	6	32	-	32	133,677	0.02
Kilombero	5	22	8	30	76,282	0.04
Ulanga	7	64	-	64	52,095	0.12
Total	33	194	23	217	473,121	0.05

Source: Regional Community Development Office, Morogoro, 1997.

Fig. 85: Distribution of youth groups by districts and sex, Morogoro region, 1996



5.6 Environmental Conservation:

Morogoro region's population density stood at 13.3 people per sq.km in 1978 and this increased to 17.3 in 1988. But even this level is still low by national standards which averaged 26.2 in 1988. By 1996 the human population density is estimated at 20.6 and that of livestock at about 6.5 livestock units per sq.km. This is low compared to regions to the north or north west of Morogoro. Given that 88% of the region's land area is well forested the threat to the environment from the natural increase in people or livestock in the region is moderate. Nevertheless, environmental degradation is taking place. All forests with the exception of those in Ulanga district have been extensively exploited for timber to satisfy the Morogoro/Dodoma/Dar-es-Salaam demand. Forest fires, exploitation for fuelwood and agriculture has given rise to some soil erosion, uncontrolled floods, siltation of water reservoirs and hydro-electricity dams. NGOs such as the MALIHAI CLUB have initiated tree planting programmes especially along Uluguru mountains and the drier

areas of Ngerengere and Gairo Division. What is the biggest potential threat is the very real likelihood of cattle herds from Dodoma and Arusha regions to move into the region as over crowding gets more and more desperate in those two regions due to low carrying capacity of grazing areas.

The protection of water sources from deforestation, and contamination by industrial establishments are the two major immediate environmental concerns of the region.

5.7 TOURISM

The tourism industry is on the road to development in Morogoro. Part of the Selous Game Reserve is in the region. It offers excellent game viewing being rich in the variety of wildlife watching and fishing safaris can be arranged. Tourist are normally flown in and out by light aircraft. Access by road is more difficult because of road disrepair both for access to and within the Game Reserve. Hunting safaris are ideal and Selous offers some of the best safari opportunities in the country.

Mikumi National Park unlike Selous is easily accessible by tarmac road. The Dar-es-Salaam to Zambia highway passes through the Mikumi. Game is plentiful and so game viewing and photography can be carried out easily. Access routes are adequate so are hotel accommodation, transport and various other services ensuring tourist comfort and relaxation. Udzungwa and Ruaha National Parks and the Uluguru Mountains are added tourist attractions.

Morogoro town as a staging point for Mikumi, Udzungwa and Selous is adequately supplied with hotel accommodation an air strip and telecommunications.

SECTION VI

POTENTIAL INVESTMENT AREAS

6.1 AGRICULTURE

Morogoro region covers an extensive area well endowed with fertile land, numerous water sources, irrigable areas and a low population density. All these factors put together make the region very much attractive for agricultural investment. Total arable land is estimated to be about 5,885,800 Ha. and out of these only 1,177,500 Ha are under agricultural production. The surplus grains so produced get ready markets in neighbouring regions such as Dar-es-Salaam, Tanga, Pwani and Arusha which are frequented by poor harvests or under production.

It is a fact that future agricultural prospects will depend on the efforts put in the development of more virgin arable land and intensive use of land already under cultivation. Kilombero and Ulanga districts have all the advantages for future agricultural prospects. These districts have fertile empty lands, lowlands suitable for irrigation and both have the least population densities in the region. Maize, paddy, cotton, coffee and oil seeds are the suited crops for expanded agricultural production in these two districts. Sugar cane production under small growers in Kilombero district is a high potential. The Kilombero sugar company has always been a ready market for these farmers.

The region has undertaken various irrigation projects over the years, but due to inadequate finance, unavailability of manpower and lack of required equipment, it has had little success. The

following potential irrigation schemes have been attempted but still not sufficiently exploited.

	Name of Schemes	Area Potential for Irrigation (Ha)	Major crops
1.	Ngongola Irrigation Scheme - Morogoro Rural district	4,000	Paddy
2.	Kilangali Irrigation Scheme - Kilosa district	1,000	Paddy
3.	Lumuma Irrigation scheme - Kilosa district	1,300	Horticultural crops mainly onions
4.	Mtimbira Irrigation schemes - Ulanga district	400	Paddy, maize and cotton
5.	Mgeta Irrigation scheme	2,000	Horticultural crops (vegetables), Irish potatoes, Maize and fruits
6.	Mkindo Irrigation scheme - Morogoro Rural district	650	Paddy
7.	Mwega Irrigation scheme - Kilosa district	1,400	Horticultural crops and paddy.

In order to fully open up and fully develop these potential areas, these areas must be accessible. Most of these identified agricultural potential areas face this major road bottlenecks. Hence integrated investment in rural feeder roads is a prerequisite.

6.2 Livestock:

Morogoro region traditionally is not a livestock keeping region. A substantial number of livestock have been brought into the region from outside mainly by the Maasai (Wakwavi) and the Sukuma people. It is only Kilosa district that livestock keeping is a tradition among its people. Required livestock infrastructures for animal health are not adequately distributed in Ulanga and Kilombero district. These districts are facing an influx of pastoralists from outside the region in search of pasture. These two districts require special attention in that essential livestock infrastructures in newly settled areas by pastorarists are put in place, these are dips, health centres and crushes.

Tickborne diseases are the most serious in the region. Investment aimed at controlling these diseases is a priority. Tsetse fly infestations is another major problem among livestock keepers in the region. Resources are needed for its effective control in order to open up new areas for establishment of beef or fattening ranches in Kilosa and Morogoro rural districts.

6.3 Transport:

Road density is a problem. Ulanga and Kilombero districts have such a low density that it is important to open up new district and feeder roads to serve the rich agricultural potential of the two districts.

The state of the district and feeder roads is pathetic. Even key roads as those to service the Selous Game Reserve are in bad shape. These roads demand rehabilitation and maintenance in all the districts.

6.4 Health:

The opening up of the health sector to private investment has already borne fruit. Already 70% of the hospitals, 30% of health centres and 50% of dispensaries are in the private sector. In 1978 the coverage of population per hospital bed was 689. Between 1978 and 1992 this stagnated at around 800. However, by 1996 this had picked up to 707 which makes the region the 4th in overall ranking in the country. But with respect of dispensaries the situation is bad. There were 5104 people per dispensary in the region in 1978. By 1996 this had deteriorated or declined to 6,266. This means the increase in the number of dispensaries is not even keeping up with the population increase. Private investment in the establishment and running of dispensaries is urgently required.

Other areas requiring attention by potential investors are in:

- training of health personnel which currently is in short supply to man existing facilities let alone on expansion
- the supply of drugs, vaccines and equipment for the health sector not only to Government run health facilities but to the private sector also at a subsidised level. These items are so expensive that it is making the delivery of health care to be expensive. The general public suffers accordingly.
- the supply of technical assistance in the short term to make up for deficiencies in trained health manpower while the country trains its own.

To contain the spread of AIDS and the HIV virus is the dream of every region. In comparison with the rest of the country, Morogoro is still in the upper 50% among the most affected. Help is needed to consolidate further the gains already made in this area. The region is unusually at risk being on the national transport highway by both rail and road communications.

Among neighbouring regions, Morogoro has one of the highest rates of TB infection. The problem is not getting better. A concerted effort to assist the region cope with the TB menace is needed.

6.5 Environmental Protection

The demand for timber of the Morogoro/Dodoma/Dar-es-Salaam market has put pressure on the Morogoro forest to an extent that replacement hardwood and softwood plantations are now a must. The demand for increased land to go under agriculture and livestock over grazing in parts has lead to soil erosion, floods and the siltation of dams. Afforestation investment is in order.

6.6 Tourism

Tourism based on the rich regional heritage of wildlife is a natural for Morogoro. The great attractions being Mikumi, Ruaha and Udzungwa National Parks as well as Selous Game Reserve. The attractions are there. What is needed is investment in promotion and physical facilities to sell and utilize these attractions for game viewing and photography. Where appropriate hunting and fishing safaries could come into being. There is also a need to invest in district and feeder roads to service the form areas of tourist potential.

6.7 Mining:

The first need of this sector is the organisation of an adequate prospecting survey to pin down the potential and the areas for gemstone mining before actual exploitation begins. The availability of industrial materials like limestone, mica and graphite call for exploitation capital.

6.8 Education:

Education at all levels is open to investors. The region is in dire need of quality establishments in the fields of preschools, primary schools, secondary schools, vocational and technical education centres. There is only one preschool for every 10,230 people, one primary school for every 2,383 people, one secondary school for every 40,642 people. Both the quality and the members are inadequate. The need for more and better vocational and technical/trade schools is particularly pressing. Youths in the age group 10 - 24 years are in desperate need of skills to make meaning out of their lives.

Existing government run primary schools and secondary schools need strengthening through support in better and more teacher houses, student toilets, school furniture and equipment, teaching and learning aids, classroom and other school buildings.

Adult literacy is under threat. It is easy for literate adults to slide into illiteracy if their new found skill is not used regularly especially through reading. Adequate and cheap after literacy reading materials are called for.

6.9 Forestry:

Financial and rural support for protection of water catchment areas is of first priority. Next is support for replacement hardwood and softwood plantations to supply the timber industry in the Dodoma/Morogoro/Dar-es-Salaam triple market. Morogoro Rural, Kilombero and Ulanga has adequate areas for this purpose. Agro-forestry can be practised profitably in Ulanga district where the establishment of marcadamia nut trees by Nutfields Ltd. has set an example.

It is not too early to start animation to communities in tree planting for household and community woodlot needs. This is necessary in order to keep up with the populations requirements of fuel wood. Since charcoal is so popular especially in urban areas for cooking purposes, the introduction of fuel saving stoves is a logical undertaking. Alternative sources of energy has to be explored eg. biogas solar etc.

6.10 Fisheries:

The inland fishery resources of the region are under exploited because of poor technology. The introduction of more efficient fishing vessels and fishing gear would improve both the income and the nutrition of the region's residents.

6.11 Beekeeping:

Morogoro could be a giant among Tanzania region's in the production of honey and beeswax. The promotion of modern beehives using local carpentry facilities should be taken seriously. Young unemployed or under employed people especially in rural

areas are particularly suited to the pursuit of this mode of making a living. Cooperative societies could be initiated to encourage the construction of modern beehives and honey presses and especially the processing and marketing of honey and beeswax.

6.12 Water Supplies:

The provision of water supplies of potable quality and in adequate quantities is a priority. Investment in this sector is important for the economic and social welfare of the people. At 49% coverage the region has still a long way to go to achieve any where near 100% providing potable and adequate water for all households within 400 meters. For rural areas the provision of water supplies that villagers can afford to maintain and run is of utmost necessity to cater for sustable development. The areas for investment in the water sector is so big that there is room for every agency small and large.

Sanitation and sewerage is critical in the overcrowded conditions of Morogoro Urban, to prevent an explosion of communicable diseases and environmental pollution. The Morogoro Municipal government has not got the resources to upgrade or even extend existing facilities to cover an ever - increasing urban population. It needs assistance in establishing additional sanitation and sewerage facilities.

6.13 Women Development:

There is still a low level of consciousness among women for the defence of their rights and privileges. More women groups are needed to foster such consciouness by bringing up the relevant gender issues for joint examination. Such groups can be

promoted by NGOs, bilateral/multilateral agencies or even individuals. Governments can also play a role. Income generation as a first step towards women emancipation is proving popular among women. More efforts in this direction is therefore called for.

6.14 Industrial Development:

Since the global change of wind to privatization many medium sized industrial establishments in the region have been privatised or are in the process of being privatised. Investors are invited to participate in this privatisation process. Establishments still in need of privatisation are Canvas Mill, Polytex, Gunny bag, Ceramic, Kilombero and Mtibwa Sugar plantations and mills, Kilosa Carpets and Mang'ula MMT.

ANNEX A

MOROGORO REGION IN A NUTSHELL

1.0 **Location:**

Mid south eastern part of Tanzania between latitude 5⁰58" and 10⁰0" south of the Equator and longitudes 35⁰25" and 35⁰30" east of Greenwich.

1.1 **Land Frontiers**

North - Arusha and Tanga regions
East - Coast and Lindi regions
South - Ruvuma region
West - Iringa and Dodoma regions.

1.2 **Land Area:**

Land - 73,039 sq.kms.
No large water bodies.

1.3 **Administrative units:**

- 5 districts of Morogoro Urban, Morogoro Rural, Kilosa, Kilombero and Kilosa.
- 30 divisions
- 140 wards
- 457 villages

1.4 **Population 1988 census :**

- Total population 1,220,564 about 5.7% of Tanzania Mainland population. 1996 estimate 1,503,761 and 1,671,589 by year 2000.
- Growth rate 2.6%
- Population density 17.3 people per sq.km.
- Average household size 5.4
- Net lifetime migration 30,437 people.

1.5 **Ethnicity**

- Morogoro Rural dominated by Waluguru
- Kilosa district dominated by Wasagara and Wakaguru
- Wandamba the majority in Kilombero
- Wapogoro the majority in Ulanga.

1.6 **Climate:**

Rainfall 600mm in lowlands and 1,200 in highlands. Temperatures range similarly from 30⁰C in lowlands and 18⁰C in highlands.

1.7 **Agro - Economic Zones:**

Zone I: Highlands at 600m. a.s.l. and more.

Area covered: Nguru, Mahenge, Rubeho Udzungwa and Ubena mountains.

Crops: coffee, cocoa, maize, citrus and vegetables.

Zone II: Plateau of 300m to 600m. above sea level

Area covered: Major part of Kilosa district and part of the middle of Morogoro south.

Crops: Maize, sorghum, sweet potatoes, cotton, sunflower, simsim, citrus, paddy, cassava and bananas.

Zone III: Lowland and river valleys.

Area covered: Kilombero, Wami, Mkindo, Ngerengere, Mgeta, Luwegu and Luhombero valleys.

Crops: Paddy, maize, sugar cane, bananas, yams, cassava and potatoes.

1.8 **Roads:**

Density 0.05 kms/sq.km.

3,742 kms of roads.

1.9 **Electricity:**

Electricity supply to region 85.0 million KWH (1992) 7.4% of households had access to electricity in 1988 or 15,925 people.

1.10 **Basic social facilities (1996)**

Primary school 631

- Private	0
- Public	631
Secondary schools	38
- Public	26
- Private	12

Vocational Training Centres	5
Hospitals:	14
- Public	4
- Private	10
Health centres	26
- Public	18
- Private	8
Dispensaries	240
- Public	129
- Private	111

1.11 **Agriculture:**

- 10,810 ha identified as potentially irrigable area in 8 major irrigation schemes.

1.12 **Livestock facilities:**

- Dips 86
- Animal health centres 4
- Dip testing centres 3
- Crushes 14
- Livestock laboratories 4

1.13 **Selected Social and Economic Indicators**

A: Education sector

- Number of Primary schools
 - = 1965: 105
 - = 1975: 214
 - = 1985: 510
 - = 1996: 630

- Pupil Emolment (Primary Education)

= 1965:	33,090
= 1975:	64,161
= 1985:	181,899
= 1996:	198,088

- Number of Secondary Schools

1996: Total	-	37
Public	-	26
Private		11

- Pupil Enrolment (Secondary Education)

1990: Total	8,913
Public	4,107
Private	4,806
1995: Total	11,268
Public	5,738
Private	5,530

- Adult literacy rates

1967:	37%
1978:	58.6%
1988:	62.8%

B: Health Sector:

Life expectancy at birth:

1978: Male:	44
Female	46
1988 Male:	45
Female	48

Infant Mortality Rate (IMR) 1988 Census

Total	125
- Male:	133
- Female:	118

Under five mortality rate (U5MR) 1988 Census

Total	211
- Male:	224
- Female:	197

Maternal Mortality Rate (MMR)

1992:	289
1993:	172
1994:	190
1995:	153

C: Water Sector:

Population covered with clean water supplies.

Rural:	49%
Urban:	64%

D: Regional GDP

Regional GDP at Current Prices

	T.shs.(Million)	US\$ ('000)
1980:	1,955	238
1985:	4,436	269
1990:	35,881	182
1994:	88,073	159

Regional GDP per Capital (Current Prices)

T.shs.	US\$
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1980:	1,977	240.5
1985:	3,946	239.2
1990:	27,054	137.3
1994:	59,370	107.4

1.14 **Tourist Attractions:**

- Selous Game Reserve (hunting, viewing, fishing)
- Mikumi National Park (viewing)
- Ruaha National Park (viewing)
- Udzungwa National Park (viewing)

ANNEX B

MOROGORO RURAL DISTRICT

1.0 **General Information:**

1.1 Location:

North	-	Tanga Region
East	-	Coast Region
South	-	Kilombero district
West	-	Kilosa district

1.2 Area and Populations:

Land	- 19,056 km ²
	- no large water body
% regional are	- 26.1%
1988 Population census	- 430,202 people
	- growth rate 2.2%
	- density 22.6 per km ²
	- Av. h/hold size 5.3

Population Projection 1996	- 512,011
Population Projection 2000	- 558,577
Population projection density 2000	- 29.3 per km ²

1.3 **Administrative set up**

Divisions	-	10
Wards	-	42
Villages	-	214

2.0 **Economic Activities**

Mainly farming and livestock keeping as follows (1996)

- 89,071 cattle
- 19,542 goats
- 8,458 sheep
- 5,017 pigs
- numerous poultry

Livestock facilities

- 31 dips
- 1 dip testing centre
- 4 crushes
- 1 Livestock health labouratory

3.0 **Water Supplies:**

a) Status water supply facilities

	<u>Piped systems</u>	<u>Shallow wells</u>	<u>Bore holes</u>
Working	272	270	1
Notworking	93	98	0
Total	365	368	1
% not working	25	27	0

b) Coverage rural: 40.3%

4.0 **Health:**

Hospitals	- 3 (2 private)
Health centres	- 6 (1 private)
Dispensaries	- 77 (23 private)

5.0 **Education:**

Number of primary schools	-	240
Total primary school enrolment	-	67,399
Number of Secondary schools	-	11 (all public)
Number of Vocational Training Centres	-	0

6.0 **Electricity:**

Access to electricity		
- No. of households with electricity	-	976
- % with electricity	-	1.2

7.0 **Other Development Indicators (1996)**

a) Education (Primary)

Population/primary school	-	2,133
Pupils/primary school	-	281
Pupils/classroom	-	61
Pupils/teacher	-	41

b) **Health:**

Population/dispensary	-	6,650
Population/hospital	-	170,670

ANNEX C

MOROGORO URBAN DISTRICT

1.0 General Information:

1.1 Location

Surrounded by Morogoro Rural district.

1.2 Area and Population:

Land - 260 km²
- no large water body.

% regional area - 0.4%

1988 population census - 117,601 people
- growth rate 9.6%
- density 452.3 pe km²
- Av.h/hold size 4.4

Population projection 1996 - 168,525

Population projection 2000 - 201,740

Population projection
density 2000 - 7.76 per km²

1.3 Administrative set up:

Divisions	-	1
Wards	-	19
Villages	-	0

2.2 Economic Activities:

Mainly commerce and services but do some farming and keep some livestock as follows (1996):

- 2,618 cattle
- 1,949 goats
- 264 sheep
- 988 pigs
- numerous poultry

Livesock facilities:

- 1 dip
- 1 livestock health centre
- 1 dip testing centre

3.0 **Water Supplies:**

Coverage: 65%.

4.0 **Health:**

Hospitals	-	5 (4 private)
Health centres	-	8 (5 private)
Dispensaries	-	30 (26 private)

5.0 **Education (1996)**

Number of primary schools	-	36
Total primary school enrolment	-	26,852
Number of secondary schools	-	11 (9 private)
Number of Vocational Training School-	-	3 (all public)

6.0 **Electricity:**

Access to electricity:

No. of households	-	10,796
% with electricity	-	40.4

7.0 Other Development Indicators:

a) Education:

Population/primary school	-	4,681
Pupils/school	-	746
Pupils/classroom	-	78
Pupils/teacher	-	31

b) Health

Population/dispensary	-	5,618
Population/hospital	-	33,705

ANNEX D

KILOSA DISTRICT

1.0 General Information:

1.1 Location:

North	-	Tanga Region
	-	Arusha Region
East	-	Morogoro Rural district
South	-	Kilombero district
	-	Iringa region
West	-	Dodoma region

1.2 Area and Population:

Land	-	14,918 km ²
	-	no large water body
% regional area	-	20.5%
1988 Population census	-	346,526 people
	-	growth rate 2.3%
	-	density 23.2 per km ²
	-	Av. h/hold size 5.4
Population projection 1996	-	415,663
Population projection 2000	-	455,244
Population projection density 2000	-	30.5 per km ²

1.3 Administrative set up:

Divisions	-	9
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Wards	-	36
Villages	-	132

2.0 Economic Activities:

Mainly farming and livestock keeping as follows (1996).

- 267,704 cattle
- 33,651 goats
- 4,230 sheep
- 3,063 pigs
- numerous ponetry.

Livestock facilities:

- 45 dips
- 1 livestock health centre
- 8 crushes
- 1 livestock health laboratory

3.0 Water supplies:

a) Status water supply facilities

Piped systems Shallow wells

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Working	100	231	9
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Not working	22	240	-
<u>Total</u>	122	471	9
% Not working	18	51	-

b) Coverage rural 49.7%.

4.0 Health:

Hospitals:	2 (1 private)
Health centres	6 (1 private)
Dispensaries:	68 (27 private)

5.0 Education (1996):

Number of primary schools:	174
Total primary school enrolment:	48,742
Number of secondary schools:	8 (2 private)
Number of Vocational training centres:	2 All public.

6.0 Electricity:

Access to Electricity:

Number of Households with electricity:	4,021
Percent with electricity:	0.6%

7.0 Other Development Indicators (1996):

a) Education (primary)

Population/primary school:	2,381
Pupil/school:	280
Pupils/classroom:	74
Pupils/teacher:	32

b) Health:

Population/Dispensary:	6,113
Population/hospital:	207,832

ANNEX E

KILOMBERO DISTRICT

1.0 General Information:

1.1 Location:

North - Kilosa district
- Morogoro Rural district
East - Lindi Region
South east Ulanga district
South west Iringa Region
West - Iringa region.

1.2 Area and Population:

Land - 14,245 km²
- no large water body
% regional area - 19.5%
1988 population census - 187,593 people
- growth rate 3.4%
- density 13.2 per km²
- Av. h/hold size 5.6
Population projection 1996 - 245,121
Population projection 2000 - 280,197
Population Projection
density 2000 - 19.2 per km²

1.3 Administrative set up:

Divisions - 5
Wards - 19

Villages - 46

2.0 Economic Activities:

Mainly farming, fishing and keeping some livestock as follows (1996):

- 19,017 cattle
- 2,586 goats
- 2,349 pigs
- 476 sheep
- numerous poultry

Livestock facilities:

- 4 dips
- 1 livestock health centre
- 1 crush
- 1 Livestock health laboratory.

3.0 Water supplies:

a) Status water supply facilities:

	Piped systems	shallow wells	Bore-holes
Working	210	154	2
Not working	36	33	1
Total	246	187	-
			2
			1

% Not working 15 18 -

b) Coverage rural: 65.5%.

4.0 Health:

Hospital:	2 (2 private)
Health centres:	3 (1 private)
Dispensaries:	35 (21 private)

5.0 Education (1996)

Number of primary schools:	92
Total primary school enrolment:	33,073
Number of secondary schools:	3 All public
Number of vocational training centres:	Nil.

6.0 Electricity:

Access to Electricity	
Number of Households with Electricity:	991
Percent with electricity:	3.0%

7.0 Other Development Indicator_(1996)

a) Education (Primary)

Population/primary school:	2,664
Pupil/school:	359
Pupil/classroom:	59
Pupil/Teacher:	35

b) Health:

Population/Dispensary:	7,003
Population/hospital:	122,561

ANNEX F

ULANGA DISTRICT

1.0 General Information:

1.1 Location:

North	-	Kilombero district
East	-	Lindi region
South	-	Ruvuma region
West	-	Kilombero district

1.2 Area and Population:

Land	-	24,460 km ²	
		- no large water body	
% regional area	-	33.5%	
1988 population census	-	138,642 people	
		- growth rate 2.0%	
		- density 5.7 per km ²	
		- Av.h/hold size 6.3	
Population Projection 1996	-	162,441	
Population Projection 2000	-	175,831	
Population Projection density 2000	-	72 per km ²	

1.3 Administrative set up:

Divisions	-	5
Wards	-	24
Villages	-	65

2.0 Economic Activities:

Major economic activities are forming and the keeping of same livestock as follows (1996):

- 9,617 cattle
- 3,032 sheep
- 462 goats
- 37 pigs
- numerous poultry.

Livestock facilities:

- 5 dips
- 1 health centre
- 1 crush
- 1 livestock laboratory.

3.0 Water supplies

Status water supply facilities

	Piped system	shallow wells	Bore - holes
Working	74	136	37
Not working	22	240	-
Total	96	376	37
% Not working	23	64	-

Coverage rural: 56.0%.

4.0 Health:

Hospitals: 2 (1 private)
Health centres: 3 All public

Dispensaries: 30 (14 private)

5.0 Education (1996)

Number of primary schools: 89
Total primary school enrolment: 25,525
Number of secondary schools: 4 All public
Number of vocational training centres: Nil.

6.0 Electricity:

Access to Electricity
Number of Households with electricity: 99
Per cent with electricity: 0.4%

7.0 Other Development Indicators (1996)

a) Education(primary)

Population/primary school: 1,825
Pupil/school: 287
Pupil/classroom: 48
Pupil/teacher 33

b) Health:

Population/Dispensary: 5,415

Population/hospital: 81,221.

ANNEX G

1.0 GENERAL INFORMATION ABOUT TANZANIA

Location: (29^oE-41^o; 1^oS - 12^oS)

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: Enrolment 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 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>

