



THE UNITED REPUBLIC OF TANZANIA

TANGA REGION SOCIO-ECONOMIC PROFILE



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TANGA

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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 Tanga 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 Tanga Region Socio-Economic Profile. I would also like to thank both the Planning Commission and Tanga Regional Planning Staff who put a lot of effort into ensuring the successful completion of this task.*

Nassoro Malocho (MP)
MINISTER OF STATE
PLANNING

April, 1997.

SECTION I

1.0 LAND, POPULATION AND CLIMATE

1.1 Location

Tanga region is situated at the extreme north-east corner of Tanzania between 4° and 6° degrees below the Equator and 37°-39°10'degrees. east of the Greenwich meridian. The region occupies an area of 27,348 sq kms, being only 3% of total area of the country. Tanga shares borders with Kenya to the north, Morogoro and Coast regions to the south, Kilimanjaro and coast regions to the south, and Kilimanjaro and Arusha regions to the west. To the east it is bordered by the Indian ocean. Mligaji River also forms a large part of the border in the South.

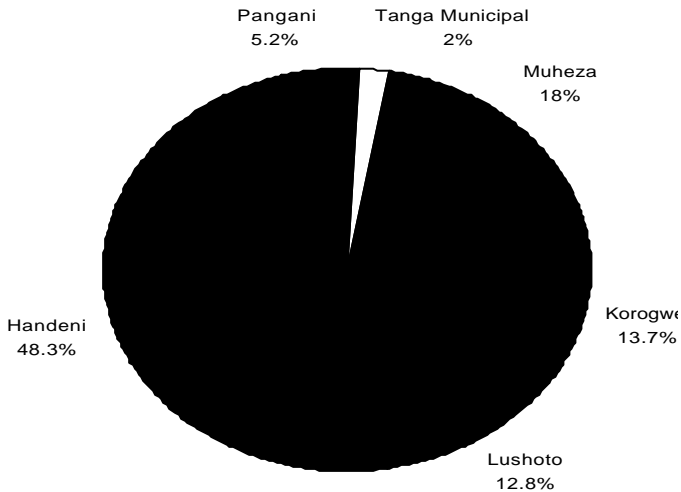
1.2 AREA AND ADMINISTRATIVE UNITS

Administratively, the region is divided into 6 districts namely, Lushoto, Korogwe, Muheza, Handeni, Pangani and Tanga Municipality. The region has as well 37 divisions, 136 Wards and 557 villages. The Regional Administrative Secretary is the Chief Executive in the region assisted by District Executive Directors at district levels and other functional officers, while

the Regional Commissioner is the administrative overseer and represents the President in the region.

The region has a land area of 27,348 Sq. Kms. of which 48 percent belongs to Handeni district and 5 percent belongs to Pangani district, 13 percent to Lushoto, 14 percent to Korogwe and 18 percent of the land area to Muheza. The total area available for agricultural activities is 17,000 sq. kms. With a population of 1,280,262 people, Tanga region is among the smallest and most densely populated regions of Tanzania (about 48.1 people per sq. kms.), after Mtwara, Kilimanjaro and Mwanza regions.

Fig. 1: Administrative Area of Land in Tanga Region by District in Sq. Km



**Table I: LAND AREA AND ADMINISTRATIVE UNITS
OF TANGA REGION**

District or Municipality	Area Sq.Km	Divisions	Wards	Villages
Tanga Municipal	536	4	21	23
Muheza	4,922	6	27	140
Korogwe	3,756	4	20	132
Lushoto	3,500	8	32	137
Handeni	13,209	13	23	102
Pangani	1,425	4	13	23
	27,348	37	136	557

Source: Regional Commissioner's Office - Tanga.

1.3 ETHNIC COMPOSITION

In terms of ethnic composition, Lushoto and Handeni have the most homogenous population while Muheza, Korogwe, Tanga and Pangani feature a very heterogenous tribal composition where no single ethnic group accounts for more than 20% of the total district population.

The main ethnic groups in terms of their numbers are Sambaa, Zigua, Bondei and Digo. Sambaa are the main ethnic group in the Usambara Mountains and low lands of Muheza, in Korogwe and Lushoto they account for nearly 40% of the region's total population. The Zigua are the main ethnic group in Handeni district and partially Korogwe and Pangani districts, while Bondei are mainly in Muheza district and part of Pangani.

Digo are the main ethnic group in Tanga district and part of Muheza district. Both Bondei and Digo depend on livestock keeping and fishing along the coast. There are other small ethnic groups such as Segeju, Duruma, Mbugu and Pare. Asians and Europeans mostly occupying the urban centres in the region, account for a very small population. The 1978 census showed the composition of ethnic groups by district as follows:

Handeni District	-	Zigua 66.1%, Nguu 17.9%, Others 16.0%.
Korogwe District	-	Sambaa 42.8%, Zigua 18.1%, Others 39.1%.
Lushoto District	-	Sambaa 78.3%, Pare 14.0%, Others 7.7%.
Muheza District	-	Bondei 16.5%, Sambaa 15.8%, Digo 13.8, Zigua 6.8%, Segeju 6.1%, Makonde 5.6%, Others 35.4%

Pangani District-	Zigua 22.5%, Makonde 14.0%, Yao 6.5%, Others 57.0%.
Tanga District	- Digo 18.0%, Sambaa 13.9%, Bondei 10.7%, Zigua 7.6%, Segeju 7.5%, Others 42.3%.

POPULATION SIZE AND GROWTH

The population of Tanga region has been increasing since 1957 and more than doubled in 1988. In 1957 its population was 579,382 people and in 1988 it rose to 1,283,592 people. Population of Tanga in 1988 was about 6 percent of the total Tanzania mainland's population and makes Tanga region the Seventh populous region after Mwanza, Shinyanga, Mbeya, Dar-es-Salaam, Kagera and Arusha. The population of Tanga is projected at 1,644,849 people in the year 2000 and this will increase population density by 28 percent from 48.1 persons per Sq. Kms. in 1988 to 60 persons per Sq. Kms. Higher population densities may sometimes be associated with widespread poverty and other serious social problems, let alone unsustainable use of natural resources.

Fig. II: Population Size by District, Tanga Region (1957 - 1988)

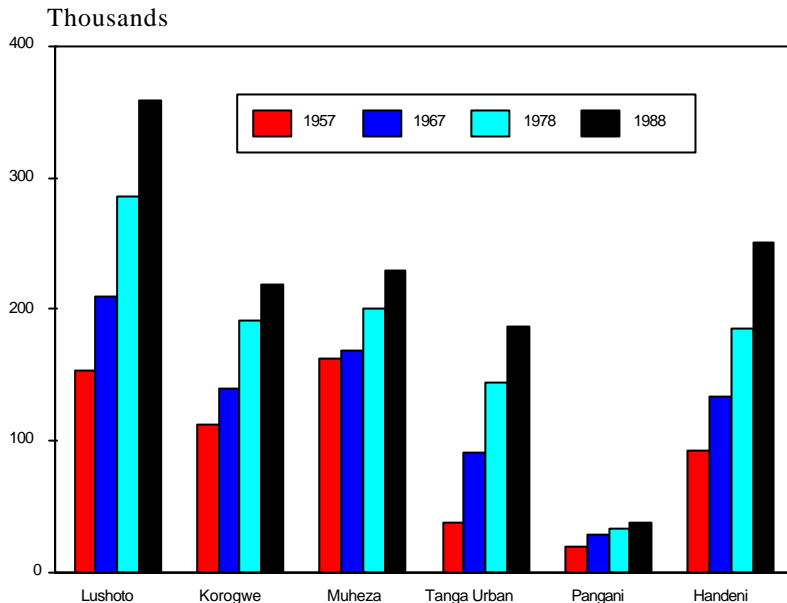


Table II: POPULATION DISTRIBUTION TREND AND 1978-88 GROWTH RATES BY DISTRICT

	Population Census				Annual Growth Rates 1978-88
	1957	1967	1978	1988	
Lushoto	153,508	210,484	286,049	357,531	2.2
Korogwe	113,055	140,306	191,178	218,810	1.8
Muheza	161,620	167,993	199,737	229,140	1.5
Tanga Urban	38,053	90,616	143,868	186,849	2.5
Pangani	20,349	28,426	33,340	37,669	1.3
Handeni	92,797	133,235	184,595	250,263	2.5
Tanga Region	579,382	771,060	1,037,767	1,283,592	2.1

- Sources: 1. Population Census 1957, 1967 and 1978; Tanga Water Master Plan, Vol. V
 2. Tanga Regional Statistical Abstract 1993.

Fig. III: Population Size Based on Population Census 1967 and 1988

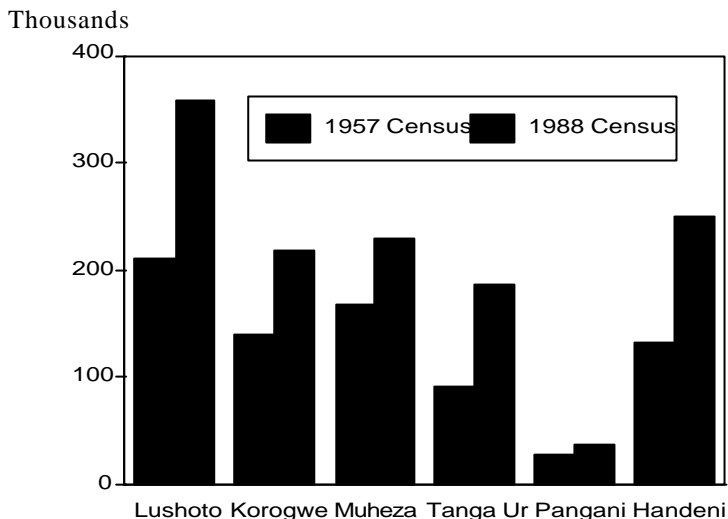


TABLE III: POPULATION PROJECTIONS BASED ON 1978-88 AVERAGE GROWTH RATES

District	1967 Census	1988 Census	Population Projections		
			1995	1998	2000
Lushoto	210,484	357,531	416,040	444,107	463,863
Korogwe	140,306	218,810	246,310	259,852	269,290
Muheza	167,993	229,140	256,811	268,542	276,659
Tanga	90,616	186,849	222,825	239,958	252,106
Pangani	28,426	37,669	41,450	43,088	44,215
Handeni	133,235	250,263	299,376	322,395	338,716

Total	771,060	1,280,262	1,482,812	1,577,942	1,644,849
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Source: 1. Population Census, 1967, 1988 and Projections by the Planning Commission.

Table II highlights 1957, 1967, 1978 and 1988 population sizes as well as population growth rates by District. It is observed from Table II that between 1957 and 1988 Census, the population of Tanga more than doubled and shall almost triple by the year 2000. Higher population growth rates do become problems when the rate of food production does not cope with the rapid increase. The District with the highest population growth rates are Handeni and Lushoto, while Pangani commands the lowest population growth rate followed by Muheza. High population growth rates in Handeni and Lushoto if there are no controls will increase their respective populations in the year 2000 to 338,716 and 463,863 people. While, their population densities will increase by 4 and 3 percent. For Lushoto district, an increase in population density is very serious because already there are too many people in a Sq. Km., which may not lead to sustainable use of the available resources.

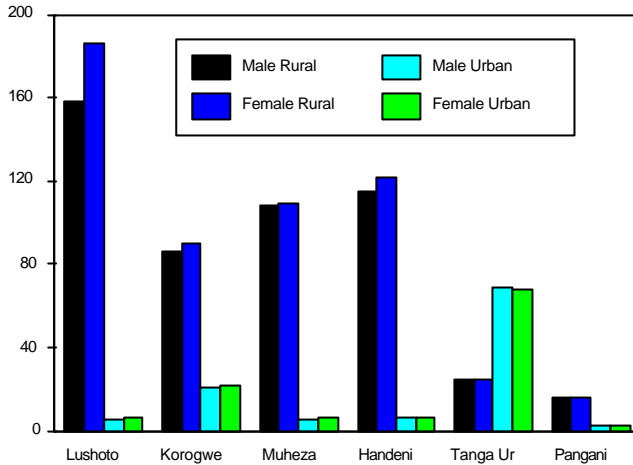
TABLE IV: POPULATION BY DISTRICT, RURAL/URBAN AND SEX IN TANGA REGION

District	Rural			Urban		
	Male	Female	Total	Male	Female	Total
Lushoto	158,772	185,518	344,290	5,931	7,271	13,202
Korogwe	85,722	89,617	175,339	21,023	22,487	43,510
Muheza	107,754	108,596	216,350	5,998	6,791	12,789
Handeni	115,041	121,677	236,718	6,494	7,032	13,526
Tanga	24,580	24,900	49,480	69,229	68,109	137,338
Pangani	16,178	16,138	32,316	2,616	2,738	5,354
Total	508,047	546,446	1,054,493	111,291	114,428	225,719

Source: Tanga Regional Statistical Abstract, 1993.

Fig. IV: Population Size by District Rural/Urban and Sex

Thosands



The population Census of 1988 clearly revealed that the majority of the people of Tanga region, estimated at 82 percent of the total population lived in the rural areas. For instance, in Lushoto, Muheza and Handeni Districts 96%, 94% and 94% of the total population respectively lived in the rural areas. These figures may not reflect the true picture taking place due to recent influx of youth population into the urban centres. Thus, the population is expected to be much high in the Urban centres.

Population Density and Distribution

Population density of Tanga region as revealed by 1988 population census, was one of the highest in the country. With regards to 1988 census, (Table V), the region's average population density was 48.1 persons per Square Kilometer, being well above the national average of 26 persons per Sq. Km. Nevertheless, the most striking observation is on Table VI below. That is, Lushoto district with land area of 3,500

Sq. Km. commanded the highest population density estimated at 102 persons per sq. km. while Handeni with land area of 13,500 sq. km. had a population density of only 19 persons per sq. km. It is important therefore for people in Lushoto to start thinking of how best to utilize the small piece of land at their disposal and may be consider the possibilities of controlling population growth rate. Population density problem may also face the districts of Korogwe and Muheza. 1988 population Census revealed high population densities in Korogwe and Muheza as well.

TABLE V: POPULATION DISTRIBUTION AND DENSITY BY REGION, 1988 CENSUS REPORT

Region	Land Area (Kms)	Population	Density
Dar-es-Salaam	1,393	1,360,850	976.9
Mwanza	19,683	1,876,776	95.8
Kilimanjaro	13,309	1,108,699	83.7
Mtwara	16,710	887,583	53.2
Tanga	26,677	1,280,262	48.1
Kagera	28,456	1,313,639	46.6
Mara	21,760	952,616	43.7
Shinyanga	50,760	1,763,960	34.9
Dodoma	41,311	1,235,277	30.0
Mbeya	60,350	1,476,261	24.0
Kigoma	37,040	853,263	23.1
Iringa	56,850	1,193,074	21.3
Arusha	82,098	1,352,225	16.5
Rukwa	68,635	704,050	10.1
Lindi	66,040	642,364	9.8
Tabora	76,151	1,036,293	14.0
Pwani	32,407	638,015	20.0
Singida	49,341	791,814	16.0
Morogoro	70,799	1,222,737	17.0
Ruvuma	66,477	783,327	12.0
Total	885,987	23,174,443	26.1

Source: 1988 Population Census Report.

TABLE VI: POPULATION DENSITY AND DISTRIBUTION BY DISTRICT

District	Land Area (Sq.Km.)	Population Census 1988	Population Density (1988 Census)	Population (1995 Estimate s)	Population Density (1995 Estimate s)	Population (2000 Estimate s)	Population Density (2000 Estimate s)
Lushoto	3,500	357,531	102	416,040	119	463,863	132
Korogwe	3,756	218,810	58	246,310	65	269,290	72
Muheza	4,922	229,140	46	256,811	52	276,659	56
Tanga	536	186,849	348	222,825	416	252,106	470
Pangani	1,425	37,669	26	41,450	29	44,215	31
Handeni	13,209	250,263	19	299,376	23	338,716	26
Total	27,348	1,280,262	47	1,482,812	54	1,644,849	60

Fig. VII: Population Size by District and Sex in Tanga Region; 1988

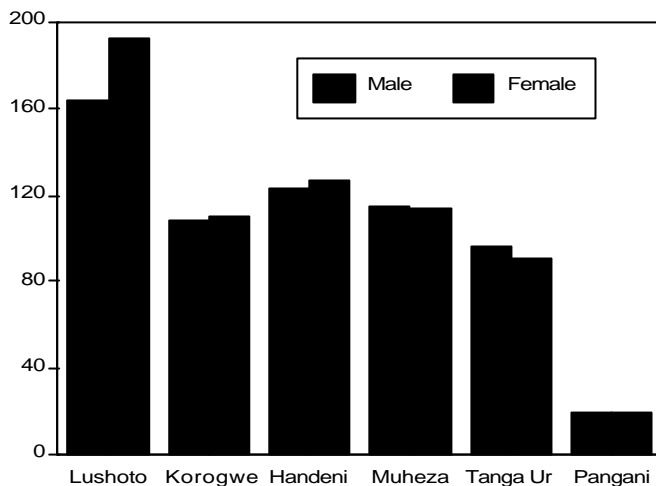


TABLE VII: POPULATION BY SEX, NUMBER OF HOUSEHOLDS AND AVERAGE HOUSEHOLD SIZE, 1988

District	Sex			No. of Households	Average Household Size
	Male	Female	Total		
Lushoto	164,130	193,401	357,531	65,045	5.5
Korogwe	108,314	110,496	218,810	43,275	5.1
Handeni	122,854	127,409	250,263	41,136	6.1
Muheza	115,231	113,909	229,140	44,327	5.2
Tanga	96,237	90,612	186,849	40,767	4.6
Pangani	19,071	18,598	37,669	8,977	4.2
Total	625,837	654,425	1,280,262	243,527	5.3

Source: Tanga Regional Statistical Abstract 1993.

It is observed from Table VII that the highest household size in Tanga Region was recorded in Handeni and Lushoto districts during 1988 Population Census. Handeni district had an average household size of 6.1 and Lushoto district had 5.5, both of which were above the Regional average household size of 5.3. Handeni and Lushoto districts are more into the Rural area than the remaining four sister districts, and naturally the more you are into the rural areas the more tendency to embrace firmly the family ties and values. This may probably explain why average household sizes are bigger in Handeni and Lushoto.

TABLE VIII POPULATION BY AGE GROUPS AND DISTRICTS IN TANGA REGION, 1988

Age Groups	District						Total
	Lushoto	Korogwe	Muheza	Handeni	Tanga	Pangani	
0-4	62,637	34,202	34,900	48,172	25,809	5,737	211,457
5-9	62,793	33,114	34,010	43,439	24,782	5,366	203,504
10-14	51,839	30,406	30,292	31,168	22,889	4,601	171,195
15-19	41,687	24,070	24,438	28,359	24,219	3,901	146,674
20-24	25,453	16,133	16,411	17,463	17,387	2,783	95,630
25-29	24,902	16,099	16,594	18,586	16,644	2,770	95,595
30-34	16,810	11,649	12,157	12,761	11,471	2,062	66,910
35-39	15,197	10,695	10,785	10,937	9,776	2,023	59,413
40-44	10,444	7,606	7,936	7,837	6,546	1,391	41,760
45-49	9,500	7,597	8,071	6,430	6,157	1,407	39,162
50-54	9,065	6,452	7,473	6,105	5,445	1,328	35,868
55-59	5,963	4,870	5,782	4,477	4,057	917	26,066
60-64	6,025	4,636	6,301	4,411	3,803	1,105	26,281
65-69	4,064	3,348	4,187	3,084	2,433	659	17,775
70-74	4,541	3,347	4,331	2,826	2,367	681	18,093
75-79	1,872	1,753	1,949	1,505	1,080	283	8,442
80+	3,993	2,465	3,280	2,442	1,444	576	14,200
N.S*	707	407	242	242	509	80	2,187
Total	357,492	218,849	229,139	250,244	186,818	37,670	1,280,212

Source: Tanga Regional Statistical Abstract, 1993.

* N.S: Not stated.

Fig. IX: Percentage Distribution of Defendent Population by District and Age Group, 1988 Population Census

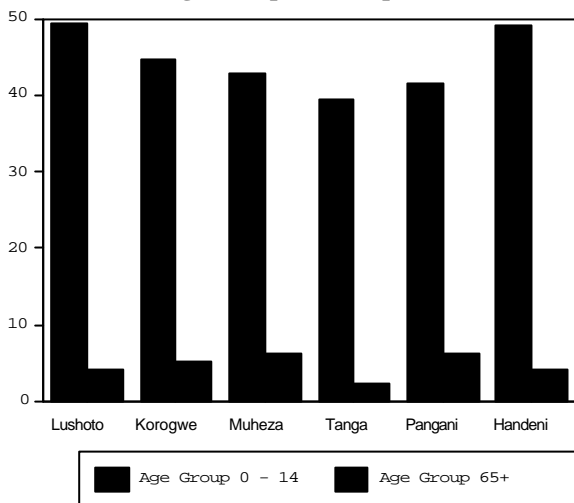


TABLE IX: PERCENTAGE DISTRIBUTION OF DEPENDENT POPULATION BY DISTRICT IN TANGA REGION, 1988 POPULATION CENSUS

District	Dependent Population (%)		
	Age Group (0-14)(%)	Age Group (65+)(%)	Total (0-14 + 65+) (%)
Lushoto	49.6	4.2	53.8
Korogwe	44.7	5.1	49.8
Muheza	43.0	6.1	49.1
Tanga	39.4	2.3	41.7
Pangani	41.7	6.1	47.8
Handeni	49.1	4.0	53.1
Total	44.0	4.6	49.2

Source: Planning Commission; Compiled Data based on 1988 Census Preliminary Report.

Tables VIII and IX indicate the population in each age-group and percentage distribution of dependent population in each district. Children aged between 0 - 14 years constitute 44 percent of the total population. While, youth aged between 15 and 39 years constitute 36 percent of the total population. The working group age (15 - 64 years) is 49.3 percent. Whereas, the dependent group 0-14 and above 65 years old constitute 49.2 percent of the total population. This implies that dependence ratio is almost 50 percent in Tanga Region. It also means that 628,960 persons (of 0-14 and above 65 years) were being fed and looked after by only 654,632 people in Tanga Region in 1988. For such a big number of people depending and surviving entirely on the sweat of just a few colleagues does not make much economic sense. It becomes more serious especially when the number of the dependent group is more or almost equal the number of the supporting group. The supporting group must work much harder in order to feed the young and the old, otherwise food shortages may begin to surface.

Employment

Like in other regions, the majority of the economically active population in Tanga Region is engaged in subsistence agriculture. While, a small portion of the population especially those close to the shores of the Indian Ocean is absorbed in the fishing industry. However, the declining productivity of the agricultural resources, resulting from; pest infestation, less reliable rainfall, increasing land infertility and in some

areas land shortages do cause unemployment problem in Tanga Region.

Table X below attempts to show the magnitude of unemployment in Tanga Region as revealed by the 1988 Population Census analytical results.

TABLE X: POPULATION 10 YEARS AND ABOVE BY SEX, DISTRICT AND OCCUPATION, IN TANGA REGION, 1988

District	Occupation				Total
	Office Work and Shop Sales	Agricultural Work	Industrial and Other	Number not Employed	
	Sex: Male				
Lushoto	3907	58314	3278	36404	101903
Korogwe	4068	44373	4838	19456	72735
Muheza	3463	47013	5603	22411	78490
Handeni	2602	51855	1916	18903	75276
Tanga	15025	13270	17426	22683	68404
Pangani	835	8147	1106	3030	13118
District	Sex: Female				
Lushoto	1880	81330	511	45801	129522
Korogwe	1900	105342	1019	22862	131123
Muheza	2271	51438	1413	26030	81152

Handeni	1261	60383	456	20676	82776
Tanga	7815	14040	5463	40070	67388
Pangani	565	8131	475	4233	13404
District	Both Sexes				
Lushoto	5553	139644	3789	82205	231191
Korogwe	5968	97044	5857	42318	151187
Muheza	5734	98451	7016	48441	159642
Handeni	3857	112238	2372	39579	158046
Tanga	22840	27310	22889	62753	135792
Pangani	1400	16278	1581	7263	26522

Source: 1. Tanga Regional Profile, 1988
2. Planning Commission, Compiled Data Based on Regional Profile.

The 1988 Population Census (Table X) results put unemployment in Tanga Region at 282559 people, which was equivalent to 33 percent of the total labour force. Out of 282559 unemployed, 159672 were female population representing 57 percent of the total. It is also observed from Table X that unemployment was more pronounced in Lushoto and Tanga districts with 82205 and 62753 people respectively.

Climate

The dominant climate in Tanga Region is warm and wet. It is found along the coast and in the inland. In the Western plateau of Handeni district a hot and dry climate dominates and in the Usambara Mountains a temperate climate. In most cases, there is no big variation of temperature at the coast due to the influence of the Indian Ocean. However, during the hot months (December to March) the average temperature in Tanga is approximately 30° - 32°C during the day and about 26° - 29°C during the night. While, during the cool months (May to October) temperatures are approximately 23° - 28°C in the day and 20°C - 24°C in the night.

Another characteristic of the coastal climate is the high atmospheric humidity, which often goes up to 100% maximum and 65 to 70 percent minimum.

In Tanga region most areas get rainfall of at least 750 mm. per year. The amount of rainfall is about 1,100 to 1,400 mm. along the coast, decreasing inland but with the exception of the Usambara Mountains, where, depending upon slope position and height, the amount of rainfall may exceed 2000 mm. per year. In the Maasai Plains (North West of Handeni) and in the dry plains of Korogwe, the average rainfall is below 600 mm. In a nutshell one would say that the annual pattern of mean monthly rainfall is bi-mode with maximum monthly occurring in April and May throughout the region. Some areas in the West Usambaras

(e.g. south-facing slopes) tend to have their maximum rainfalls during November/December. Mean annual rainfall ranges from 600 - 800 mm (most parts of Handeni district, northern Lushoto and Muheza district) and 1,200 - 1,400 mm (coastal belt, Western and Eastern Usambaras), during peak periods, amount exceeding 2,000 mm/p.a. may occur in the Usambara Mountains.

1.8 Soils

Four major types of soils are closely related to the physiography and can be identified in Tanga region as follows:-

- (i) Well drained, deep to moderately deep, red and yellowish red clays, sandy clays, loams and clays, mainly on Usagaran rock within the mountainous areas;
- (ii) Well to medium drained, shallow, moderately deep to deep red and brown sandy loams, loamy sands and clays in the upland areas;
- (iii) Well to moderately well drained, light colored sands and yellowish brown to yellowish red loams and clays in the coastal areas;

- (iv) Poorly to imperfectly drained, grey to black clays and sands (partly saline) in the alluvial plains as well as minor valleys and depressions.

1.9 Vegetation

The outstanding feature of the vegetation is its complexity. The coastal area is dominated by bushland, palm gardens, village cultivations and estates (mainly sisal). The upland plateaus are covered with bushland and shrub thickets interrupted by swampy low-lands and river swamps as well as village cultivations, estates and palm gardens.

The prevailing vegetation in the Uмба Plains and the Maasai Steppe is open savannah grassland with scattered trees and scrub thickets.

Mainly the mountain areas (West and East Usambara, Nguu Mountains) still feature considerable areas under primary forest (approx. 5% of total regional surface); however, as a result of the high population density in these areas the forests are endangered and land and wood have become scarce. In the less populated bushland areas, thicket development as secondary vegetation prevails.

1.10 Agro - Economic Zones

<p>The region can be Subdivided into four main zones namely coastal belt, wet plains, dry plains and mountain belt. The major characteristics of each zone are as indicated below. <u>Zone</u></p>	<p><u>Average Rainfall</u></p>	<p><u>Main Activity</u></p>	<p><u>Dominant Crops</u></p>
<p><u>Coastal belt:</u> (0-15m above sea level) Covers Pangani district, Tanga and part of Muheza district</p>	<p>800-1400mm.</p>	<p>Agriculture and Fisheries, Sea Weeds (Mwani)</p>	<p>Citrus fruits, Sisal, Coconuts, Cashewnuts, Maize, Cassava, Rice and Sea Weeds.</p>
<p><u>Wet Plains</u> (300-600m. above sea level) Covers mostly Muheza and Korogwe districts</p>	<p>800-1000mm.</p>	<p>Agriculture and Horticulture</p>	<p>Sisal, Coconuts, Cashewnuts, Cotton, Maize, rice, beans, Cassava and Citrus fruits</p>
<p><u>Dry Plains</u> (200-600m. above sea level Handeni, part of Korogwe, Muheza and Pangani.</p>	<p>500-800mm</p>	<p>Beekeeping Agriculture and Livestock (beef cattle)</p>	<p>Timber, Honey, Sisal, Cotton, Tobacco, Maize, Cassava and beans.</p>
<p><u>Mountain belt</u> (1000 - 2000m above sea level Covers areas in Lushoto, (Usambara mts) Muheza (Amani mts) and Handeni (Nguu mts) districts.</p>	<p>800-2000mm.</p>	<p>Agriculture, Horticulture and Livestock (Small holder dairy cattle)</p>	<p>Tea, Coffee, Cardamon, maize, potatoes, bananas, beans, vegetables and temperature fruits.</p>

Source: Regional Commissioners Office (1993). Regional Development Report (1961 - 1992).

Topography and Drainage System

Topography

Tanga Region is characterized by a very heterogenous topography:

- The coastal plain extends inland in a varying width of between 20 km and 30 km. In the west it is bordered by a small escarpment rising up to 200 m.

- The northern part of the region features the Umba plains which extend far into Kenya. It gently slopes from north to south towards the Umba River, which originates from the northern part of the West Usambara Mountains and drains the entire plain. The average altitude of the plain is about 500 meters.

- The Southern part of the Umba Plains and the Usambara Mountains form, a massive mountain range rising in the south-west to an altitude of more than 2,000 m. The Lwengera River which is a tributary of the Pangani River divides within its north-south valley of the Usambaras into a eastern and western part. The East Usambaras rise to about 1,000 m to form a central

plateau. Several large rivers divide the West Usambaras into topographic sub-areas.

- The valley of the Pangani River extends South of the Usambaras in a north-west/south-east direction.
- The central Handeni Area bordered in the north by the Masai Steppe is an undulating bush savannah with average elevations between 400 m and 600 m.
- The Masai Steppe reaching far into Tanga Region in its north-western part, is a gently undulating plain, with scattered elevations between 700 m in the north-east and 1,200 m in the south-west. The area is relatively dry (average annual precipitation approx. 600 mm) and drained by some minor seasonal rivers which flow into the Pangani river.
- The Nguu mountains almost in the extreme West of Tanga Region are a narrow mountain range which rises up to nearly 2,000 m and borders the Central Handeni Area and continues into Morogoro Region.

1.7 Drainage System

Tanga Region is part of the largest Indian Ocean drainage basin and it drains mainly through the Pangani River and its tributaries (e.g. Mkomazi, Soni River and Lwengera). The extreme northern parts of the region are drained by the Uмба river, whereas drainage in the coastal belt is made possible by a number of short coastal rivers e.g. Sigi river, most of them with seasonal discharge only.

SECTION II

THE REGIONAL ECONOMY

The economy of Tanga Region like in many other regions depends on subsistence agriculture, livestock keeping and fishing. Food production to a large extent is undertaken by small holders, while cash crop production is carried out by both small holders and large scale farmers (public and private institutions). The leading and prominent food crops in terms of area coverage are maize, cassava, banana, pulses, mainly beans and rice. Important cash crops include sisal, cotton, coffee, tea, cardamon, coconuts, tobacco and cashewnuts. Livestock reared are cattle, goats and sheep. Modern dairy farming and poultry keeping is not very common in the rural areas, although few do it.

Production of food crops increased over the years from an estimated 340,000 tones in 1970 to 495,866 tons in 1995/96 season. An increase in food production nevertheless, did not keep pace with the growth in population of the region. The population of the people increased from 771,060 in 1967 to 1,482,812 people in 1995. Going by Malthusian doctrine, the theory developed by Thomas Robert Malthus that the world's population tends to increase faster than its means of subsistence. That is, population tends to grow at a geometric rate, while the food supply grows only in arithmetic progression. According to the theory therefore, food situation in Tanga tended to

follow almost Malthusian doctrine. That is, food production increased by only 46 percent from 340,500 tones in 1970 to 495866 tones in 1995/96, while population increased by 92 percent between 1970 and 1995/96. The example may not exactly conform to the Malthusian theory but the point here is that usually food production capacities are not as efficient as the human reproductive capacities. That is, population increases much faster than food production. Apart from agriculture and livestock keeping, fishing, mining and industrial activities do also play an important role in the economy of the region.

The economy of Tanga region may not appear very strong to-day but in early sixtees especially days of the sisal boom it was amazingly strong as shown in table XI. The table shows the position Tanga region held in terms of per capita GDP between 1963 and 1973 and some of the years that followed.

TABLE XI PER CAPITA GROSS DOMESTIC PRODUCT

Region	Per Capita GDP in Shs.								
	1963	1967	1969	1973	1986	1988	1990	1992	1994
Arusha	546	534	735	762	7265	17497	41131	59928	91024
Coast	263	427	596	617	2124	4914	9860	14756	22624
D'Salaam	3417	4152	3824	3838	21115	33939	94123	132323	197107
Dodoma	238	278	408	415	3307	7380	17779	26007	39604
Iringa	292	347	392	519	6789	17010	28144	42028	64502
Kigoma	254	267	425	500	4802	13061	12911	19568	30103
Kilimanjaro	553	660	633	679	3647	4750	24975	36655	55716
Mara	344	343	503	400	5695	26290	20028	28956	43748
Mbeya	184	279	460	544	7517	9874	21174	31685	48737
Morogoro	498	452	579	566	4493	9550	27054	39189	59370
Mwanza	368	406	522	627	6578	16706	21592	31819	48508
Ruvuma	189	262	358	410	5296	22023	21856	33828	52537
Shinyanga	348	422	670	604	4672	6275	23317	34496	52746
Singida	n.a.	227	380	439	5195	12809	24750	36484	55644
Tabora	433	384	776	443	3930	15760	19993	29481	44984
Tanga	908	657	727	730	5285	14326	27559	39747	49607
West Lake (Kagera)	341	334	425	504	5183	7636	21103	32307	50105

Source: 1. Tanga Integrated Rural Development Programme, Volume 2.

Table XI above provides a basis for an overall comparison of the per capita GDPs of different regions. Dar-es-Salaam however, is a very special case and therefore cannot meaningfully be compared with other regions. The ratio between the lowest and highest per capita income of different regions has fluctuated from 1:4.9 in 1963 to 1:2.9 in 1967 and 1:4.2 in 1990 to 1:4.0 in 1994. The most backward regions in 1960s like Ruvuma, Singida, Coast, Kigoma and Dodoma have shown significant growth in the nineties (1990s), while, the traditionally most advanced areas such as Kilimanjaro, Tanga, Mwanza, Iringa, Mbeya and Arusha increased their per capita GDPs just moderately. However, the most striking thing about the developments in the per capita GDPs is the relative position that Tanga region has been holding within the national context since 1963. The per capita income of the people in Tanga particularly in 1963 was more than double (shs. 908/-) the National average which by then was 435/-. Its per capita income continued to surpass the National average in 1969 and 1973 by 20.4% and 12.3% respectively. This growth in the economy of Tanga especially in 1963 put the region in a very superior position compared with other regions. While, Tanga was the leading region in the early 1960s, it held the 9th position in 1994 behind even the most backward regions in early 1960s such as Singida, Shinyanga, Ruvuma, Iringa and Morogoro. Since, the economy of Tanga region was very much linked to the growth in Sisal Industry, certainly the decline in Sisal industry must have been the cause for poor performance in the economy of Tanga region and hence low per capita incomes in the subsequent years. In addition, a drop in per Capita

GDP of Tanga Region could also be attributed to several industries which were booming up in the region but now closed. The poor performance in the economy in turn caused unemployment and reduced employment opportunities in the region.

GDP AND PER CAPITA GDP

Table XII attempts to compare the GDP and per capita GDP of Tanga Region with the GDPs of few selected Regions whose per capita GDPs showed some relative economic strength in 1960 or early 1970s. According to Table XII, the trend in GDP and the per capita GDP growth of Tanga Region at current prices (disregarding inflation element) over the last 10 years (1985-1994) indicated good performance. The regional GDP at current prices increased in absolute terms from Tshs. 4805 million in 1985 to T.shs.92821 million in 1994. Except for Arusha Region, the GDPs for Tanga Region between 1985-1994 proved to be higher than the GDPs for Kilimanjaro and Morogoro. Of the four selected few regions, Kilimanjaro had the lowest GDP (T.shs. 72,898 million) in 1994 followed by Morogoro (T.shs. 88,073 million). Like the GDPs of Tanga Region, its per capita GDP at current prices also increased in absolute terms from 4,003/= in 1985 to 60,021/= in 1994. Again like the GDPs, the per capita GDP of Tanga Region in 1994 was still higher than that of Kilimanjaro and Morogoro, meaning that, people in Tanga Region theoretically were still enjoying better standard of living than those in Kilimanjaro and Morogoro, despite its per capita GDP dropping to the 9th position in 1994.

Fig. XII: Regional GDPs for Selected Regions 1985 - 1994

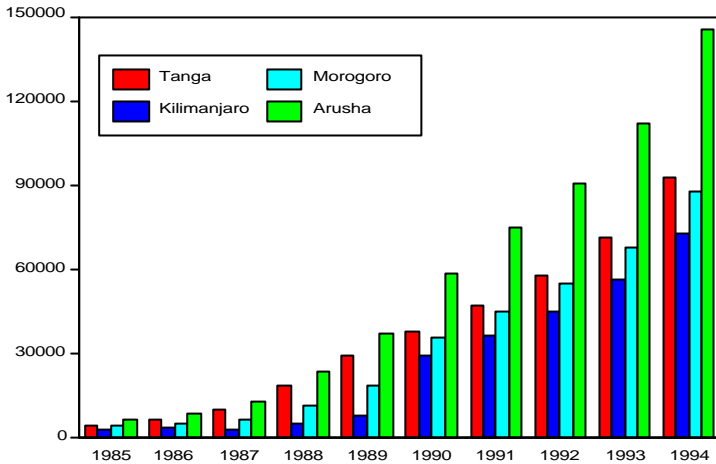


Fig. XIIb: Regional Per Capita GDPs for Selected Regions in Millions at Current Prices 1985 - 1994

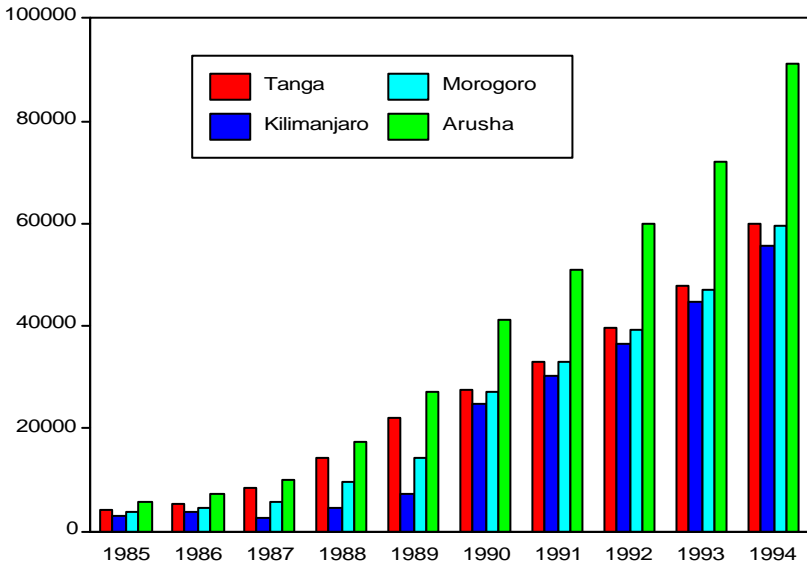


TABLE XII: REGIONAL GDPS AND PER CAPITA GDPSs FOR TANGA, MWANZA, MBEYA AND ARUSHA IN MILLION Tshs. (at current Prices)

YEAR	TANGA	KILIMANJARO	MOROORO	ARUSHA				
	GDP	Per Capita GDP*	GDP	Per Capita GDP*	GDP	Per Capita GDP*	GDP	Per Capita GDP*
1985	4805	4003	2991	2865	4436	3946	6897	5736
1986	6477	5285	3886	3647	5182	4493	9068	7265
1987	10385	8300	2979	2738	6788	5737	13192	10182
1988	18729	14326	5254	4750	11977	9550	23593	17497
1989	29482	21929	8241	7245	18669	14476	37515	27053
1990	38103	27559	29215	24975	35881	27054	58657	41131
1991	47149	33160	36484	30329	44974	32974	74792	50997
1992	58119	39747	45347	36655	54969	39189	90385	59928
1993	71750	47713	56805	44650	67846	47034	111691	72009
1994	92821	60021	72898	55716	88073	59370	145192	91024

Source: 1. Planning Commission: Compiled Data based on National Accounts of Tanzania 1976 - 1994 Eleventh Edition August, 1995
 *. Per Capita GDP figures are not in millions (simply Tshs.).

TABLE XIII: THE GDP AND PER CAPITA GDP OF TANGA REGION AT CURRENT PRICES AND PERCENTAGE CHANGE, 1980 - 1994

YEAR	GDP at Current Prices in Tshs (Millions)	% Change	Per Capital GDP at Current Prices (Tshs and in USA Dollars)			% Change
			Tshs.	Exchange Rate Tshs/Dollars	U.S.A Dollars	
1980	2052		1897	8.22	230.8	
1981	2549	24	2308	8.35	276.4	20
1982	3092	21	2742	9.52	288.0	4
1983	3260	5	2831	12.44	227.6	-21
1984	3574	10	3041	18.16	167.4	-26
1985	4805	34	4003	16.50	242.6	45
1986	6477	35	5285	51.70	102.2	-58
1987	10385	60	8300	83.70	99.2	-3
1988	18729	80	14326	125.00	114.6	15
1989	29482	57	21929	192.00	114.2	-0.34
1990	38103	29	27559	197.00	139.9	22
1991	47149	24	33160	234.00	141.7	1.3
1992	58119	23	39747	335.00	118.6	-16
1993	71750	23	47713	480.00	99.4	-16
1994	92821	29	60021	553.00	108.5	9

Source: Planning Commission, Compiled data based on National Accounts of Tanzania, 1976 - 1994.

It is observed from Table XIII that despite the fact that the per capita GDP of Tanga region at current prices increased more than thirty times from 1980 to 1994, the purchasing power of a shilling fell drastically in dollar terms from US \$ 230.8 to only US. \$ 108 in 1994. This implies that people in Tanga region were about two times poorer in terms of per capita GDP than what they were in 1980. This has been so due to the tendency of T.shilling to continue depreciating against the dollar. Further observation from Table XIII reveals a slow growth in GDP at current prices over the last eight years (1980 - 1988). It was in 1988 when the region began to record relatively a significant growth in GDP. The GDP growth rose by 396 percent from T.shs. 18729 million in 1988 to T.shs. 92821 million in 1994.

FOOD CROPS

Food crops grown in Tanga Region vary with the topography of the area. On the coastal plains, maize, cassava and rice are grown as major crops. In the semi arid plateau, farmers grow mainly maize, cassava, beans, fruits and rice, while in the arid plateau people grow maize, cassava, sorghum and beans. In the highland areas characterized by temperate climate, potatoes, bananas, beans, vegetables and fruits and maize are the most common food crops.

Maize

Maize is grown in large scale in all districts except Pangani district. It is also the most important crop in Handeni and Handeni for that matter is the leading district in maize production in Tanga Region. Maize is also a cash crop for many Handeni farmers. Poor yields in maize production are mainly caused by the tendency of the majority of farmers using local seeds whose yield potential is considerably lower than that of the improved varieties. Other problems may be cited as untimely planting which is usually done too late. This has had very serious effects on yields, as the optimum time of planting would have been well before the beginning of the rains. But in areas with unpredictable rainfall, for which Handeni is an example, it is extremely difficult for farmers to know exactly the right time.

In Table XIV, we observe a fluctuating maize production figures in six consecutive years (1987/88 - 1995/96). The fluctuations in the production figures are a clear proof of the seriousness of the problems farmers face in maize production. Unless, the problems are addressed, production will continue to fall.

Cassava

Cassava is one of the major food crops in the Region, mainly grown for home consumption. The quantities marketed are relatively limited. Cassava is grown throughout the lowlands of the region with Handeni district taking the lead in its production followed by Muheza, Korogwe

and Pangani. In Lushoto district, cassava is not very important crop, may be due to the district's climate and topography. Nevertheless, the potential for cassava production in the region has hardly been attained up to now. Various factors are responsible for the failure to maximize cassava production possibilities like, wild pigs which prefer cassava roots as their food. Production figures, although fluctuating, indicate (Table XIV) considerable potential for a profitable production and certainly justify the need for an expanded cassava production under which the crop would be grown for a large market and hence income for the local people. According to the Table cassava production increased from 155,007 tons in 1990/91 to 164,254 in 1993/94 but dropped again to 150,890 tons in 1995/96.

Bananas

The hectarage covered by bananas, for which parts of the region offer favorable production conditions, make them one of the important agricultural enterprises in the area. Production of bananas is highest in Lushoto and Muheza, followed by Handeni and Korogwe. Bananas are only of minor importance in Pangani district. Bananas are mainly a food crop in many districts except in Lushoto where they are to some extent grown for planned sales on markets outside the district/region. However, production methods are generally poor resulting into low yields. Interplanting with other crops (e.g. coffee) also makes it difficult to give an accurate figure for production volume. According to Table XIV, bananas show great potential and many people could earn a living

through more production and sale of bananas. Thus, potential is there even for commercial production.

Beans

Beans are the main kind of pulses in the region. They are primarily grown for home consumption. In West Handeni, and other parts of the region, farmers produce beans for sale. The main areas for production of beans are Handeni especially the Nguu mountains, Korogwe and Lushoto districts. Beans production figures (Table XIV) like those of maize fluctuated very much between 1977/88 and 1995/96. The highest figure was recorded in 1994/95 season. Production fell by 48 percent from 42,470 tons in 1994/95 to 22,127 tons in 1995/96.

Rice

After maize, rice is the second most important cereal crop in the region. Rice is produced both for home consumption and for sale in the market. The main areas for rice production are Korogwe, Lushoto, Muheza and Pangani. It is mainly rainfed or grown in swampy areas and on a small scale by irrigation methods. Most rice growers use seeds of local varieties locally known as "bora ya kupata" or improved breed (seeds) known as "kahogo". "Kahogo is the variety recommended for Tanga Region.

Although, the production methods show extremely great differences between various farmers and areas, the general feature is that the yields

are not exhausting the production potential of the fields. Due to the great differences in the production conditions and quality of management it becomes difficult to make general statements on the average profitability of rice production. In Table XIV, the yield shot up to 33,863 tons in 1992/93 from 4,334 tons in 1990/91 and dropped drastically to only 8,674 tons in 1993/94. Significant fluctuations in rice production figures are a clear indication of the problems in rice production which could be either caused by too little water, less application of irrigation and drainage techniques or less use of fertilizer inputs.

Sorghum/Millets

Traditionally, sorghum and millets were the major food crops in many parts of the region with relatively lower or less, reliable rainfalls, in particular the central and south-western parts of Handeni and to a lesser extent, in north Lushoto. These are still the main growing areas, but since the introduction and expansion of maize, the importance of sorghum and millets have been considerably reduced. People generally prefer maize which gives white flour compared to the one of reddish colours from sorghum. All in all, it is worthwhile to consider giving sorghum greater preference as a staple food instead of maize in all areas because maize requires good and reliable rainfall that may not be guaranteed in all areas. Sorghum, in addition has an advantage over maize in terms of protein content. It is lower in maize than in sorghum.

Fig. XIV: Production of Food Maize Crop 1987/88 - 1995/96 in Thousand Tonnes

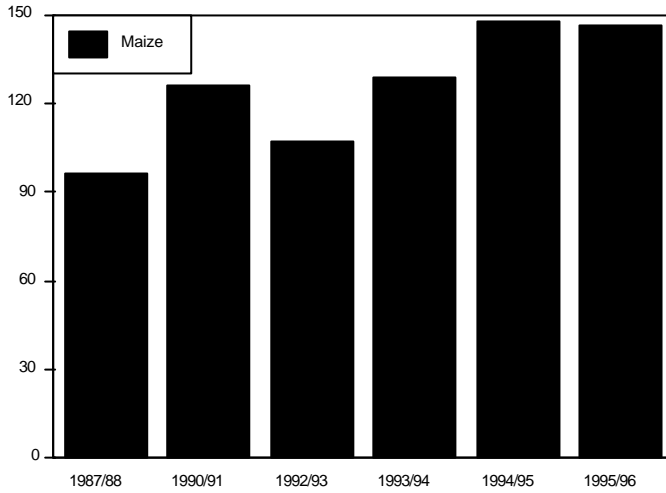


Fig. XIV: Production of Food Paddy (Rice) Crop 1987/88 - 1995/96 in Thousand Tonnes

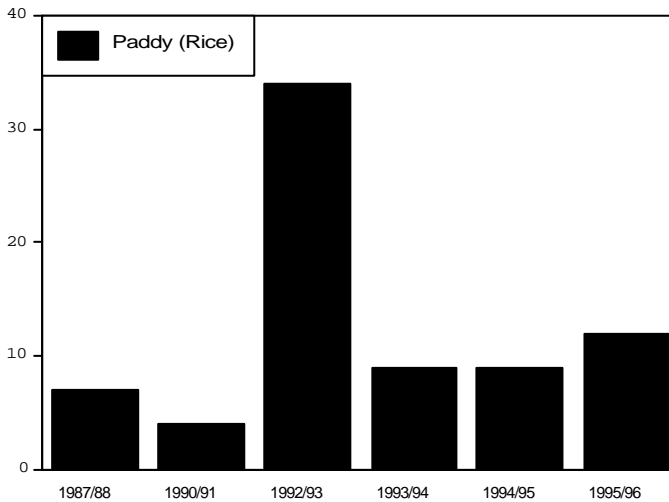


Fig. XIV: Production of Food Beans Crop 1987/88 - 1995/96 in Thousand Tonnes

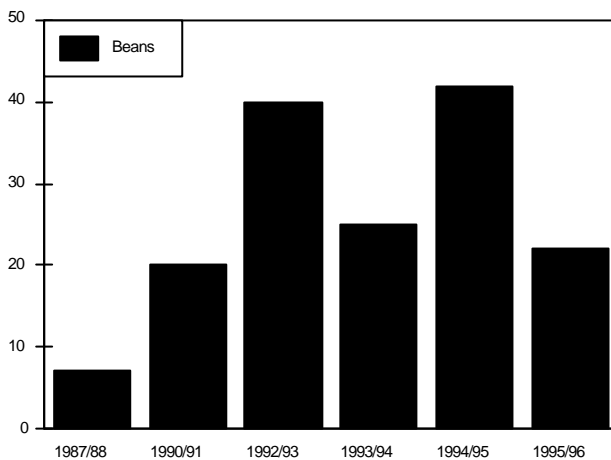


Fig. XIV: Production of Food Sweet Potatoes Crop 1987/88 - 1995/96 in Thousand Tonnes

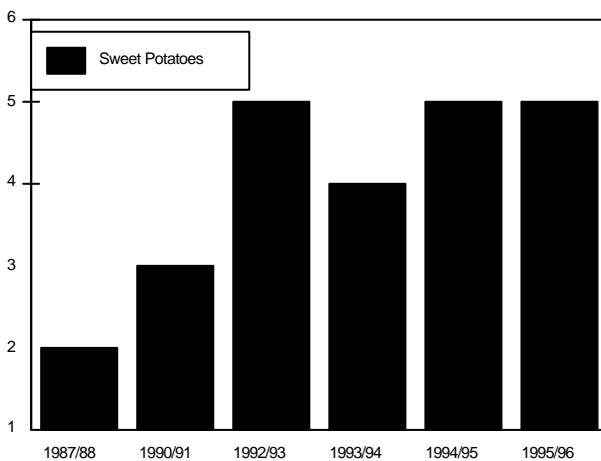


Fig. XIV: Production of Food Irish Potatoes Crop 1987/88 - 1995/96 in Thousand Tonnes

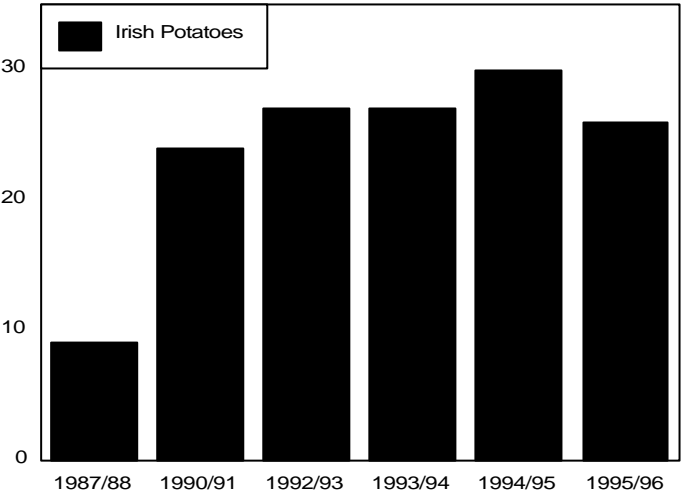


Fig. XIV: Production of Food Sorghum Crop 1987/88 - 1995/96 in Thousand Tonnes

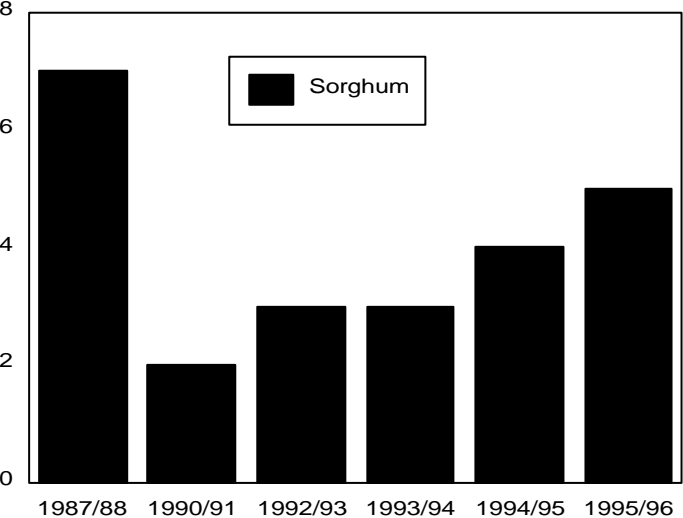


Fig. XIV: Production of Food Banana Crop 1987/88 - 1995/96 in Thousand Tonnes

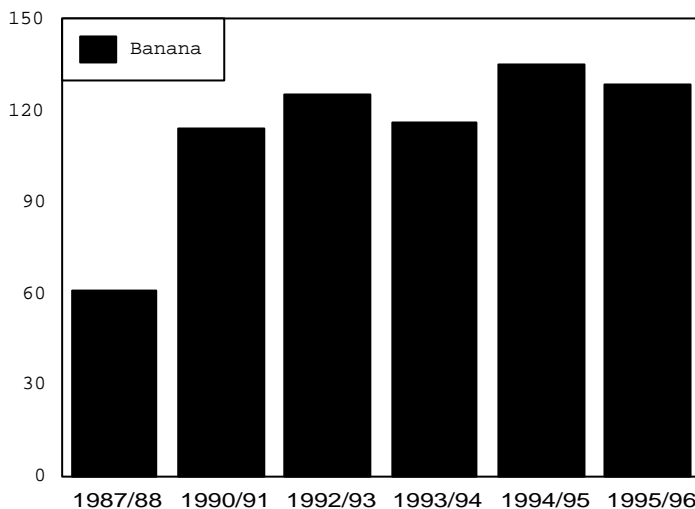


TABLE XIV: PRODUCTION OF FOOD CROPS 1987/88 - 1995/96 IN TONES

CROP	1987/88	1990/91	1992/93	1993/94	1994/95	1995/96
Maize	95,647	126096	107464	128571	147636	146339
Paddy (Rice)	6894	4334	33863	8674	9490	12288
Beans	6707	19679	39542	24554	42470	22127
Sweet Potatoes	2028	3120	4646	4417	5124	4894
Irish Potatoes	9248	23604	27435	26761	30247	25786
Cassava	122924	155007	166176	164254	156790	150890
Sorghum	6634	2406	3178	2987	3896	4866
Banana	61085	113616	124514	115896	135182	128676

Total	311167	447862	506818	476114	530835	495866
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Source: Regional Commissioner's Office, Tanga, (Planning), 1996.

CASH CROPS

Cash crops are grown throughout the region. The most common cashcrops grown in the region are sisal, coconuts, cashewnuts, cardamon, cotton, coffee, tea and fruits. On the coastal plains, sisal, coconuts and cashewnuts thrive well, while in the semi-arid plateau farmers grow sisal, cashewnuts, coconuts and cotton. In the arid plateau people grow sisal, cotton and tobacco. Coffee, tea and cardamon thrive in Highland areas where climate is favourable. Table XV below highlights cash crop production yields between 1987/88 and 1995/96. Production yields are not impressive at all, especially with sisal, coconuts and cardamon. The available data does not seem to reflect the real production figures. Production figures could be much higher than the data available.

**Fig. XIV: Production of Cash Crop Cotton 1987/88 - 1995/96
in Thousand Tonnes**

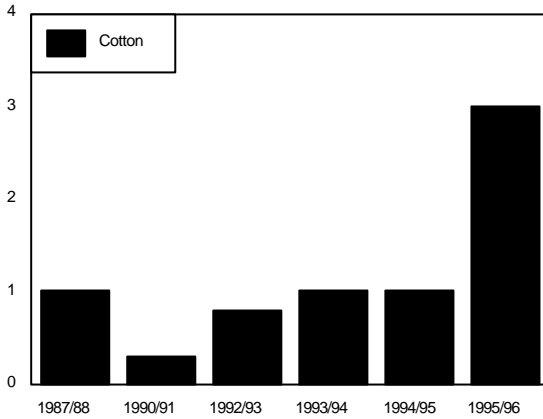


Fig. XIV: Production of Cash Crop Tea 1987/88 - 1995/96 in Thousand Tonnes

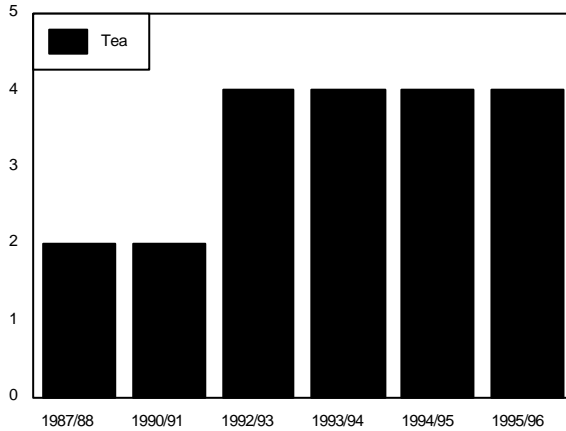


Fig. XIV: Production of Cash Crop Coffee 1987/88 - 1995/96 in Thousand Tonnes

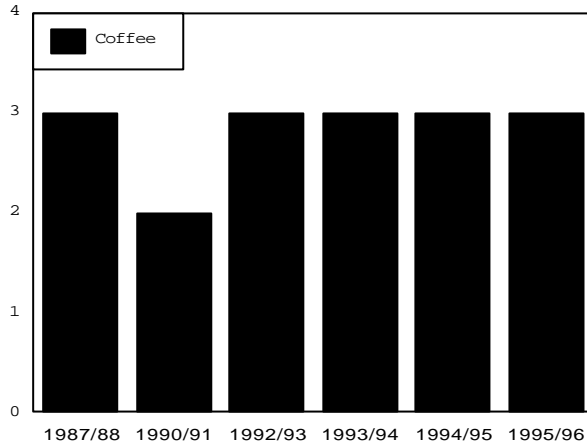


Fig. XIV: Production of Cash Crop Cashewnuts 1987/88 - 1995/96 in Thousand Tonnes

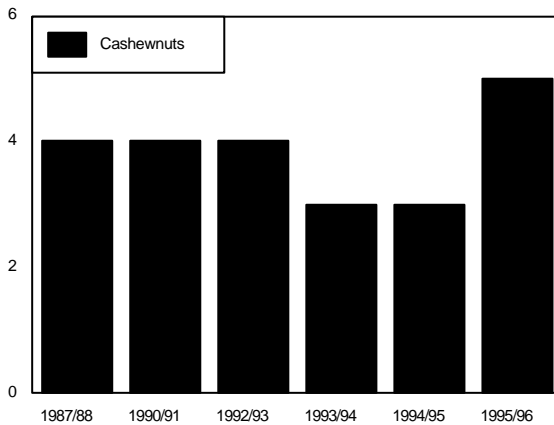


Fig. XIV: Production of Cash Crop Tobacco 1987/88 - 1995/96 in Thousand Tonnes

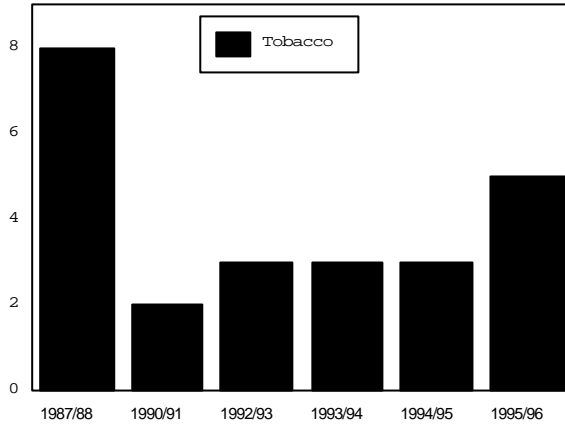


Fig. XIV: Production of Cash Crop Cardamon 1987/88 - 1995/96 in Thousand Tonnes

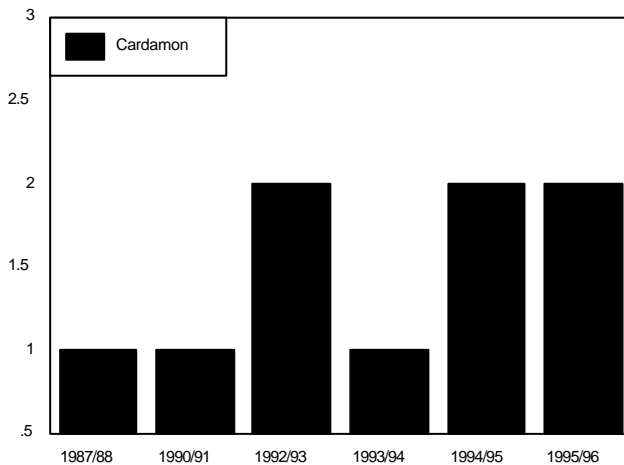


Fig. XIV: Production of Cash Crop Sisal 1987/88 - 1995/96 in Thousand Tonnes

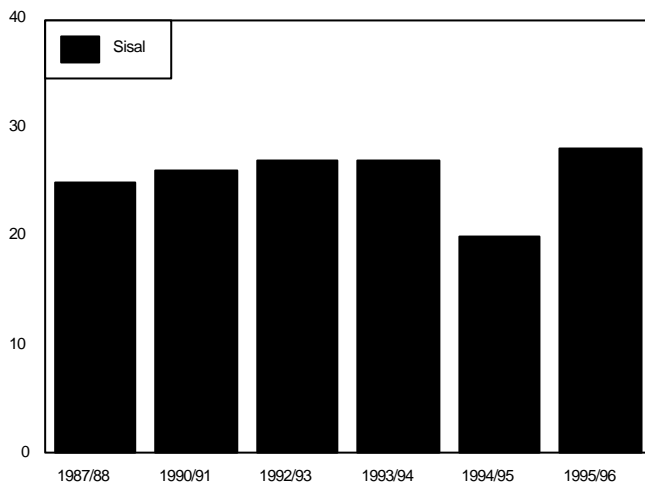


Fig. XIV: Production of Cash Crop Coconuts 1987/88 - 1995/96 in Thousand Tonnes

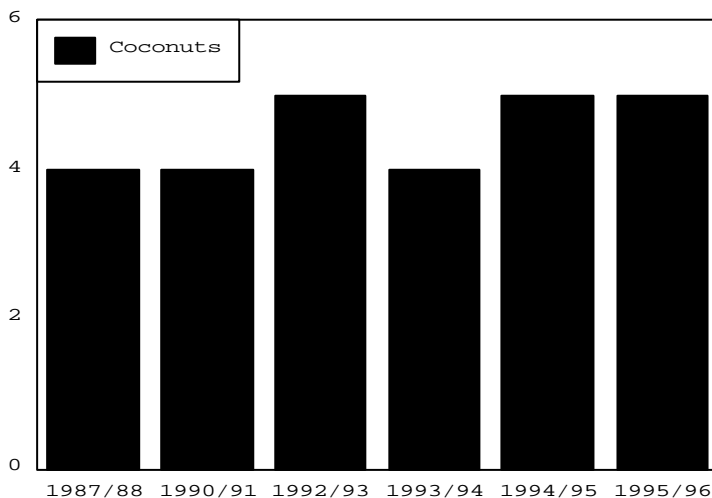


TABLE XV: PRODUCTION OF CASH CROPS 1987/88 - 1995/96 IN TONES

CROP	1987/88	1990/91	1992/93	1993/94	1994/95	1995/96
Cotton	972	327	838	1342	924	3114
Tea	1761	2325	3872	3901	3901	3905
Coffee	3154	2311	3085	3170	3170	3446
Cashewnuts	3730	4323	3848	3310	3310	5100
Tobacco	7.5	2.0	3.4	2.8	2.6	4.6
Cardamon	1406	1487	1501	1497	1676	1597
Sisal	24800	26153	27230	27230	20231	28476
Coconuts	38141	40761	45761	44107	46154	47497

Source: Regional Commissioner's Office, Tanga, (Planning)

Sisal

Traditionally, sisal is the most important cash crop in Tanga Region and the main Tanzanian area for the production of this major export crop of the country. With the exception of Lushoto, sisal production can be found in all districts of the region, with main areas in Muheza and Korogwe. Production is less important in Handeni and Pangani districts. The greatest part of the total production comes from estates which have recently been privatised and most of them taken over by private companies.

Sisal like other export crops, its production highly depends on externally determined factors, namely the world market prices and other developments. But since, sisal still remains a valuable source of income to the people and one of the major export crops in the country, it needs to be developed further with a view to improve its quality and marketability. Production figures indicated in Table - appear to be too low and thus may not give us a true picture of what is obtaining in the sisal industry! Reasons are not given as to why figures are too low.

Coconuts

It is difficult to give a reasonable figure for the land under coconut production, although official statistics on hectarage show coconuts as being the crop with the fourth largest area in the Tanga region. Farmers merely harvest the nuts, use them for home consumption or sell them to obtain additional income. Coconuts in the region are mainly found along the coast, i.e. Pangani and Muheza. Their importance in the other districts is only marginal. Due to the unplanned production figures on the economics of coconuts, the available data can only be given as very crude indicators.

If we take the production of one palm at full maturity at 20 to 30 nuts per year on the average and we assume the price to be - per nut. This would give us a gross yield of - per year per three. Under advanced methods of production (i.e. establishment of a nursery, carefully selection of suckers, etc.) the yields are likely to be better.

Cashewnuts

Cashewnuts are very popular along the coast, mainly in Muheza, but its greater potential lies in the hinterland, i.e. Handeni and Korogwe. Cashew trees are seldom found in Lushoto. Poor cashewnut yields are a result of the failure to plant the seeds in accordance with the recommendations concerning spacing, protection of the young plant during the early stages of growth and regular picking of nuts. Therefore, with proper care of cashew trees, people could increase the yields and hence their incomes, let alone increasing the national export volume of cashewnuts as well as the GDP.

Coffee

This is an important cash crop in the high areas of the region, particularly the Usambaras where Arabica coffee is grown. Minor production of Robusta coffee can be found in the Tamota and Nguu areas of Handeni. In the Lushoto area, coffee is mainly produced by small holders, with very little husbandry work (e.g. pruning, weeding, mulching, etc). It is observed from Table XV that coffee production figures are very low and may not really reflect the true production levels in the region. It seems some coffee go into the market unrecorded!

Tea

The importance of tea as a cash crop for small holder growers is reflected in Table... Its production figures are higher than those of

coffee. Production figures of tea increased by 122 percent from 1761 tons in 1987/88 to 3905 tons in 1995/96. While for coffee, production increased by only 9 percent. Tea production in future is promising in terms of better prices.

Cardamon

Cardamon appears to be the region's third most important cash crop and the biggest cash enterprise for small holder growers. Cardamon thrives in the upper areas, especially in Muheza, Lushoto and Korogwe districts and to a lesser extent in the Nguu Mountains. Cardamon develops best under shade. Its better yields depend on the quality of land preparation, mulching and staking, weeding and drying. In addition, one would need to apply other farm inputs, e.g. fertilizers, pesticides, etc. for better yields and quality. The economics of cardamon production also depend on the developments in the world market, especially India which almost holds monopolistic position in the export of the crop.

Farm Implements

By looking at Table - below, it is obvious that the number of tractors in Tanga region is still inadequate, which it means that the majority of farmers continue using hand hoes for cultivation. Given the number of households which stood at 243,527 in 1988 (Census), it becomes difficult to talk of modern farming as it appears that the majority of

farmers will continue the use of handhoes. According to Table XVI, there are only 401 tractors in the region.

TABLE XVI: THE STATUS OF TRACTOR REQUIREMENT BY DISTRICT, 1995

DISTRICT/MUNICIPALITY	NO.OF TRACTORS AVAILABLE	NUMBER REQUIRED	SHORTAGE (NO.)
Lushoto	34	44	10
Handeni	64	96	32
Muheza	58	75	17
Tanga	66	76	10
Pangani	64	66	2
Korogwe	115	165	50
Regional Total	401	522	121

Source: Kitabu cha Mapendekezo ya Mpango wa Pili wa Muungano wa Maendeleo wa Miaka Mitano (1988/89-1992/93).

The amount of tractor ownership in Tanga region is a clear indication of the extent to which inferior agricultural implements are still in use in the region. Even if we assume that 15 percent of the households lived in the urban centres and that they needed no tractors, we shall still have 207,000 households in the rural areas without tractors. From this simple estimation, it is certain that agricultural production in Tanga Region is dominated by households using hand-held hoes. Hand-hoes will certainly retard the progress of agricultural development in the region.

IRRIGATION

Irrigation farming in Tanga region is feasible and would greatly make up for the loss caused by seasonal and erratic rainfalls on agricultural production. The potential for irrigation programmes exists in Korogwe and some parts of Lushoto. The region has irrigation potential of 42,000 hectares, of which only 10,500 hectares are effectively exploited. Studies made have revealed that most of irrigation farming is undertaken in Korogwe and Lushoto districts. In Korogwe there are 1,647 hectares put under irrigation while in Lushoto about 8,790 hectares are being irrigated.

Large-scale irrigation programmes in Tanga region are made difficult by several problems including water shortage, inadequate funding for the projects and weak leadership in maning irrigation projects. Given problems associated with rain fed agriculture, the Authorities in Tanga region need more than ever before to carry out campaigns to popularize the use of irrigation methods in farming. Even in districts like Muheza which have good rains, still need to embark on irrigation technology. Table XVII below highlights irrigation schemes in the districts of Korogwe and Lushoto.

TABLE XXXIV: IRRIGATION SCHEMES - 1991

District	Project	Crop	Area (ha)	Production (Ton/Ha.)	
				Before Project	After Project
Korogwe	Mombo Scheme	Paddy	220	-	3.0
	Chekelei	Paddy	177	1	-
	Mazinde	Maize/Beans	120	0.5-1	1.2
	Manga/Bwiko	Paddy	150	0.8	2.0
	Mkomazi	Paddy	200	2.0	-
	Mombo Kwesasu	Maize	80	2.0	-
	Mombo Kidundai	Paddy	70	1.0	-
	Manga/Goha,	Paddy	90	2.0	-
	Mtindiro	Paddy	30	2.0	-
	Mkumbara	Paddy	30	2.0	-
	Kizara	Paddy	100	2.0	1.5
	Kwemazandu	Paddy	90	0.5	2.0
	Mahenge	Paddy	100	-	1.5
	Magoma	Paddy	50	1.0	-
	Makorora	Paddy	80	2.0	1.5
	Kwamgumi		60	1.5	1.5
Kerenge/Kibaoni			-	-	
Lushoto	Kwemkazu	Paddy/Beans/Maize	100	1.5	2.0
	Kivingo/Chaula	Paddy	30	1.0	2.0
	Mng'aro/Kitivo	Paddy	400	1.0	1.2
	Kwemdimu	Paddy/Maize/Beans	30	0.8	2.0
	Lunguza/Kituoni	Paddy	200	1.0	1.2
		Maize	30	-	2.0
	Kwengiriti/	Vegetable	800	2.0	2.0
	Mkundi/Mtae	Fruits	0		1.2
	Usambara Networks	Beans			1.2

Source: Regional Commissioners Office (1993); Regional Development report (1961 - 1992)

Livestock Sector

Livestock keeping is the second dominant economic activity in Tanga region. The livestock in the region is mainly of indigenous cattle, mostly shorthorned zebu, goats, sheep, donkeys and chicken. According to the Livestock Census conducted country-wide in 1984, the region recorded 534,008 cattle, 256,616 goats, 116,568 sheep and 765,024 chicken. Table XVIII attempts to show the distribution of livestock in the region.

Fig. XVIII: Livestock Distribution in Handeni District 1984 Census

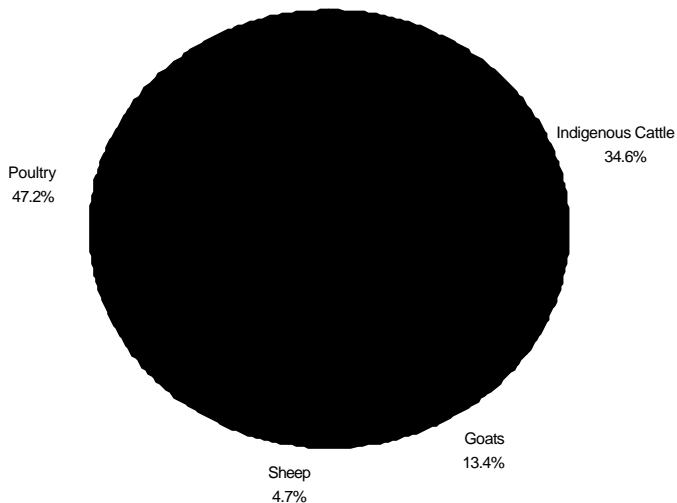


Fig. XVIII: Livestock Distribution in Korogwe District 1984 Census

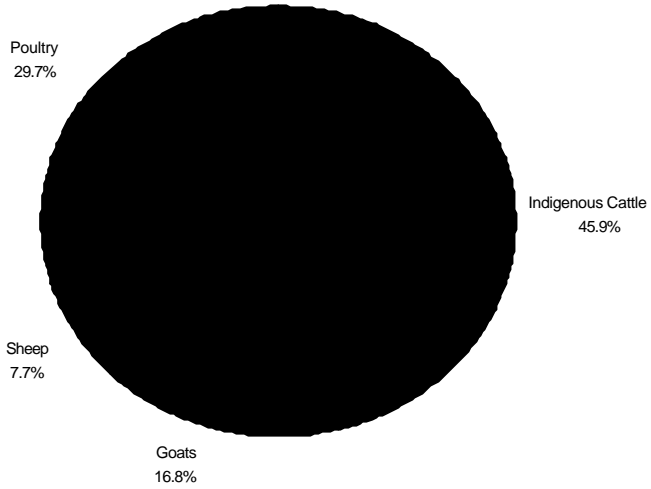


Fig. XVIII: Livestock Distribution in Lushoto District 1984 Census

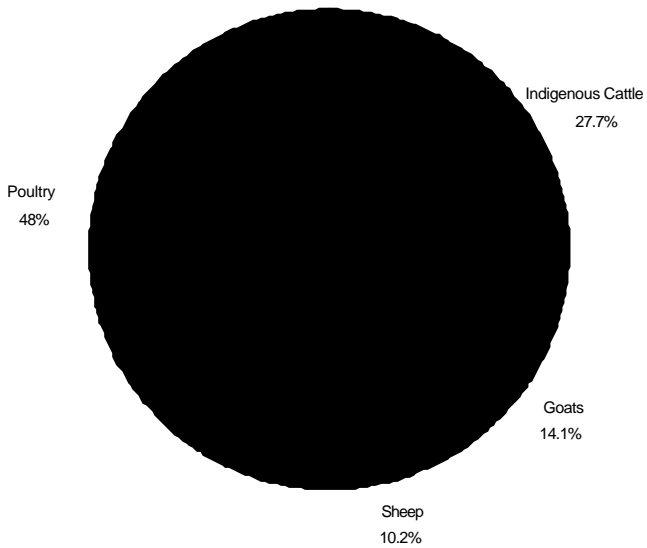


Fig. XVIII: Livestock Distribution in Muheza District 1984 Census

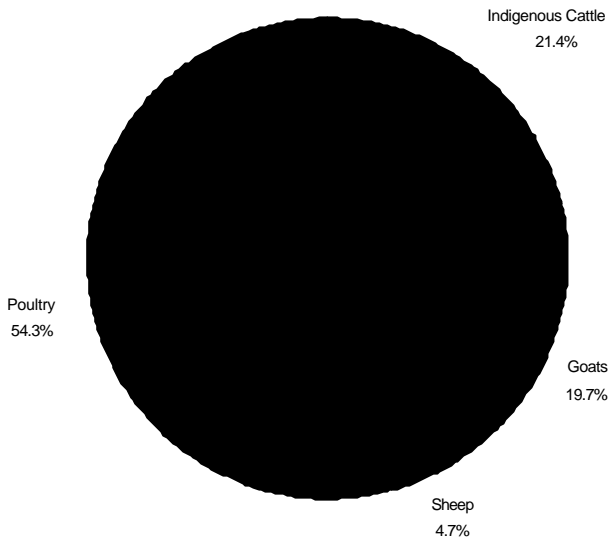


Fig. XVIII: Livestock Distribution in Pangani District 1984 Census

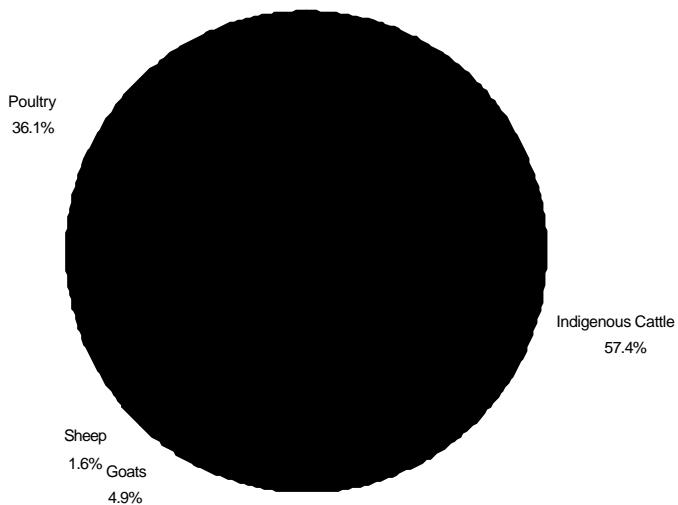


TABLE XVIII: LIVESTOCK DISTRIBUTION BY DISTRICT - 1984 CENSUS

District	Indigenous Cattle	Goats	Sheep	Poultry
Handeni	175984	68,454	24,082	240,413
Korogwe	116656	61,327	27,812	108,217
Lushoto	132599	67,863	48,671	231,392
Muheza	49829	46,439	11,358	127,225
Pangani	34655	3,399	1,239	21,932
Tanga	24285	9,134	3,406	35,845
Total	524008	256,616	116,568	765,024
Growth Rate	2.3	1.8	1.7	.

Source: Livestock Census 1984, Tanga: Regional Commissioner's (Planning).

Based on the growth rate of 2.3 percent per annum, cattle population is estimated to be 685,771 in 1995 in Tanga Region, giving rise to an increase of 28 percent in twelve years (1984-1995).

It is observed from Table XVIII that Handeni district had more cattle, goats and sheep in 1984. This was mainly due to the presence of a large

number of Masai people compared with other districts. By nature, the Masai people tend to keep more of the three types of animals. Pigs are least popular in the region mainly on religious grounds as the majority of the people are Muslims. Pasture development is normally good in Muheza, Tanga and Pangani districts and in the highlands. On the Lowlands of Handeni, Korogwe and Lushoto there are seasonal variations with livestock owners migrating during the dry season in search of pasture and water.

Dairy farming is fast becoming prominent in both urban and rural highland areas. This being the results of efforts made by the Government (assisted by Dutch Government) in undertaking small scale dairy extension projects. Milk production has improved from an average of three litres per day to over twenty litres per day and the average milk production per cow per day is about 3 to 4.5 litres. Livestock Development Department has recently brought in Boran bulls for cross-breeding with the local Tanzanian short horn zebu type with a view to get a better breed capable of maturing faster and producing more milk. Thus, to meet the goals of the dairy programme in the region, 13 bulls centres have been established and one Artificial Insemination Centre. The common cross-breeds are Ayshire, Iriesian and Jersey types. So far, there are 6,189 dairy cattle of which, 60 percent are owned by

Mkonge Livestock Company and Amboni Estates Limited. There are three main milk collecting centres, in Tanga, at Amani and in Lushoto. The development of dairy farming in Tanga region is constrained by:-

- i) Availability and high prices of in-calf heifers,
- ii) Short supply and high prices of inputs like feed concentrates, drugs, etc.
- iii) Lack of transport to facilitate provision of veterinary extension services, and
- iv) Inadequate funds allocated for the development of livestock activities

Otherwise the region has a sizeable potential for dairy development. poultry development is slowly gaining momentum.

Unfortunately enough, as it is in many regions, the economics of livestock keeping and cattle in particular is not yet fully exploited by most cattle keepers in Tanga Region. Livestock keepers tend to treat or regard livestock as simply a symbol of wealth and only very few people consider cattle as an account in the bank that earns interest. Consequently, very little attention is given to the economics of livestock keeping. Livestock has so many uses. For instance, animal products such as meat, milk, butter and cheese could be sold or eaten to supplement the diets of the people. Cattle could also be used as traction animal and for meeting bride prices. For better quality, people need to keep livestock whose number is dictated by the land carrying capacity as well as owner's ability to maintain them.

Livestock Infrastructure

Poor health of domestic animals is always a problem to many pastorists. The most common and problematic disease to cattle is East Coast Fever. Tick borne diseases are also causing problems to livestock. But experience shows that these diseases do cause serious problems simply because livestock lacks service infrastructure. For instance, dipping services are no longer available in most dips. There are no vaccines nor drugs given.

4.2.5 NATURAL RESOURCES AND TOURISM

Tanga region is endowed with numerous natural resources and good tourist attraction sites although most of which are yet to be fully developed. Some of the Natural resources include minerals deposits, forestry, game reserves, fisheries and beekeeping. Tourist attraction sites include Mkomazi game reserve, Amboni Caves, Totten Islands, Tongoni ruins, Pangani beach and hot water baths in Amboni and Amani Nature Reserve.

i) FORESTS

Total woodland are in Tanga Region covers 2,013,279 hectares of land. This is divided into dense and open forests

shrub bush, thicket and forest reserves. Much of this natural woodland consists of shrub (56,58%%) and open forests (30.65%). The forest products includes timber, poles medicines, fuelwood, charcoal, briquettes etc Table XIX highlights the distribution of woodlands in the Region percentagewise.

TABLE XIX: WOODLANDS IN PERCENTAGE

DISTRICT OF MUNICIPALITY	DENSE FORESTS	OPEN FORESTS	SHRUB BUSH	THICKET
Tanga	0.0	0.04	0.33	0.0
Pangani	0.81	0.23	3.09	0.09
Korogwe	0.98	0.94	6.17	0.51
Muheza	1.74	1.21	9.21	1.26
Lushoto	1.66	3.12	9.60	0.22
Handeni	5.540	25.11	28.18	0.0
Totals	10.69	30.65	56.58	2.08

Source: Regional Development Strategy, 1985, own calculations

According to Table XIX, Handeni district leads in terms of large tracks of woodland, of which the biggest portion is shrub bush followed by open forests. About 14,875 hectares belong to forest reserves, while 27.09 percent of it lies in Handeni, 26.13 percent in Lushoto, 23.83 percent in Muheza, 20.83 percent in Korogwe and 2.12 percent in Pangani. As it is common in many poor societies, woodlands in Tanga Region are increasingly being exploited for charcoal and fuel, furniture, building and construction materials. It is at this juncture, that afforestation programmes become necessary in order to safeguard the environment against further depletion or degradation. There are certain districts in Tanga which require immediate afforestation programmes to redress soil erosion. These districts include, Lushoto, and Muheza especially in Amani area. SECAP and IUCN/EEC are undertaking afforestation programmes in Lushoto and Amani. Table XX shows the efforts being made by the government and different institutions to fight against over exploitation of forests.

**TABLE XX: PRODUCTION TREE SEEDINGS
1981/82 - 1992/93**

YEAR	(TARGET SEEDINGS)	ACTUAL PRODUCTION
1981/82	585,000	514,750
1982/83	597,000	548,171
1983/84	1,092,000	1,197,100
1984/85	1,092,000	1,045,000
1985/86	715,000	752,826
1986/87	1,285,000	1,291,977
1987/88	3,004,000	3,359,528
1988/89	3,470,000	2,879,702
1989/90	2,072,200	1,626,952
1990/91	3,052,000	2,384,490
1991/92	1,706,500	1,640,581
1992/93	1,700,000	1,534,225

Source: Regional Commissioners Office
Regional Development Report 1961 - 1992

It is observed from the Table XX that more than 18,800,000 seedlings have been raised and distributed to different villages, schools and individuals between 1981/82 - 1992/93 in order to plant them. Since, 90 percent of the population earn a living from agriculture, land and forests conservation must be given priority number one and this can only be done by planting more trees.

Bee-Keeping

The production of honey and bees wax has for a long time been known to traditional beekeepers in the Region, mainly in Handeni district. Some parts of Korogwe, Muheza, Pangani and Lushoto are also suitable for bee-keeping. Bee-keeping in Tanga is typically a small scale enterprise and only few bee-keepers own more than 100 beehives. Most bee-keepers on the average own only 22 bee-hives. It is estimated that there are 2383 bee-keepers in the region. There are 85,540 beehives, of which 5,131 or 6 percent of them are modern. Three bee-keeping training centres have been established at Kangata, Kwamba and Kwamagungu in Handeni district. The Government in collaboration with Germany Government have established honey processing factory in Handeni district. It has been reported that the factory has not operated due to lack of funds.

Wildlife

By comparison, Tanga Region does not feature prominently as one of the regions bestowed with wildlife potential. The region has two Game Reserves (Mkomazi and Umba), four Game controlled areas and one proposed Game Reserve (Mkwaja). Umba Game Reserve was carved out of Mkomazi Game Reserve in 1974 for easy management. In total, the region commands an area of 5,920 sq.kms of Game Reserve, of which 3120 sq.kms are Game Controlled Areas. This means that only 2,500 sq.kms could actually be referred to as Game Reserve. Table XXI below shows the types of Game Reserves in each District and their sizes in sq.kms.

TABLE XXI: GAME RESERVE AREAS

District	Reserve	Area Sq.km.
Lushoto	Mkomazi Game Reserve	1000
	Umba Game reserve	1500
	Kalimawe Game Control Area	300
	Umba river Game Control Area	300
Handeni	Handeni Game Control Area	3500
Korogwe	Lake Mark Control Area	20
Pangani	Mkwaja Proposed Game Reserve	300
Total		5900

Source: Regional Commissioners Office,
Regional Development Report 1961 - 1992

The wildlife population in the Game Parks consists mostly of Zebra, Elephants, Grants, Gazelles, Lions, Impala, Giraffes, etc. Like in other Game Parks/Reserves, poaching is always a problem. May be a new approach is needed whereby people living around the Game controlled areas become fully involved in the conservation and protection measures taken by the government against poachers.

FISHERIES

Fishing is another major livelihood activity for the people, along the Indian Ocean. Fishing provides food, employment and income for many people in Tanga Region. There are about 45 major fishing villages along the Coast of the Tanga Region. Most of the people in those villages are entirely engaged in fishery and agriculture is carried out on a small scale only. The most important fishing villages are (from North to South) Tanga, Tongoni, Kigombe, Moa, Kwale and Pangani.

Fishing is carried out along the coastal belt within a stretch of about 210 kilometers. It is fairly narrow and being only 3 to 5 nautical miles wide between Tanga and Pangani. The stretch widens in the northern part of Tanga and southern part of Pangani and maximises its distance (North-South) to about 25 nautical miles.

In 1990, the number of fishermen and vessels for the main fishing stations, including the small villages were as follows:-

<u>Fishing Station</u>	<u>Number of Fishermen</u>	<u>Number of Vessels</u>
Moa	478	164
Tongoni	345	128
Kwale	549	196
Kigombe	178	50
Pangani	251	101
Tanga	412	148
Total	2213	787

It may be mentioned that according to the unconfirmed reports the number of fishermen as well as the vessels was understated. No reason for under statement could be given. All in all, more than 800 fishing vessels are operating in the Tanga Region. The majority of the vessels are small boats of 2 to 8 m length. There are three main types of vessels; namely, Ngalawa, Hori and Mitumbwi and Mashua (dau)

In general fish catches are low. For the Tanga Region, the total yields, the average annual catches, and the average annual value of the fish caught for the years 1970 - 1993 were estimated as shown below:-.

YEAR	Weight in Metric Tons	Value of Fish in T.shs.
1970	3,412	9,894,800
1971	4,886	16,123,800
1972	6,478	23,320,800
1973	4,221	18,150,300
1980	8,944	.
1985	4,547	.
1986	4,504	.
1990	5,234	.
1991	6,959	.
1992	680	.
1993		.
1994		.
1995		.

Source: 1) Tanga Integrated Rural Development Programme, 1975
2) Planning Commission, Compiled data.

In 1971, the total fish catch for the whole of Tanzania represented 21,900 Metric Tons, Tanga Region's share therefore came to about 15 percent (Tanga Integrated Rural

Development Programme Report, 1975). This share has gone down to only - percent in.

Apart from fishing in Indian Ocean, fish ponds are used as well. There are 300 fish ponds constructed in Muheza and Lushoto districts. The volume of fish in these ponds has not been determined yet, but it is considered to be significant. The volume of catch indicated above is quite low and needs to be increased especially through application of modern fishing gear and making available cold facilities for fish preservation.

(v) **MINERALS DEPOSITS**

Mineral deposits can be found in the areas of Muheza, Tanga, Korogwe, Lushoto and Handeni districts as the table shows below:-

TABLE XXII: MINERAL DEPOSITS IN TANGA REGION BY DISTRICTS

District	Minerals	Location
Tanga	Limestone	Amboni Caves
Handeni	Amethyst Garnets (Gemstone) Gemstone Tourmaline	Negero Kilinga Kitwai, Kofi Hills, Kwedikundi, Lugurumi Village Makwere
Lushoto	Kyanite Gypsum Feldspar	Gologola, Hakichoo, Makalingi, Uguruwa Mkomazi Mtae Hili
Korogwe	Kornerupine (semi-precious gemstone) Gemstone Zircon Bauxite Amethyst Ruby	Kigele Mine Mashewa, Mavumbi Mombo Tamota Estate Umba Mine, Umba River Valley, Umba/Kalalni
Muheza	Turquoise Tourmaline (Gemstone)	Gerevi Ngomeni

Source: Ministry of Energy & Minerals 1996/97 Budget Speech; Dodoma - July 1996

Like in other Regions, mining in Tanga is exclusively undertaken by small-scale holders. Mineral deposit potential is great in Tanga Region and it is said that the potential could be greater than that of Arusha Region.

INDUSTRIES

Tanga Region may not be one now, but in late sixties and early seventies the Region was one of the nation's centres of manufacturing industry. According to official statistics then Tanzania's industrial establishments were concentrated in Dar es Salaam and Coast Region.

Tanga and four other regions (Mwanza, Arusha, Morogoro and Kilimanjaro) shared most of the remaining industries of the country. It is difficult to make an overall ranking, but in terms of employment Tanga was in third position behind Coast and Mwanza and in terms of numbers of establishments and of value added "second only to Coast".

Industrial location in Tanga Region was very uneven. Tanga District alone accounts for almost 60 percent of all industrial establishments, followed by Muheza with about 15 percent and Korogwe with 12 percent. The most important industries which boosted the economy of Tanga Region included.

- i) Tanzania Fertilizer Company: It is one of the biggest industry with employment capacity of 700 people and production capacity standing at around 85,000 tons of fertilizer per year.

- ii) Cement Factory: It is situated 15 kms West of Tanga Town. Its production capacity is 500,000 tons per annum.
- iii) Fruit Canning Factory at Korogwe, fully mechanized factory for processing and canning of mangoes, oranges, pineapples and sometimes grapefruits and passionfruits. It had a capacity of processing 1.6 tons of fresh fruits per hour.
- iv) Saw Mill at Mkata in Handeni District designed for the production of parquest floor-tiles from Mahuhu hardwood. It had employment capacity of 130 people.

Other industries include, textiles, sisal ropes/twines, steel Rolling, timber, plastic polybags and softdrinks.

Since, most of the huge industries in the Region were State owned, they have faced serious liquidity problems as a result of deliberate move by the Government to pull out of production and distribution undertakings.

Consequently, most of the industries have closed down or operating below capacity, let alone the creation of unemployment. Table XXIII highlights selected few industries operating in Tanga Region, indicating their installed capacities and actual production capacities.

TABLE XXIII: PRODUCTION AND INSTALLED CAPACITY IN SOME SELECTED INDUSTRIES

Actual Production						
Product	Unit	Installed Capacity	1989	1990	1991	1995
Cement	tone	500,000	187,701	182,720	229,560	284,000
Fertilizer	"	100,000	43,034.6	17,450	20,621.95	0
Mild steel round bars	"	20,000	14,900.89	9,128.96	7,393.28	2,547
Sisal Ropes & Twines	"	64,795	13,238.38	8,492.01	9,921.90	4,632
Detergents (powder)	"	7,200	947	700	853.9	n.a
Soft drinks (pepsi/Cocacola)	Crates	n.a.	n.a	n.a	267,657	1,346,281
Drugs & Medicine	tone	1,200	200	330	300	n.a
Blankets	Pcs	1,000,000	113,175	147,940	182,125	na.
Laundry & toilet soap	tone	19,872	4,530.95	7,037.1	6,492.41	n.a
Edible oil	Kgs.	n.a.	n.a.	23,400	19,882	n.a

Rubber beach sandals	Pair	800,000	165,576	19,356	101,040	n.a
Plywood and other Timber products	M 3	11,771	1,494.2	1,396.5	1,632.8	4,526
Footwear	Pair	31,200	4,288	4,915	4,980	n.a
Hospital wool	Kgs.	100,000	22,050	39,230	32,840	n.a
Chipboard	M 3	5,400	2,971.2	3,200	3,185	n.a
Lime (Hydrated)	"	9,000	4,274.38	4,581	4,064	n.a
Plastic articles	"	14,400	760.89	n.a	n.a	n.a
Woven fabrics	mts.	n.a.	4,942,247	4,001,038	n.a	n.a

Source: Regional Office Statistics Tanga, 1996.

An observation made on Table XXIII shows that nearly all industries have been operating incredibly below their installed capacities. The big industry such as Cement operated at 57 percent of the installed capacity in 1995, while fertilizer industry stopped production in 1995.

SECTION III

ECONOMIC INFRASTRUCTURES

ROAD NETWORK

Tanga Region has a total of 3,907 km. of road network, of which 352 km. are trunk roads, 939 kms are Regional roads and 2,716 kms are District/feeder roads. Three District centres, Tanga, Muheza and Korogwe are located directly along the main tarmac road, while the others, Handeni, Lushoto and Pangani are connected with the trunk road network. For along time the roads have not been in good condition mainly due to lack of regular maintenance. The establishment of the Road Maintenance Initiatives Unit in the Region improved the conditions of the roads a lot. For instance, Trunk Roads (Segeramange 80 km; Segera - Tanga 71 km; Segera - Korogwe - Mkomazi 105 km; and Mombo - Lushoto 32 km.) have been reconstructed and tarmac faced, while, Tanga - Horohoro has been rehabilitated. In addition, the 939 kms of regional roads have been rehabilitated under the routine road maintenance programme, making the road network in the region to be in good shape almost throughout.

According to Table XXIV, Lushoto and Handeni districts have many kms of road network. The roads in Lushoto and Muheza do make good connections with important economic centres such as Tea Plantations; Malaria Research Centre; areas with unique forestry

products (Mediterranean fruits, nature Reserve and Citrus fruits); Mtae and Mlalo (famous of vegetables and temperate fruits) and Pangani (famous of tourist hotels, good beaches and best coconuts). Like blood arteries in the body the roads are the veins in the economy and therefore, they require maintenance more often and new roads need to be built in order to stimulate further economic activities in the region.

Fig. XXIV: Rural Roads Under Regional Engineer’s Office Tanga Region by District

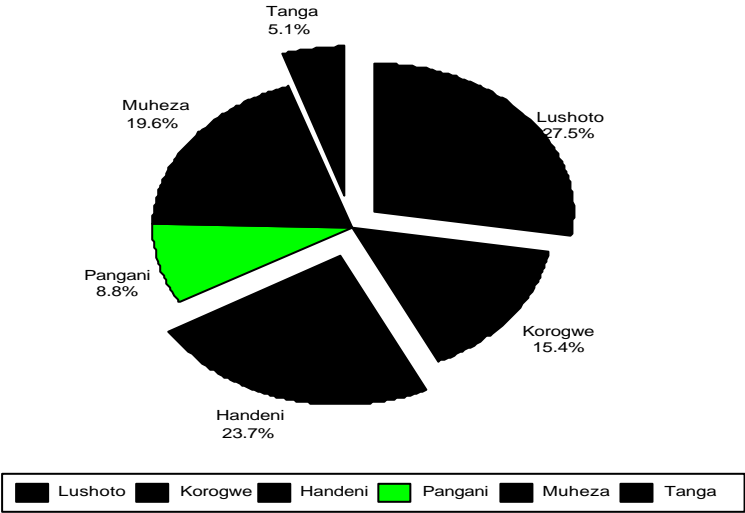


TABLE XXIV: RURAL ROADS UNDER REGIONAL ENGINEER'S OFFICE TANGA (BY DISTRICT)

District	Murrum(Km)	Earth(Km)	Total (Km)
Lushoto	219.10	39.00	258.10
Korogwe	105.10	38.90	144.00
Handeni	149.50	72.60	222.10
Pangani	84.20	-	84.20
Muheza	120.60	62.60	183.20
Tanga	47.40	-	47.40
Total	725.90	213.10	939.00

Source: Regional Engineer's Office - Tanga , 1996

It has been reported that the people in Lushoto district are more ready and active in participating in road maintenance work than in other districts. Reasons for readiness of the people in Lushoto to take part in road maintenance are not yet clear, but some say that, they are more business-like and this attribute makes them value transport and communications systems much more than the rest.

TABLE XXV: TYPE OF ROAD AND ROAD SURFACE IN TANGA REGION

TYPE OF ROAD	SURFACE			TOTAL (Kms)
	Tarmac (kms)	Gravel (kms)	Earch (kms)	
Trunk Roads	304	-	48	352
Regional Roads	-	1028.8	-	1028.8
District Roads	-	48	1039.7	1087.7
Feedes Roads	-	14.7	294.3	309
Total	304	1091.5	1382	2777.5

Source: Regional Engineer, Tanga Region.

TABLE XXVI: DISTRIBUTION OF ROADS BY DISTRICT AND TYPE OF ROADS, 1996

DISTRICT	TYPE OF ROAD				TOTAL (Kms)
	Trunk (kms)	Regional (kms)	District (kms)	Feeder (kms)	
Lushoto	32.0	179.6	280.4	37.0	529.0
Korogwe	125.0	135.4	113.9	-	374.3
Muheza	75.0	103.5	288.9	111.0	578.4
Handeni	80.0	372.5	325.3	124.0	901.8
Tanga	40.0	41.0	36.0	6.0	123.0

Pangani	-	196.8	43.2	31.0	271.0
Total	352.0	1028.8	1087.7	309.0	2777.5

Source: Regional Engineer, Tanga Region

It is observed from Table XXVI above that Handeni and Muheza districts are leading in having more lengths of Feeder roads. Handeni alone had 124 kms, while, Muheza had 111 kms. In terms of District Roads, Handeni and Muheza again commands the longest kilometers of the roads. Pangani had only 43 kms of district roads network. However, Pangani becomes second after Handeni in terms of kilometers of regional roads. Trunk roads are longest in Korogwe followed by Handeni.

TABLE XXVIII: DISTRIBUTION OF ROADS BY DISTRICT AND SURFACE, 1996

DISTRICT	SURFACE			TOTAL (Kms)
	Tarmac (kms)	Gravel (kms)	Earth (kms)	
Lushoto	39.0	266.0	224.0	529.0
Korogwe	105.0	144.3	125.0	374.3
Muheza	40.0	244.4	294.0	578.4
Handeni	80.0	322.8	499.0	901.8
Tanga	40.0	29.0	54.0	123.0
Pangani	-	85.0	186.0	271.0
Total	304.0	1091.5	1382.0	2777.5

TABLE xxviii(a): TYPE OF ROAD, LUSHOTO DISTRICT

ROAD	MURRUM (Kms)	EARTH (Kms)	TOTAL (Kms)
Lushoto - Magamba	5.10		5.10
Soni - Bumbuli	20.40		20.40
Magamba - Malindi	19.90		19.90
Lukozi - Manolo		10.90	10,909.00
Gare - Nyasa	9.00		24.70
Bumbuli - Dindira	24.70		18.40
Magamba - Malimbwi	18.40		13.60
Malindi - Mlalo	13.60		20.40
Magamba - Shume-Viti	10.20	10.20	6.30
Vuga - Trunk Road		6.30	11.60
Manolo - Goka		11.60	30.10
Malindi - Sunga-Mtae	30.10	-	30.10
Malimbwi - Mlola	15.70	-	15.70
Bombomtoni-Kitivo	52.00	-	52.00
Total	219.10	39.00	258.10

Source: Regional Engineer, Tanga Region.

TABLE XXVII (b): KOROGWE DISTRICT

ROAD	MURRUM (Kms)	EARTH (Kms)	TOTAL (Kms)
Korogwe-Handeni BRDR	6.70		6.70
Korogwe - Mashewa	51.80		51.80
Korogwe - Maguzoni	13.00	38.90	27.60
Kwameta - Dindira	24.30		24.30
Mashewa - Bombo River	9.30		9.30
Korogwe - Ambangulu			24.30
Total	105.10	38.90	144.00

Source: Regional Engineer's Office Tanga

TABLE XXVII (c): TANGA DISTRICT:

ROAD	MURRUM (Kms)	EARTH (Kms)	TOTAL (Kms)
Handeni - Korogwe	56.90		56.90
	40.90		40.90
	51.70		51.70
		39.10	39.10
		33.50	33.50
Total	149.50	72.60	222.10

TABLE XXVII (d): TANGA DISTRICT

ROAD	MURRUM (Kms)	EARTH (Kms)	TOTAL (Kms)
Mabokweni - Gombero	14.90	14.90	
Tanga -Pangani Border	12.00		12.00
Mjesani - Kiomoni	20.50		20.50
Total	47.40	-	47.40

TABLE XXVII (e): PANGANI DISTRICT

ROAD	MURRUM (Kms)	EARTH (Kms)	TOTAL (Km)
Tanga Border-Pangani	33.30	-	33.30
Pangani-Mwera	8.80	-	8.80
Mwera - Sakura	16.00	-	16.00
Boza-Masaika	26.10	-	26.10
Total	84.20	0.00	84.20

TABLE XXVII (f): MUHEZA DISTRICT

ROAD	MURRUM (km)	EARTH (Km)	TOTAL (Km)
Muheza - Amani	30.90		30.90
Muheza - Masaika	12.70		12.70
Amani - Monga	5.00		5.00

Amani - Kwamkoro	7.90		7.90
Gombero - Mapatano	14.10		14.10
Kilulu - Mtindiro		9.10	9.10
Mapatano-Bombo River	30.00		30.00
Mapatano- Mhinduro		6.00	6.00
Mhinduro- Matemboni		3.00	3.00
Muheza-Kicheba- Upale		15.70	15.70
Mbambara-Trunk Road		11.00	11.00
Mlingano-Mjesani		17.80	17.80
Mjesani-Kiomoni	20.00		20.00
Total	120.60	62.60	183.20

Source: Regional's Office - Tanga

RAILWAYS

Tanga Region is very well served by the Railway Line System (279 kms of track) and is the second with the highest railway density in the country about 1.0 kms of railway line per 100 sq.km. of land area.

There are 32 railway stations in the region, including some minor stations where trains do not always stop. The so-called Tanga Line runs from Tanga along the foot of the Usambara Mountains to Moshi and Arusha and the most important stations within the region are Tanga, Muheza, Korogwe and Mombo. But nowadays, the railway system is no longer of great importance as a means of transport within the region. Road transport has been much more convenient and more flexible for transporting small quantities of goods or persons, to and from Dar es Salaam, Arusha, Moshi and Kenya than the use of trains. However, the importance of the Railway line in transporting heavy cargo still remains. Nobody can refute it.

TABLE XXVIII: CARGO HANDLED BY TANGA RAILWAYS LINE - 1975-1996

YEAR	TONS
1975	-
1980	-
1990	174,867
1992	167,200
1995	-
1996	-

Source: TRC, Tanga 1996

AIR SERVICE

Tanga Airport is regularly served by Air Tanzania Co. (ATC) and is the fifth most important airport on the Tanzania Mainland. On average there are flights per day in each direction. There are also a number of airstrips in the region, most of them belonging to some of the Estates and some to private people. In addition, there is a small private Aedrome in Mombo capable of handling other small aircrafts.

ENERGY

Electricity

Tanga Region is relatively well served with the supply of electricity. In the Region, there are two hydroelectric power stations, both on the Pangani River near the main road between Muheza and Korogwe. Pangani Falls station has a capacity of 66 Megawatts and Hale Station generates 21 Megawatts. Both stations are supplying all important centres in Tanga Region. The two stations are also connected to the National Grid. It has been estimated that 28,727 customers are supplied with electric power in the region. Compared with all other regions, Tanga has a relatively dense distribution electricity network mainly due to the existence of many estates requiring electric power. In 1994/95, additional villages in Handeni, Lushoto, Muheza and Korogwe got electricity. The villages included, Sinderi and Kwamkono

(Handeni); Lwandai, Balangai, Wena and Poritupu (Lushoto); Moa, Mtimbwani and Shebomeza (Muheza) and Kwakombo and Kara (Korogwe).

Firewood/Charcoal

Fuelwood consumption in Tanga Region has not been determined yet by various studies. However, we know beyond reasonable doubt that wood consumption for various purposes remains to be enormous, especially considering the fact that it is the most cheap source of energy for the majority of the people. Thus, the use of firewood as major source of energy will continue for many years to come and this would require more campaigns for tree planting in order to reduce the dangers of environmental degradation and other related consequences.

HARBOURS

Tanga has a good natural harbour, although it lacks deep-water berths. As a result, lighters are used to bring goods to and from the shore. The port is administered by the Tanzania Harbours Authority (THA) and has a nominal rated capacity of about 320,000 tons per year. In 1973 the port handled tonnage equal to 280,000. Generally, Tanga has surplus capacity as a port and could well take over some of the cargo from Dar es Salaam which faces congestion. Tanga port is the second

largest after Dar es Salaam. Table XXIX compares the handling capacities of the three important ports in 1994.

Fig. XXXIX: Port Performance in 1994

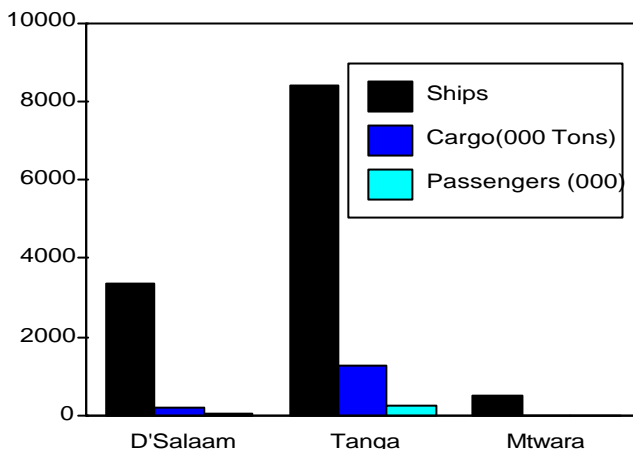


TABLE XXIX.: PORT PERFORMANCE 1994

	DAR ES SALAAM	TANGA	MTWARA
Ships	3,386	226	66
Cargo (000 Tons)	8,410	1,286	238
Passengers (000)	499	15	4

Source: Tanzania in figures 1994
Bureau of Statistics, August, 1995

SECTION IV

2.0 SOCIAL SERVICES

2.1.0 Education

2.1.1 Primary Education

The number of schools have increased over the years despite their infrastructural deterioration and the falling educational standards. The region by 1995 however, had 678 primary schools with 3291 classes and an enrolment of 220,215 pupils. The total number of schools and enrolment rates are shown in the subsequent tables.

**TABLE XXX: NUMBER OF PRIMARY SCHOOLS BY OWNERSHIP
IN TANGA REGION, 1995**

YEAR	NUMBER OF PRIMARY SCHOOLS		
	Public	Private	Total
1981	632	1	633
1982	637	1	638
1983	637	1	638
1984	641	1	642
1985	641	1	642

1986	641	1	642
1987	642	1	643
1988	653	1	654
1989	655	1	656
1990	663	1	664
1991	668	1	669
1995	678	6	678

Source: Regional Statistics Office Tanga.

The distribution of 678 Primary Schools in Tanga Region districtwise, was as follows. Lushoto and being the most densely populated District had 180 primary schools in 1995, followed by Muheza with 150 and Korogwe with 140. Handeni had only 120 primary schools despite its large land area and big population. Pangani district had the least number of schools. In terms of the number of pupils enrolled, Lushoto came number one in 1995 enrolling 66,733 pupils against 39,535 in Korogwe, 37,764 in Muheza and 36,523 in Handeni. It is not easy to explain why there should be more pupils in primary schools in Lushoto district than in others. The most striking thing about the school enrolment is that the number enrolled in Lushoto is almost twice the number enrolled in Handeni district whose population in 1988 was close to that of Lushoto.

Fig. XXXI: Distribution of Number of Schools by District in Tanga Region

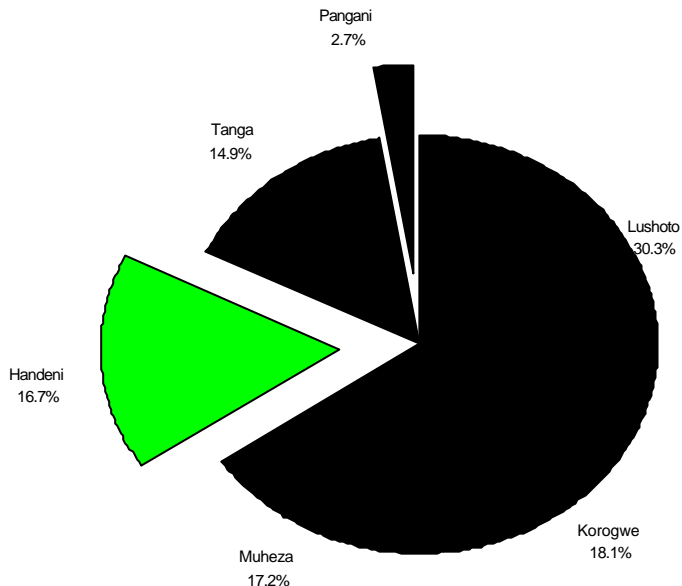


TABLE XXXI: NUMBER OF SCHOOLS,PUPILS BY DISTRICT AND SEX, 1995

District	No. of schools	Number of Boys	Number of Girls	Total
Lushoto	180	33,218	33,515	66,733
Korogwe	140	19,618	19,917	39,535
Muheza	150	19,339	18,425	37,764
Handeni	120	19,687	16,836	36,523
Tanga	63	16,719	16,481	33,200
Pangani	25	3,311	3,149	6,460
Total	678	111,892	108,323	220,215

Source: Regional Education Office Tanga 1996

Fig. XXXII: Enrolment in Public Schools By Grade and Sex in Tanga Region

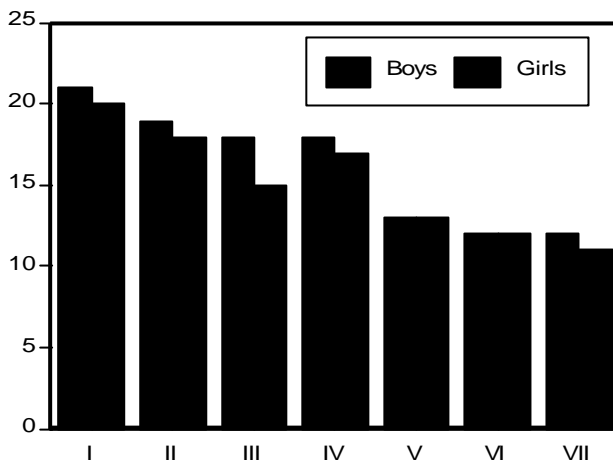


TABLE XXXII: ENROLMENT IN PUBLIC PRIMARY SCHOOLS BY GRADE AND SEX IN 1994

GRADE	BOYS	GIRLS	TOTAL
I	20,705	19,768	40,473
II	19,169	17,702	36,871
III	17,556	15,449	33,005
IV	18,459	17,117	35,576
V	13,278	13,293	26,571
VI	11,674	11,839	23,513
VII	11,502	11,286	22,788
TOTAL	112,343	106,454	218,797

Source: Planning Commission, based on BEST, 1994

According to Table XXXII, there was a drop-out of 17,685 pupils from primary schools in Tanga Region in 1994, when you compare the number of children enrolled in Std I and the number that reached Std VII. The enrolment in Std.I was 40,473 and the enrolment in Std.VII was only 22,788 pupils in 1994, equivalent to a drop-out of 44 percent. The drop-out in girls was 43 percent.

TABLE XXXIII: STD I - VII ENROLMENT BY SEX, IN 1988 AND 1994

SEX	YEAR	GRADE						
		I	II	III	IV	V	VI	VII
BOYS	1988	18,000	18,000	13,000	16,000	11,000	10,000	12,000
	1989	20,000	17,000	16,000	15,000	13,000	10,000	9,000
	1990	20,000	18,000	17,000	16,000	12,000	11,000	10,000
	1991	20,000	19,000	17,000	16,000	12,000	11,000	11,000
	1994	20,705	19,169	17,556	18,459	13,278	11,674	11,502
GIRLS	1988	18,000	15,000	14,000	16,000	11,000	11,000	13,000
	1989	18,000	16,000	14,000	16,000	12,000	10,000	10,000
	1990	18,000	17,000	15,000	15,000	12,000	12,000	10,000
	1991	18,000	16,000	16,000	16,000	13,000	10,000	10,000
	1994	19,768	17,702	15,449	17,117	13,293	11,839	11,286
TOTAL	1988	36,000	33,000	27,000	32,000	22,000	21,000	25,000
	1989	38,000	33,000	30,000	31,000	25,000	20,000	19,000
	1990	38,000	35,000	32,000	31,000	24,000	23,000	20,000
	1991	38,000	35,000	33,000	32,000	25,000	21,000	21,000
	1994	40,473	36,871	33,005	35,576	26,571	23,513	22,788

Source: Regional Education Office, Tanga Region

Fig. XXXIV: Number of Pupils who Passed STD VII Exams and Selected for Form I, 1985 - 1991

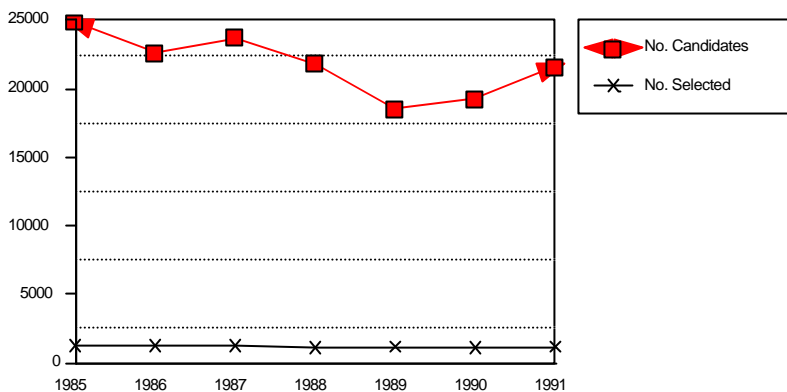


TABLE XXXIV: NUMBER OF PUPILS WHO PASSED STD VII EXAMS AND SELECTED FOR FORM I - 1985 - 1991

Year	Number of Candidates	Number Selected	Percent Selected
1985	24,849	1,194	4.8
1986	22,594	1,198	5.3
1987	23,646	1,182	5.1
1988	21,805	1,090	5.0
1989	18,509	1,158	6.4
1990	19,240	1,121	6.7
1991	21,609	1,173	5.6

TOTAL	152,252	8,116	5.3
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Source: Regional Education Office, Tanga Region

Although, data is not available for recent years (1992 - 1996) we can strongly believe on the basis of Table XXXIV, that the number of children selected to join Form I in Tanga Region between 1992 - 1996 cannot be more than 7.5 percent. It means that 92.5 percent of the children in Tanga region each year do not join any public secondary school. The question is, "where do these children go after their primary school education"? Of course, the answer could be either Private Secondary Schools or Technical Schools or simply left out completely from further education system. It is at this point that we see the importance of having more private secondary schools in a region and hence the need to emulate Kilimanjaro region. In Kilimanjaro region there are more than 60 schools. With more private secondary schools, the children who cannot make it into public secondary schools, still have a chance for further education. The last column of Table XXXIV shows clearly the percentage that joins public secondary schools. The number is incredibly small!

DROP-OUT PROBLEM

Primary school drop-out cases is increasingly becoming a very serious problem in education sector. School drop-out data may not be very reliable but the problem is there in many schools and in many regions.

Table XXXV attempts to highlight the magnitude of the problem in respective districts.

Fig. XXXV: Trend in Primary School - Drop-outs in Tanga Region by District 1989

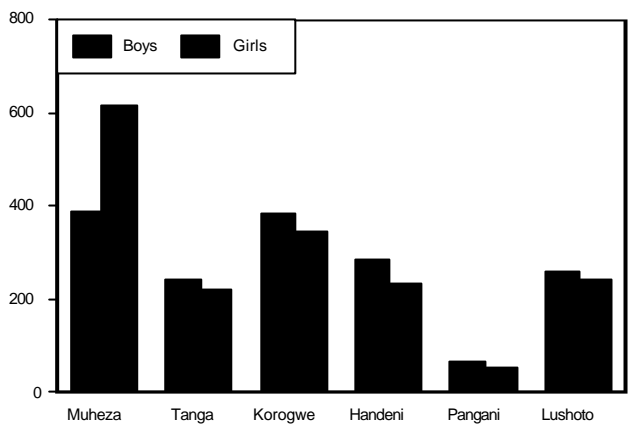


Fig. XXXV: Trend in Primary School - Drop-outs in Tanga Region by District 1990

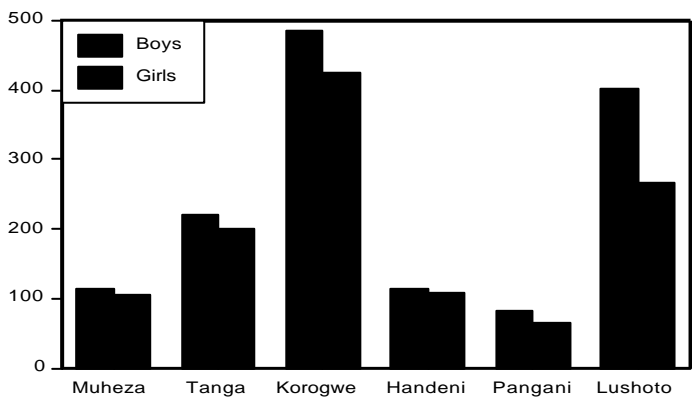


Fig. XXXV: Trend in Primary School - Drop-outs in Tanga Region by District 1992

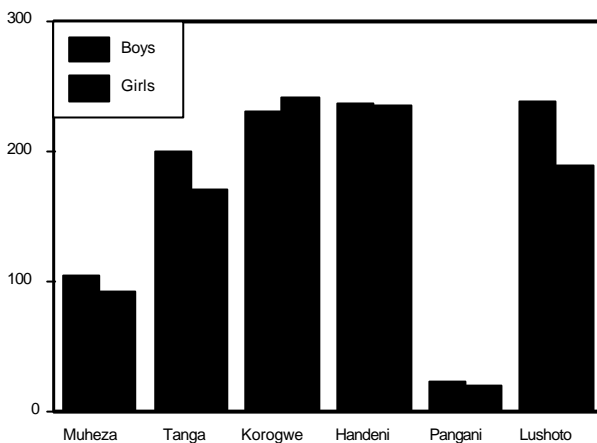
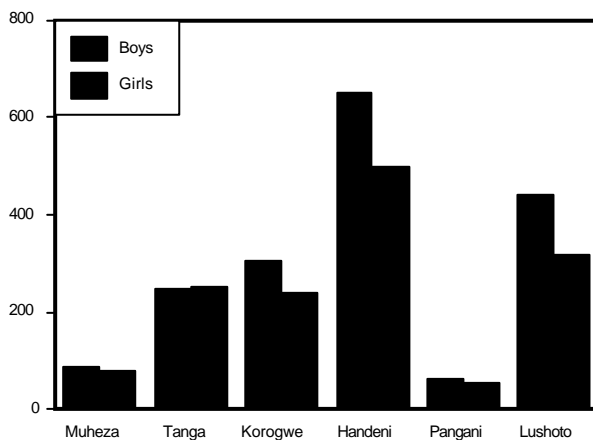


Fig. XXXV: Trend in Primary School - Drop-outs in Tanga Region by District 1995



**TABLE XXXV: TREND IN PRIMARY SCHOOL - DROP-OUTS - 1989 - 1995
IN TANGA REGION**

District	1989		1990		1992		1995	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Muheza	387	616	115	106	104	93	88	79
Tanga	244	221	220	201	200	170	246	252
Korogwe	386	347	485	424	230	242	305	241
Handeni	287	234	114	109	237	235	652	500
Pangani	66	52	82	66	23	19	62	54
Lushoto	260	242	401	266	238	189	441	315
Total	1628	1686	1415	1170	1032	948	1794	1441

Source: Compiled Data by Planning Commission, 1997

Table XXXV above shows an increasing number of cases of drop-outs in Handeni, Lushoto and Tanga districts. Drop-out cases of boys in Handeni increased by 127 percent from 287 in 1989 to 652 in 1995, while that of girls increased by 114 percent in the same period. In Lushoto district, the drop-out cases of boys shot up by 70 percent from 260 in 1989 to 441 in 1995, while for girls it went up by 30 percent. Lower drop-out cases in Pangani could be explained by low enrolment rates in schools. In Muheza and the only district, the drop-out cases

went down by 78 percent for boys and girls by 87 percent between 1989 and 1995.

Fig. XXXVI: Drop-out From Primary Schools in Eight Selected Regions 1994

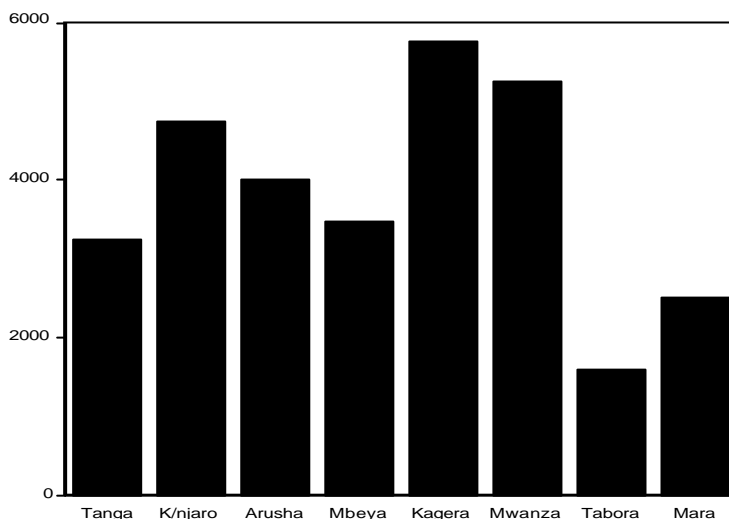


TABLE XXXVI: DROP-OUT FROM PRIMARY SCHOOLS IN EIGHT SELECTED REGIONS 1994

REGION	GRADES							TOTAL
	I	II	III	IV	V	VI	VII	
Tanga	293	408	444	760	517	397	418	3237
K/njaro	242	436	710	953	645	848	895	4752
Arusha	392	486	486	773	543	641	695	4016
Mbeya	334	403	369	552	584	584	638	3464
Kagera	210	420	653	1131	1052	1134	1145	5745
Mwanza	384	639	841	976	726	717	970	5253
Tabora	159	196	276	337	225	215	198	1606

Mara	211	224	295	437	418	355	567	2507
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Source: Planning Commission: Compiled data based on BEST 1994

Table XXXVI attempts to compare drop-out cases in selected few regions. Compared with regions with both relatively strong economies and more educated people like, Kilimanjaro, Kagera, Arusha, Mbeya and Mwanza, Tanga had fewer drop-out cases (Std I - VII) in 1994. It is further observed from the table that almost in all regions, drop-out cases are more pronounced in Class IV and V. In Tanga for instance, 760 children dropped out from school while in Class IV compared to only 418 children in Class VII. May be teachers can help explain why this happened in 1994 in the selected few regions.

**Fig. XXXVII: Distribution of Number of Pupil by District in
Tanga Region, 1995**

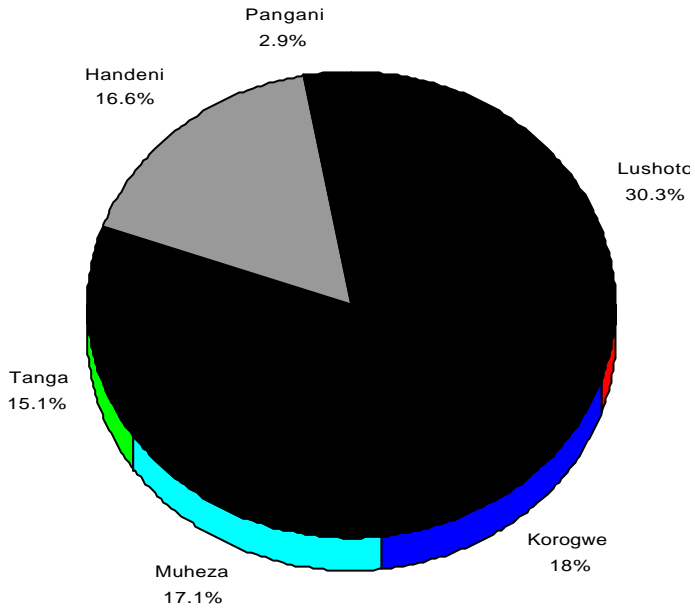


Fig. XXXVII: Distribution of Classrooms by District in Tanga Region, 1995

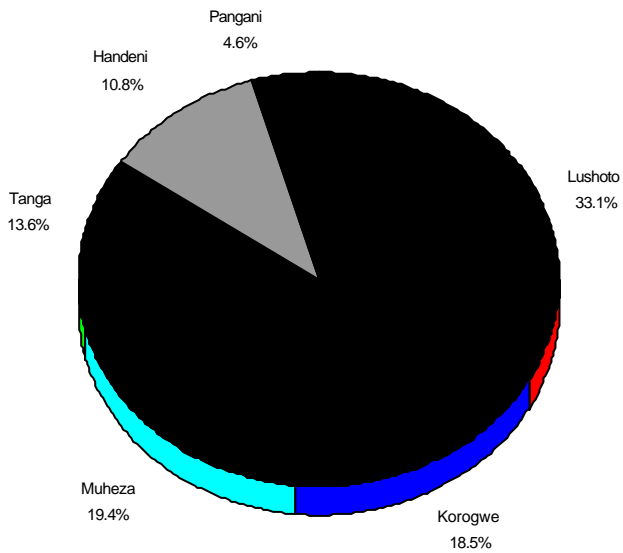


Fig. XXXVII: Distribution of Pupils per Classrooms by District in Tanga Region, 1995

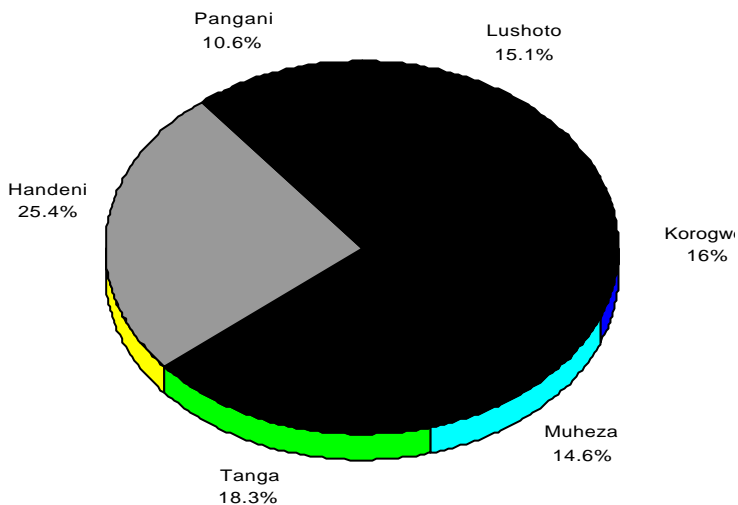


TABLE XXXVII: CLASS - ROOM PUPIL POPULATION RATIO 1995

District	Number of Pupils	Number of Classrooms	Pupils Per Classroom
Lushoto	66,733	1,088	61
Korogwe	39,535	610	65
Muheza	37,764	638	59
Tanga	33,200	449	74
Handeni	36,523	356	103
Pangani	6,460	150	43
Total	220,215	3,291	67

Source: Compiled Data by the Planning Commission, 1997

From Table XXXVII, it is obvious that Handeni district needs more class-rooms in order to reduce congestion in class-rooms and create more space for teachers to move around. It is difficult to explain why even districts with fewer number of pupils like Tanga, had more class-rooms than Handeni. Muheza district with 37,764 pupils had still 638 class-rooms compared with 36,523 class-rooms in Handeni. However, all districts except Pangani had high pupil per class-room ratio. According to the table, Handeni will need an additional of 58 class-rooms, Tanga 35, Muheza 32, Korogwe 37, Lushoto 29 and Pangani 21.

TABLE XXXVIII: SITUATION OF PRIMARY SCHOOL BUILDINGS BY DISTRICT, 1995

LUSHOTO DISTRICT				
BASIC FACILITY	NUMBER REQUIRED	ACTUAL	SHORTAGE	PERCENTAGE OF SHORTAGE
Class-rooms	1540	1088	452	29
Staff Houses	1626	264	1362	84
Toilets	2710	1413	1297	48
KOROGWE				
Class-rooms	971	610	361	37
Staff Houses	1310	136	1174	90
Toilets	1572	350	1222	78
MUHEZA				
Class-rooms	940	638	302	32
Staff Houses	1331	98	1233	93
Toilets	1513	233	1280	85
HANDENI				
Class-rooms	858	356	502	58
Staff Houses	1045	82	963	92
Toilets	1504	20	1484	99
TANGA				
Class-rooms	692	449	243	35
Staff Houses	961	38	923	96
Toilets	1295	349	946	73
PANGANI				

Class-rooms	190	150	40	21
Staff Houses	247	48	199	80
Toilets	304	58	246	81

Fig. XXXIX: Teachers Staff Disposition by Sex and District, 1995

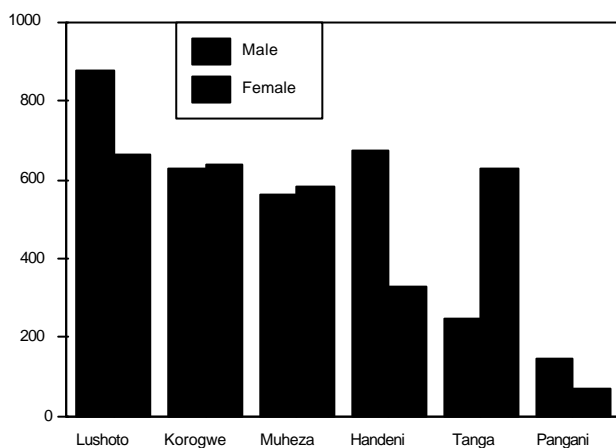


TABLE XXXIX: TEACHERS STAFF DISPOSITION BY SEX AND DISTRICT, 1995

District	Number of School Teachers (Primary)		
	Male	Female	Total
Lushoto	876	665	1541
Korogwe	626	639	1265
Muheza	561	583	1144
Handeni	673	330	1003

Tanga	248	627	875
Pangani	147	71	218
Total	3131	2915	6046

TABLE XL: FACTS ON PUBLIC PRIMARY SCHOOLS IN TANGA REGION 1987 - 1995

FACTS	1987	1988	1989	1990	1991	1995
Number of Schools	642	653	655	663	668	678
Total Enrolment ('000')	192	196	197	203	204	219
Number of Qualified Teachers	5791	5759	6336	6184	6048	6046
Number of Streams	5416	5569	5603	5034	5914	6056
Pupils(Average)	299	300	301	306	304	325
Pupils/Stream (Average)	36	35	35	36	34	36

Source: 1) Tanga Regional Statistical Abstract, 1993
 2) Tanga Regional Education Office, **1997**

Secondary Education

There are 41 secondary schools in the region with total enrolment of 15,375 pupils. The Private Secondary Schools belong to either Roman Catholic, BAKWATA, individuals, WAZAZI, Tanga Cement, Tanga Education Society or Kwamkoro Tea Estates.

Fig. XLI: Distribution of Secondary schools by District, 1996

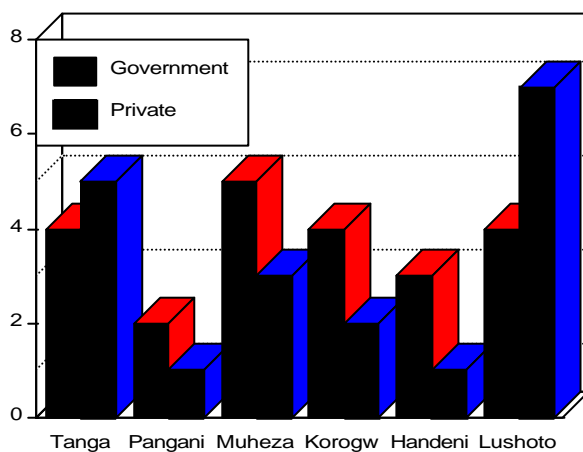


TABLE XLI: DISTRIBUTION OF SECONDARY SCHOOLS BY DISTRICT 1996

DISTRICT	GOVERNMENT	PRIVATE	TOTAL
Tanga	4	5	9
Pangani	2	1	3
Muheza	5	3	8

Korogwe	4	2	6
Handeni	3	1	4
Lushoto	4	7	11
Total	22	19	41

Source: Regional Education Office, 1996

Table XLI shows that private sector is playing a very important role especially in Lushoto, Tanga, Muheza in taking part in building Private Secondary Schools. As a result there are more Private Secondary Schools in Lushoto and Tanga than public secondary schools. People in other districts should emulate those in Lushoto and Tanga. We hope the introduction of cost recovery and cost sharing will provide a good incentive in attracting more and more private investments into Education Sector. As said on page-, the more the number of private secondary schools the more children get enrolled and the less the number of children who miss secondary school education in the Region.

TABLE XLII: SITUATION OF SECONDARY SCHOOLS IN TANGA REGION COMPARED WITH SELECTED FEW REGIONS IN TANZANIA, 1994

Region	No. of Public Secondary Schools	No. of Private Secondary Schools	Total
Tanga	11	16	27
Kilimanjaro	15	62	77
Arusha	13	23	36
Mbeya	8	23	31
Kagera	9	23	32
Mwanza	12	17	29
Dar es Salaam	8	15	23
Mara	8	16	24

Morogoro	13	10	23
Dodoma	10	7	17
Iringa	13	32	45
Ruvuma	10	11	21
Singida	5	5	10
Tabora	10	10	20
Rukwa	7	5	12

Source: Planning Commission: Compiled Data, based on BEST, 1994

It is revealed in Table XLII that Tanga region in 1994 had the least number of Private Secondary Schools compared with Kilimanjaro, Iringa, Arusha, Mbeya, Kagera and even Mwanza. Tanga region in 1994 had only 16 Private Secondary Schools against 62 in Kilimanjaro, 23 in Arusha and 32 in Iringa. It is only in private secondary schools that the children who cannot make it to public secondary schools resort to. It has been earlier mentioned that about 93 percent of the children completing Std.VII in Tanga each year are not selected to join public secondary schools. What do we do with such a big number of drop-outs? The answer is, 'Private Secondary Schools'" and the more they are the better. Table XLIII below shows the enrolment of boys and girls in Public Secondary Schools between 1987 and 1994.

Fig. XLIII: Enrolment in public secondary schools by form and sex, 1987

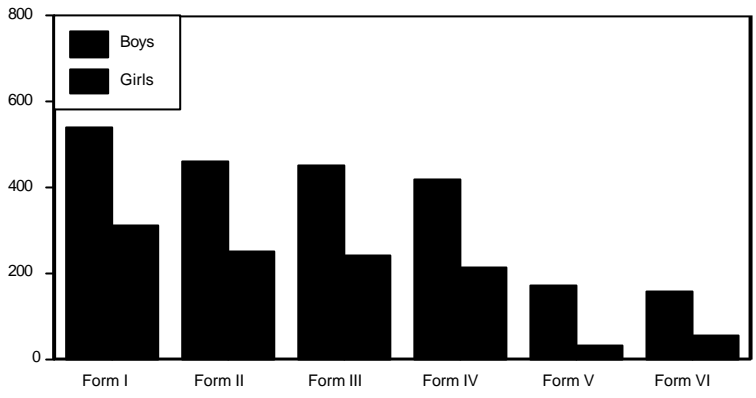


Fig. XLIII: Enrolment in public secondary schools by form and sex, 1988

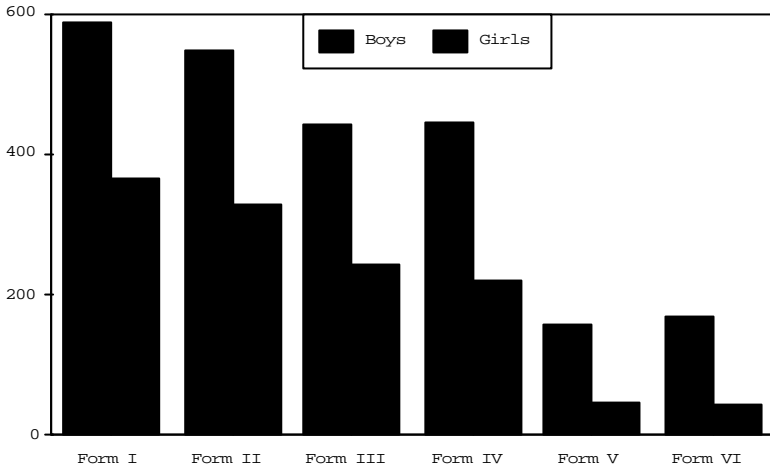


Fig. XLIII: Enrolment in public secondary schools by form and sex, 1989

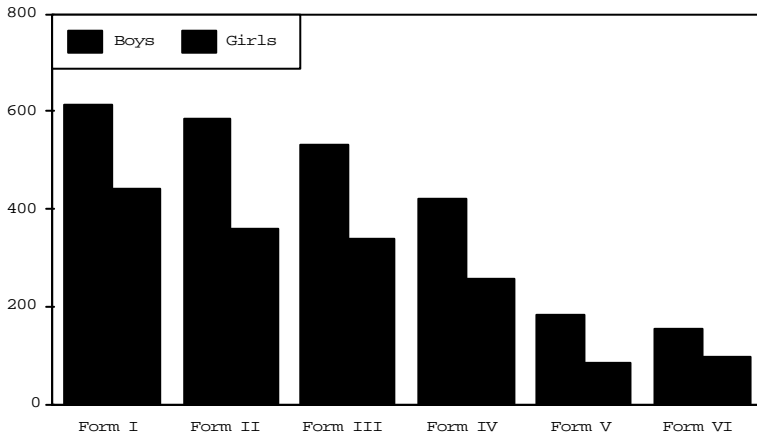


Fig. XLIII: Enrolment in public secondary schools by form and sex, 1990

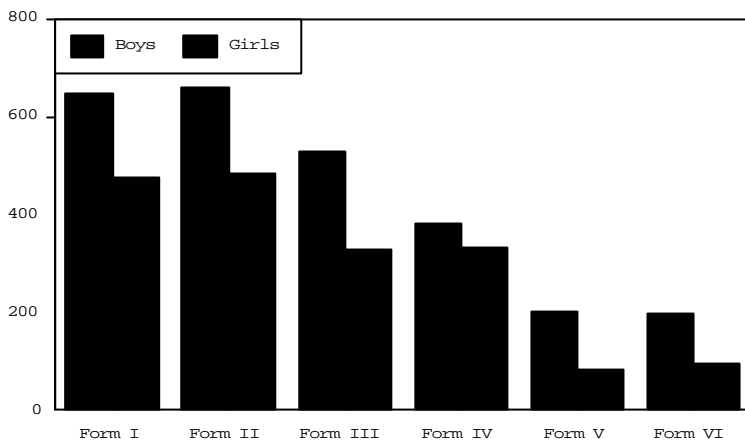


Fig. XLIII: Enrolment in public secondary schools by form and boys, 1991

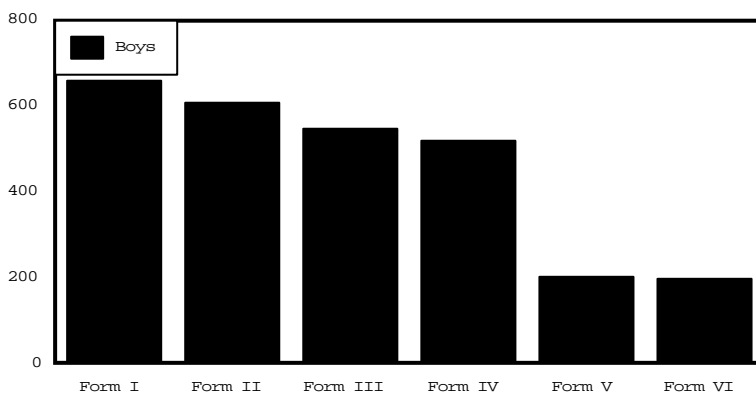


Fig. XLIII: Enrolment in public secondary schools by form and sex, 1994

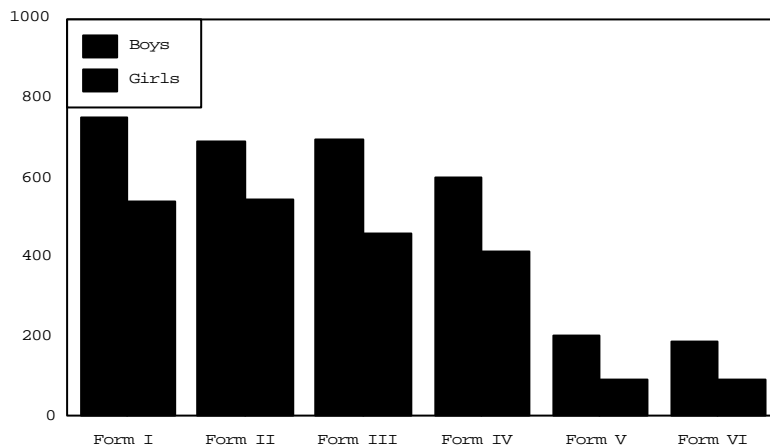


TABLE XLIII: ENROLMENT IN PUBLIC SECONDARY SCHOOLS BY FORM AND SEX (1987-1994)

YEAR	SEX	FORM I	FORM II	FORM III	FORM IV	FORM V	FORM VI	TOTAL
1987	Boys	539	459	450	417	168	157	2190
	Girls	310	249	239	215	31	51	1095
1988	Boys	588	549	441	444	157	170	2349
	Girls	366	328	242	220	48	43	1247
1989	Boys	614	588	530	422	184	153	2491
	Girls	443	362	339	259	85	96	1584
1990	Boys	648	659	529	382	203	201	2622
	Girls	477	484	330	334	85	96	1806

1991	Boys	662	607	549	518	202	198	2736
1994	Boys	752	690	695	604	202	186	3427
	Girls	542	547	461	418	92	95	2348

Source: Regional Education Office, Tanga Region.

One serious observation can be made on Table -. That is, the rate at which the number of girls keeps on getting smaller as they advance into higher Forms (II - VI). It is even more difficult to believe that out of 310 girls who joined Form I in 1987 only 31 managed to make it into Form V and only 215 girls reached Form IV. The same trend observed in 1987 is similar to what we see in subsequent years (1988 - 1994). The number of girls joining Form V has remained incredibly low compared to that of boys.

Adult Education:

It has been reported that a big percentage of adults in Tanga knows how to read and write. By 1992 the Region's literacy rate had risen to 90% from 37% in 1967.

It is unlikely that the region will be able to sustain this literacy rate given the present education system whereby people are now required to contribute something for education services they receive. The problem now is, how many people are ready to do so? The willingness and the affordability by the people are the crucial issues. Table XLIV compares the percentage of literacy in each region in the three consecutive Population Census (1967 - 1988) and Table XLV shows

the percent of literacy rates for Rural and Urban population in different regions.

**TABLE XLIV: PERCENT OF LITERACY FOR POPULATION AGED
10 YEARS AND ABOVE BY REGION**

REGION	1967 CENSUS	1978 CENSUS	1988 CENSUS
Kilimanjaro	56	74.1	80.8
Dar es Salaam	60	73.3	80.7
Ruvuma	41	66.3	70.5
Tanga	40	60.6	66.0
Morogoro	37	58.6	62.8
Mara	35	56.4	63.9
Iringa	31	54.0	68.3
Kagera	40	52.9	59.5
Mtwara	28	51.4	57.1
Dodoma	24	49.5	55.5
Mbeya	29	49.2	61.9
Rukwa	-	48.5	58.6
Lindi	-	48.4	53.8
Singida	24	46.7	57.4
Mwanza	25	44.3	57.3
Coast	26	44.0	51.1
Kigoma	19	43.7	55.1
Arusha	26	41.9	58.1
Tabora	27	40.5	50.5
Shinyanga	16	33.2	48.3

Source: 1988 Population Census (National Profile, Table 5.2)

TABLE XLV: LITERACY RATES FOR RURAL AND URBAN POPULATION OF 10 YEARS AND ABOVE, 1988

REGIONS	MALE			FEMALE		
	RURAL	URBAN	TOTAL	RURAL	URBAN	TOTAL
Mara	73.7	88.0	75.3	53.7	71.5	55.6
Dodoma	61.5	85.4	64.3	45.1	73.7	48.2
Arusha	61.5	91.8	65.6	46.4	82.8	50.9
Kilimanjaro	84.5	90.3	85.5	75.7	83.6	76.9
Tanga	72.8	88.6	75.9	53.2	75.6	57.3
Morogoro	68.8	86.4	72.9	49.5	72.0	54.6
Coast	60.1	72.2	64.0	40.1	51.8	44.9
Dar es Salaam	68.4	90.0	87.9	48.0	77.7	74.6
Lindi	62.4	75.9	64.6	42.0	60.2	44.8
Mtwara	65.5	77.9	67.3	46.3	61.6	48.5
Ruvuma	77.7	87.6	78.7	61.4	75.7	63.3
Iringa	80.1	87.4	84.9	57.2	70.4	58.5
Mbeya	69.9	87.5	73.3	48.4	70.0	52.4
Singida	65.0	85.5	66.8	47.2	70.8	49.3
Tabora	50.1	85.2	60.5	36.7	67.8	41.6
Rukwa	69.1	84.3	71.3	43.9	66.4	47.3
Kigoma	65.1	83.1	67.4	43.1	62.7	45.5
Shinyanga	57.9	85.9	59.9	36.2	67.7	39.3

Kagera	68.0	84.4	69.0	49.7	72.4	50.9
Mwanza	63.7	83.7	67.6	43.4	66.9	47.8

Source: 1988 Population Census: National Profile

Fig. XLVI: Illiterate population by district, 1992 - 1995

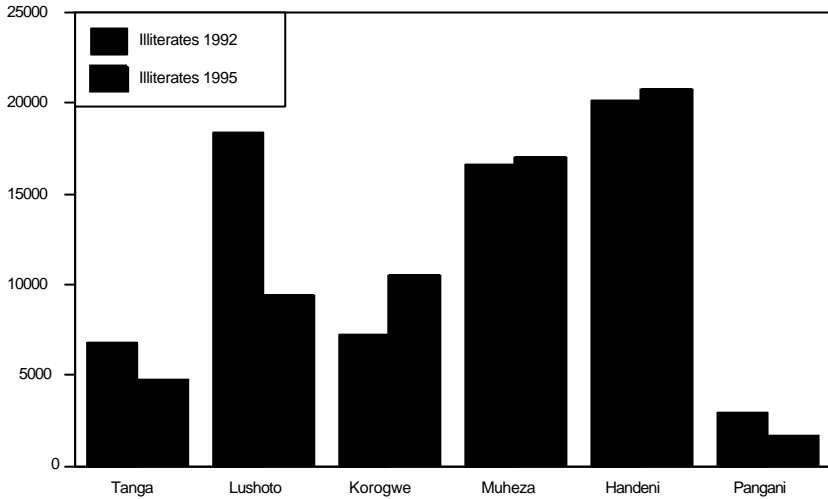


Fig. XLVI: Illiterate population and number of adults by district, 1995

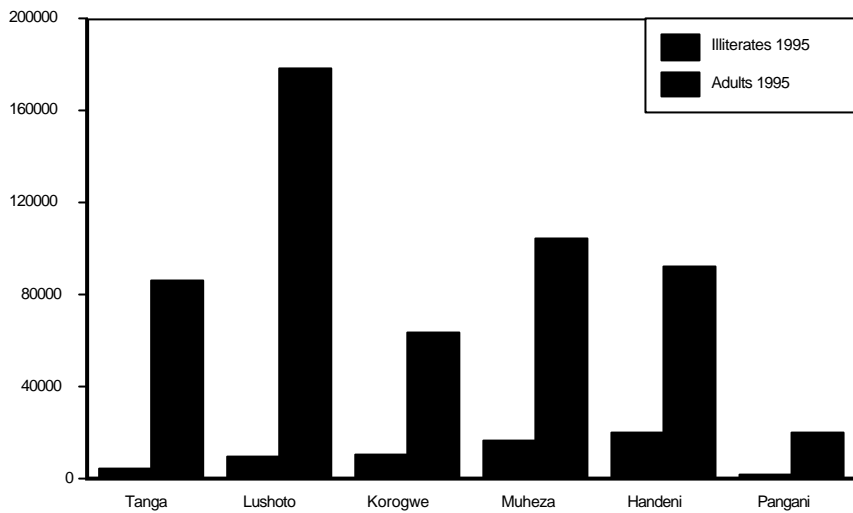


TABLE XLVI: ILLITERATE POPULATION BY DISTRICT, 1992 - 1995

District	Total Number of Illiterates (1992)			Total Number of Adults (1995)			Number of Illiterates (1995)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Tanga	2826	3982	6808	47870	38580	86450	1288	3419	4707
Lushoto	5971	12383	18354	76580	102052	178632	2776	6633	9409
Korogwe	2328	4899	7227	28942	34532	63474	3686	6829	10515
Muheza	6666	9941	16607	48361	56275	104636	6155	10898	17053
Handeni	7301	12809	20110	42188	50447	92352	6882	13893	20775
Pangani	909	2058	2967	9343	11030	20373	521	1089	1610
Total	26001	46072	72073	253284	292916	546200	21,308	42,761	64,069

Source: Regional Education Office, Tanga Region, 1996.

According to Table XLVI, the illiteracy rate of women seem to be higher than that of men, which, can be attributed mainly to the involvement of most women in economic and domestic activities as well as the culture of the coastal people which does not allow women to appear in public or participate in literacy classes, which is the same as exposing them to public attention as well.

HEALTH SECTOR

There are health facilities in most villages in Tanga Regions, and a big population has an access to health facility within a distance of 6 kms. The main problems still remain to be "shortage of medicines," user charges and the poor state of the health facilities. Lack of medicines, user charges and poor state of health facilities to a large extent have increased the role of traditional healers (the informal health sector). Traditional healers were estimated to be 705 in 1985. In Lushoto there were 452, in Tanga 48, in Handeni 1233, in Muheza 33, in Korogwe 54 and in Pangani 13. The number is expected to be much bigger now because many people are less able to pay for health facilities. This being the case, the government needs to recognize fully the role these traditional practitioners play so that they are given the necessary assistance. They should be trained and given appropriate tools for their work instead of just condemning them.

HOSPITAL

By the end of 1996, there were 14 hospitals with 184 beds. Eight hospitals are Private and six are public. Table XLVII shows the distribution of Hospitals and other health facilities. The table shows that Muheza and Pangani districts with a population of 298,261 people do not have Private Hospitals. One may wonder how the two District Hospitals are able to save such a big population! Given the failure of

the Government to deliver quality medical services in most Hospitals, the Private Sector needs to come in immediately to supplement the efforts made by the government particularly in putting up modern Hospitals and other health facilities.

TABLE XLVII: DISTRIBUTION OF HEALTH FACILITIES IN THE REGION, 1996

DISTRICT	HOSPITALS		DISPENSARIES	HEALTH CENTERS
	Public	Private (No.)	(No.)	(No.)
Lushoto	1	1	36	3
Korogwe	1	2	59	3
Muheza	1	-	51	2
Handeni	1	1	39	5
Tanga	1	3	63	3
Pangani	1	-	-	1
Total	6	7	248	17

Source: Regional Education Office, Tanga Region

Dispensaries:

There are 258 dispensaries in Tanga Region, each serving 5,979 people (Table -) on average. By National Standards a dispensary is supposed

to serve between 5,000 and 10,000 people. In terms of dispensary adequacy, Tanga region does not face any congestion crisis because the number of people served per Dispensary is still below 10,000. The only District which is lacking a Dispensary is Pangani. Considering the population of Pangani of 41,450 people (1995 Estimates), at least they need 8 or more dispensaries. This is an area where the private sector intervention becomes necessary.

TABLE XLVIII: NUMBER OF DISPENSARIES AND POPULATION RATIO

DISTRICT	DISPENSARY	POPULATION (1995 ESTIMATES)	POPULATION PER DISPENSARY
Lushoto	36	416,040	11,557
Korogwe	59	246,310	4,175
Muheza	51	256,811	5,035
Tanga	63	222,825	3,537
Handeni	39	299,376	7,676
Pangani	-	41,450	-
Total	248	1,482,812	5,979

Source: Regional Medical Office, Tanga Region.

HEALTH CENTERS

Usually Rural Health Centers (RHC) by National Standards are supposed to serve 50,000 people each but what we observe in Table - is that each dispensary in Tanga region was serving 87,224 people in 1995. This figure was higher than the National target by 43 percent. This implied that the facilities in Rural Health Centers were being over-utilized. In order for the people to attain an optimal Dispensary Service, whereby each Dispensary serves only 50,000 people, the region in 1995 needed 13 more dispensaries in addition to the already existing number. This would have increased the number of Dispensaries from 17 to 30. In this regard therefore, the region still requires more Rural Health Centers for better service. For instance, Lushoto District would need at least 3 more Dispensaries, Korogwe 2 and Muheza 3.

TABLE XLIX: NUMBER OF RURAL HEALTH CENTERS, NUMBER OF BEDS AND POPULATION RATIO, 1995

DISTRICT	NUMBER OF RHC	POPULATION PER RHC (1995 ESTIMATES)	NUMBER OF BEDS
Lushoto	3	138,680	120
Korogwe	3	82,103	89
Muheza	2	128,405	100
Handeni	5	59,875	118
Tanga	3	74,275	37
Pangani	1	41,450	30

Total	17	87,224	494
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Source: Regional Medical Office, Tanga Region.

DISEASES

The disease incidencies and the severeness of the diseases differ from one region to another. For instance, the outbreaks of plague are common in Lushoto District, while Malaria tend to attack all places, cold, hot or warm. According to Medical Reports, about 25.36 percent of the total population suffered from Malaria in 1990. Table XLIX (a) below shows the disease incidencies for the years, 1990, 1991 and 1995.

TABLE XLIX (a): COMMUNICABLE DISEASES 1990, 1991, 1995

DISEASES	1990			1991		
	Patients	Deaths	(%)	Patients	Deaths	(%)
Cholera	3	3	100	960	127	13.23
Dysentery	6562	3	0.05	413	-	0
Plague	504	46	9.13	1303	83	6.37
Aids	650	64	9.85	872	124	14.22
Malaria	325490	915	0.28	131,138	34	0.03
Meningitis	160	38	23.75	160	31	0.17

Source: (1) Regional Commissioners Office Tanga: Regional Development Report (1961-1992)

(2) Regional Medical Office (Tanga).

Deterioration of health sector is a result of inadequate funds for running and maintenance of the health facilities. In addition, poor sanitation, poor water supply and poor nutrition are also a big cause for frequent disease occurrences. May be the implementation of Infrastructure Rehabilitation Project financed by GTZ and JICA could help improve the situation. The project is intended for Regional Hospital, District Hospitals, and Primary Health care Training Centers.

Fig. XLIX (b): Number of beds and population per bed by district, 1996

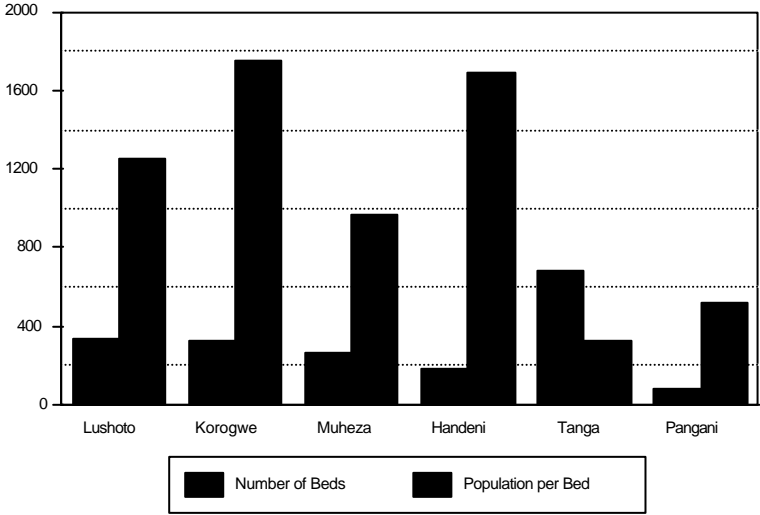


Fig. XLIX (b): Distribution of population per hospital per district, 1996

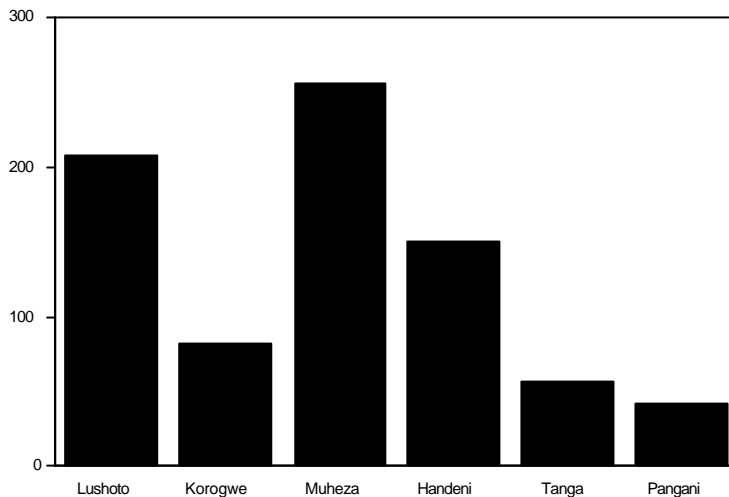


TABLE XLIX (b): DISTRIBUTION OF HOSPITALS, DOCTORS IN THE REGION, 1996

DISTRICT	NUMBER OF HOSPITALS			Number of Beds	Population per Bed (1995)	Population per Hospital (1995)
	Public	Private	Total			
Lushoto	1	1	2	331	1257	208,020
Korogwe	1	2	3	328	751	82,103
Muheza	1	-	1	266	965	256,811
Handeni	1	1	2	177	1691	149,688
Tanga	1	3	4	679	328	55,706
Pangani	1	-	1	80	518	41,450

Total	6	7	13	1841	805	114,062
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Source: Regional Medical Office, Tanga Region; 1996.

According to Table XLX (b), the Hospital/population ratio is more than the National Standards of 1:100,000 to 150,000 people. It is above 150,000 people in Lushoto and Muheza. The ratio is slightly lower in Handeni. Thus, at least one more Hospital is needed in the above mentioned Districts so that patients get better and timely attention under ceteris paribus conditions. However, population bed/ratio of 1:805 is slightly lower in Tanga Hospitals than the National average ratio of 1;1123.

TABLE XLIX (c): MEDICAL PERSONNEL IN TANGA REGION, 1996 (PUBLIC HOSPITALS)

No.	Category	Bombo Hosp.	Muheza Distr.	Korogwe Distr.	Lushoto Distr.	Handeni Distr.	Pangani Distr.	Total	Establishment	Over (+) under Establishment
1	2	3	4	5	6	7	8	9	10	11
A	MEDICAL STAFF									
1.	Physician	1	0	0	0	0	0	1	1	0
2.	Pediatrician	2	0	0	0	0	0	2	1	+1
3.	obst/Gynae	1	0	0	0	0	0	1	1	0
4.	Surgeon	2	0	0	0	0	0	2	1	+1
5.	Ophthalm	0	0	0	0	0	0	0	1	-1
6.	Epiderm	0	0	0	0	0	0	0	1	-1

7.	Anaesth	0	0	0	0	0	0	0	1	-1
8.	Radiology	0	0	0	0	0	0	0	1	-1
9.	psychiatrist s.	1	0	0	0	0	0	1	1	-1
10.	Med. officer (G)	2	2	1	1	3	1	10	18	-8
11.	AMO (G)	2	6	3	3	1	*	15	10	+5
12.	M.O. (T.B/LP)	1	0	0	0	0	1	1	1	0
13.	AMO (Psych.)	1	1	0	0	0	0	2	6	-4
14.	AMO (Ophthal)	1	1	0	0	0	0	2	6	-4
15.	Orth. tech.	0	0	0	0	0	0	0	1	-1
16.	Ophthal. Opt.	1	0	0	0	0	0	1	6	-5
17.	Med. Asst.	24	0	6	27	15	11	83	63	+20
18.	Anaesth. Officer	2	2	*	*	*	2	6	8	-2
19.	Physioth.	1	0	0	0	0	0	1	6	-5
20.	Dental Surg.	1	0	0	0	0	0	1	1	1
21.	Asst. dental Officer	1	*	1	*	*	*	2	6	-4
22.	Dental Tech.	0	0	0	0	0	0	0	2	-2
23.	Dental Asst.	3	1	0	1	1	1	7	8	-1
24.	MA (TB/LEP)	0	1	1	1	1	1	5	5	0

SUB TOTAL	47	14	12	33	21	16	143	15 6	-13
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Source: Regional Medical Office, Tanga Region, 1996.

Life Expectancy

Compared with Arusha, Kilimanjaro, Singida and Tabora, Tanga's Life Expectancy at birth was hardly 50 years (1988 Census) on average. Life Expectancy at birth for females however, was 51 years. For males it was 48 in 1988 falling below life expectancy recorded in 1978 Census. It means that men in Tanga Region in 1988 lived less longer than men in 1978. According to table -, people in Kilimanjaro region lived on average longer than people in other regions, followed by Arusha region, while people in Iringa, Kagera and Rukwa regions lived shorter than those in other regions. Table - gives a summary of Life Expectancy at birth in all Mainland Regions as per 1978 and 1988 population census.

TABLE L: LIFE EXPECTANCY AT BIRTH BY SEX 1978 AND 1988 POPULATION CENSUS

REGION	1978 CENSUS		1988 CENSUS	
	MALE	FEMALE	MALE	FEMALE
Arusha	50	57	57	58
Coast	47	48	46	51
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
Morogoro	44	46	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	44	49	48	51
Mainland	49	50	49	51

Source: Health Statistics Abstract, 1994

INFANT AND UNDER FIVE MORTALITY RATES

According to Table L, both infant and Under Five Mortality Rates in Tanga Region tended to decline. For instance in 1975 Infant Mortality rate was 112, in 1985 it was 106 and in 1995 it dropped to 100. This implies that in Tanga region in every 1000 children 112 died in 1975, 106 died in 1985 and 100 died in 1995. These figures however, fall below the National average of 115/1000. Similarly, the U5 MR rates were 187 in 1995, 176 in 1985 and 166 in 1995.

TABLE L: INFANT AND UNDER FIVE MORTALITY RATES BY REGION

REGIONS	IMR			U5 MR		
	1975	1985	1995	1975	1985	1995
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	25	222	220
Iringa	152	130	111	257	220	187
Kagera	133	130	127	225	219	212
Kigoma	163	115	81	269	192	137
K/manjaro	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
Morogoro	140	125	112	236	211	189
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	133
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, 1996

MARTENAL MORTALITY

Martenal mortality especially when medical services are increasingly declining tends to be high. The reports available are not recent enough to reflect the true picture of the situation. Nevertheless, data in Table LII attempts to highlight the magnitude of Martenal Mortality in each region in 1992 - 1994. It is observed from the table, that Martenal Mortality rate for Tanga region was relatively high in 1994. It was above mortality rates of even poor regions such as Lindi, Coast,

Mtwara, Kigoma and Dodoma. Mortal mortality rate of Tanga region was 255 in 1992, dropped to 172 in 1993 but shot up again to 220 in 1994.

TABLE LI: MARTENAL MORTALITY RATE BY REGION FOR THREE CONSECUTIVE YEARS (1992-1994)

	MATERNAL MORTALITY RATE (MMR)		
	1992	1993	1994
Arusha	102	158	114
Coast	209	111	70
Dar es Salaam,	220	398	237
Dodoma	197	214	208
Iringa	311	321	276
Kagera	304	343	190
Kigoma	144	155	105
Kilimanjaro	126	46	107
Lindi	262	289	193
Mara	67	59	106
Mbeya	67	361	436
Morogoro	289	172	190
Mtwara	264	212	161
Mwanza	221	186	266
Rukwa	172	294	243
Ruvuma	225	189	186
Shinyanga	143	188	199
Singida	242	171	238
Tabora	151	185	130
Tanga	255	172	220

Source: Health Statistics Abstract, 1996

WATER SERVICES

Water improves the quality of life and it is one of the important inputs for productive activities such as agriculture and industry. The National Water Policy also states that every person should have an access to potable water at a distance of not more than 400 meters by the year 2002. This target can be achieved in Tanga region especially following the results of the research done between 1975 and 1976 which identified various water sources. The Research produced what is now called "Tanga Water Master Plan". The Tanga Water Master Plan (1975-1976) shows that the region has enough water for human, livestock, and industrial activities for many years to come. The region has enough water sources ranging from underground water, rivers such as Pangani, Ruvu, Soni, Mkulumuzi and Sigi. By 1995, the region had 85 water supply schemes (gravity and pump); 475 shallow wells fitted with hand pumps, 19 deep wells and 11 dams. What remains to be done is simply the exploitation of the existing water sources with a view to ensure that water reaches the people.

A total of 948,540 people, equivalent to 63.8% of the regional population are served with clear water. The percentage getting clean water dropped to 54.1 percent in 1996 mainly due to obsolete water supply pipes, breakdowns of water pumps, and lack of maintenance funds. It is reported that, about 48.3

percent of the rural population is supplied with clear water, while 90 percent of the urban population gets clean water. The percentage in the rural is still small and this requires more effort.

Fig. LIII: Type and number of water sources in Tanga region , 1995

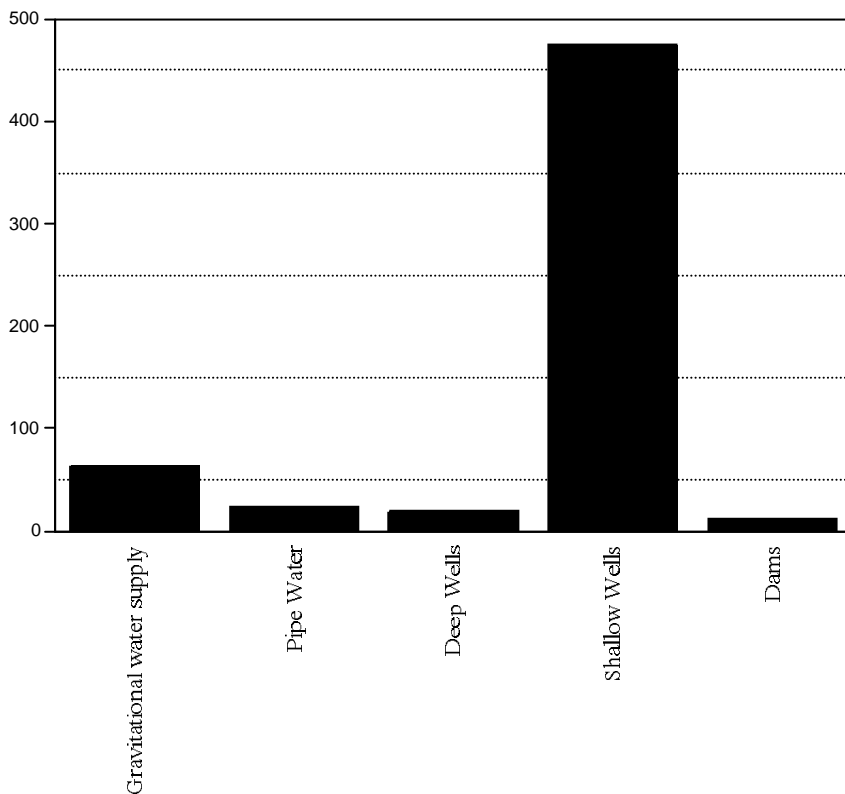


TABLE LIII: TYPE AND NUMBER OF WATER SOURCES IN TANGA REGION, 1995

TYPE OF WATER SOURCES	NUMBER OF WATER SOURCES
Gravitational Water Supply	63
Pipe Water	23
Deep Wells	19
Shallow Wells	475
Dams	11

Source: Regional Water Engineer, Tanga; 1996.

TABLE -LIV: WATER SERVICES DISTRIBUTION BY DISTRICT, 1995

District	Population (1995 Estimates)	Population Supplied with Water	(%)	Number of Villages in the District	Villages Supplied with Water
Tanga	222,825	183,137	82	23	17
Muheza	256,811	139,381	54	140	100
Pangani	41,450	21,057	51	23	20
Korogwe	246,310	119,733	49	132	53
Handeni	299,376	184,303	61	102	76
Lushoto	416,040	152,576	37	137	39
Total	1,482,812	800,187	54	557	305

Source: Tanga Regional Water Engineer, 1996.

According to table-, Lushoto district appears to have a smaller percentate of its population supplied with clear water, followed by Korogwe. Further observation on the table reveals that Muheza district with 140 villages managed to supply water to its 100 villages, while Lushoto district with 137 villages managed to supply water to only 39 villages. It was not mentioned clearly why water supply in Lushto district is poor.

Fig. LIV: Population (1995 est.) and population supplied with water by district, 1995

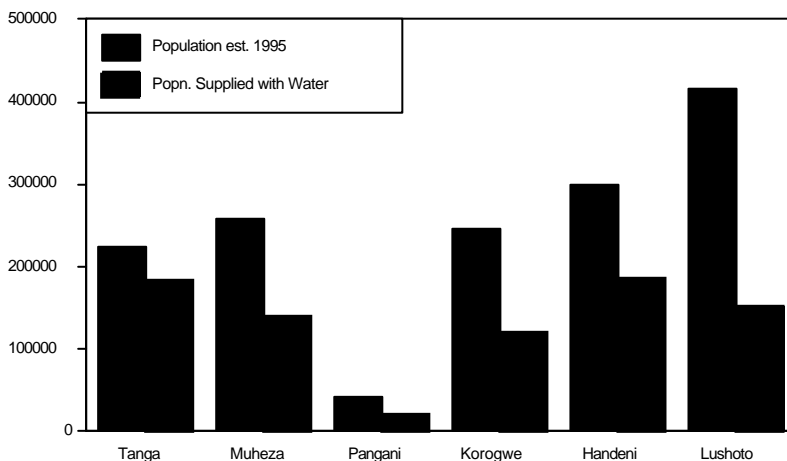


Fig. LIV: Percentage of population supplied with water by district, 1995

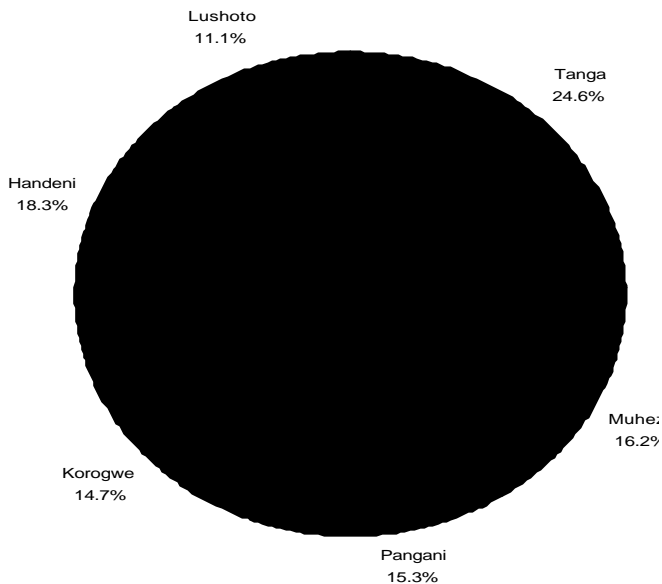


Fig. LIV: Number of the villages in the district and villages supplied with water, 1995

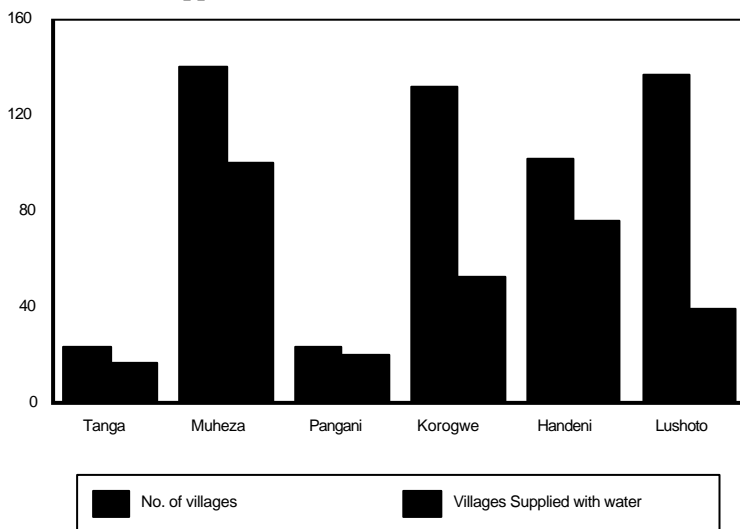


TABLE IV: PERCENTAGE DISTRIBUTION OF PRIVATE HOUSEHOLDS BY ACCESS TO DRINKABLE WATER BY REGION: 1988 CENSUS

REGIONS	PIPED WATER		WELL WATER		OTHER SUPPLY	
	WITHIN	OUT SHARED	WITHIN	OUT SHARED	WITHIN	OUT SHARED
Dodoma	17.6	14.1	36.6	19.3	6.8	5.4
Arusha	10.7	31.0	14.2	16.2	10.5	17.3
Kilimanjaro	18.3	39.8	5.2	6.9	23.9	0.8
Tanga	11.2	25.3	9.0	35.6	4.9	14.0
Morogoro	10.4	25.5	15.7	26.6	4.0	17.0
Coast	4.7	16.4	18.7	52.6	0.9	6.7
Dar es Salaam	26.2	59.9	4.3	9.1	0.2	0.2
Lindi	6.9	15.6	23.1	45.7	1.4	7.3
Mtwara	11.4	32.5	16.3	38.2	0.5	1.2
Ruvuma	4.6	16.4	15.0	54.5	0.8	8.7
Iringa	16.7	16.4	27.1	22.4	10.9	6.4
Mbeya	10.9	17.5	24.6	30.4	5.7	10.9
Tabora	4.6	10.3	26.2	55.7	0.7	2.5
Rukwa	3.2	22.1	7.9	43.4	1.5	21.9
Kagera	2.2	4.4	21.1	23.1	16.9	32.3
Singida	3.0	8.8	18.9	52.9	3.0	13.4
Kigoma	11.9	16.7	16.7	16.1	15.5	23.1
Shinyanga	4.7	6.1	24.1	42.2	8.8	14.0
Mwanza	3.4	12.4	20.8	51.0	3.7	8.7

Mara	3.1	10.8	17.4	53.4	3.5	11.8
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Source: 1988 Population Census (National Profile), The Population of Tanzania the Analytical Report.

Table - above shows the percentage distribution of private households according to access to drinkable water for Tanzania Mainland regions. Two features are noted in this table. The first feature observed is that the regions whose households have greater access to well water have less access to piped water. For instance, the proportion of households in Tabora region having access to well water is 81.9 percent, while the proportion having access to piped water is only 14.9 percent. The same applies to Singida, Coast, Kagera, Mara, Mwanza Ruvuma and Tanga.

TABLE LVI: PERCENTAGE DISTRIBUTION OF RURAL PRIVATE HOUSEHOLDS BY ACCESS TO DRINKABLE WATER 1988 CENSUS

REGIONS	PIPED WATER		WELL WATER		OTHER SUPPLY	
	WITHIN	OUT SHARED	WITHIN	OUT SHARED	WITHIN	OUT SHARED
Dodoma	14.0	9.8	41.0	21.5	7.6	5.9
Arusha	8.3	24.9	16.0	18.7	12.1	19.8
Kilimanjaro	16.5	34.7	6.2	7.8	7.0	27.8
Tanga	4.8	18.6	10.2	43.5	5.9	16.9
Morogoro	2.5	19.9	17.8	32.3	4.9	22.0
Coast	2.8	10.9	19.6	59.4	1.1	6.3
D'Salaam	8.1	26.2	20.4	44.1	0.8	0.4
Lindi	5.3	9.2	25.3	50.0	1.6	8.5
Mtwara	10.6	29.4	17.5	40.9	0.6	0.9
Ruvuma	1.1	13.2	16.5	58.5	0.8	10.1
Iringa	15.2	10.6	29.9	24.9	12.2	7.1
Mbeya	6.7	9.2	29.2	35.3	6.8	12.8
Tabora	0.9	2.3	29.6	63.3	0.8	3.0
Rukwa	0.3	0.4	91.9	7.4	0.0	0.0
Kagera	1.4	2.4	21.9	23.5	18.0	32.9
Singida	1.3	5.2	19.3	56.4	3.3	14.5
Kigoma	9.0	13.2	18.2	16.2	17.8	25.6
Shinyanga	1.5	4.1	30.3	46.9	5.8	11.3
Mwanza	0.6	3.4	24.2	57.2	4.7	9.9
Mara	1.3	3.7	19.2	58.7	4.0	13.1

Source: 1988 Population Census Analytical Report.

TABLE LVII: PERCENTAGE DISTRIBUTION OF URBAN PRIVATE HOUSEHOLDS BY ACCESS TO DRINKABLE WATER, 1988 CENSUS

REGIONS	PIPED WATER		WELL WATER		OTHER SUPPLY	
	WITHIN	OUT SHARED	WITHIN	OUT SHARED	WITHIN	OUT SHARED
Dodoma	44.8	46.3	3.7	3.3	0.3	1.3
Arusha	23.3	64.0	4.4	3.0	1.6	3.6
Kilimanjaro	26.6	63.5	0.9	2.4	0.6	6.0
Tanga	37.1	54.4	3.9	3.4	0.7	2.5
Morogoro	34.0	42.0	9.5	9.7	1.2	3.5
Coast	15.3	47.2	13.9	14.5	0.1	8.9
D'Salaam	28.3	63.8	2.5	5.1	0.1	0.2
Lindi	15.3	48.1	11.5	23.8	0.4	1.1
Mtwara	15.9	50.3	8.9	22.3	0.2	2.4
Ruvuma	25.8	36.0	6.3	30.2	0.9	0.8
Iringa	29.2	63.9	4.4	1.6	0.3	0.6
Mbeya	27.5	49.7	6.9	11.3	1.3	3.2
Tabora	22.3	48.1	9.7	19.4	0.4	0.1
Rukwa	18.9	40.0	3.6	31.0	0.0	6.4
Kagera	15.4	35.5	8.6	17.1	1.0	22.4
Singida	18.8	41.4	14.6	21.2	0.1	3.9
Kigoma	31.9	40.7	6.0	15.7	0.1	5.7
Shinyanga	28.2	35.1	7.0	22.2	3.0	4.6
Mwanza	12.8	42.5	9.3	30.1	0.4	4.9
Mara	13.5	53.3	7.0	21.8	0.5	3.9

Source: 1988 Population Census Analytical Report

ENVIRONMENTAL SANITATION

The availability of toilet facilities is an important aspect in environmental sanitation. Tables LVIII show the percent distribution of private households with access to and the type of toilet at the disposal of the household. According to the table, there are several observations to be made. First, there is a higher proportion of households with access to pit latrines in the country. The proportions of households using pit latrines in Tanzania are 84.3 and 85.3 percent for rural areas respectively. Second, the proportion of households using flush toilet is higher in urban centres than in rural areas. The trend is similar even in Tanga region. About 16 percent of the households used flush toilets in Tanga urban compared to only 0.8 percent in Tanga Rural.

TABLE LVIII: PERCENTAGE DISTRIBUTION OF PRIVATE HOUSEHOLDS BY TYPE OF TOILET; 1988 CENSUS

REGIONS	RURAL			URBAN		
	Flush	Pit Latrines	None	Flush	Pit Latrines	None
Dodoma	0.6	81.0	18.2	16.5	78.6	4.2
Arusha	1.2	65.9	32.8	18.4	79.5	2.0
Kilimanjaro	2.7	92.5	4.5	24.4	71.3	4.3
Tanga	0.8	80.8	18.3	16.2	79.2	4.5
Morogoro	1.3	88.6	9.5	12.7	84.8	2.5
Coast	0.9	76.1	23.0	4.8	88.3	6.7
D'Salaam	3.8	80.9	15.2	15.9	83.1	1.0
Lindi	0.6	77.2	22.2	4.7	85.0	10.3
Mtwara	1.0	84.2	14.8	7.4	86.1	6.6
Ruvuma	1.3	95.4	3.2	4.0	94.7	1.3
Iringa	0.9	97.1	2.0	4.0	94.9	1.1
Mbeya	1.4	94.3	4.4	6.1	91.8	2.1
Tabora	0.7	91.9	7.4	9.1	89.5	1.5
Rukwa	0.5	73.2	26.3	4.2	92.4	3.4
Kagera	0.5	86.6	12.9	13.0	81.4	5.7
Singida	0.9	78.6	20.5	7.0	87.6	5.5
Kigoma	0.7	94.1	5.2	5.3	91.9	2.8
Shinyanga	1.0	84.3	14.7	16.1	79.4	4.6

Mwanza	0.6	86.9	12.4	11.9	80.7	7.3
Mara	0.8	76.0	23.2	9.0	85.0	6.0

Source: 1988 Population Census Analytical Report.

SECTION V

DEVELOPMENT POTENTIALS AND PROSPECTS

Agriculture:

Land is abundant. There is an arable land of 1,700,000ha. of which only 463,000 ha. (26.4%) are under cultivation. The climate and soils of Tanga region also favour all types of crops/fruits (with the exception of wheat and pyrethrum). With the estimated population of 1,500,000 (1995 estimates) people, there is enough labour and market for further agricultural expansion.

Food Crops:

i) Maize

Maize is the main staple food in Tanga region. Maize can grow almost in all areas of the region, although Usambara Highlands provide best yields due to its favourable climate. However, due to land scarcity in the Usambara Highlands, it is recommended that further maize production should be geared mostly at

increasing maize productivity rather than farm expansions. Improvements in productivity can be done using hybrid seeds complemented by inputs such as fertilizers. For ecological reasons, it is recommended that the area under maize should not be expanded in Lushoto District. Due to risks involved (e.g. drought) in maize production in the districts of Handeni and Korogwe, large scale farming, where tractor cultivation is employed is highly recommended. Large scale farmers can better bear the risks of poor harvest caused by drought than small scale farmers.

ii) **Cassava**

Cassava as a crop grows well in most parts of the region, although, its expanded growth is hampered by both the "Mosaic Virus" and the wild pigs. Cassava is a drought resistant crop and it is a major food relief during famines. The big advantage of the crop lies in its relative independence from seasonal factors. Thus, it is recommended for further growth in east and central Handeni, the drier plains of Korogwe, Pangani and certain parts of Muheza.

iii) **Banana**

If developed scientifically, bananas could provide a greater portion of the region's requirements of carbohydrates. The efforts to increase banana production should be concentrated in

the Lushoto Highlands. The small pockets for banana production in Handeni and Korogwe which can be found in some river valleys should be made to reach higher productivities and output. The greatest effects on yields can be achieved through the use of selected suckers, proper spacing (especially where interplanted with coffee), pruning and mulching, i.e. mainly through better labour input for improved crop husbandry.

iv) **Rice**

Main emphasis of supporting rice activities will be on an intensification on the given hectareage; the provision of improved seeds, improvements in the irrigation devices and, where feasible, fertilizer application should be aimed at. Additional areas should be put under irrigation and rice should be a priority crop for North Lushoto and the River Valley of Korogwe, Muheza and Pangani.

v) **Vegetables**

The potential of the Lushoto District for vegetable growing should be further exploited. Farmers be advised on growing techniques (plant protection, fertilizer application) and improved irrigation methods. Production should not only be increased but it should also be seasonally better balanced and aiming at higher quality than at present. In the other areas,

vegetables production should be encouraged mainly for subsistence consumption to improve the diet of the local population.

vi) **Sorghum**

The crop, due to its relative great drought resistance deserves priority as food especially for Handeni, Korogwe as well as in some parts of Lushoto and Muheza. Sorghum potential lies in Handeni and Korogwe mainly.

Cash Crops:

i) **Cashewnuts**

Production of cashewnuts should be given greater emphasis in the inland instead of the coastal strip. Muheza dry zone and the lower areas of Korogwe as well as most parts of Handeni have a potential for the crop.

ii) **Cardamon**

Tanga is the only region in Tanzania where the crop has developed so favorably. Cardamon is now the most important income earner for smallholder farmers. The main

risk of this crop lies in a fairly uncertain world market developments and drying techniques to which quality depends.

The programme which started in Korogwe of establishing drying kilns should continue if quality cardamon is to be produced. The potential for a planned hectarage extension in the Nguru Mountains should be examined as well.

iii) **Sea Weed (Mwani)**

It is a newly introduced crop (sea weed) grown in the shallow waters of Tanga coastal belt. Currently, it is grown mostly by small holder farmers. Future prospects are high if large scale farming is undertaken and farmers get training on better sea weed farming.

7.1.2 **Livestock**

As in the Agriculture sector, land for grazing is also abundant, (130,353 ha. which is equivalent to 5% of the total land). However, emphasis in livestock development should be put on intensification rather than on increase of the numbers of stock. This applies in particular to cattle, goats and sheep. A further growth of the herds would have harmful consequences for the ecological balance. Since no increase in the number of animals is desirable the main attention should be given to improved husbandry, to grazing methods which are not harmful to the ecology and to the introduction of improved

stock. The provision of improved water supply and more efficient veterinary services to curb contagious diseases are other imperative measures.

c) **Other Natural Resources:**

i) **Bee-keeping**

In order to exploit the region's potential for honey and wax production, bee-keepers will need training to enable them to produce high quality honey and beeswax.

In addition, demonstration bee-keeping centers need to be established. Modern bee-hives will have to be used.

Honey and beeswax processing plant in Handeni should be rehabilitated and given regular maintenance.

ii) **Fisheries**

As a first step to increase the fish production it is useful to improve fishing methods already in existence. Shark nets and gill nets which have proved successful in the Tanga Region, should continue being used by fishermen.

However, it is not advisable to just increase the number of canoes with outboard engines because what matters at the end of the day is the effective fishing time. The increase in fish catch will only be possible by increasing

the effective fishing time, and this cannot be achieved with the small vessels with low speed because most of the fish is likely to be spoiled before arriving in port. What is needed is to find the most appropriate means to increase the marine fish production in a more economic way. This task can only be achieved by introducing modern fishing vessels able to operate further off-shore, beyond the reefs, and to remain at sea for a period of at least 24 hours. The vessels have to be big enough to accommodate a crew of 3 to 4 and they have to have a proper fish hold, insulated, with ice and/or refrigeration to keep the fish in fresh condition. A suitable type of vessel would be a 15m long boat that can operate up to about 50 nautical miles offshore.

iii) **Forestry**

The ecological balance in the Usambara Mountains has been severely disturbed, particularly as a consequence of cutting of forests to clear land for cultivation. In view of the great importance of the area for water catchment it is urgently required to tackle this problem effectively and immediately. Thus, it is an area able people should come forward and invest. The abundance of hard and soft timber in the region should also be an added incentive to attract investors.

d) **Industrial Activities (Agro-Industries)**

The full processing of agricultural products and the increase of value added are one of the main aims to achieve self-sustained growth even on the regional level.

But the establishment of agro-industries mostly depends on the possibilities of guaranteeing a sufficient supply of agricultural products. For the moment agro-industrial combines based upon the following crops (cassava, coconuts, coffee, sisal, tea, and fruits) seem to be worthwhile to be investigated more closely. Animal husbandry in a very limited scope, might be another basis of future industries. Fish production is likely to remain too small for the foreseeable future to be a feasible basis for a processing industry.

Tanga region is one of the main center of the forestry industry in the country and has a substantial number of saw-mills, but a considerably higher value added could be achieved in the region by shifting emphasis more in the direction of producing end-products with a high element of manufacturing (like furniture). On the whole Tanga region, still stands a better chance for Industrial development given the mining and Agricultural potentials.

e) **Tourism:**

Compared with more attractive tourist areas in other parts of the country, Tanga region is said to possess only some limited development potential in the field of tourism. Therefore, it would not be worthwhile to embark on any ambitious tourist development programme in the near future. However, some modest tourism, mainly into the cool and scenically Usambara Mountains, could possibly be attracted as a side-effect of the big tourist boom in and around Mombasa, if a special promotion for such excursions was made. Also, the creation of a Marine National Park around Maziwi Island near Pangani which has long been contemplated should be realized, and the fine beach around Pangani should be improved and made a minor tourist center. The area of Mkomazi Game Reserve lying within Tanga Region could also gradually be opened up for limited tourism and game-viewing, just like the adjoining part of this Reserve in Kilimanjaro Region.

Existing minor attractions like Amboni Caves and Tongoni ruins need to be preserved and the coastal reefs with their corals and fish life should be protected against the growing dangers of dynamite fishing which is

destroying the whole ecology of the coastal waters. The communication infrastructure is fairly good. Road network connects the Region with neighboring Country of Kenya and Kilimanjaro, Arusha, Morogoro, Coast, Dar es Salaam and Dodoma regions, and all six districts. The same applies to railway line (with exception of Pangani and Lushoto district). Tanga port connects the region with the rest of the world through water vessels, while the Airport facilitates further the means of transport.

f) Mining:

Mining sector in Tanga region is not well pronounced but the potential is there. Mineral deposits are found in almost all districts, although they are mostly gemstones and precious stones. Mineral deposits are distributed in respective districts as shown in Table XXII.

g) Education:

By the end of 1995 the region had 678 primary schools, with total enrolment of 220,215 pupils. Secondary schools were 41, while Vocational Training Centers were 3 namely, Cofu, Magamba and Eckenforde. The region still possesses a lot of

potentials for investment in primary, secondary and Vocational Education facilities.

h) **Health:**

The region has only 9 private Hospitals and mostly located in Tanga Municipality. Apart from having a Missionary hospital in Muheza, Lushoto, Handeni and Tanga, the region still needs more investments in health facilities in both Rural and urban centers. Another possible investment opportunity includes, Pharmacy shops, especially in the rural areas.

i) **Water:**

Though Regional population receiving regular water supply stood at 54.1% by 1995, we still consider the percentage to be too low and this calls for further investment by the private sector in water sector. Private people should come forward and assist the government in water provision.

ANNEX

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><u>LOCATION:</u> At the border of Arusha & Mara Region, about 32 km from Arusha town</p> <p><u>AREA SIZE:</u> 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><u>MAJOR ATTRACTIONS:</u> 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><u>LOCATION:</u> Some 125 Kilometres South West of Arusha town. It was officially established and gazzetted as a National Park in 1960.</p> <p><u>AREA:</u> Lake Manyara National Park covers a total area of 320 square kilometres, 230 kilometres constituting Lake Manyara itself.</p> <p><u>MAJOR ATTRACTIONS:</u> 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><u>LOCATION:</u> South of Arusha town along the Dodoma Highway. It was established in 1970.</p> <p><u>AREA:</u> Tarangire National Park covers some 2,600 Square kilometres.</p> <p><u>MAJOR ATTRACTIONS:</u> Tree climbing pythons, zebra, kongoni, elephant, buffalo, waterbuck, gazettes and oryx.</p>

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

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

<p>(x) MAHALE NATIONAL PARK</p>	<p><u>LOCATION</u> Located some 120 south of Kigoma town along the shores of lake Tanganyika, Mahale National Park is yet another attraction in Tanzania's Natural Heritages.</p> <p><u>AREA:</u> Mahale nation Park has about 1,613 square kilometres and was gazetted 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 commissioned 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>

