

TABORA REGION SOCIO-ECONOMIC PROFILE



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TABORA

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

Nassoro W. Malocho (MP)

MINISTER OF STATE

PLANNING AND PARASTATAL SECTOR REFORM

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SECTION I

1.0 LAND, PEOPLE AND CLIMATE

1.1 Geographical Location

Tabora Region is located in Mid-Western part of Tanzania on the central plateau between latitude 4^{0} - 7^{0} South and longitude 31^{0} - 34^{0} East. The region shares a border with Shinyanga region in the North, Singida region in the East, Mbeya and Rukwa regions in the South while the Western border is shared with Kigoma region.

1.2 Land Area

Tabora region has an area of 76,151 sq.km. representing 9% of the land area of Mainland Tanzania. A total of 34,698 sq.km. are Forest Reserves and 17,122 sq.km. are Game Reserves.

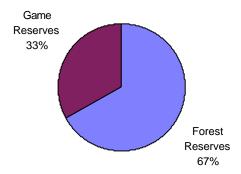


Fig. 1 Land classification in Tabora region

1.3 Topography and Drainage:

- (i) Topography: The south west and north central portions of the region are divided by a watershed which runs from east to west. From the water-shed gently rolling country bisected by broad badly defined drainage lines (known as mbugas) drain to Ugalla River in the south west and the Igombe and later the Malagarasi River and Lake Sagara which form the western boundary of the region. In the north east, the topography is better defined but again the actual drainage line drain into Wembere River and its tributaries and eventually into lake Kitangiri. Most of the region lies at altitude between 1,000 and 1,500 metres with only two small areas in the northwest and south-east rising to some 1,800 metres above sea level.
- (ii) Drainage: Tabora region is drained by the two river systems of the Malagarasi and the Manonga Wembere. The Malagarasi drains the southern and western part of the region into Lake Tanganyika and out into the Atlantic. The Manonga drains into the inland Lake Eyasi.

The extensive Malagarasi swamp covers the extreme western part of the region. The sedimentary Bukoba formation forms a dominant ridge line which block the drainage to the west resulting in the swampy lowland and broad Mbuga filled valleys which penetrates deeply into the south - central area of the region.

The flat low-lying areas are significant from hydrogeologic point of view. They are flooded during the rainy season and potentially water logged during the rest of the year. Most of the rivers are dry river beds during the dry season and even during the rainy season the rivers fill the bank or overflow during a very short period and recede rapidly.

The main cause of these short peaks is the vegetation type of the region. Much of the miombo forest floor is bare of vegetative cover. The rainfall runs off the bare surface and very little water infiltrates into the subsurface soils.

1.4 Climate, Soils and Vegetation

Tabora Region has a warm climate with temperatures reaching their peak in September - October just before the onset of the rainy season. The daily mean temperature is around 23°C. There is a slightly cooler period from May to July, marked by onset of dry winds which continue until October. Rainfall is seasonal, falling almost from June to October during which occasional showers can be expected. In the West the rainfall totals over 1000 mm, while in the east it drops to 700 mm or less.

Soil vary widely, ranging from sandy loam's in the South Centres and West to heavy (black/dark brown) soils in poorly drained areas especially in the North of the region. Vegetation consists of upland vegetation which include woodland, bushland thicket, grassland; lowland or wetland vegetation consisting of wooded grassland and swamps. Woodland is the natural vegetation over most of the region and can be divided into two groups: Miombo woodland and Acacia, Cambretum and Albizia species. Bushland and bushed grassland considered to be a degraded form of a number of different vegetation types which have been cleared, browsed and selectively grazed for many years are the most

widespread types in the North East. Large areas are covered by "thorn-thicket" which is especially extensive on the lowland bordering the Manonga and Wembere valleys. A dense, impenetrable deciduous thicket of multi-stemmed shrubs known as Itigi thicket, occurs in the east of the region. Wooded grassland is found in mbuga and consists of tall coarse grasses with less than 50% of trees while grassland is found in the wetter mbugas which are invariably flooded for long periods during the wet season within areas of wooded grassland and on the edges of swamp vegetation.

1.5 Agro - Economic Zones:

Tabora region which is reasonably homogenous regarding topography and temperature has major ecological differences which if combined with other factors can be divided into five Economic Zones as follows.

- Western Fringe Zone: This area which follows the Western and South-Western boundary of the region has a high rainfall of over 1000mm, is sparsely populated and varies in elevation from 1000 to 1500 metres. It is characterized by mainly flat and featureless topography with the area gradually sloping away to the river flood plains in the west and south adjacent to the Ugalla and Malagarasi Rivers and Lake Sagara.

Soils vary from reddish sandy loams on the top of the ridges through grey sandy loams down to heavy black alluvial soils on the flood plains. The vegetation on the better drained areas is composed of Brachystegia - Jubernadia woodland with an undercover of grassland composed mainly of Hyperrhenia with Echinocloa on the river and lake edges. It is an area of great potential butter development has been limited by the low population level as a result of the presence of tsetsefly and poor road communication.

The cropping pattern is characterized by subsistence crops such as maize, cassava, beans, tobacco and paddy being grown in the wetter areas. Cattle population is low due to the presence of tsetsefly. Fishing is concentrated on Lake Sagara.

The Miombo Zone: This zone is the most extensive in the region and covers about 6,000,000ha. Rainfall varies from some 700 mm in the East to over 1000 mm in the West. Most of the zone is gently undulating with occasional granite hills emerging from the ridges, and low swampy depressions forming the drainage lines between the ridges. Elevation is generally between 1000 - 1500 metres with some areas on the eastern border of the Zone rising to 1800 metres.

Soils on the upper slopes are mainly red brown sandy loams underlain by light sandy clays while soils in the lower slopes are drained dark grey sandy loams with black clays in the depressions. The dominant trees are Brachystegia and Jubernadia with underlying grass cover

of <u>Hyperrhenia</u>. The soils are of medium fertility when first cleared of woodland but both structure and fertility decline under cropping.

Cropping is largely confined to tobacco, maize, cassava and beans with paddy being grown in "mbugas". Saw-milling (of indigenous species) and extensive beekeeping are features of non-settled areas.

The North East Zone: This zone is located in the North-East corner of the region bordering on the Manonga River to the North and Wembere plains in the East. Rainfall is between 700 mm in the East to 850 mm in the West. The zone covers an area of about 350,000 ha. The topography is gently rolling with poorly defined drainage lines. There is a low escarpment in the North where the plain falls to the area adjacent to Manonga Valley. This zone is densely populated mainly due to immigration from the more densely settled regions to the North.

Soils are mainly black clays or clay loams (black cotton soils) which make the zone an important cotton growing area with maize and sorghum being grown as food crops. There is very large cattle population and cattle are extensively used for ploughing.

East Central Zone: The zone is in the North East of the region between the North East Zone and the Miombo Zone and includes the Wembere Plains. It is an area with more incised drainage than the rest of the region with the exception of the area extreme East which is the flood plain

of the Wembere River. Altitude varies from 1000 to 1800 metres and rainfall from 500 mm to 800 mm.

Vegetation and soils are mixed in the Western portion of the zone. The soils are sandy loams with the vegetation consisting of belts of Miombo Woodlands interspersed with <u>Cambretum</u> bush. To the East, <u>Acacia</u> species become dominant on the heavier soils, while the Wembere plains consist of grassland with small area of Acacia. The zone has pockets of tsetsefly infestation.

Cropping is confined to cotton, maize, sorghum, groundnuts and cassava. The north of the zone has a large cattle population with the Wembere plains being extensively used for dry season grazing.

The North West Zone: This zone is situated on the North, West of North East Zone. The topography is gently rolling with broad "mbugas". The rainfall varies from 700 mm to 1000 mm and altitude from 1000 to 1500 metres.

The soils vary from dark clays in the mbugas to light sandy soils on the ridges. Natural vegetation has largely been cut out but there are broad belts of scrub <u>Cambretum</u> on the poorer soils. Crops are paddy, maize, groundnuts and some cotton. This zone has a large cattle population.

1.6 Administrative Units

Tabora region which before 1996 was divided into four administrative districts of Igunga, Nzega, Tabora and Urambo has been reorganized into five administrative districts. Sikonge is the

newly established district excised from Tabora district. The districts are divided into 18 Divisions which in turn are Subdivided into 133 wards comprising a total of 455 villages.

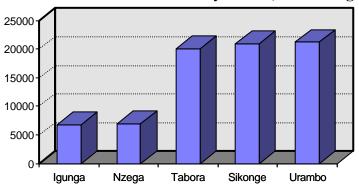
TABLE I-1: AREA AND ADMINISTRATIVE STRUCTURE OF TABORA REGION

District	Area	%	Number of			
	Km ²		Divisions	Wards	Villages	
Igunga	6788	8.9	4	26	96	
Nzega	6961	9.1	4	37	131	
Tabora	*20104	26.4	4	36	106	
Sikonge	*21000	27.6	2	8	31	
Urambo	21299	28.8	4	26	91	
Total Region	76151	100.0	18	133	455	

*Estimates

Source: Regional Brief (1997)

Fig. 2: Distribution of Area in Km² by district, Tabora region



1.7 Ethnicity

The name Tabora originated from Matoborwa meaning sweet potatoes which was a staple food for Nyamwezi people who form large population of Tabora. Visitors could not pronounce the word Matoborwa instead they called it Tobora which later on came to be known as Tabora.

The name Nyamwezi also came into history around 1830 after formation of Kahama town which is also occupied by Nyamwezi people. As people were travelling to and from Kahama Arabs used to ask them, "where were they going or coming from." The answer was "Unyamwezini" meaning a place where the moon rises.

1.8 Population Characteristics

1.8.1 Size, Distribution and Growth:

The population size of Tabora Region is recorded in the 1967, 1978 and 1988 population censuses as shown in Table I -2 which includes the densities of the population per square kilometres in respective years.

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

Year	1967	1978	1988	Annual Ave	rage Growth
				1967/1978	1978/1988
Population	502,068	817,907	1,036,293	4.5	2.4
Population	6.6	10.7	13.6	-	-
Density					

Source: Compiled from Population Censuses 1967, 1978 and 1988

Fig. 3 (a): Population of Tabora Region, 1967, 1978 and 1988

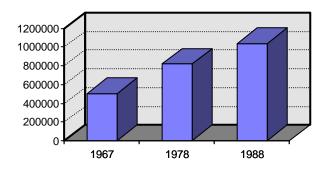
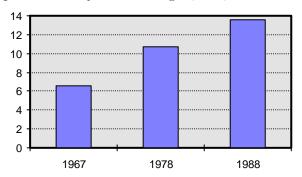


Fig. 3 (b): Population Density of Tabora Region, 1967, 1978 and 1988



The population of Tabora Region increased by 63% between 1967 and 1978 and more than 26% between 1978 and 1988.

However in order to get a proper picture, the region's population and density has to be matched against other regions in Tanzania Mainland. The picture which emerges from Table I - 3 below show that although Tabora Region is the second largest region in the country, next to Arusha Region, the population density is only 14 people per sq.km. in 1988 far below the national average.

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

	LAND AREA		POPULATIO	POPULATIO			
REGION	SQ.KM.	POPULATION	N DENSITY	N AS % OF			
			PER SQ.KM.	MAINLAND			

TABORA	76,120	1,036,294	14.0	4.6
Arusha	82,098	1,352,225	16.5	6.0
Dodoma	41,311	1,235,277	30.0	5.5
Iringa	56,850	1,193,074	21.3	5,3
Kilimanjaro	13,309	1,108,699	83.7	4.9
Kagera	28,456	1,313,639	46.6	5.8
Kigoma	37,040	853,263	23.1	3.1
Lindi	67,000	646,345	9.6	2.9
Mwanza	20,095	1,878,271	93.5	8.4
Morogoro	70,799	1,222,737	17.0	5.4
Mbeya	60,350	1,476,261	24.0	6.6
Mara	21,760	952,616	43.7	4.2
Mtwara	16,710	875,977	53.2	4.0
Coast/DSM	33,800	1,998,865	59.1	8.9
Ruvuma	66,477	783,327	12.0	3.5
Rukwa	68,635	704,050	10.1	3.1
Singida	49,341	791,814	16.0	3.5
Shinyanga	50,760	1,763,960	34.9	7.9
Tanga	26,677	1,280,262	48.1	5.7
Total	887,588	22,466,955	25.3	100.0
Mainland	22.,200	==, : = =,> = =	3010	

Fig. 4 (a): Distribution of land area (sq.km.) of Tabora Region to the Total Mainland

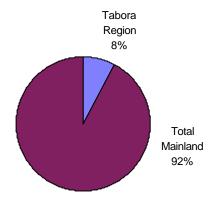


Fig. 4 (b): Distribution of population of Tabora Region to the Total Mainland, 1988

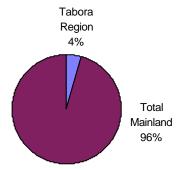
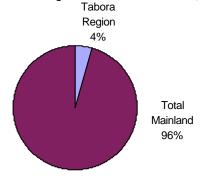


Fig. 4 (c): Distribution of population as percentage for Tabora Region to the Total Mainland, 1988



Population distribution in the region is uneven e.g. Tabora and Urambo Districts which cover about 82% of the regions area have only 8 people per sq.km. as compared to Igunga and Nzega Districts which cover a total of 18% of the regions area and have 30 and 42 people per sq.km. respectively as shown in Table I - 4. The population densities of the districts in Tabora region reveal that there is already a mounting land pressure in Igunga and Nzega districts (increasing population and livestock densities) which call for serious concern in future compared to other districts.

TABLE I - 4: POPULATION DISTRIBUTION BY SEX AND DENSITY DISTRICTWISE, TABORA REGION, 1988

DISTRICT	POPULATION				LAND	AREA	POPULATION DENSITY PERS- ONS/KM ²
	MALE	FEMALE	TOTAL	%	Sq.Km	%	
Igunga		103,243		19.6	6,788	8.9	29.9
Nzega	99,854	151,130	203,097	28.5	6,961	9.1	42.5
*Tabora	144,483	176,754	205 612	33.8	41,103	54.0	8.5
Urambo	173,393	95,503	295,613	18.1	21,299	28.0	8.8
	91,933		350.147				
			187,436				
Total Region	509,663	526,630	1,036,293	100.0	76,151	100.0	13.6

*Includes Sikonge District

Source: Population Census, Regional Profile 1988



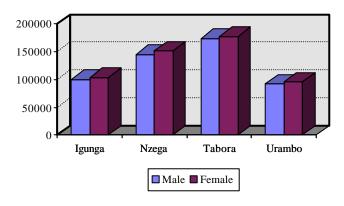


Table I - 5 reveals that during 1967/78 Tabora region had high annual population growth rate of 4.5% compared to 3.2% of Mainland. When compared to subsequent ten years of 1978/88 the rate had gone down to 2.4% compared to 2.8 of Mainland.

TABLE I -5: ANNUAL POPULATION GROWTH BY DISTRICTS 1967/78, 1978/1988, TABORA REGION

DISTRICT		POPULATION	ANNUAL POPULATION GROWTH		
	1967	1978	1988	1967/78	1978/88
Igunga	302,017	189,475	203,097		0.7
				na	
Nzega		225,001	295,613		2.8
Tabora (R)	200,051	186,939	256,641		3.4
Urambo		149,104	187,436	na	2.3
Tabora(U)		67,388	93,506		3.3
Total Region	502,068	817,907	1,036,293	4.5	2.4

Source: Population Censuses 1967, 1978 and 1988.

TABLE I - 6: POPULATION AND POPULATION GROWTH BY REGIONS 1978 AND 1988

REGION	POPU	LATION	ANNUAL	GROWTH
	1978	1988	1967/78	1978/88
Tabora	817,907	1,036,293	4.5	2.4
Arusha	926,223	1,352,225	3.8	3.7
Dodoma	972,005	1,235,277	2.9	2.4
Iringa	925,044	1,193,074	2.7	2.7
Kilimanjaro	902,437	1,108,699	2.9	2.1
Kagera	1,009,767	1,313,639	3.9	2.7
Kigoma	648,941	853,263	2.9	2.7
Lindi	527,624	642,364	2.1	2.0
Mwanza	1,443,379	1,878,271	2.8	2.6
Morogoro	939,264	1,279,931	2.9	2.6
Mbeya	1,079,864	1,476,261	3.3	3.1
Mara	723,827	952,616	2.6	2.9
Mtwara	771,818	875,583	2.0	1.4
Dar es Salaam	843,090	1,360,850	7.8	4.7
Ruvuma	561,575	783,327	3.2	3.3
Rukwa	451,897	704,050	4.5	4.2
Singida	617,949	791,814	2.7	2.5
Shinyanga	1,323,535	1,763,960	3.5	2.9
Tanga	1,037,767	1,280,262	2.7	2.1
Coast	516,586	639,182	1.7	2.1
Total Mainland	17,036,499	22,474,580	3.2	2.8

1.8.2 Sex, Households and Age Groups:

Distribution of the population between sexes in 1988 census gives a regional average sex ratio of 97. This means that for every 100 females there are 97 males or there are a lot more women compared to men. Nzega and Urambo districts showed the biggest disparity in a number between the sexes in the region as compared to Tabora Urban. See Table I - 7

TABLE I - 7: POPULATION DISTRIBUTION BY SEX - 1988 TABORA REGION

District	Male	Female	Total	Sex Ratio
Igunga	99,854	103,243	203,097	96.7
Nzega	144,483	151,130	295,613	95.6
Tabora (R)	126,681	129,960	256,641	97.5
Urambo	91,933	95,503	187,436	96.3
Tabora (U)	46,712	46,794	93,506	99.8
Total Region	509,663	526,630	1,036,293	96.7

Source: Population Census, Regional Profile 1988

Fig.6: Population Distribution by District and Sex, Tabora Region, 1988

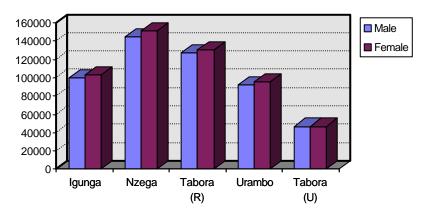


Table I - 8 show a different situation with respect to 1978 census. While the regional average sex ratio remained essentially the same, District sex ratios varied greatly. Tabora district, both rural and urban showed more men than women. Thus while the sex ratio for Tabora rural was 100.1, it was 101.7 for Tabora urban or 100.6 for Tabora district as a whole.

TABLE I - 8 POPULATION DISTRIBUTION BY SEX - 1978

District	Male	Female	Total	Sex Ratio
Igunga	93,299	96,176	189,475	97.0
Nzega	109,149	115,852	225,001	94.2
Tabora (R)	93,561	93,378	186,939	100.1
Urambo	74,414	74,690	149,104	99.6
Tabora (U)	33,979	33,409	67,388	101.7
Total Region	404,402	413,505	817,907	97.8

Source: Population Census, Regional Profile 1978.

Fig.7: Population Distribution by District and Sex, Tabora Region, 1978

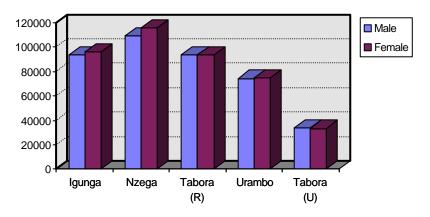


TABLE I - 9: POPULATION DISTRIBUTION BY SEX IN RURAL AND URBAN IN 1988, TABORA REGION

111.12 011111111111111111111111111111111									
DISTRICT		RURAL			URBAN				
	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL			
Igunga	95,694	98,796	194,490	4,160	4,447	8,607			
Nzega	134,692	140,449	275,141	9,791	10,681	20,472			
Tabora (R)	122,524	125,455	247,979	4,157	4,505	8,662			
Urambo	81,990	84,162	166,152	9,943	11,341	21,284			
Tabora (U)	221	229	450	46,491	46,565	93,056			
Total	435,121	449,091	884,212	74,542	77,539	152,081			
Region									

Source: Population Census, Regional Profile 1988

There are 180,129 households in Tabora Region with an average household size of 5.7 according to 1988 census. Igunga District had the highest size at 6.4 while Urambo and Tabora Urban had the lowest at 5.3. See Table I-10

TABLE I-10 POPULATION AND HOUSEHOLD SIZE BY DISTRICT - 1988 TABORA REGION

DISTRICT	TOTAL POPULATIO N	NUMBER OS HOUSEHOLDS	AVERAGE HOUSEHOLD SIZE
Igunga	203,097	31,793	6.4
Nzega	295,613	51,598	5.7
*Tabora (R)	256,641	44,224	5.9
Urambo	187,436	34,949	5.3
Tabora (U)	93,506	17,565	5.3
Total Region	1,036,293	180,129	5.7

*Includes Sikonge District.

Source: Population Census, 1988 - Regional Profile Tabora.

Table I-11 reveals the average household size for the urban areas to be 5.0 while that of rural area is 5.9. It is difficult to advance an explanation for the big difference in household size but one may attribute it to the low level of awareness on family planning in the rural areas as compared to urban areas.

TABLE 111 POPULATION AND HOUSEHOLD SIZE IN RURAL AND URBAN 1988, TABORA REGION

District	Population		trict Population No of Household				verage shold Size
	Rural Urban		Rural	Urban	Rural	Urban	
Igunga	194,490	8,607	9,884	1,903	6.5	4.5	
Nzega	275,141	20,472	47,041	4,557	5.8	4.5	
Tabora (R)	247,979	8,662	42,411	1,813	5.8	4.8	
Urambo	116,152	21,284	30,504	4,445	5.4	4.8	
Tabora (U)	450	93,056	81	17,484	5.6	5.4	
Total	884,212	152,081	49,921	30,202	5.9	5.0	
Region							

Fig. 8: Rural and Urban population orientation by District, Tabora Region, 1988

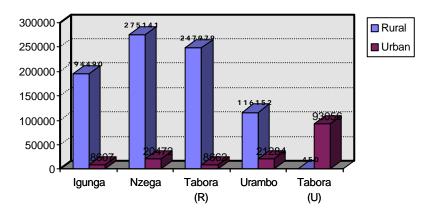


Table I-12 shows that in 1988 census there were more dependants than the working force, for while the working force represented 49.3% of the population, the dependant group represented 50.7%. In comparing with the 1978 census, the number of dependants was less than the working force. Thus while the working force was 51.2% of the total population the number of dependants was only 48.8%.

TABLE I-12 POPULATION AGE GROUPS BY DISTRICT 1988, TABORA REGION

DISTRICT		DEPENDENCY				
DISTRICT	0 - 4	5 - 14	15 - 44	45 - 64	65+	RATIO
Igunga	36,255	55,890	82,115	20,064	8,773	98.5
Nzega	49,079	84,194	115,795	33,160	13,385	98.3
Tabora (R)	44,555	76,768	92,697	27,965	14,656	113.4
Urambo	34,422	57,273	70,530	17,965	7,246	112.3
Tabora(U)	14,064	24,638	42,740	8,231	3,833	84.0
Total Region	178,375	298,763	403,877	107,385	47,893	102.9

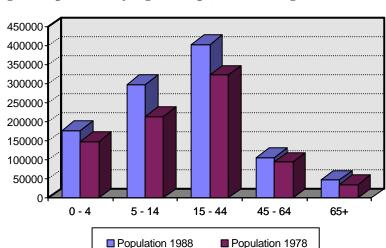


Fig. 9: Population by Age Groups, Tabora Region, 1978 and 1988

TABLE I-13 POPULATION AGE GROUPS BY DISTRICT 1978 TABORA REGION

DISTRICT	AGE GROUP					
	0 - 4 5 - 14 15 - 44 45 - 64 65 +					RATIO
Igunga	36,343	51,473	74,452	20,151	7,056	100.3
Nzega	39,435	60,847	86,943	27,807	9,969	96.1
Tabora (R)	33,135	48,056	71,020	23,882	10,846	97.2
Urambo	28,857	38,427	59,707	16,440	5,673	95.8
Tabora(U)	11,311	15,284	31,697	6,550	2,546	80.4
	149,081	214,087	323,819	94,830	36,090	95.4

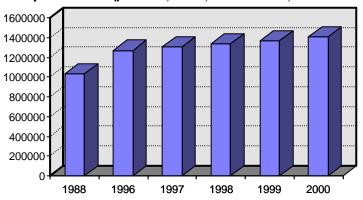
Source: Population Census, 1978

The comparison of the proportion of the dependant group among the districts show a significant difference. It ranges from 50.2% for Tabora Urban to 53% for Tabora Rural and Urambo districts respectively. The comparison of the proportion of the dependants group among districts in 1978 show no significant difference.

TABLE I-14 POPULATION PROJECTIONS BY DISTRICT, TABOR REGION

District	1988	1996	1997	1998	1999	2000
Igunga	203,097	215,225	216,759	218,303	219,859	221,425
Nzega	295,613	368,941	379,227	389,801	400,669	411,841
Tabora	256,641	341,788	353,431	365,472	377,923	390,797
(R)Urambo	187,436	224,514	229,737	235,083	240,552	246,149
Tabora (U)	93,506	120,302	124,239	128,304	132,503	136,839
TOTAL	1,036,293	1,270,770	1,303,393	1,336,963	1,371,506	1,407,051

Fig. 10: Population Projections, 1988, 1996 - 2000, Tabora Region



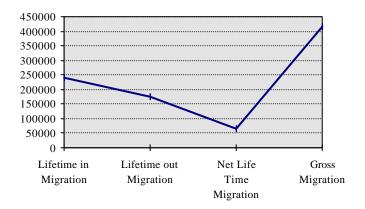
1.9 Migration and Employment

Migration can be a very significant factor in bringing a change in the population of an area. It is a form of geographic mobility involving a change of usual residence between clearly defined geographic units. Major reasons forcing people to migrate are search of new farming land, better pasture for livestock and a better life through employment opportunities. Lifetime In-migration stood at 241,729 while lifetime out migration was 175,359, this giving a net lifetime migration figure of 66,370. This positive net lifetime migration figure means that the region was receiving people from other parts of the country and in particular from Kigoma and Singida regions searching for employment opportunities in tobacco and cotton farms.

TABLE I-16 LIFE TIME MIGRATION BY REGION 1988, TANZANIA

Region	Lifetime in Migration	Lifetime Out Migration	Net Life Time Migration	Gross Migration
Tabora	241,729	175,359	66,370	417,088
Arusha	218,424	76,703	141,724	295,130
Dodoma	89,900	190,985	-101,085	280,885
Iringa	49,282	169,480	120,198	218,762
Kagera	103,713	109,693	-5,980	213,406
Kigoma	26,795	129,718	-102,923	156,513
Kilimanjaro	93,040	217,423	-124,383	310,463
Lindi	95,200	145,031	-49,831	240,231
Mara	75,982	115,865	-39,878	191,852
Morogoro	172,393	141,956	30,437	314,349
Mbeya	160,377	113,378	46,999	278,755
Mtwara	46,299	144,988	-98,689	191,287
Mwanza	270,142	303,646	-33,504	573,788
Dar es Salaam	651,246	150,625	500,621	801,871
Rukwa	87,599	49,294	38,305	136,898
Ruvuma	66,442	81,661	15,219	148,103
Singida	86,651	130,531	-63,880	237,182
Shinyanga	288,210	281,447	6,763	569,657
Tanga	98,747	150,915	-52,168	249,662
Coast	103,804	207,716	-103,912	311,520
Mainland	3,025,983	3,106,414	-80,431	6,132,397

Fig.11: Life Time Migration in Tabora Region, 1988 Census



The 1988 population census for Tabora Region indicated that about 884,000 people or 85.3% lives in rural areas (See Table I-11). Therefore one would expect the economically active population of Tabora region to be engaged in the agricultural sector. Table I-17 shows a general picture of employment status in Tabora for population aged 10 years and above in 1988.

The breakdown of population employed by type of occupation both rural and urban reveal that about 68.8% of the population were engaged in agricultural activities while 2.4% and 3.4% were engaged in industry and office work respectively. About 27% of the population had no employment, retired or were too old and therefore unable to work. Almost all type of occupation listed were dominated by males except in agriculture where females exceeded males.

TABLE 17: POPULATION 10 YEARS AND ABOVEBY SEX, DISTRICT AND OCCUPATION 1988

SEX		OCCUPATION					
DISTRICT	OFFICE WORK	AGRICU LTURAL WORK	INDUSTRY WORK	NOT EMP- LOYED	TOTAL		

Male:	Igunga	1,834	47,323	946	14,822	64,925
	Nzega	2,675	68,946	1,925	21,776	95,322
	Tabora	1,675	58,763	1,482	20,492	82,412
(R)		1,826	41,999	1,496	13,869	59,190
	Urambo	6,828	7,239	6,777	10,464	31,308
(II)	Tabora					
(U)						
7	Γotal	15,440	223,668	12,626	81,413	333,157
Female:	Igunga	1,441	52,237	311	16,192	70,181
	Nzega	1,476	68,251	544	33,461	103,732
	Tabora	971	62,561	347	22,553	86,432
(R)		756	46,607	396	15,118	62,877
	Urambo	3,556	13,707	2,152	15,256	34,671
	Tabora					
(U)						
	Total	8,200	243,363	3,750	102,580	353,893
Both sex	xes: Igunga	3,275	99,560	1,257	31,014	135,106
	Nzega	4,151	137,197	2,469	55,227	199,044
		3,248	120,722	1,829	43,045	168,844
Tabora(R)	2,582	88,606	1,892	28,987	122,067
	Urambo	10,384	20,946	8,929	25,720	65,979
Tabora((U)					
7	Γotal	23,640	467,031	16,376	183,993	691,050

Source: 1988 Population Census, Tabora Regional Profile

- Office Work for administrative, managerial professional, technical, clerical and sales work.
- Industry work: craftsmen, machine operators, small scale trades & labourers and other workers
- Not employed includes "not stated"

SECTION II

2.0 REGIONAL ECONOMY

2.1 Introduction:

The main economic activities of Tabora region are agricultural production and livestock keeping. About 90% of the population is engaged in agriculture and livestock keeping apart from other activities like beekeeping, fishing and lumbering. The region is estimated to have 2.4 million hectare of potentially cultivable land but only less than 20 per cent is under cultivation. Subsistence farming is the main form of farming. Food crop production of which maize is the leading staple food crop is mostly aimed at meeting the family's food requirements. Tobacco and cotton are the major cash crops.

Livestock keeping is the second predominant economic activity which if properly exploited can contribute significantly to the region's economy. The cattle population which is made up of indigeneous breed is kept as evidence of personal wealth and prestige in a traditional way. The natural forests which provide high qualilty hardwood for timber and fuelwood are also a source of beekeeping for honey, beeswax, and wildlife. Fishing potentials are not fully exploited and fishing activities are mainly confined to Lake Sagara and Ugalla Rivers. Industries, trade and mining activities are carried out at a small scale although commercial gold mining is under exploration.

2.2 Regional GDP and Per Capita GDP

The region's economy from the point of view of GDP earnings portrays a steady growth between 1980 and 1994. GDP earnings increased from Tshs.1,188 billion in 1980 to Tshs.55,012 billion in 1994. While the year 1987 recorded an exceptionally high increase of over 131 percent in GDP earnings compared to previous years, the year 1990 registered an exceptional drop of 17.6 per cent in GDP earnings. (See Table II-I) It is noted that the region's average contribution to the Nation's GDP between 1980 and 1994 had been 3%.

Table II-1 indicates that the region's per capita GDP at current prices over the 15 years (1980 - 1994) has been increasing steadly from Tshs. 1,386 in 1980 to Tsh. 44,984 in 1994 with only a drastic drop of 20% per cent in 1990. However when these per capita annual earnings are converted into USA dollars the picture changes. In the first six years (1980 - 1985) the population of Tabora region had a comparatively satisfactory purchasing power. The Sudden drop of the value of the T. Shilling in 1986 and onwards meant that in real terms the population in the region became poor and poorer.

TABLE II-1: THE GDP AND PER CAPITA GDP OF TABORA REGION AT CURRENT PRICES AND PERCENTAGE CHANGE 1980 - 1994

Year	GDP at Curren t Prices (Tsh. million	% Change	Po	er Capita (% Chang e	% Average contribut ion to national GDP	
			Tshs.	Excha-	USA		
				ngeRate	Dollars		
1980	1,188	-	1,386	8.22	169	-	
1981	1,491	25.5	1,698	8.35	203	22.5	
1982	1,894	27.0	2,106	9.52	221	24.0	
1983	2,039	7.6	2,215	12.44	178	5.2	
1984	2,352	15.3	2,494	18.16	137	12.6	
1985	3,199	36.0	3,313	16.50	201	32.8	
1986	3,886	21.5	3,930	51.70	76	18.6	
1987	9,003	131.5	8,891	83.70	106	126.2	
1988	16,292	81.0	15,760	125.00	126	77.2	
1989	26,521	62.8	24,945	192.00	130	53.3	
1990	21,859	-17.6	19,993	197.00	101	-20.0	
1991	27,934	27.8	24,843	234.00	106	24.7	
1992	34,090	22.0	29,481	335.00	88	18.7	
1993	42,584	24.9	35,810	480.00	75	21.5	
1994	55,012	29.2	44,984	553.00	81	25.6	

Source: National Accounts of Tanzania, 1976 - 1994 Bureau of Statistics

Fig. 12 (a): The GDP at current prices (million T.shs.), Tabora Region 1980 - 1994

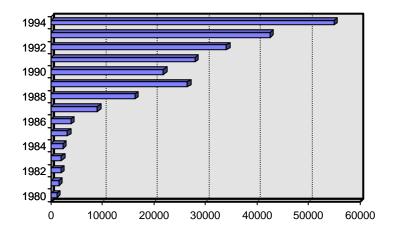
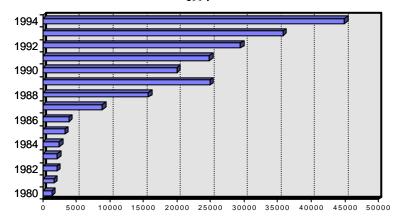


Fig. 12 (b): Per Capita GDP at Current Prices (Million T.shs.), Tabora Region 1980 - 1994



2.3 Productive Sectors

2.3.1 Agriculture

2.3.1.1 Introduction

Agriculture is the predominant economic sector in Tabora Region. It is dominated by smallholders organised in some 455 villages. The bulk of agricultural production come from smallholders who employ very little capital. The main inputs are labour and land. Despite the important role agriculture plays in the regional economy and development there is a great deal of unutilized potential. The region is estimated to have 2,400,000 hectares of potentially cultivable land but only about 500,000 hectares are under cultivation. Although the region is not rich in surface waters, it has over 100,000 hectares of potential irrigable land. The present irrigation system covers only about 700 hectares or 0.7% of the potential irrigable land area.

TABLE II-2 ARABLE LAND AREA, TABORA REGION

TYPE	HECTARES	%
Uncultivated land	1,943,280	80.97
Under rainfed Agriculture	456,000	19.00
Under Irrigation	720	0.03
TOTAL	2,400,000	100.0

Source: Regional Agricultural Office.

2.3.1.2 Food Crop Production

Major food crops produced in the region include maize, paddy, sorghum, cassava and beans.

TABLE II-3 FOOD CROP PRODUCTION IN TONNES 1987/88 - 1996/97, TABORA REGION

1990/97, TADOKA KEGION								
Year/Crop	Maize	Paddy	Sorghum	Cassava	Beans			

1987/88	126,100	32,490	32,160	70,360	9,230
1988/89	120,705	38,844	33,931	46,869	26,642
1989/90	146,314	53,363	49,463	80,251	4,413
1990/91	108,800	65,380	21,830	99,390	2,470
1991/92	75,163	28,857	41,710	54,328	8,325
1992/93	103,522	35,606	20,789	86,452	6,224
1993/94	107,717	13,051	17,000	59,128	4,876
1994/95	143,800	35,000	60,000	65,638	14,000
1995/96	216,580	45,977	40,761	28,200	23,000
1996/97	149,280	25,122	25,540	84,996	21,583

Sources: Regional Agricultural Office, Tabora Region.

2500000
2000000
1500000
1000000
500000

Maize
Paddy
Sorghum

Cassava

Beans

Fig. 13: Production trend of main food crops (maize, paddy, sorghum, cassava and beans), (in tonnes), Tabora Region 1987/88 - 1996/97

Maize

Maize is the leading grain crop in Tabora region and forms an important and desirable food crop with the highest per capita consumption rate in the local diet. Soils throughout the region are generally suitable for maize growing with the exception of the lowlying mbugas where drainage is poor and the sandy soils in the low rainfall eastern areas. The most serious constraint to maize production is the double threat of insufficient total rainfall and mid season dry spell.

Maize is produced on small scale farms by peasant farmers. Yields per unit area are generally poor due to low use of fertilizers and improved seeds, low plant population, excessive interplanting and in some areas unsuitable environmental conditions. Potential yields particularly in

Urambo, Tabora and Sikonge districts can be good with proper fertilization and improved cultivation practices. In TableII-3 one observes a gradual increase in maize production with little fluctuations in total production probably because of change in weather condition. However most of the maize production in the region is primarily a staple food for consumption and very little is sold outside the region.

Paddy

Paddy is one of the staple food grain in the region mainly grown in Areas of paddy growing are therefore limited to natural depressions (mbugas) where soils are usually quite fertile though heavier and relatively poorly drained. The water holding quality of the soils in the bogs makes it possible to maintain the water control necessary far paddy growth. These bogs occur throughout the region and seem to have similar soil characteristics within the depressions. Western Nzega is the centre of the most extensive land area suitable for paddy production and is on the 900 - 1000mm rainfall zone with ample precipitation for rice. cultivation e.g. land preparation, weeding, transplanting is by hand as is harvesting by sicle. The use of chemical fertilizers, pesticide and high yielding varieties like IRR is very limited. The average yield has been of the order of 800 kg. to 1700 kg/ha. Production of paddy, as in Table II-3 has shown a marked fluctuation due to various constraints which include the unreliability and in variability of rainfall to supply enough water required for paddy growing.

Sorghum/Millet

Traditionally sorghum/millet was extensively grown in the marginal rainfall areas of Northern Igunga and Nzega Districts before maize was introduced during colonial periods. The introduction of maize which was quickly accepted, however, rapidly replaced traditional sorghum/millet. Unfortunately this change has not always produced an increased amount of cereals since many marginal rainfall areas are better suited for drought resistant sorghum and millet than for maize. Fluctuations in the production of sorghum/millet as seen in Table II-3 have been caused by change of feeding habits of the population which prefer maize and rice to sorghum/millet and the unreliable market due to low demand locally and nationally.

Cassava

Cassava is a draought resistant crop which for many years has been a traditional food crop and has been treated as a "life saver" during drought and food shortage periods. Cassava can grow in almost all areas of Tabora region except in the North East Zone where soils are mainly black clays or clay loams (black cotton soils). In recent years the demand for cassava as food has declined due to change in taste for maize and rice.

Production figures for cassava for a period of ten years from 1987/88 to 1996/97 is illustrated in Table II-3

Legumes

Legumes are important traditional food crops in Tabora region with relatively high per capita consumption. One of the most popular leguminous crops is beans. Soils throughout the region are suitable for beans growing. Beans are always intercropped with maize or sorghum which traditionally has been a source of protein. Production of beans has been fluctuating as shown in Table II-3.

2.3.1.3 Cash Crop Production

Tobacco and cotton are the important cash crops in Tabora Region although groundnuts and sunflower have also been regarded as cash crops.

TABLE: II-4 CASH CROPS PRODUCTION IN TONNES - 1987/88 - 1996/97

Year/Crop	Tobacco	Cotton	Groundnut	Sunflower
1987/88	6,136	8,819	17,500	1,014
1988/89	6,300	6,318	20,493	1,799
1989/90	10,670	14,925	29,710	7,240
1990/91	10,970	14,057	15,599	7,840
1991/92	12,122	7,819	21,165	2,132
1992/93	14,443	5,151	17,150	245
1993/94	11,419	7,052	8,683	420
1994/95	17,175	11,904	50,273	576
1995/96	19,406	9,900	85,648	605
1996/97	25,671	6,028	11,874	788

Source: Regional Agricultural Office

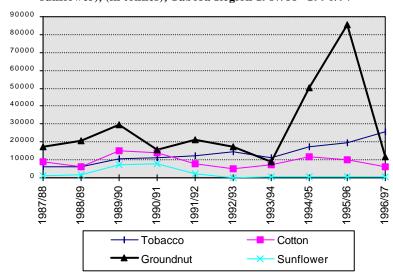


Fig. 14: Production trend of main cash crops (tobacco, cotton, grounnut and sunflower), (in tonnes), Tabora Region 1987/88 - 1996/97

Tobacco:

Tobacco was first introduced in Tabora Region by the Overseas Food Corporation in the fifties but since then Tabora has become the dominant producer of tobacco in Tanzania. The predominant tobacco growing areas cover most of the Western portion of the region, the central South and a small area in Southwest of Nzega District, with rainfall ranging from 800 mm. annually in southwest of Nzega to over 1000mm. in Western and North-Western parts of Tabora, Sikonge and Urambo Districts.

While the continuing long term tobacco production is dependent on clearing new land for tobacco growing and the continuing supply of accessible fuelwood for tobacco curing and consequently the rapid way of depleting forests, production of tobacco is potentially dependent on proper husbandry techniques and increase in input usage. Planned

programme of annual tree planting equivalent to annual fuelwood need for tobacco is therefore requisite for long term tobacco production.

Production of tobacco has steadly been increasing from 6,136 tons in 1987/88 to 25,671 tons in 1996/97 as recorded in Table II-4

Cotton

Cotton production in Tabora Region is concentrated in Nzega and Igunga Districts primarily in the Manonga Valley. The description of the North-East Zone provides details on the most favourable cotton producing area and location in the region. There is room for increasing cotton production but relatively low production has been caused by low level of input usage particularly fertilizers and insecticides combined with poor husbandry techniques. Observation from Table II-4 show fluctuations in production.

Groundnuts:

Groundnuts are an important traditional food cum cash crop in Tabora Region. Soils throughout the region with an exception of Manonga Plains and lowlying mbugas, are suitable for groundnut growing. Groundnuts are almost always intercropped with maize or sorghum which traditionally has been a form of insurance against periodic droughts and mid-season dry spell. The non-use of fertilizers and low plant population has resulted in low yields. Production of groundnuts has been fluctuating as can be observed from Table II-4 and Figure 14.

Sunflower

Sunflower is an oilseed crop introduced in late sixties in Tabora Region. The soils throughout the region are generally suitable for sunflower growing except in the lowlying mbugas where drainage is poor. From 1987/88 to 1996/97 production has been fluctuating reading a peak of 7840 tons in 1990/91 and dropping to 245 tons in 1992/93 and increasing gradually to 788 tons in 1996/97

2.3.1.4 Mechanisation:

Although improved farming methods and techniques are important in raising agricultural production, many peasants in Tabora Region continue to use traditional farming methods and tools - the most common are the handhoes, axe and panga. Oxenisation is commonly practised in Igunga and Nzega districts and very limited in Tabora, Sikonge and Urambo districts. Tractor cultivation is less widespread in the region and most of the few tractors available are unserviceable.

TABLE: II-5 DISTRIBUTION OF TRACTORS IN TABORA REGION, 1993

	Conditi		
District Serviceable Unserviceable /Scrap			Total
Igunga	30	46	76
Nzega Tabora*	13	12	25
Tabora*	28	67	95
Urambo	50	63	113

2.3.1.5 Farm Inputs

Soil fertility is one of the factor which limits agricultural production in Tabora Region. Although the soils have the potential to support a variety of crops, about 80% of the soils in the region are

infertile sandy soils lying in high rainfall zone. Many farmers have started to realize the importance of using fertilizers and improved seed for both food and cash crops. This has created high demand for farm inputs. These inputs are supplied by stockists and private companies dealing with tobacco and cotton purchases but the demand have always exceeded the supply. Reliance is placed on the use of cattle manure particularly in Igunga and Nzega Districts.

TABLE II-6 DEMAND AND SUPPLY OF FARM INPUTS, IN TONNES, TABORA REGION 1990/91 - 1996/97

Year	Comm	ercial Fert	ilizer	Im	proved See	eds
	Required	Supplie	%	Required	Supplie	%
		a			a	
1990/91	33,190	12,677	38	145	69	48
1991/92	33,190	17,980	54	44	53	120
1992/93	36,550	17,867	49	84	61	73
1993/94	37,462	28,286	75	104	106	102
1994/95	29,783	15,659	52	163	34	21
1995/96	30,785	28,818	94	164	36	22
1996/97	39,763	29,764	74	2,144	670	31

Source: Regional Agricultural Office

2.3.1.6 Irrigation

The annual rainfall for Tabora Region ranges from 650 mm to 1100 mm but although total rainfall may be sufficient for the commonly grown crops such as maize and tobacco, distribution through the growing season is uneven and unreliable. The unreliability and invariability of rainfall can be overcome by irrigation. The best immediate potential for irrigation in Tabora Region is that of supplementary irrigation to provide water control particularly in the paddy fields. The region has a large irrigation project of Mwamapuli covering 630 hectares. This project has been supported by UNP/UNCDF/ADC. Another large irrigation project known as Smallholder Development Project for Marginal

Areas cover a total of 750 hectare is completed in Choma cha Nkola; (300ha) and Itumba (150 ha) in Igunga district and Lusu (300ha) in Nzega district. This project is supported by IFAD. Other irrigation projects are in Bukene (100ha) and Idudumo (40ha) in Nzega district supported by JOCV/JICA, and Igigwa (40ha) in Tabora district.

TABLE II-7 IRRIGATION PROJECTS IN TABORA REGION

Project	Area covered	Donor	Beneficiaries
Mwamapuli Irrigation project	Area 630 ha	UNP/UNCDF/ADC and Government of Tanzania	750 Families
Choma cha Nkola	300 ha.	IFAD and Government of Tanzania	400 families
Itumba	150 ha.	IFAD and Government of Tanzania	300 families
Idudumo	40 ha.	Nzedese	80 families
Igigwa	40 ha.	TABODECO	Operating Net
Lusu	300 ha.	IFAD and Government of Tanzania	expected to 400 families
Bukene	100 ha.	JOCV/JICA	Expexted to benefit 200 families

Source: Regional Agricultural Officer

2.3.2 Livestock

2.3.2.1 Introduction:

Livestock Keeping is the second predominant economic activity in Tabora Region. The climate and environmental conditions are favourable for livestock keeping. The most important type of livestock are cattle, sheep and goats. The cattle population is made up of indigeneous breed, the majority being Tanzania short horn Zebu but substantial number of long horned Ankole cattle exist. There are a few animals of improved breed. Most sheep are black head and long tail type while goats are of the short

eared type. Other livestock kept include mostly donkeys, pigs, chicken, ducks and pigeons.

2.3.2.2 Livestock population and distribution

Tabora Region has a livestock population of 1,009571 cattle, 464,327 goats and 151,034 sheep (1994/95 Sample Census). The livestock population and distribution as recorded in 1984 livestock census is shown in Table II-9

Table II-8 compares Tabora Region to other Regions and reveals that human and livestock population and livestock density are more or less the same. In terms of numbers Tabora region ranks seventh position in stock numbers and accounts for 6.4% of the national herd.

TABLE II-8 POPULATION AND LIVESTOCK DISTRIBUTION AND DENSITY BY REGIONS 1994/95, MAINLAND TANZANIA

	Land Area	Population ¹	Population Density per sq.km	Livestock (Csttle) population ² (1994/95	Livestock Density	Live- stock Density Rank
TABORA	76,151	1,036,293	14.0	1,009,571	13.2	9
Arusha	82.098	1,352,225	16.5	1,477,589	18.0	8
Dodoma	41,311	1,235,277	30.0	1,587,093	38.4	5
Iringa	56,850	1,193,074	21.3	364,693	6.4	12
Kagera	28,456	1,313,639	46.6	354,119	12.4	10
Kigoma	37,040	853,263	23.1	62,609	1.7	15
Kilimanjaro	13,309	1,108,699	83.7	464,126	34.9	6
Lindi	66,040	642,364	9.8	2,853	0.04	19
Mara	21,760	952,616	43.7	1,291,576	59.3	2
Morogoro	70,799	1,222,737	17.0	237,857	3.4	4
Mbeya	60,350	1,476,261	24.0	924,725	12.0	11
Mtwara	16,710	887,583	53.2	15,119	0.9	18
Mwanza	20.095	1,878,271	93.5	2,450,396	121.9	1
Rukwa	68,635	704,050	10.1	426,329	6.2	13
Ruvuma	66,477	783,327	12.0	75,027	1.1	17
Singida	49,341	791,814	16.0	1,944,271	39.4	4
Shinyanga	50,760	1,763,960	34.9	2,262,809	44.6	3
Tanga	26,677	1,280,262	48.1	653,550	24.5	7
Coast/DSM	33,800	1,998,865	59.1	40,490	1.2	16

Mainland	885,987	22,474,580	25.4	15,644,802	17.6	

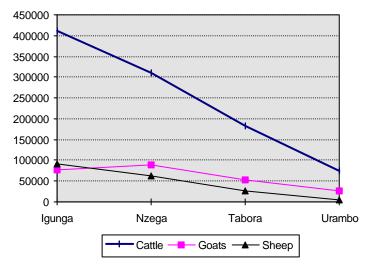
Source: 1 1988 Population Census

TABLE II-9 DISTRIBUTION OF MAJOR LIVESTOCK BY TYPE AND DISTRICT, TABORA REGION

	Cattle	Goats	Sheep	Livestock (Cattle) Density/Sg. Km.
Igunga	411,568	76,396	91,454	60.6
Nzega	311,345	90,080	62,200	44.7
*Tabora	184,034	53,000	26,010	4.5
Urambo	75,210	25,327	4,009	3.5
	982,157	253,803	183,673	12.9

Source: 1984 Livestock Census

Fig. 15: Distribution of major livestock (cattle, goats and sheep) by District, Tabora Region, 1984



The incidence of tsetse in the region explains the distribution of livestock and some limitation to area available for grazing. Livestock concentration is in the North East of the region in Igunga and Nzega Districts which are almost entirely tsetse free

² National sample Census of Agriculture 1994/95 Tanzania Mainland Report Vol. II.

and have a population of over 700,000 cattle while the Tabora Sikonge and Urambo Districts which are mostly tsetse infested have less than the population of Igunga and Nzega. Likewise, while the stocking rate is 60 LU/Km² for Igunga and 40LU/Km² for Nzega, Tabora and Sikonge have the stocking rate of 4 LU/Km² and Urambo has 3LU/Km². However, the distribution within the region is changing quite rapidly with livestock owners moving away from the overstocked northern districts of Igunga and Nzega to either Tabora, Sikonge or Urambo districts or out of the region altogether.

2.3.2.3 Livestock Management

It is traditional practice in most parts of Tanzania for cattle to be kept as evidence of personal wealth and prestige and the Tabora Region is no exception. This practice has resulted in excessive cattle population despite the heavy drain on existing land and water resources. In Tabora Region there are two types of livestock keepers: the semi-nomadic pastoralists whom cattle form the dominant source of livelihood and the cultivators who own livestock but depend primarily on agriculture for their subsistence and cash surplus. The present livestock husbandry methods in the region are extensive relying on large areas of natural grassland with pasturing on crop residues from cultivated "shambas" and "mbugas" during the dry season to supplement the natural pasture.

2.3.2.4 Livestock Infrastructure:

Livestock infrastructure include 75 dips, 29 livestock health centres, 33 livestock markets, 32 abbatoirs and 42 crushes. As - may be observed in Table II-10 the infrastructure available are

inadequate when compared to the number of livestock in the region. If for instance one looks at the dipping facilities in Igunga which has the largest number of livestock in the region, there are only 15 dips. This means an average of 27,400 cattle per dip. Allowing for 5,000 cattle per dip, the number of dips is barely enough. However for a number of reasons the dips are not operational. The main reasons appear to be lack of water at or near the dip, lack of acaricides and breakdown in the dip structures. The livestock health centres lack minimum requirements such as equipments chemicals and reagents as well as adequate staffing. As such cannot provide necessary services to livestock owners.

TABLE II-10: LIVESTOCK FACILITIES/SERVICES IN TABORA REGION

		Dips		Veterinar y		
District	Operatin g	out of order	Total	Centres	Market s	Abbatoirs
Igunga	10	5	15	7	10	43
Nzega	14	7	25	11	8	12
Tabora*	12	8	20	5	11	13
Urambo	7	8	15	6	4	3
Total	47	28	75	29	33	32
Region						

Source: Regional Livestock Officer.

2.3.2.5 Livestock Production and Marketing

The predominance of the indigeneous livestock has resulted in low productivity. The indigeneous Tanzania Zebu Cattle (TZC) takes 4-5 years to reach maturity and average between 200-250 kgm. Calving percentages are about 50% with calf mortalities at 30%. Goats and Sheep take two years to reach maturity with a carcass weight of 15 - 20 kgm. Apart from genetic potential, diseases,

poor nutrition levels and water and inadequate livestock infrastructure contribute to this low productivity.

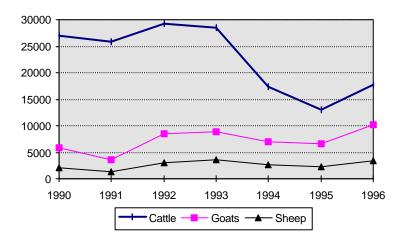
The marketing of livestock in the region is restricted to tradition. All livestock and particularly cattle brought to an authorized primary market for sale are auctioned and price are fixed by competitive bidding. Table II-11 gives the number of livestock officially sold in the region.

TABLE II-11: LIVESTOCK MARKETTED, 1990 - 1996, TABORA REGION

Year	Cattle	Goats	Sheep
1990	26,961	5,857	2,048
1991	25,918	3,567	1,406
1992	29,334	8,436	2,934
1993	28,452	8,892	3,548
1994	17,400	7,066	2,620
1995	13,072	6,561	2,235
1996	17,750	10,106	3,487

Source: Regional Livestock Officer.

Fig. 16: Livestock marketed (cattle, goats and sheep), 1990 - 1996, Tabora region



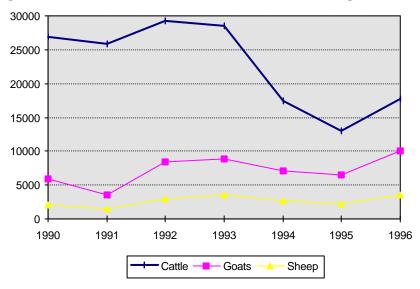
There has been a general decline in cattle sales from 26,961 in 1990 to 17,750 in 1996. However goat sales have increased, with some fluctuations, from 5,657 to 10,066 during the same period. Similarly sheep sales registered an increase.

There has been fluctuation in hides and skin sales between 1990 and 1996. Peak sales of hide were in 1993 when 96,420 pieces were recorded. Apparently this was a drought year when many animals died. The sale of goat skins had declined from 81,214 pieces in 1990 to 53,075 pieces in 1996 while sheep skin sales recorded some fluctuations.

TABLE: II-12: HIDES AND SKIN SALES 1990 - 1996, TABORA REGION

Year	Cattle	Goat	Sheep	
1990	69,734	81,214	15,011	
1991	72,224	77,827	33,676	
1992	47,647	36,738	17,302	
1993	96,420	38,865	21,352	
1994	79,092	40,965	22,460	
1995	69,954	73,083	42,471	
1996	42,959	53,675	10,475	

Fig. 17: Hide and Skin Sales 1990 - 1996, Tabora Region



2.3.3 Natural Resources

Introduction.

Tabora Region is well endowed with the renewable natural resources like forests, wildlife, fishery and honey-bee. The hardwood forests of the region form part of Miombo woodland of central plateau of Western Tanzania covering about 60% of the region and constituting one of the largest area of forest reserve in the country. The forest resources serve two purposes: mainly timber and fuelwood. Apart from timber production the demand for fuel wood is more pronounced by tobacco production for which fuelwood is required in large quantities. However most parts of Igunga and Nzega districts are deforested and depict a near desert situation. The Miombo woodlands also constitute the most valuable non-wood products including honey, tannin etc.

Fishing activities are mainly carried out in Lake Sagara, Ugalla river, Mwamapuli and Igombe Dams. The fishing resources are capable of producing up to 600 tons of fish per annum. Wildlife resources include the Ugalla Game Reserve and Game controlled areas wich attract tourist hunting.

2.3.3.1 **Forestry**

The natural vegetation of Tabora Region is woodland mainly made up of miombo woodland (Brachystegia-julbernodia) in the rolling central plateau and Acacia/Cambretum and bushland thicket in the north and east part of the region.

The miombo is the most valuable type of woodland for sawn timber extraction as it contains the valuable hardwood species of Plerocarpus angolensis (Mninga), Dalbergia melanozilon (Mpingo), Afzelia quanzensi (Mkola), Swatzia madagasuariensis (Kasanda) and Brachystagia speciformis (Mtundu). These woodlands cover an area of about 5,282,000 hectares which is about 69 percent of the total regional area.

TABLE: II-13: AREA COVERED BY FORESTS BY DISTRICT (HECTARE) TABORA REGION

District	Natural Forest	Public land	Total	
Igunga	115,271	23,100	138,371	
Nzega	120,824	192,800	313,624	
Tabora	2,420,670	868,277	3,288,947	
Urambo	994,419	547,333	1,541,752	
Total Region	3,651,184	1,631,510	5,282,694	

Source: Tabora Regionnal Statistical Abstract 1993 Bureau of Statistics.

There is a total of 33 Forest Reserves which have a total area of 3,422,500 hectares out of which about 119,691 hectares are catchment forests and about 201,017 hectares have disappeared through encroachment. This brings the total exploitable forest reserve at 3,201,792 hectares. Adding 1,631,510 hectares

TABLE II-14: NUMBER OF FOREST RESERVES BY DISTRICT, TABORA REGION

District	Number of Forest Reserves	Area (Ha)
Igunga	3	115,271
Nzega	11	110,164
Tabora	15	2,302,665
Urambo	4	994,400
Total Region	33	3,522,500

of public land forest brings the total area of exploitable forest to about 4,833,000 hectares. Discounting for about 1,000,000 hectares which at present are too far from habitation or market, there are only about 1,833,000 hectares of commercially

exploitable forest resources. An average hectare of intact Miombo Woodland excluding Mbugas has mean annual increment (MAI) of 2.5 m³ per annum. However due to depletion of Miombo Woodland, the estimated mean annual increament (MAI) is only 1.2 m³ per annum. This gives roughly a total annual increament of 2.199,600 m³ of solid wood. or 3,299,400 m³ of stacked wood. It is estimated that at present only about 1,050,000 m³ of stacked wood is being harvested as fuelwood and charcoal per year.

The estimated area under tobacco todate is 20,000 hectares. At the estimated 64m³ per hectare of tobacco (LUP 1987), the total requirement of solid wood for curing tobacco would be 1,280,000 m³ per season. Besides household use and tobacco, fuelwood is required for brewing, fish smoking, brick making etc. The overall fuelwood consumption may therefore be over 2,330,000 m³ per annum while the natural regeneration of the woodland is estimated at 2,199,600 m³.

TABLE: II- 15 FOREST PRODUCTION AND REVENUE COLLECTED BY DISTRICT 1985 - 1996 TABORA REGION

		Round	l wood	Fuel woo	d stacked	Char	coal	Pole	es
Yea r	District	M ³	Tshs.	M ³	Tshs.	M^3	Tshs.	Numbers	Tshs.
1985	Igunga	211		906.85	15382	2761		-	-
	Nzega	1049.35	30206	3066.1	9174.85	2761	11863	2992	4878
	Tabora (R)	48111.72	95863.95	5316.2	24308.95	93837	11863	597.05	6710
	Urambo	1329		2008.3	1559.3	3691		280.5	8504
			135828.7				387351		
			190242				16350		
TOTAL		50701.07	452140.6 5	11297.45	50425.1	103050	427427	3869.55	20092

		1						Ī	
1986	Igunga	164	37058	446.5	19451	4082	20423	-	-
	Nzega	121.9	18913	1702.8	7216.2	9000		2582	4396
	Tabora(R)	10021.9	1642307	7768	38840	75953	59315	2511.6	.570
	Urambo	1638	399890	862.16	2401.8	2542		196.5	4767
							279765		
							15864		1285
TOTAL									
1987	Igunga	140	32840	3954.5	28280	3413		-	-
	Nzega	684	147165	3110.7	27643	11732	22855	7097	
	Tabora(R)	16808.1	1895930	6675.5	39935.9	61543	75442	2357	20864
	Urambo	3844.3	1072516	19514	5568.4	474		65	3535
							371785		
							5060		650
TOTAL							5000		
		125	44000		10000	1522		21	
1988	Igunga	125	44900	669	19008	1532	15230	31	157
	Nzega	556	139280	1918.5	20185	14371		5310	
	Tabora(R)	2672.1	1858504	18910.4	43546.50	41806	143710	1198	18492
	Urambo	733	278600	278600	8445	754	418060	50	4090
							418000		4090
							7540		1000
TOTAL									
1989	Igunga	154	68520	1105.1	36693	3794	37940	-	22379
	Nzega	300	95540	1859	18790	27147	271470	8855	291
	Tabora(R)	10957.6	609520	389.75	38391	32275	322750	97	
	Urambo	11835	821100	436.15	6343	844	35320	68	1360
TOTAL									
1990	Igunga	102	51770	656	35020	3118	31080	55	310
	Nzega	387	149520	1812	21810	18958	353730	4028	28165
	Tabora(R)	7369.6	4232070	27723.5	27640	37750	37750	4363	23134
	Urambo	2467	1291500	3834.6	38346	1260	37800	999	9990
TOTAL									
1991	Igunga	34	8800	206.5	20700	389		-	-
	Nzega	19	38600	2100.4	2165.35	1135	19450	321.5	
	Tabora(R)	5853.5	11581630	2838.3	17300	45451	567000	4915	13215
	Urambo	1132	2775800	40	4000	4479	567900	25	40150
							1649340		49150
									250
							1924100		

TOTAL									
1992	Igunga	32	33200	172	16800	463		-	-
	Nzega	-	-	10000	10000	4500	23150	=	-
	Tabora(R)	55345	13352500	5973	1872205	23118	225000	5229	
	Urambo	1032	2604000	107.3	107300	3473		-	50490
							1244940		-
							173650		
TOTAL									
1993	Igunga	22	59360	68	18650	505			
	Nzega	-	-	10000	100000	50000	7455		
	Tabora(R)	6132	15734020	1181	153650	8060	500000		
	Urambo	640	2753400	25	700	240			
							700450		
							6850		
TOTAL									
1994	Igunga	22	199000	91	39150	832	125200	-	-
	Nzega	-	-	-	-	15661	125300	-	-
	Tabora(R)	1515.9	17444048	43.3	43300	910	1325127	-	245
	Urambo	175	3500000	23.5	4700	247		=	243
							17400		-
							52500		
TOTAL									
1995	Igunga	22	220000	186.5	91500	1077	247200		
	Nzega	50	800000	8	8000	3610	385520		
	Tabora(R)	1153.5	2054100	403	153300	9840	275800		
	Urambo	330	6600000	-	-	295	7400		
TOTAL	-								
1996	Igunga	39	305000	28.5	31000	1073	201000	-	-
	Nzega	-	-	7	7000	9621	291900	42	3190
	Tabora(R)	1349	17807000	364	228700	4730	1259600	600	23470
	Urambo	252	6300000	3.3	3250	813		-	0
							1370300		-
							247500		
TOTAL									

Source: Regional Natural Resources Officer

Wood is cut continuously near the villages where the forest gradually deteriorates into unproductive scrubs. This is particularly serious around tobacco growing villages. The combined impact of wood fuel consumption and clearing for agricultural expansion puts pressure on the natural woodland particularly in Igunga and Nzega districts.

As can be seen in Table II-15 forest production especially in roundwood from 1985 to 1996 has been decreasing. This may be attributed to rising in price per cubic metre at stamp area but also to the conservation strategies under implementation by the region. Similarly, as a result of the rise in prices, the value of forestry products have progressively increased.

The demand for wood products will continue to rise every year as the population increases and particularly so as long as clearing of woodland for tobacco production and cutting of wood for curing tobacco as well as need for new settlements continues. The region has been undertaking afforestation efforts with the main aim of trying to narrow the gap between adverse supply and demand situation of fuel. This has involved the establishment of tree nurseries as a source of seedlings and establishment of demonstration woodlots.

TABLE: II-16 TREE SEEDLINGS RAISED AND HECTARES PLANTED 1985 - 1995

Year	Number of Seedlings (No.)	Area Planted (Ha.)
1985	926,844	414
1986	861,930	444
1987	302,002	236
1988	627,419	317
1989	425,670	228.05
1990	184,876	104.6
1991	195,200	110.2
1992	194,000	101.4
1993	41,500	23.29
1994	185,169	107.1
1995	311,012	182.9
Total	4,455,622	2,268.54

Source: Regional Natural Resources Officer

It is appreciated that apart from government departments raising tree seedlings, some religious institutions and donor communities have taken measures of raising seedlings for planting by the community as shown in Table: II-16

TABLE: II-17 NUMBER OF SEEDLINGS RAISED AND PLANTED BY DIFFERENT GROUPS 1985 - 1995

		Number of Se	edlings by groups	
Year	Government Department	Religious Institution	Donor Community	Planted (Ha)
1985	926.844	1	-	414
1986	861,930	-	-	444
1987	302,002	-	-	236
1988	627,419	-	-	317
1989	425,670	-	-	228.05
1990	184,876	-	-	104.6
1991	195,200	85,000	400,190	183.7
1992	194,000	-	-	101.4
1993	41,500	47,000	-	50.9
1994	185,169	85,000	-	157.1
1995	311,012	65,000	-	221.1
TOTAL	4,255,622	282,000	400,190	2,457.85

Source: Regional Natural Resources Officer

2.3.3.2 Beekeeping

In Tabora Region beekeeping which is a forest industry is for many years based on traditional methods. Because of the many nectar yielding plant species in the Miombo woodlands, the potential for production of high quality honey is high. Generally there has been an increase in production of both honey and beeswax since 1985. This increase has been attributed to the influx of traders into export of bee products especially honey. As observed in TableII-18 production has increased from 5,906 tons of honey in 1985 to over 9,900 tons in 1996. Similarly bees wax production increased from 328 tons in 1985 to 553 in 1996.

TABLE : II-18 BEEKEEPING PRODUCTS AND VALUE 1985 - 1996, TABORA REGION

Year	District	Num- ber of B/ke-	Number of Beehived		Honey		Wax	
		epers	Mode	Tradition -al	weight (Kgs)	Value (Tshs.)	weight (Kgs)	Value (Tshs.)
1985	Igunga	724	85	18000				444640
	Nzega	908	240	22770	11880	22245	10800	121600.00
	(Tabora) (R)	5109	184	490179	21770	852900	13600	1458280
	Urambo	1779	-	195960			294107	-
					411161	1371780		
					1	-	9543	
					176121			
					0			

TOTAL

1986	Igunga Nzega Tabora (R) Urambo	760 953 5364 1867	42 61 184	21280 33355 497400 145500	178752 280182 447600 0	5958000 93399000 14922000 0	12768 20013.5 248700 87300	2106720 330227.50 41035500 14404500
тота	L				0			
1987	Igunga Nzega Tabora (R) Urambo	790 1152 5619 1960	42 61 150	25050 27000 501900 190120	195390 226800 271026 0	6643260 7711200 92148840 34906032	15030 13500 210013 57036	2479950 2227500 34652145 9410940
TOTA	L							
1988	Igunga Nzega Tabora (R) Urambo	790 1209 5815 2182	40 50	16580 27000 494275 167420	112725 121500	7665300 8201250	12523 13300 204080	4383750 4655000 71417500 35157500
тота	L		36 10		266908 5 904068	18016323 61024590	100452	

1989	Igunga Nzega Tabora (R) Urambo	862 1248 5619 1960	36 32 10	20120 25948 494275 167420	108648 140119 266908 5	73337740 945802 16192736 61024559	12070 15600 296565 100450	4224500 5425000 103797750 35157500
ТОТА	L		1			•	ı	
1990	Igunga Nzega Tabora (R) Urambo	900 1279 6106 2148	30 253	21399 26293 507183 184168	102715 141982 331440 7	693326.5 9583785 22196328 9	12839 157758 301309 110500	4493650 5521425 1005458150 38675000
					121550 8	81439034		
ТОТА	L							
1991	Igunga Nzega Tabora (R)	1000 1333 6335	- 30 253	21399 26400 517248	115551	1039950	12839	5135600
	Urambo	2490	-	184162	190080 434432 6	17107200 39098934 0	15840 310309 11049	6336000 124123600 44198880
ТОТА	L				154696 0	13922640 0		

1992	Igunga Nzega Tabora (R) Urambo	1348 1386 6621 2615	300	22341 27403 537937 191528	174259 197301 484143 3	2788440 31368160 97462928	13404 16441 322762 114917	8042400 9864600 193657200 6895200	
					160883 5	25741360 0		00/3200	
тота	L								
1993	Igunga Nzega	1400 1386		23167 24650	152902	27216554	13900	1668000	
	Tabora (R) Urambo	6952 2745		562144 201104	177489 0	31591440	147990 337286	17748000 409743200	
					505929 0	90053362 0	120662	144794400	
					130993 6	32216860 8			
тота	TOTAL								
1994	Igunga Nzega	1400 1414	10	23167 25343	157902	27216556	13900 5205.5	16680000 1446600	
	Tabora (R) Urambo	6952 2745		590251 201104	197671	35183438	35415	42498000	
					531225 9	94552102	120662	144794400	
					180993 6	322168608			
тота	L								

TOTA	Igunga Nzega Tabora (R) Urambo	1010 1405 7953 3011	6	24250 26530 619764 2101553	174600 191016 552787 6 189136 5	49761000 54439560 158969466 0 33903902 8	4550 15918 371358 126091	21825000 23877000 557787000 189136500
1996 TOTA	Igunga Nzega Tabora (R) Urambo	1060 1470 8320 3062	2	25250 27591 550752 1097593	128180 0 231764 585676 8 197648	7799200 99426756 84791034 9 84791034 0	15150 16554 390451 131765	24240000 26486400 576721600 210824000

Source: Regional Natural Resources Officer

2.3.3.3 Wildlife

Tremendous wildlife resources are found in Tabora region. With the exception of Nzega district, all districts are rich in wild animals. The main species include elephants, buffaloes, waterbuck, eland, giraffe, impala, roan and sable antelopes, warthog, hippo, and many birds such as Francolin love birds. The region has one game reserve which is the Ugalla Game Reserve located in the southern part of Urambo. The reserve which has a vast grazing land, bush and forest land is infested by tsetse fly which eliminates most human habitation or bars the introduction of domesticated

animals. Currently the reserve is under the management of the Ugalla Game Reserve Project. However, under the new concept of wildlife conservation the population living adjacent to the reserve is given the right to exploit other resources in the reserve.

The region has three open areas that have a variety of wildlife. These include Wembere Wetlands with an area of about 200,000 hectares and Pembampazi open area which has an area of about 150,000 hectares. The third open game areas is in Sikonge district. Also the region has a number of Game Controlled Areas as shown in Table II-19

TABLE: II-19 GAME CONTROLLED AREAS IN TABORA REGION

Name of GCA	District Area Ha		
Igombe GCA	Urambo	300,000	
Igombe Dam GCA	Tabora	10,000	
Kigosi GCA	Urambo	700,000	
Luganzo GCA	Urambo	250,000	
Rungwa River GCA	Sikonge	1,500	
Ugunda GCA	Sikonge	100,000	
Nyonga GCA	Sikonge	2,000,000	
Total		3,361,500	

Source: Natural Resources Officer, Tabora.

Tourist hunting which started in 1992 is being conducted in the following blocks: Ugalla Game Reserve, Luganzo GCA, Rungwa GCA, Ugunda GCS, Wembere South and Ugalla - Niensi area. Table II-20 shows the number of animals and revenue generated since 1992/93 season to 1997/98

TABLE: II-20 REVENUE GENERATED FROM TOURIST HUNTING 1992 - 1998 TABORA REGION

1772 17770 1112012112201011						
Year	Number of animals hunted	Revenue in US \$				

1992/93	235	206,420
1993/94	293	183,049
1994/95	519	333,823
1995/96	175	233,830
1996/97	247	167,840
1997/98	308	134,874

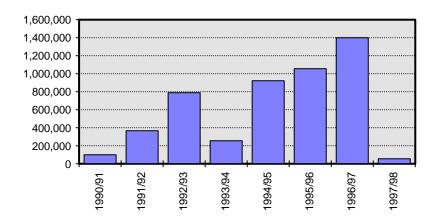
Source: Regional Natural Resources Officer

TABLE :II-21 REVENUE FROM WILDLIFE RELATED ACTIVITIES 1990/91 - 1995/96 (IN TSHS.)

	REVENUE FROM WILDLIFE PRODUCTS					
Year	Hunting licence fee (US \$)	Fees for possessin g wildlife products	Sale of wildlife products	Sale of hunting wildlife card	Fine charge s	Total
1990/91	-	5,000	9,530	54,910	25,800	95,240
1991/92	-	-	25,450	319,775	17,000	362,225
1992/93	206,420	-	25,450	731,075	27,000	783,725
1993/94	183,049	-	47,880	161,765	42,600	252,245
1994/95	333,823	1	53,000	822,768	41,500	917,268
1995/96	133,830	5,900	110,750	914,943	20,200	1,051,793
1996/97	167,840	29,200	26,300	1,333,516	11,800	1,400,8160
1997/98	134,874	-	57,300	-	-	192,174

Source: Regional Natural Resources Officer

Fig. 18: Total Revenue from wildlife related activities 1990/91 - 1995/96 (in Tshs.)



2.3.3.4 Fisheries

Situated in the inland of Tanzania, Tabora region has limited fishing resources. Fishing activities are mainly confined to Lake Sagara, Ugalla River and the man made dams of Igombe, Kilimi, Mwamapuli, Mihama and Bulenya. Fishing is done by individuals using seine nets. The recorded production of fresh and dried fish is as shown in Table II-22 Potential for increasing the catch lies in Lake Sagara and Ugalla River with the improvement in fishing gears.

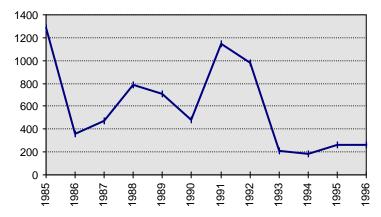
TABLE II-22 PRODUCTION OF FISH AND VALUE 1985 - 1996 TABORA REGION

Year No: of fishermen No: of V	essels Weight in tons Value in Tshs.
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1985	3532	711	1281.9	11,699,720
1986	1080	489	354.9	3,935,570
1987	2272	758	475.2	11,298,400
1988	1244	603	791.78	11,808,551
1989	2948	1367	708.2	12,127,000
1990	5382	5350	479.72	13,404,600
1991	2479	2479	1145.6	17,878,490
1992	2038	2038	979.5	14,106,218
1993	2606	2606	206.28	15,500,220
1994	1652	1652	184.54	13,331,500
1995	1365	1365	261.75	17,023,300
1996	2121	1121	264.8	18,770,220
TOTAL	28719	20539	7134.17	150,883,589

Source: Regional Natural Resources Officer

Fig. 19: Production of fish (weight in tons), 1985 - 1996, Tabora region



2.3.4 Mining

Although mining industry has been contributing to the region economy of Tabora region since colonial times, very little is known about the actual potential of minerals. For a long time mining activities have been carried out by smallscale prospectors. Recently some large companies have shown interest in prospecting and mining in the region. Currently there are 26 companies prospecting for gold and one company is prospecting for diamonds. Preparations are in progress for gold mining by Golden Pride Project Ltd. in Nzega district.

2.3.5 Industry and Trade

Industry and Trade are important activities which directly contribute to the region's economy while employing a good number of active labour force. The big industrial establishments in Tabora are the TABOTEX (Tabora Textile) which deals with cotton spinning and employs over 1000 people and the Manonga Ginnery which gins cotton and employs over 500 people. Other industrial establishments are the 260 small scale industries which include timber sawing, furniture making, vehicle garages, metal sheet working, oil processing and many others employing over 700 people. Trade business in the region is not much progressive because of low demand for commodities.

SECTION III

3.0 ECONOMIC INFRASTRUCTURE

3.1 Introduction

Economic infractructure is very vital for any economic development to take place. Growth in agricultural and industrial production, trade, national defence, administration and even political integration all depend on efficient and smooth operation of communication, transport and energy resources. Tabora region has a lot of development potentials but its economic infrastructure is very much underdeveloped thus making the region "an island within the vast sea" of Tanzania. The communication system of the region has three aspects: railways, air and road transport. The railroad which traverse the region east to west and north to southwest is the key medium for transport into or out of the region. The only commercial airport in the region is located in Tabora with several plane connections each week to Dar es Salaam and other towns of Kigoma and Mwanza. Both the railway and air transport is coordinated at the national level while the road transport is coordinated at the regional level.

3.2 Roads

Tabora region has a total of 4840 Kms of road network with 660 Km of trunk roads under the responsibility of the Ministry of Works, 1273 Kms of regional roads under the responsibility of the region and a total of 2790 Km. under respective districts responsibility.

There are two trunk roads traversing the region:

- The Singida border to Kahama via Nzega
- The Mbeya border to Shinyanga border via Tabora and Nzega

The Singida border to Kahama as well as the portion of Shinyanga border to Tabora are of engineered gravel or medium to fair standard but the condition has deteriorated due to poor maintenance. The road portion from Tabora to Mbeya and Rukwa borders is fair to poor condition and in some cases is merely a track.

TABLE: III-1 ROAD NETWORK IN KMS BY TYPE OF ROAD AND BY DISTRICT, TABORA REGION

Type of Road	Igunga	Nzega	Tabora	Urambo	Total
Trunk Roads	88	161	394		643
Regional Roads	291	240	602	140	1,273
District Roads	128	742	905	1,132	2,907
Tarmac Roads			17		17
TOTAL	507	1,143	1,918	1,272	4,840

Source: Regional Works Engineer, Tabora

The Regional and Distric Roads connect district headquarters, parts of the district to district headquarters or to main centres in the tobacco and cotton growing areas. Most of these roads have earth surface which is worn out and in poor condition. The major road network consist of the following roads:-

Puge - Ziba - Choma (Km 113)

This road covers a distance of 113 Km. The road passes through reddish sand or sand silt soils with black clay soils in the depressions or mbugas. The road surface which is partly gravelled and partly consists of earth or sand. This road is currently in bad condition with poor drainage. The road facilitates transportation of cotton to the Manonga Ginnery and many feeder roads which pass through the cotton growing areas are connected to this road.

Tabora - Ulyankulu (Km 88)

The road from Tabora to Ulyankulu covers a distance of 88 kms passing through an area which rises gradually with rocky hills and ridges intersected by wide valley. The soils show the usual variation of red laterristic on the rocky hills to reddishbrown on the slopes and grey or black grey in depression. There are a few feeder roads joing this road. The road has twenty five (25) culverts of which fifteen (15) are permanent and in good condition. The road surface is partly gravel and partly of earth or sand. This road which leads to the Refugee Settlement of Ulyankulu facilitates transportation of goods and crops to and from Ulyankulu and villages along the road to Tabora.

Choma - Nata - Bukene (Km 68)

This road is equally important because it passes through the cotton producing areas. The road covers a distance of 68 km. with two permanent bridges and a few culverts which are in poor condition. The road common soils are the black cotton soils. The road surface is partly gravel and partly of earth and is in poor condition. The road is impassable during the rain season especially when the Manonga River floods. The road facilitates

transportation of crops particularly cotton to the ginnery of Choma and cotton bales from the ginnery to the railhead of Bukene.

Itigi (Singida Boarder) - Tabora Road - (Km. 174)

Itigi (Singida Border) - Tabora Road passes through Nyahua mbugas reaching Tabora Town. It covers a distance of 174 Kms. From Tabora to Kigwa the road is passable throughout the year while the Kigwa village to Itigi border portion is passable only during the dry season. A large portion of the road is characterized by mbuga soils and generally during the rain season the mbuga areas are flooded and eroded causing the road to be impassable. The road surface consists of earth and is in poor condition.

The Tabora - Chagu (Kigoma border) (Km 218)

The Tabora - Chagu (Kigoma border) road covers a distance of 218 kms. From Tabora the road passes through Urambo Town, Kaliua Village to Chagu village (Kigoma Border). From Tabora to Kaliua Village the road is passable throughout the year while the Kaliua - Chagu portion is passable only during the dry season. The road surface from Tabora to Urambo consists of gravel while the remaining portion is of earth and is in poor condition. This road which passes through the major tobacco producing areas promote inter region trade and communication between Tabora and Kigoma regions.

Igunga - Mbutu - Choma Chankola (Km 91)

The road covers a distance of 91 kms passing through Mbutu, Igurubi to Choma Cha Nkola from Igunga Town. It passes through the flat plain which is abruptly bordered to the north by a steep slope along the Manonga plains. The dominating soils are

the black cotton soils which usually have a very high content of fine particles more than 65%. The road layer consists of earth with bad surface condition and in some areas before reaching Igurubi Village the surface has been eroded. The road passes through the major cotton producing areas but is generally impassable during the rain season.

Tabora - Mambali - Bukene (Km 106)

The road with a distance of 106 Kms passes through an area which is rising gradually with rocky hills and ridges intersected by wide valleys. The soils show variation from red laterristic on the rocky hills to sand loams on the slopes and black grey in the depressions. The surface consists of earth and is in a fair condition except during the rain season. The road passes through tobacco, cotton and rice growing areas.

Nkinga - Sungwizi - Igunga (Km. 52)

This road is equally important because it passes through cotton producing areas. It covers a distance of 52 Km. The common soils are the black clay soils. The road surface is of earth, in poor condition and impassable during the rain season when the swampy areas are flooded. This road needs formation and alignment.

Urambo - Songambele - Ulyankulu (Km 90)

The road with a distance of 90 km. passes through an area which is rising gradually with rocky hills and ridges intersected by wide valleys. The soils show variation from red lateric on the rocky hills to reddish brown on the slopes and grey or black grey in the depressions. The road surface which needs formation consists of

earth but is generally passable except during rain season. There are few feeder roads adjoining this road which passes through tobacco and groundnut producing areas.

TABLE: II-2 ROAD DENSITY BY DISTRICT, TABORA REGION

District	Land Area (Sq Km)	Total Roads Km.	Road Density Km/Sq Km	Ranking
Igunga	6,788	507	0.075	2
Nzega	6,961	1,143	0.164	1
Tabora	41,103	1,998	0.049	4
Urambo	21,299	1,192	0.056	3
Total	76,151	4,840	0.063	-

Table II-2 ranks the district in the order of development of roads. The road density for Tabora district is the lowest in the region with only 0.049 Km/sq km. of land area while Nzega district has a well developed road network showing high density of 0.164 km/sq.km. Construction of the Tabora to Itigi road and to Mbeya border to gravel engineered or tarmac standard would greatly reduce the region's dependence on the Central Railway line and open up to southern regions for the movement of agricultural and industrial goods to and from Tabora.

TABLE: III-3 DISTRIBUTION OF ROAD NETWORK BY CATEGORY AND DISTRICT, TABORA REGION

	Trunk	Roads	Regional Roads		District Roads		Total	
District	Km	%	Km	%	Km	%	Km	%
Igunga	88	13.3	291	22.9	128	4.4	507	10.5
Nzega	161	24.4	240	18.8	742	25.5	1143	23.6
Tabora	411	62.3	602	47.3	905	31.1	1918	39.6
Urambo	-	-	140	11.0	1132	39.0	1272	26.3

Total	660	100.0	1273	100.0	2907	100.0	4840	100.0
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Source: Regional Works Engineer, Tabora

As can be observed in Table: III-3 Road network distribution in Tabora Region show that Tabora/Sikonge and Urambo districts have the longest road network followed by Nzega district while Igunga district has the least length of roads.

3.3 Railway Transport

Tabora region is served by the central line railways system. At Tabora the railway line from Dar es Salaam branches to Mwanza, Kigoma and Mpanda at Kaliua. The importance of the central line to the region is felt in the movement of vital freight to and from the region and passenger service to some towns and villages located adjacent to it especially in the rain season when lorry and bus service become erratic.

3.4 Air Services

Tabora region is served by one commercial airport located in Tabora township. It is capable of handling Fokker aircrafts and other small planes. Air Tanzania a public airline is the main scheduled airline operating flights three times a week between Dar es Salaam , Tabora, and Kigoma. In addition to Air Tanzania domestic flights there are other private sector companies operating regularly. There are also five airstrips which are Urambo, Igunga, Nkinga Kaliua and Nzega which are normally used by flying doctors, agricultural researchers and crop protection experts.

3.5 Communication Facilities

There are three types of telecommunication systems: Modern, Automatic and Manual. There are two modern system having 2,800 lines, but only 1,393 lines are utilised. All of these systems

are international self dialing. The Automatic system is used in Nzega and is having 600 lines. The manual are at Urambo with 100 lines, Sikonge with 100 lines, Igunga with 100 lines, Bukene and Kaliua with 100 lines. Tabora town is accessible to telex with 22 lines and telefax with 14 lines. There are three postal offices at Tabora, Nzega and Urambo. There are also sub post offices at Igunga, Sikonge, Bukene and Ulyankulu

3.6 Energy

There are two main sources of energy used mainly by the population in Tabora region. Electricity and Fuelwood. Electricity is used for industrial and domestic purpose. The use of electricity for domestic purposes is limited to residents in urban areas of Tabora, Nzega and Urambo and particularly those who can afford it. Electricity in Tabora and Nzega townships is supplied by Tanzania Electricity Company (TANESCO) while Urambo town is supplied by Urambo Electricity Corporation (UECO). The rural population which comprise of over 85 per cent of the regional population depend on firewood or charcoal as the main source of energy.

TABLE III-4 HOUSEHOLD BY ELECTRICITY SUPPLY BY DISTRICT 1988, TABORA REGION

	Electricity Supply		Total	Percentage with
District	Available	Not Available	Household	electricity (of total)
Igunga	158	31,635	31,793	0.5
Nzega	1370	50,228	51,598	2.6
Tabora(R)	228	43,996	44,224	0.5
Urambo	363	34,586	34,949	1.0
Tabora(U)	5560	12,005	17,565	31.6

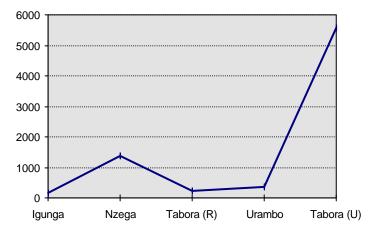
Total	7679	172,450	180,129	4.3
Region				

Source: 1988 Population Census Regional Profile Tabora

As can be observed in Table: III-4, only 4.3 per cent of households in the region had electricity by 1988 the highest percent being in Tabora Urban.

It is therefore a general fact that fuelwood which includes firewood and charcoal accounts for more than 96 percent of the total energy used in the region for domestic purposes. The supply of this form of energy result in indiscriminate cutting of trees and consequently destruction of forest cover causing soil erosion and other forms of land degradation.

Fig. 20: Household by electricity supply by district 1988, Tabora Region



SECTION IV

4.0 SOCIAL SERVICES

4.1 Education:

4.1.1 Primary Education

Enrolment

The Primary Education policy in Tanzania has been to offer every child of school going age (7 years) an opportunity to primary education. In Tabora region, like in other regions in the country, primary education has expanded tremendously since independence. At the on set of UPE in 1974 Tabora region had 220 primary schools with total enrolment of 58,306 pupils. By 1997 Tabora region had a total number of 517 primary schools with a total enrolment of 164,329 pupils, an increase of 282 per cent. (Table IV-1).

TABLE IV-1: PRIMARY SCHOOL EXPANSION AND PUPIL ENROLMENT IN TABORA REGION 1974 - 1997

Years	No. of Primary	%	Numbmer of	%
(Selected)	Schools	Increase	Pupils	Increase
1974	220	100.0	58,306	100.0
1978	405	184.0	106,537	182.0
1988	487	221.0	132,617	227.0
1994	505	229.0	151,650	260.0
1997	517	235.0	164,329	282.0

The enrollment rate stood at 78 percent of the target group between 7 - 8 years in 1996. While there was 885 streams with a capacity of enrolling 39,825 or more primary one pupils, only

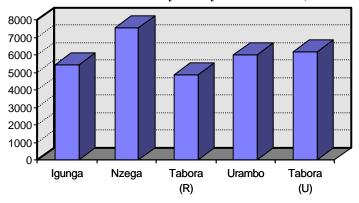
30,040 pupils were enrolled in that year. This is equivalent to 78 percent of the total enrollment target as revealed in Table IV-2

TABLE: IV-2 ENROLMENT IN PRIMARY ONE BY DISTRICT IN 1996, TABORA REGION

District	No. of Schools	No. of Std. One Streams	Eligible Enrollme- nt (7-8yrs)	Actual Enroll- ment	%	No. of Vacancies	%	Equiva- lent Streams
Igunga	104	133	6,339	5,444	85.8	895	14.2	19
Nzega	146	311	11,198	7,550	67.4	3,648	32.6	81
Tabora(R)	114	162	10,515	4,857	46.2	4,492	53.8	100
Urambo	94	158	7,353	6,023	81.9	1,187	18.1	26
Tabora U)	59	121	3,305	6,166	186.6	+1,552	+86.6	+34
Total								
Region	517	885	38,710	30,040	77.6	8,670	22.4	192

Source: Regional Education Officer.

Fig. 21: Actrual Enrolment in Primary One by District in 1996, Tabora Region



There were a total of 8,670 empty vacancies in standard one in 1996, which means about 192 streams were empty in all districts except Tabora Urban which needed an extra 34 streams to accomodate the surplus 1,552 pupils. While Tabora Urban had the highest enrolment rate of 187 percent, Tabora and Sikonge districts had the lowest enrolment rate of 46 percent.

School Droputs

School drop out in Tabora is mainly caused by early marriages where girls are sometimes forced to drop out from school in order to get married, truancy which is very common in areas growing tobacco or practicing nomadic pastoralism, pregnancy of school girls or deaths.

There was a total of 865 drop outs or 0.5 percent out of 155,733 registered primary school pupils in 1996 as compared to a total of 2,872 dropouts or 1.9 percent out of 155,586 registered pupils in 1995.

TABLE: IV-3: PRIMARY SCHOOL DROPOUTS 1995 - 1996 TABORA REGION

	1995			1996			
Reason	Boys	Girls	Total	Boys	Girls	Total	
Truancy	1,014	803	1,817	353	368	721	
Pregnancy		87	87		58	58	
Death	56	47	103	21	21	42	
Other	460	405	865	29	15	44	
Total	1,530	1,342	2,872	403	462	865	

Source: Regional Education Officer, Tabora.

Fig. 22: Total reason for primary school dropouts, 1995 - 1996, Tabora Region

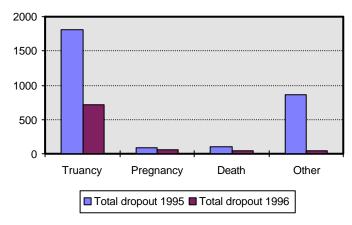


Table: IV-3 show that truancy accounted for 63 percent in 1995 and 83 percent in 1996. In 1996 the number of girls accounted for 53% of all dropouts while in 1995 it was 47%.

Primary Education Infrastructure

Many primary schools in Tabora Region do not have adequate number of classrooms, teachers, houses, desks and other buildings and furniture. Table IV-4 reveals the sad situation in all districts. Classrooms available are far below the requirement.

TABLE:IV-4 PRIMARY EDUCATION CLASSROM REQUIREMENT AND AVAILABILITY, TABORA REGION 1996

District	Requirement	Available	Shortfall	%
				Shortfall
Igunga	194	127	67	34.5
Nzega	798	281	517	64.8
Tabora(R)	797	634	163	20.4
Urambo	738	500	238	32.2
Tabora(U)	543	368	175	32.2
Total Region	3,070	1,910	1,160	37.8

Source: Regional Education Officer, Tabora Region

The overall classroom requirements in the region is 3,070 but what is available is only 1,910 classroms leaving a deficit of 1,160 classrooms equivalent to 37.8 percent. The situation is particularly acute in Nzega district which has a shortfall of 64.8 percent. The national policy is that, for effective communication between the teacher and the pupil, the number of pupils per classroom should not be more than 45. But for Tabora region with the total primary school enrolment of 155,733 pupils in 1996, each classroom on the average accomodates 81.5

Classrooms are not the only area where physical facilities are inadequate. There is also an acute shortage of desks by 65.3 percent, tables and chairs by 72.5 percent and permanent pit latrines by 56.1 percent.

TABLE:IV-5 DISTRIBUTION OF DESKS BY DISTRICTS 1996 TABORA REGION

District	Requirement	Actual	Shortfall	Percentage Shortfall
				(%)
Igunga	11,790	2,704	9,086	77.0
Nzega	13,616	6,376	7,120	51.5
Tabora (R)	12,510	3,699	8,811	70.4
Urambo	10,668	4,586	6,082	57.0
Tabora (U)	8,984	3,565	5,419	60.3
Total	57,954	20,013	37,821	65.3

Source: Regional Education Officer

TABLE: IV-6 DISTRIBUTION OF TABLES AND CHAIRS BY DISTRICT 1996, TABORA REGION

District	Requirement	Actual	Shortfall	Percentage Shortfall (%)
Igunga	3,397	693	1,704	79.6
Nzenga	3,763	1,084	2,679	71.2
Tabora (R)	3,546	978	2,568	27.6

Urambo	2,512	782	1,730	68.9
Tabora (U)	2,796	850	1,946	69.6
Total	16,014	4,387	11,618	72.5

Source: Regional Education Officer

TABLE:IV-7 DISTRIBUTION OF TOILETS/PIT LATRINES BY DISTRICT IN 1996

District	Requirement	Actual	Shortfall	Percentage Shortfall (%)
Igunga	1,279	636	643	50.3
Nzega	1,634	156	1,478	90.4
Tabora (R)	1,224	824	403	32.9
Urambo	1,053	666	387	36.7
Tabora (U)	985	427	558	56.6
Total	6,178	2,709	3,469	56.1

Source: Regional Education Officer

Teachers' houses are also important for primary education efficiency and teachers morale. But this is probably an area where very little has been done as can be observed in Table:IV-8

TABLE: IV-8: TEACHERS' HOUSES IN PRIMARY SCHOOLS BY DISTRICT, TABORA REGION 1996

District	Requirement	Available	Shorfall	% Shortfall
Igunga	896	41	855	95.4
Nzega	1,140	190	950	83.3
Tabora (R)	745	51	694	93.1
Urambo	947	123	824	87.0
Tabora (U)	933	45	888	95.2
Total Region	4,661	450	4,211	90.3

Source: Regional Education Officer, Tabora

Primary School Teachers

The region had a total of 4,583 primary school teachers in 1996 with teacher pupil ratio of 1:34 against the national ratio of 1:45. But the schools face shortage of Grade IIA teachers and most of these available teachers are concentrated in urban centres.

TABLE:IV-9 DISTRIBUTION OF TEACHERS BY DISTRICT, TABORA REGION 1996

District	Requirement	Available	Shortfall	% Shortfall
Igunga	936	792	144	15.4
Nzega	1,309	1,172	137	10.5
Tabora(R)	1,043	772	271	26.0
Urambo	965	838	126	13.0
Tabora (U)	827	1,008	+ 18	121.9
Total Region	5,080	4,583	678	13.3

4.1.2 Secondary Education

Secondary School education comprises four years of ordinary level education from Form I to Form IV and two years of advanced level education from Form V to Form VI.

In 1990 there were only 12 Secondary schools in Tabora region out of which five were owned and run by the Government and seven (7) were owned privately. The number of secondary schools has increased to 24 in 1996 out of which 13 are government owned and the rest are private. The distribution of these secondary schools are shown in Table:IV-10

TABLE:IV-10 DISTRIBUTION OF SECONDARY SCHOOLS IN TABORA REGION BY DISTRICT 1996

District	Public	Private	Total
Iigunga	2	1	3
Nzega	1	2	3
Tabora(R)	3	2	5
Urambo	2	1	3
Tabora(U)	5	5	10
Total Region	13	11	24

If you compare with the neighbouring regions of Kigoma, Shinyanga, Singida and Mbeya, Tabora region ranks third in having 24 secondary schools as can be observed in Table IV-11.

TABLE: IV-11: THE NUMBER OF SECONDARY SCHOOLS COMPARED WITH NEIGHBOURING REGIONS

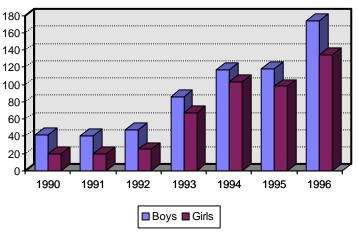
	Nι	ımber of S		
Regions	Public	Rank		
Tabora	13	11	24	3
Kigoma	9	6	15	4
Shinyanga	14	12	26	2
Singida	5	5	10	5
Mbeya	8	23	31	1

It is observed in Table:IV-12 that more boys than girls were selected to join Form I in Secondary schools during the years 1990 - 1996. The number of students selected for Form I has ranged from 3.0 percent in 1990 to 12.5 percent in 1996 of the total number of students who sat for the Std. VII final examination.

TABLE:IV-12 PUPILS SELECTED FOR FORM I BY SEX AND YEAR TABORA REGION

	STD VII		Form I Sele	Enrolment	
Year	Leavers	Boys	Girls	Total	Rate %
1990	2,071	42	20	62	3.0
1991	2,231	41	20	61	2.7
1992	2,493	48	25	73	2.9
1993	2,707	86	67	153	5.6
1994	2,339	117	103	220	9.4
1995	2,998	118	98	216	7.2
1996	2,470	174	135	309	12.5
Total	17,309	626	468	1,094	6.3

Fig. 23: Pupils selected for Form I by Sex and year, Tabora Region



Enrolment in public and private secondary schools in Tabora region can be found in Tables: IV-13 and Table: IV-14

TABLE IV-13: PUBLIC SECONDARY SCHOOLS ENROLMENT BY FORM IN TABORA REGION 1991 - 1996

	Public									
	For	m I	For	m II	Forn	n III	For	m IV	Students	
	Boy	Girl	Boy	Girl	Boy	Girl	Boy	Girls		
	S	S	S	S	S	S	S			
1991	279	174	287	168	275	161	271	162	1777	
1992	314	221	285	178	283	152	269	152	1853	
1993	390	301	312	230	292	201	271	154	2151	
1994	439	426	387	322	307	216	269	154	2822	
1995	552	512	450	400	422	375	400	325	3436	
1996	551	488	464	421	372	343	261	240	3140	

Source: Regional Education Officer

Fig. 24: Total public and private secondary school enrolment Form I - IV, Tabora Region, 1991 - 1996

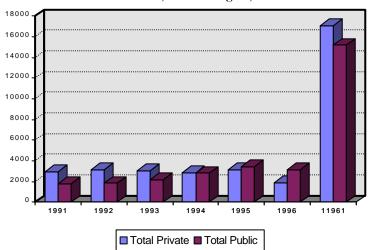


TABLE NO. IV-14 PRIVATE SECONDARY SCHOOL ENROLMENT BY FORM, TABORA REGION 1991 - 1996

	Private								
	Forn	n I	Fo	rm II	Form	Ш	Form	n IV	Students
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
1991	483	367	487	386	3216	292	386	231	2968
1992	603	438	643	463	479	300	432	246	3141
1993	520	430	410	350	401	312	430	244	3091
1994	505	364	437	332	392	248	383	10191	2852
1995	514	412	420	400	412	322	401	282	3163

1996	295	372	275	161	246	153	238	149	1889
1//0	273	312	213	101	240	133	230	177	1007

Source: Regional Education Officer

There were 5,029 students in 1996 out of whom 2,207 or 44 percent were girls.

4.1.3 Adult Education

Tabora region ranks 18th among 19 position as can be observed in Table IV-15 which compares mainland region's literacy attainments and development from 1967 to 1988.

TABLE: IV-15: PERCENTAGE OF LITERACY FOR POPULATION AGED 10
YEARS AND ABOVE IN TABORA REGION COMPARED TO
OTHER REGIONS IN LAST THREE CENSUSES

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

It is observed from Table:IV-15 that the literacy level in Tabora region had reached 50.5 percent compared to 80.8 percent for Kilimanjaro and 80.7 percent for Dar es Salaam at the time of 1988 population Census. Table IV-16 reveals that women's literacy is lower than male literacy in all the regions both in urban and rural areas. This is also true for Tabora region and also true for all districts as can be observed in Table IV-16 below.

Fig. 25: Percentage of literacy for population aged 10 years and above in Tabora Region compared to other Regions in the last three Censuses

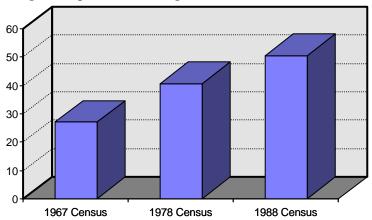


TABLE:IV-16 LITERACY RATES FOR RURAL AND URBAN POPULATION OF 10 YEARS AND ABOVE 1988 CENSUS

		MALE		FEMALE			
REMARKS	Rural	Urban	Total	Rural	Urban	Total	
Tabora	56.1	85.2	60.5	36.7	67.8	41.6	
Iringa	80.1	87.4	84.9	57.2	70.4	58.5	
Kilimanjaro	84.5	90.3	85.5	75.7	83.6	76.9	
Dar es Salaam	68.4	90.0	87.9	48.0	77.7	74.6	
Ruvuma	77.7	87.6	78.7	61.4	75.7	63.3	
Tanga	72.8	88.6	75.9	53.1	75.6	57.3	
Morogoro	68.8	86.4	72.9	49.5	72.0	54.6	
Mara	73.7	88.0	75.3	53.7	71.5	55.6	
Kagera	68.0	84.4	69.0	49.7	72.4	50.9	

Mtwara	65.5	77.9	67.3	46.3	61.6	48.5
Dodoma	61.5	85.4	64.4	45.1	73.7	48.2
Mbeya	69.9	87.5	73.3	48.4	70.0	52.4
Rukwa	69.1	84.3	71.3	43.9	66.4	47.3
Lindi	62.4	75.9	64.6	42.0	60.2	44.8
Singida	65.0	85.5	66.8	47.2	70.8	49.3
Mwanza	63.7	83.7	67.6	43.4	66.9	47.8
Coast	60.1	72.2	64.0	40.1	51.8	44.9
Kigoma	65.1	83.1	67.4	43.1	62.7	45.5
Arusha	61.5	91.8	65.6	46.4	82.8	50.9
Shinyanga	57.9	85.9	59.9	36.2	67.7	39.3

Source: Regional Education Officer

TABLE: IV-17 ILLITERATE POPULATION CENSUS 1996 OF 10 - 65 + YEARS

Age Group	Sex	Igunga	Nzega	Tabora (R)	Urambo	Tabora (U)
10 -14	Male	247	381	326	392	65
	Female	489	392	652	2250	146
15 - 29	Male	2666	1678	2168	2210	720
	Female	4017	2254	2954	2597	1157
30 - 44	Male	3146	2206	2523	1576	4521
	Female	4709	3049	3587	2351	1395
45 - 54	Male	1733	1633	1443	1715	620
	Female	2503	1997	2136	2906	928
55 - 65+	Male	1796	2120	1661	1071	852
	Female	1721	1634	2400	1892	1099
Total	Male	9588	7288	8121	6864	3297
	Female	13439	9329	11729	11996	4722
Grand Total		23027	16677	19850	18860	8019

Source: Regional Education Officer

4.2 Health

4.2.1 Introduction

Both modern and traditional health systems co-exist in Tabora region. In the modern situation there are government, voluntary agencies, parastatal organisation and private health services. The traditional health system consists of traditional healers and traditional birth attendants whose contribution is still accepted by the communities.

The climate, social habit, poor economic conditions and inadaquate or rundown health infrastructure have aggravated health situation in the region.

4.2.2 Morbidity and Mortality

The ten most common causes of morbidity and mortality are as shown in Table IV-18.

TABLE IV-18: THE TEN MOST COMMON CAUSES OF MORBIDITY IN TABORA REGION 1996

Disease	Occurrence	% of all cases	Ranking
1. Malaria	269,136	54.4	1
2. URTI	85.390	17.2	2
3. Diarrhoea	46,542	9.4	3
4. Eye Disease	22,420	4.5	5
5. Pneumonia	11,237	2.3	7
Intestinal Worms	23,326	4.7	4
Skin Disease	20,390	4.1	6
8. Anaemia	7,436	1.5	8
Gonorrhea	6,196	1.3	9
10. Ear Disease	2,813	0.6	10

By far the most common cause is malaria followed by upper respiratory tract infections. Diarrhoea and intestinal worms are also more evident.

4.2.3 Health Infrastructure

Health services are provided at Hospitals, Rural Health Centres and Dispensaries. The existing health facilities in 1996 include seven hospitals of which four are owned by government and three are private, 14 rural health centres of which 13 are public and one is private and 182 dispensaries out of which 119 are public and 63 are privately owned.

The hospitals have a total of 1322 beds out of which 1008 beds are in the government hospitals and 314 are in private hospitals.

TABLE:IV-19 DISTRIBUTION OF HEALTH FACILITIES BY DISTRICT, TABORA REGION

District	Hospital		Health Centres			Dispensaries			
	Public	Priv	To	Public	Privat	Tota	Public	Privat	Tota
		ate	tal		e	1		e	1
Igunga	1	1	2	4	-	4	21	5	26
Nzega	1	1	2	4	1	5	27	6	33
Tabora(R)	-	-	-	1	-	1	29	1	30
Urambo	1	-	1	3	-	3	29	-	29
Sikonge	-	1	1	1	-	1	16	-	16
Tabora(U)	1	-	1	-	-	-	21	27	48
Total	4	3	7	13	1	14	143	39	182

Source: Regional Medical Officer

The coverage of the regions population by the existing health facilities is as shown in Table IV-20.

TABLE:IV-20 PUPULATION COVERAGE OF HOSPITALS AND DISPENSARIES TABORA REGION

District	Population 1997 (Estimate)	No. Of Hospitals	Population per Hospital	No. of Dispensaries	Population per Dispensar
----------	----------------------------------	---------------------	-------------------------------	------------------------	--------------------------------

Igunga	216,759	2	108,379	26	8,337
Nzega	379,227	2	189.613	33	11,492
Tabora (R)	353,431	1	353,431	46	7,683
Urambo	229,737	1	229,737	29	7,922
Tabora (U)	124,239	1	124,239	48	2,588
Total	1,303,394	7	186,199	182	7,161

Source: Regional Medical Officer

The population per bed coverage in 1997 was 986 as against the national coverage of 896. See Table: IV-21

TABLE:IV-21 NUMBER OF POPULATION PER BED BY DISTRICT

District	Population 1997	Number of	Population per Bed
	(Estimate)	Hospital Beds	
Igunga	216,759	299	725
Nzega	379,227	361	1050
Tabora (R)	353,431	210	1683
Urambo	224,737	102	2252
Tabora (U)	124,239	350	355
Region	1,303,394	1,322	986

Source: Health Statistics Abstract 1996, Ministry of Health

4.2.4 Child Immunization

There are six early childhood diseases against which immunization can be given. These diseases are tuberculosis, pertussis, diptitheria, tetanus, polio and measles. The number one target group for such immunization consist of new born children before they reach one year. The second target group are the under fives. The immunization of children under one year had by 1995 reached above 80 percent in Urambo district. The lowest coverage was Tabora/Sikonge districts.

TABLE:IV-22 IMMUNISATION COVERAGE OF UNDER ONE YEAR BY DISTRICT 1994 - 1995, TABORA REGION.

	Years	Igunga	Nzega	Tabora/Sik onge	Urambo	Tabora Urban	Total
BCG	1994	96	95	53	97	99	97
	1995	86	92	86	94	93	85
DPT ₃	1994	79	77	78	83	80	79
	1995	73	79	72	87	75	77
POLIO ₃	1994	61	52	36	43	99.5	52
	1995	73	79	71	86	75	77
MEASLES	1994	94	74	72	94	66	80
	1995	63	80	77	86	76	70

Source: Regional Medical Officer

For all the districts, immunization of under fives was well covered above 70 percent in 1994 and 1995.

TABLE:IV -23 IMMUNISATION COVERAGE OF UNDER FIVE YEAR BY DISTRICT 1994 - 1995, TABORA REGION

	Years	Igunga	Nzega	Tabora/ Sikonge	Urambo	Tabora	Total
BCG	1994	90	96	99	92	53	91
	1995	86	92	86	94	93	85
DPT_2	1994	69	75	77	86	74	77
	1995	73	79	72	87	75	77
POLIO ₃	1994	73	75	81	86	77	93
	1995	73	79	71	86	75	77
MEASLES	1994	76	66	80	82	72	84
	1995	63	80	77	86	76	70

Source: Regional Medical Officer

4.2.5 Maternal Mortality

The death of women while pregrant or within 42 days of the termination of pregnancy defines maternal mortality. Maternal surveillance and delivery of children at a health facility reduces the risk of death to both child and mother. Table:IV-24show how Tabora region fares compared to other regions with respect to the

place of delivery. More women deliver at a health facility in Tabora Region ranking Fourth after Dar es Salaam, Ruvuma and Kilimanjaro regions.

TABLE: IV-24 PLACE OF DELIVERY - PERCENT DISTRIBUTION OF BIRTHS IN TABORA REGION

Region	Health Facility	Home	Don't Know/ Missing	Total
Tabora	63.3	28.7	8.0	100
Dodoma	41.5	57.4	1.1	100
Arusha	41.3	54.1	4.6	100
Kilimanjaro	64.3	31.1	4.6	100
Tanga	45.0	54.3	0.6	100
Morogoro	54.0	44.7	1.3	100
Dar es Salaam	85.9	12.3	1.8	100
Lindi	49.5	42.3	8.2	100
Mtwara	51.5	47.8	0.7	100
Ruvuma	79.8	17.8	2.4	100
Iringa	46.6	53.0	0.3	100
Mbeya	46.9	52.7	0.4	100
Singida	47.1	51.5	1.4	100
Rukwa	45.6	53.5	0.8	100
Kigoma	-	-	-	-
Shinyanga	38.9	50.4	10.7	100
Kagera	29.6	67.7	2.7	100
Mwanza	37.6	53.8	8.6	100
Mara	31.7	58.7	9.6	100
Coast	51.1	44.0	4.9	100

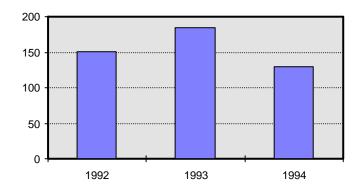
The Maternal Mortality Rate for Tabora when compared to other regions is as shown in Table $\,$ IV-25

TABLE IV-25: MATERNAL MORTALITY RATE IN TANZANIA
MAINLAND BY REGION FOR 1992, 1993, 1994

Region	1992	1993	1994
Tabora	151	185	130
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	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
Tanga	255	172	220

Source: Health Statistical Abstract 1996

Fig. 27: Maternal Mortality Rate in Tabora Region For 1992, 1993, 1994



4.2.6 Infant and Under Five Mortality

The infant mortality rate (IMR) and the Under five Mortallity Rate (U5MR) are the two ultimate indicators of child survical. Table IV-26 shows that Tabora region had a better performance compared to other regions. Both the IMR and U5MR are showing the healing sign of declining.

TABLE IV-26: INFANT AND UNDER FIVE MORTALITY RATES FOR TABORA REGION COMPARED TO OTHER REGIONS 1975, 1985, 1995

Region	IMR			U5MR		
	1975	1985	1995	1975	1985	1995
Tabora	140	101	73	236	166	116

Arusha	108	75	52	179	129	78
Dar es Salaam	108	105	102	179	173	168
Coast	121	113	105	204	189	174
Dodoma	133	132	130	225	222	220
Iringa	152	130	111	257	220	187
Kagera	133	130	127	225	219	212
Kigoma	163	115	81	269	192	137
Kililmanjaro	76	67	59	119	104	90
Lindi	151	140	129	255	236	218
Mara	140	125	112	236	211	189
Mbeya	161	124	96	257	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
Shinyanga	150	110	81	252	183	131
Singida	137	96	67	231	157	106
Tanga	112	106	100	187	176	'166
Nation	137	115	96	213	191	158

Source: Health Statistics Abstract 1996.

Fig. 28 (a): Infant Mortality Rates (IMR) for Tabora Region Compared to the Nation 1975, 1985 and 1995

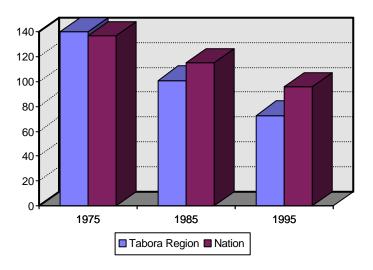
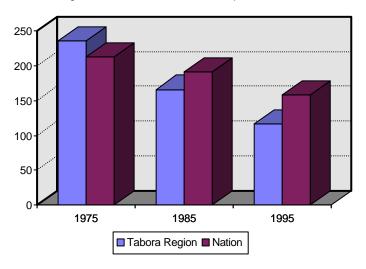


Fig. 28 (b): Under Five Mortality Rates (U5MR) for Tabora Region Compared to the Nation 1975, 1985 and 1995



As can be observed in Table IV-27 there is a difference in mortality rates in urban and rural areas while the IMR was 101 in 1988 it was 103 in urban areas. Similarly the U5MR in 1988 was

166 but it was 165 in rural and 169 in urban areas. These rates surprisingly show that children in urban areas carry a greater risk of death than in rural areas compared to most regions.

TABLE:IV-27 INFANT AND UNDER FIVE MORTALITY RATES BY REGION, RURAL AND URBAN, 1988

Region	IM	IR .	U5MR		
	Rural	Urban	Rural	Urban	
Tabora	101	103	165	169	
Arusha	76	72	120	114	
Coast	115	104	193	172	
Dar es Salaam	121	103	203	169	
Dodoma	136	94	230	154'	
Iringa	130	135	219	229	
Kagera	130	116	220	193	
Kigoma	116	109	194	181	
Kilimanjaro	66	73	102	115	
Lindi	143	121	241	204	
Mara	128	101	216	116	
Mbeya	128	107	216	177	
Morogoro	134	94	226	153	
Mtwara	143	108	241	180	
Mwanza	119	94	200	158	
Rukwa	134	112	227	186	
Ruvuma	114	107	190	177	
Shinyanga	112	92	186	150	
Singida	99	81	161	129	
Tanga	109	89	182	144	
Mainland	118	114	197	190	

Source: 1988 Population Census (National Profile)

A look at Table IV-28 show that male children in the region as in most regions in Tanzania are more at risk from death than their female counterparts.

Fig. 29 (a): Infant Mortality Rates (IMR) of Tabora Region compared to the Mainland, Rural and Urban, 1988

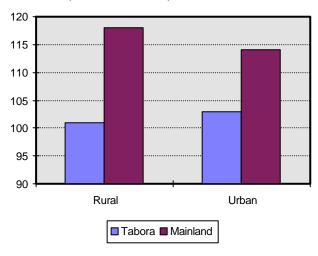


Fig. 29 (b): Under Five Mortality Rates (U5MR) of Tabora Region compared to the Mainland, Rural and Urban, 1988

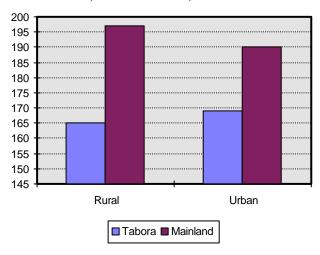


TABLE: IV-28: INFANT AND UNDER FIVE MORTALITY RATES BY SEX AND REGIONS 1988

	IN	IMR		U5MR	
Region	Male	Female	Male	Female	
TABORA	103	99	161	152	
Arusha	79	82	126	131	
Coast	118	109	199	180	
Dar es Salaam	109	100	181	165	
Dodoma	136	127	230	114	
Iringa	137	124	231	209	
Kagera	133	127	224	213	
Kigoma	119	111	200	184	
Kilimanjaro	67	67	104	104	
Lindi	140	139	237	235	
Mara	128	122	216	205	
Mbeya	130	118	224	197	
Morogoro	133	118	238	197	
Mtwara	141	134	204	227	
Mwanza	122	108	132	178	
Rukwa	137	125	193	211	
Ruvuma	115	110	191	183	
Shinyanga	114	106	161	175	
Singida	98	94	183	152	
Tanga	110	102		168	

Source: 1988 Population Census.

Fig. 30 (a): Infant Mortality Rates (IMR) by Sex, Tabora Region, 1988

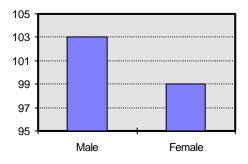
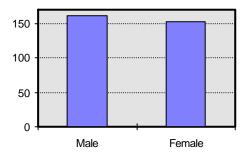


Fig. 30 (b): Under Five Mortality Rates (U5MR) by Sex, Tabora Region, 1988



4.2.7 Child Nutrition Status

The major causes of poor child nutrition status in the region are the ignorance about feed regimes for pregrant women and children, the unrealiability of rains which determine food production and general poverty. In the absence of reliable data from the region, the figures of the weight of new born babies can demonstrate the situation Table: IV-29 show that in 1995 about 45,648 children were weighed at birth. About 1.2 percent or 547 children were severely underweight while another 3.8 percent or 1,734 children were moderately underweight compared to the neighbouring regions, Tabora region had the lowest proportion of underweight births followed by Singida.

TABLE IV-29: NUTRITION STATUS OF CHILDREN AT BIRTH IN TABORA REGION COMPARED TO SINGIDA, KIGOMA, MBEYA AND RUKWA REGIONS, 1995

		Children Under Nutrition					
Region	Number	Number Weight		Total	%		
	Weighed	L60%	60 - 80%				
Tabora	45,648	547	1,734	2,281	5.0		
Kigoma	42,408	1,392	5,227	6,619	15.6		
Singida	31,254	376	1,276	1,652	5.3		
Mbeya	84,231	1,528	10,062	11,590	13.7		
Rukwa	33,454	876	3,611	4,487	13.4		
Total	236,995	7,880	21,910	29,790	12.6		
Average							

Source: Health Statistics Abstract 1997

4.2.8 AIDS

Acquired Immunity Deficiency Syndrome (AIDS) is gaining importance as a cause of death in most parts of the country. It is both a social and economic problem for the region. The first case of AIDS in the region was discovered in 1985. By 1993 the cumulative total of AIDS cases was 1,415 or 235 people in every 100,000 population.

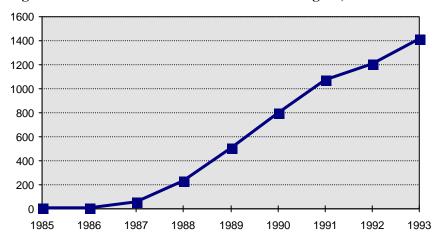
TABLE: IV-30: CUMMULATIVE AID CASES BY REGION 1985 - 1993

Region/Ye ar	1985	1986	1987	1988	1989	1990	1991	1992	1993
Arusha	0	10	47	217	429	579	881	996	1152
Coast	1	4	79	224	413	705	1147	1341	1457
D'Salaam	51	471	1470	3093	5203	7196	8651	8868	9186
Dodoma	0	7	47	105	247	277	400	426	520
Iringa	1	3	68	305	374	612	1660	1945	2232
Kagera	322	847	1665	2142	2543	3164	3886	4135	4387
Kigoma	0	3	50	109	243	434	631	818	961
Kilimanjaro	8	36	207	455	570	854	1523	1779	2279
Lindi	0	1	9	45	111	394	563	668	800
Mara	0	3	30	99	139	237	483	600	668
Mbeya	0	16	208	747	1042	2819	4741	5633	6081
Morogoro	0	11	88	247	339	544	1733	2167	2287
Mtwara	1	5	23	95	173	369	824	995	1051
Mwanza	15	54	171	448	644	1065	2119	2448	2762
Rukwa	0	1	5	90	94	124	203	258	317
Ruvuma	0	20	45	76	187	388	788	999	1192
Shinyanga	0	8	31	144	227	463	931	1102	1310
Singida	0	6	74	197	284	405	577	683	759
Tabora	5	6	59	232	510	802	1071	1208	1415
Tanga	0	13	80	210	335	650	1257	1377	1606

Mainland 404 1525 4456 9280 14107 22081 34140 38416 424

Source: Health Statistics Abstract 1996, Ministry of Health.

Fig. 31: Commulative IDS Cases in Tabora Region, 1985 - 1993



4.2.9 Life Expectancy

Life expectancy is the ultimate measure of a region's health environment. Between 1978 and 1988 censuses life expectancy for Tabora region improved from 44 years to 53 years. If viewed for males and females the life expectancy was 53 for males and 54 for females. This means that usually female have longer life expectancy than males as can be seen in Table IV-31.

TABLE IV-31: LIFE EXPECTANCY AT BIRTH BY SEX AND BY REGION.
TANZANIA MAINLAND 1978 AND 1988

	Average		1988		
Region	1978	Average	Male	Female	Ranking
TD-1	4.4	52	52	5.4	4
Tabora	44	53	53	54	4
Arusha	50	57	57	58	2
Coast	47	48	46	51	9
Dodoma	45	46	45	47	18
Dar esSalaam	50	50	50	50	5
Iringa	41	45	44	47	19
Kagera	45	45	44	45	18
Kigoma	40	48	47	49	11
Kilimanjaro	58	59	57	62	1
Lindi	42	47	46	48	13
Mara	44	47	46	48	12
Mbeya	41	47	45	48	14
Mtwara	40	46	44	48	16
Mwanza	44	48	46	50	10
Morogoro	44	46	45	48	15
Rukwa	40	45	44	47	17
Ruvuma	43	49	48	50	8
Shinyanga	42	50	48	51	6
Singida	44	55	54	55	3
Tanga	49	49	48	51	7
Mainland	44		49	51	

4.3 Water Supply

4.3.1 Introduction

Tabora region is in the semi-arid climatic zone in which there is a limited natural water resources. Most rivers in the region which could be a source of surface water flow strongly at the height of the rains but the flow rate drops off sharply at the end of wet season. All the major rivers which are the Ugalla, the Wembere and Malagarasi rivers are perennial. The tributaries of these rivers

are generally broad mbugas with badly defined drainage channels, but in which in the wettest areas to the west, shallow underground supplies of water are readily accessible. The only large natural supply of surface water is Lake Sagara on the Western boundary of the region.

Shallow underground water could be obtained from wells but suitable areas for the use of this technique need to be defined and better construction and maintenance techniques applied. The deeper underground water potential is generally only poor to fair due to the presence of underlying beds of granite or granadiorites while in the North East of Nzega District, much of the underground water is saline or has a high flouride content. Good yields of 1000 gallons per hour or more have been obtained at depth of 60 - 120 metres in selected areas mainly to west of Tabora but the failure rate in drilling varies from one good borehole to one poor dry hole.

Due to the region's flat rolling topography, the poor stream flow and the presence over large areas of sandy permeable soils, good dam site are not easy to locate. However some 50 dams have been built in the region with the largest being the Mwamapuli dam (600 million gallons), the Bulenya (450 million gallons) both in East Nzega, followed by the Mihama and Kilimi dams in South East and West Nzega, and the Igombe and Kazima dams in Tabora district. In difficult areas, an alternative source of water has been provided by the construction of "charcos" which are large excavated pits that collect water during the rainy season.

For the last three years from 1995 to 1997 Tabora region has experienced inadequate rains which have led to drought both in rural and urban areas. The situation has led to the drying up of

various water sources like Kazima, Uchama and Nkiniziwa dams and some shallow wells and charcoals. The installed water supply facilities are estimated to benefit about 36% of the region's population, Currently the vast majority of rural population still rely on traditional water sources for human and livestock watering either from hand dug water holes in river bed or unlined, unprotected shallow wells or ponds. Table: IV-32 below shows the situation.

TABLE IV-32: NATURAL SOURCES AND WATER SCHEMES BY DISTRICT, TABORA REGION 1996.

DISTRICT	IGUNGA	NZEGA	TABORA	URAMBO	TOTAL
Piped Scheme					
Operating	4	2	7	4	15
Not Operating	2	7	9	5	28
TOTAL	6	9	16	9	43
Shallow Wells.					
With Hand pumps	19	19	40	35	113
Without Hand	24	15	26	21	86
pumps					
TOTAL	43	34	66	56	199
Boreholes					
With Pumped W/S	2	4	3	17	26
Without Pumped	3	11	5	9	28
W/S	21	8	73	17	119
Dry, Saline etc.					
TOTAL	26	23	81	43	173
Dams	5	9	6	3	23
Reservoirs	8	-	10	-	18
Springs	-	16	7	8	31

Source: Regional Water engineer

TABLE IV-33: NUMBER OF PEOPLE SERVED WITH CLEAN WATER BY DISTRICT

District		1988	19		
	Population	% Served	Population	% Served	
Igunga	23,941	12.0	64,341	30	
Nzega	44,382	15.0	99,682	27	
Tabora (R)	42,812	17.0	140.181	41	

Urambo	28,136	15.0	97,913	44
Tabora (U)	29,982	32.0	64,555	53.0
TOTAL	169,253	16.3	466,672	36.8

Source: Regional Water Engineer

4.3.2 Rural Water Supply

The rural population in Tabora region which is estimated to be 953,520 people is served with 51 piped water schemes, and 444 shallow wells. Out of 51 piped schemes three schemes are run by private organisation and 48 are run by government. The schemes are estimated to supply 1,623.47 cu m of water per day. This is 23.6 percent of the designed capacity of 689,7m³ per day. However the estimated water demand is 23,838m³ per day.

The 444 shallow wells are estimated to supply water for 110,750 people but due to long dry spell, most of these wells are dry. If these wells were properly working the combined level of service for the rural water supply facilities would be 31,0 percent of the total rural population.

TABLE IV-34: NUMBER OF RURAL POPULATION SERVED WITH CLEAN WATER (1996), TABORA REGION

District	Total Rural Populatio n	Populat ion Served	% Populat ion Served	Total Village s	Village s Served	% Village s Served
Igunga	206,186	31,960	15.5	96	7	7.3
Nzega	343,284	83,467	24.3	131	27	20.6
*Tabora	330,167	60,760	18.4	137	28	38.4
Urambo	198,919	48,337	24.3	91	15	16.5
Total	1,078,756	224,524	20.8	455	77	16.9
Region						

^{*} Includes Sikonge District. NB. Sikonge Town is Urban.

Source: Regional Water Engineer

In the past few years, the installation of rural water supply systems was undertaken by Government. The burden of cost to the Government in such service increased to an extent that the government could no longer bear it. Later on it became necessary that these cost be shared between the Government and the beneficiaries. However, some other sources of assistance have to be sought for as neither the government nor the beneficiaries are not adequately funded to install and maintain these services. In Rural areas apart from the Government, the Councils and the beneficiaries, are also other actors to this cost sharing of water supply systems.

The cost sharing approach is now being emphasized to be undertaken by beneficiaries through their Village Water Committees and Water Funds, but the willingness to contribute to a project depends to a large extent on a household's or Community's evaluation of the potential benefits. Some Communities are willing to contribute cash, others labour, ideas and leadership depending on Social-economic status and mass mobilization.

TABLE IV-35: VILLAGES WITH WATER FUNDS AND AMOUNT COLLECTED BY DISTRICT 1993 - 19995) TABORA REGION

	1993		1994		
District	Villages	Amount Collected	Villages	Amount Collected	
Igunga	8	3,345,760	2	5,603,740	
Nzega	8	775,220	12	505,600	
Tabora (R)	-	ı	1	148,902	
Urambo	1	5,000	1	500	
Sikonge	1	9,000	Ī	-	
Tabora (U)	3	10,816	Ī	-	
Total	21	4,141,296	16	6,258,742	

Source: Regional Water Engineer

4.3.3 Urban Water Supply

Tabora Region has a total of 14 Urban Centres out of which one is a Municipality, Four District Headquarters and the Sub-Urban Centres. The present population in all is estimated at 241,245 and projected to reach 312,796 by the year 2002. Out of 193,214 people in Four (4) Districts Headquarters and one Municipality only 96,870 people are served with piped water which is 50.1%.

i) **Igunga Town Water Supply**

Igunga district rank first in the problem of water compared to other districts of Tabora. It is also unfortunate that very few Non-Governmental Organization are out to support people's development efforts especially in the provision of water. Consequently the level of service is very low. The present level of service is estimated at less than 30% of the total population.

Igunga Town gets its water from Bulenya Dam by two ways, mainly by gravity system which catters for about $^{1}/_{2}$ of the Town areas and by a booster pump stastion which supplies to sensitive areas e.g. District Hospital, Government offices and the remaining residential areas not commanded by gravity system.

For several years now, Igunga water committee has been running the project through people's contribution, but due to economical fall back and increase in water demand due to population growth, the service has dropped to nearly stop-line.

ii) Nzega Town Water Supply

Nzega Town have three major water sources e.g. Uchama Dam, Kalangali Dam, and one borehole the present population is estimated at 25,000 people. The town has 15 public kiosks and 980 personal connection the total demand is 1750m³/day. The production capacity at present is only 450m³/day which is approximate 27% and this is being produced by Uchama Pumping System only, Kalangali Pumping system is out of order (beyond repair).

The major problems for the Nzega Water Supply are the rapid expansion of Nzega town, thus increasing water demand, the frequent beack down of the only machinery at Uchama Dam and lack of funds for operating and mantain the water supply system.

With the situation at Uchama Pumping Station suggestion is that more emphasis be put to supply Nzega Town with water from Kilimi Dam as the Uchama and Kalangali Dams drys or the water level drops excessively during the dry period. Also the construction of Ushirika Tank be completed which will increase the storage capacity by 125,000 gallons.

iii) Urambo Town Water Supply

Urambo Town is estimated to have six borehole as the water source with a total yield of 630m³/day while the total demand is 87m³/day which is 72% of service level. At present only three bore hole are in working condition which produces 35429m³/day which is 41% of level of service. The three other bore holes need new pumping unit.

Another problem at Urambo is the storage tanks, there are 7 storage tanks but only three (3) storage tanks are in use with a total capacity of 71,200 gallons, the other four (4) are out of order due to old age.

iv) Tabora Municipal Water Supply:

Tabora Municipal has a population about 126,500 people. The people of Tabora municipal obtain their water from three main water sources namely:-

- (a) Igombe Dam which was built in 1958 with a total capacity of 41,000,000m³
- (b) Kazima Dam which was build in 1952 with a total capacity of 1,620,000m³, but this capacity has decreased very much due to siltation.
- (c) Three shallow wells with a total yield of $400\text{m}^3/\text{day}$.

Total demand of water for Tabora Municipal is 18,000m³/day while the supply is only 10,000m³/day which is 44%. The situation of water in Tabora Municipal is very severe, hence the water demand is almost twice as much as that is supplied due to the fact that the entire water supply system need major rehabilitation, to see and find ways of increasing the Igombe, Kazima Dam's Storage capacity, to rehabilitate the rising main since the existing one has the capacity of carring only 10,000m³/day against design capacity of sand filters of filtering 15,000m³/day. Also the distribution systems should be looked, there are areas without the distribution system, and some areas have very old distribution lines as a result they carry little water, or no water at all due to blockage and courses leakage which make a lot of water to be lost on the way to the user.

TABLE IV-36: POPULATION SERVED WITH CLEAN WATER IN URBAN AREAS 1996

District	Total Urban Population	Population Served	%
			Population
			Served
Igunga	10,039	9,951	99.1
Nzega	25,657	7,581	29.5
Tabora (R)	11,621	4,860	41.8
Urambo	25,595	9,923	38.8
Tabora (U)	120,302	64,555	53.6
Total	193,214	96,870	50.1

Source: Regional Water Engineer

4.3.4 Sanitation

In Tabora there is a 5.3 k.m. public sewer to which a few institutions and residential houses are connected. This sewer terminates into oxidation pond near Milambo Barracks. Nearly all houses in Tabora Municipal have no access to the public sewer or service sewer. Cesspit emptying remains the only immediate solution for domestic waste.

i) Rural sanitation status:

In most rural areas traditional pit latrines have been adopted and about 24% of the rural population go without latrines. More over, some people who go looking for green pastures in grazing areas, go in the bush for excreta disposal. Design of strong and permanent type of latrines (VIP) have already been introduced by the Ministry of Water and contruction has already started in Tabora Urban. For the Rural part, training of craftsmen on how

to construct these latrines has also started with Nzega District.

Apart from excreta disposal, sanitation generally is very poor in the rural areas. May be this is attributed to poor housing and dwelling conditions especially where animals share the same premise with the people. This conditions is expected to improve to the better because the Regional Authority have embarked on campaign for modern housing and improved dwelling congitions.

TABLE IV-37: HOUSEHOLD WITH TOILET BY DISTRICT - 1996.

	Total	Type of Toilet			Total	%
District	Household	Pit	VIP	Septic		Household
	s (1988			Tanks		with Toilet
Igunga	31,793	27,252	63	-	27,315	85.9
Nzega	51,598	34,638	136	-	34,774	67.4
Tabora (R)	44,224	31,189	73	-	31,262	70.7
Urambo	34,940	30,067	56	-	30,123	86.2
Tabora (U)	17,565	15,640	131	763	16,534	94.1
Total	180,129	129,786	459	763	131,008	72.8
Region						

Source: Regional Water Engineer

ii) Urban sanitation status

In Urban areas very few houses are saved by septic tanks system. Instead traditional pit latrines have been adopted as the means of excreta disposal, mainly in densely populated areas, a good number of houses have fairly simple latrines, but the number vary year after year, this is because the type of soil which we have in here is mainly sandy, as such many latrines do collapse at the end a rainy season. This situation is complicated in Tabora Municipality for the fact that the water table is very high. All the

same devices of strong and parmanent type of latrines have been introduced by the Ministry of Water through the Municipal Council of Tabora and people are slowly adopting themselves to such latrines.

SECTION V

5.0 OTHER DEVELOPMENT RELATED ISSUES

5.1 Women in Development

Tabora region has a very high population of women compared to men. For every 100 women there are 97 men. This means women are even more vitally important for the economic and social welfare of Tabora Region. They are the producers of wealth and food for the households. Women toil in fields, homes, in livestock keeping, in searching for fuelwood, fetching water for the family in addition to their traditional role of child bearing and rearing. Despite their economic importance women as a group are more vulnerable to health risks because of gender.

The unequal access by women to decision-making, credit, markets, training, basic social services, land, extension services, technology and employment opportunities continue to present severe constraints to their integration into development activities and to their achievement of equitable social development.

Early marriages, comparative illiteracy and autdated discriminatory customs all contribute to the erosion of women rights.

Women, like men have to be trained for and exposed to leadership situation right from childhood if they are to assume position of responsibility in society. The increased awareness on gender issues and concerns will create an environment that will encourage the formulation and implementation of policies, programmes and projects that address to their constraints.

The formation of women groups and women oriented organisations are providing the fora on which to launch women empowerment, income generation and awareness of the inequalities. There are 86 women income generating groups in the region operating in different activities as shown in Table: V-1 with 762 members or 0.14% of the total population of women in the region.

TABLE V-1: WOMEN ECONOMIC GROUPS BY DISTRICT IN TABORA REGION 1996

District	Women	No. of	Activitis
	Groups	Members	
Igunga	10	50	Tailoring, cookery, grossary,
Nzega	17	310	gardening, charcoal felling, viosks,
Tabora (R)	13	65	fish rendors, livestock selling, petty
Urambo	12	67	business and pombe shops.
Tabora (U)	34	270	
Total Region	86	762	

Source: Regional Community Development Officer, Tabora

5.2 Cooperatives

Tabora region has a total of 258 co-operative societies with two cooperative unions Igembensabo Cooperative Union Ltd (ICU) with 58 primary cooperative societies as members is basically for

cotton growers while Western Zone Tobacco Growers Cooperative Union with membership of 85 primary cooperative societies is meant for tobacco growers. Other cooperative societies include Saving and Credit, industrial, housing, fishing, shop and other services. See Table: V - 2

TABLE: V - 2 COOPERATIVE SOCIETIES IN TABORA REGION 1996

Type of	Districts						
Co-operatives	Igunga	Urambo	Nzega	Tabora (R)	Sikonge	Tabora(U)	Total
Produce pri- mary Society	40	48	33	27	15	7	170
Saving and Credit	1	11	16	11	3	12	54
Shopp owners	1	3	3	-	-	9	16
Industries	-	1	2	1	-	3	7
Housing	-	-		-	-	1	1
Fishermen	-	1	1	-	1	1	4
Services	-	2	2	1	-	1	6
Total Region	42	66	57	40	19	34	258

The total number of members to these cooperative societies is 25,056 or 2.4 percent of the total population of the region.

TABLE V-3: MEMBERS IN COOPERATIVE SOCIETIES BY DISTRICT, TABORA REGION 1996

Type of		Districts					
Co-operatives	Igunga	Urambo	Nzega	Tabora(R	Sikong e	Tabora(U	TOTAL
Produce pri- mary Society	1615	8236	1172	6017	1150	1288	19685
Saving and Credit		1196	310	713	173	1107	3541
Shopp owners	43	146	40	-	-	283	512
Industries	-	15	30	12	-	45	102
Housing	-	1	-	ı	-	-	1
Fishermen	-	15	10	-	16	1246	1276
Services	-	115	47	15	-	1	187
Total	1658	9723	1609	6757	1339	3970	25056

5.3 NGOS Activities in the Region

The exact number of NGOs and what they are doing in the region is not very clear. But what is known is that apart from the religious NGOS in Tabora, there about 9 potential NGOs, of which only 4 are local NGOs. None of these four can stand on their own without support. The following table shows some activities being undertaken by these NGOs.

TABLE: V - 4 NGOS WITH THEIR ACTIVIES IN THE REGION:

Name of NGO	Area Operating	Objectives	Progress
CARITAS All Districts		To assist community in bringing about their deve- lopment. It is mult sectoral	- Recommandable
		- To assist the community during crises	
WORLD VISION	Igunga and Nzega	- To assist in water, health, agriculture, environmental conservation.	- It has worked in the for a short period.
HEALTH PROJECT ABROAD (HPA)	Igunga, Tabora (R), Municipal and Urambo	- To assist community in improving health and education services	- Recommandable
WATERAID	Tabora (R) and Municipal	- To assist community in improving water, health and Sanitation services.	- Recommandable
THE FRIENDS OF URAMBO AND MWANHALA	Urambo and Nzega	- To assist community in improving water, health, education services and afforestation.	- Racommandable
MARTEA	Igunga, Urambo and Tabora	- To assist in water, health, agriculture, environmental conservation. - Ant - AIDS campaign	- Not so efficient.
HABITAT INTER- NATIONAL	Igunga	- Rural housing	- Recommandable

ТАНЕА	Tabora (R) and Municipal.	 Food Storage. To assist community in improving water, health and Sanitation services. 	- It lacks financial capability.
MORAVIAN CHURCH	All districts	 To assist community in improving water, health, education services and agriculture. 	- Recommandable
ANGLICAN CHURCH	All Districts	- To assist community in improving water, health, education services and afforestation.	- Recommandable
TADESO	All Districts	- To asist community in improving water, health, education services and afforestation.	- Not efficient.

5.4 Donor Projects

5.4.1 Forest Resource Management Project - (FRMP)

The project funded by the World Bank and the Government of Tanzania started in 1991 and has two components: Lands and Forestry.

5.4.2 Child Survival Protection and Development Programme (CSPD)

This project began in 1980's with financing from UNICEF, WHO and the Government of Tanzania . The objectives of the project are to combat malnutrition lower mortality rates among children and mothers. The project covers Nzega and Igunga districts.

5.4.3 Cummunity Health Fund (CHF)

This is a pilot project carried out in Igunga district funded by WHO and Government of Tanzania. The objective of the project is to introduce a system whereby the community contribute to a health fund to cover for medical expenses.

5.4.4 Smallholder Development Project for Marginal Areas (SDPMA)

The project aims at assisting smallholders to increase productivity of paddy per hectare. It is funded by IFAD and the Government of Tanzania.

SECTION VI

6.0 POTENTIAL INVESTMENT AREAS

6.1 Agriculture

Tabora region which is estimated to have 2.4 million hectares of cultivable land has a great potential for a wide variety of cropsboth cash and food crops. Although invariability and unreliability of rainfall is the main factor limiting crop production, total rainfall of between 800 to 2000 mm per year is sufficient for crop growing particularly the common grown crops of tobacco, cotton and maize.

The unreliability and invariability of rainfall can be overcome by irrigation. There are several potential areas suitable for rainwater harvesting irrigation. Some of these areas are Mbuga ya Lyela, Mwaguguli/Mwaluto, Sigili, Simbo/Mwisi, Igurubi/Mwagalo, Isakamaliwa, Kisanga/Mkolye, Kizengi, Mpumbili, Nyahua, Bukumbi, Lake Sagara, Kalina, Uyumbu, Mabama, Ndono, Songambele and Limbuka.

The use of organic fertilizers such as manure, compost and legumes should be emphasized in order to retain and increase soil fertility. There is also a potential for integration of agriculture and forestry (agroforesty) as well as improving cropping pattern for food crops (intercropping) in order to maximize yields in less fertile soils.

6.2 Livestock

The region's climate and environmental conditions are favourable for livestock keeping. There is a potential for the Tanzania Shorthorn Zebu to produce a reasonably good quality of meat. But there is still a need to improve the management systems and use animal breeding techniques which can lead to improved quality and increase the quantity of meat. The climate also favours growth of animals of improved breed but dairy development will mean mainly the promotion of dairy cattle through local breeding.

Since the present system of free grazing for livestock leads to overstocking, overgrazing and destruction of forage and soil structure causing serious soil erosion particularly in Nzega and Igunga districts, sound livestock development measures should be taken. These can include the shifting of livestock from overstocked and overgrazed areas of Igunga and Nzega district to planned understocked areas of Urambo, Tabora and Sikonge districts; the establishment and improvement of village pastures; and the establishment of new livestock settlement areas around certain large mbugas and the deregistered forest reserves.

6.3 Forestry

The rapid increase in population has increased pressure on the woodlands outside and inside the forest reserves using fuelwood as a source of energy for cooking, lighting and other activities. Clearing of woodland for tobacco production and cutting of wood for tobacco curing as well as need for new settlements have resulted in severe clearing of woodland and encroachment of some forest reserves. In addition to afforestation efforts, improvement and intensification of agriculture will reduce the need to clear new land for agricultural production. Agro-forestry and improved land use practices offer important opportunity for

improving land productivity while maintaining environmental stability.

6.4 Beekeeping.

Tabora region is highly endowed with Miombo woodlands which make them potential for high quality honey and beeswax production. This is possible because of the ecological conditions and due to the fact that there is little or no chemical use in these woodlands, Commercial and small scale production can be increased if modern technology is applied. In addition steps should be taken to encourage further the establishment of beekeeping groups on a sound cooperative basis, which make easy the provision of extension services and financial assistance.

6.5 Mining

Full mineral exploitation has not yet been achieved in Tabora region. But the current efforts in mineral prospecting will open up a wide investment opportunities since more information is required on mineral status.

6.6 Industrial Development

Although industrial development is a source of employment opportunities for an increasing number of unemployed youths, the existing industrial establishments in the region have not significantly solved the problem. There is a big room for investment in agroindustries for processing of agricultural and livestock products such as textile, vegetable oilmilling, flour milling and such other industries particularly at village level. Forest based industries can also be expanded such as lumbering, furniture making, and many others.

6.7 Roads

The road network in Tabora region has a considerably greater impact on the development of the region than railways. While the railways are important for interregional trade, trunk roads linking Tabora to other neighbouring regions are more important and should be improved to tarmac level. These roads are Tabora - Itigi road, Tabora - Rungwa (Mbeya) road, Tabora - Shinyanga border road, Tabora - Kigoma border road and Singida border to Kahama road. Maintenance and improvement of the existing regional and district roads from earth to gravel standard is of top priority to ensure smooth transportation of inputs and produce to and from the rural areas. Routine maintenance of these roads should be reviewed as a means of protecting previous investment.

6.8 Communication Network

Like roads, telecommunications are vital in servicing and stimulating development. Investment in the quality and quantity of telephones and fax links is badly required in all the district centres and eventually in the rural areas.

6.9 Energy

Electricity supply is concentrated in Tabora and Nzega towns. Further investment is needed to supply electricity to other towns and centres in rural areas if the region is to attract industries and conserve fuelwood energy.

6.10 Health

The health care delivery is already open for private investment. In the long run the country's delivery of health care will be predominantly in the hands of private sector. Therefore individuals, NGO's, companies and other private sector organisations are encouraged to invest in the establishment and running of health facilities in order to increase the coverage. In addition the training of health personnel; the supply of drugs, vaccine, equipment and other medical supplies, and technical assistance are vital for improving to quality of medical services. Lastly the containment of AIDS, HIV and STD's infections is necessary through health education and other preventive measures.

6.11 Water Supply

The supply of potable and safe water is much below the demand. It is about 32.4 percent for rural areas and ... percent for urban areas. This means that there is little hope of raising the supply of water unless new investment will be forthcoming. A lot of resources in terms of pipes and equipment for piped systems and pumping equipment for deep and shallow wells have to be found to achieve a 100% coverage. Sanitation and sewarage is critical in urban areas because of overcrowding.

6.12 Education

Investment in education sector at all levels from pre-school education to University is now open to private sector. There is still quite a significant number of children of school going age who are not going to school. In 1988 the coverage was one primary school to every 2123 people. The corresponding figure for `996 is 2506. The demand is there and even stronger with respect to

secondary schools. The envolvement at secondary school 'Level is very very low. While the number and quality of primary schools is poor, the quality of primary and secondary education is low. Therefore assistance to existing establishments in terms of infrastructure or teaching materials will have impact in raising the standard of education.

6.13 Women in Development

Investment is required first to increase awareness among women regarding gender issues and poverty alleviation and secondly in the formation of women groups for income generation and training of women.

ANNEX 2A2

TABORA REGION IN A NUTSHELL

1.0 **GENERAL**

1.1 Location

Mid-Western part of Tanzania on the central plateau between latitude 4^{0} - 7° South and longitude 31° - 34° East.

1.2 Land Frontiers:

North: Shinyanga Region

East : Singida Region

South: Mbeya and Rukwa Regions West: Kigoma Region

1.3 Land Area

Land area 76,151 Sq. Km. or 9% of Tanzania Mainland area.

1.4 Climate, Soil and Vegetation

- Warm climate, daily mean 23°C. Seasonal rainfal totals from over 1000 mm. in the west to 700 mm. or less in the east.
- Soils vary widely ranging from sandy loams in the South, Centre and West to heavy (black/fark brown) soils especially in the North.

- Vegetation: woodland, bushland thicket and grassland.

1.5 Agro-Economic Zones.

Zone I: Western Fringe Zone: Western and South Western boundary of the region with over 1000 mm. of rainfall, sparsely populated at an elevation from 1000 - 1500m. ASL. Crops maize, cassava, beans, paddy and tobacco.

Zone II: Miombo Zone: Most extensive zone in region.
Rainfall 700 mm. in the East to over 1000 mm. in the West. Elevation between 1000 m - 1500 m
ASL. Crops: tobacco, maize, cassava, beans and paddy. Sawmilling and extensive beekeeping.

Zone III: North East Zone: Located in the North-East corner of the region. Rainfall 700 mm East - 850 mm West. Densely populated zone. Crops: Cotton, maize and sorghum. Large cattle population.

Zone IV: East Centre Zone: Situated in the North-West of North East Zone. Altitude between 1000m - 1800 m ASL. Rainfall 500 mm. - 800 mm. Crops: cotton, maize, sorghum, groundnut and cassava. Large cattle population

Zone IV: North West Zone: Situated in the North-West of North East Zone. Altitude 1000m - 1500 m ASL. Rainfall 700 mm. - 1000 mm. Crops are

cotton, paddy, maize, sorghum and groundnuts. Large cattle population.

1.6 **Administrative Units**

- Five administrative districts of Igunga, Nzega, Tabora, Sikonge and Urambo with Tabora Municipality.
- 18 Divisions
- 133 Wards
- 455 Villages.

1.7 **Population:**

(a) <u>Population Census 1998</u>

Total = 1,036,293

Sex Ratio = 96.7

Growth Rate = 2.4

Population Density = 13.6 per km^2

Average Household Size = 14.7%

Urbanization = 14.7%

Net Lifetime Migration 66,370

(b) Population Projections

	1996 AD	1998 AD	2000 AD
Total =	1,270,770	1,336,963	1,407,051
Density	16.7	17.5	18.5

(c) Other Censuses

1978	Total Population	817,907
1967	Total Population	502,068

2.0 **PRODUCTIVE SECTORS**

2.1 **Agriculture**

-	Arable Land	2,400,000 ha
-	Cultivated Land	456,720 ha
-	Uncultivated Land	1,943,280 ha

- Food Crops: Maize, Paddy, Sorghum, Cassava, Beans
- Cash Crops: Tobacco, Cotton, Sunflower, Groundnuts

2.2 Livestock

1984 Census:	Cattle	982,157	
	Goats	253,803	
	Sheep	183,673	

Livestock facilities

Dips	75
L.H.C.	29
Livestock Markets	33
Abbatoirs	32

2.3 **Forestry**

Area under forest	Ha	5,282,694
Area under forest reserves	Ha	3,522,500
Number of forest reserves	No	33

2.4 Beekeeping:

No. of beekeepers	(1996)	13,912
No. of beehives	(1996)	1,701,186

2.5 Wildlife:

November of Game Reserves 1 No.

November of Game Controlled Areas 7 Nos.

Area of Game Reserves N.A.

Area of Game Controlled Areas Ha. 3,361,500

3.0 ECONOMIC INFRASTRUCTURE

3.1 **Roads:**

Trunk Roads	Km.	643
Regional Roads	KM	1,273
District Roads	KM	2,907
Road Density	0.063 H	Km/Sq. Km.

3.2 **Railways**

TRC = Tabora - Dar es Salaam

Tabora - Kigoma Tabora - Mwanza

Tabora - Kaliua - Mpanda.

3.3 **Telecommunications**:

Full post officesSub - Post offices4 Nos.

-	Telephone lines	3,200	
-	Fax lines/Telex lines		34

3.4 Air Services.

- Major Airport at Tabora
- Other airstrips at Nzega, Nkinga, Urambo, Kaliua

3.5 **Energy**

Access to Electricity (1988 census)

Rural areas: 0.5 % of rural households Urban Areas: 3.8 % of urban households all Areas: 4.3 % of all households.

4.0 BASIC SOCIAL INFRASTRUCTURE

4.1 **Health: (1996)**

Number of Hospitals 4 Government

3 Voluntary Agencies

Health Centres: 12 Government

1 Vp;imtaru Agemcoes

Dispensaries 143 Government

Voluntary AgenciesParastatals/Private

4.2 Water Supply

(a) <u>Rural Water Supplies</u>

Dams	23	Nos.
Boreholes	57	Nos.
Shallow Wells	444	Nos.

(b) <u>Urban Water Supplies</u>

Dams and piped system 5
Boreholes 7
Shallow Wells 3

4.3 **Education (1997**

(a) Primary Education

Number of primary schools	517
Envolment (Total)	164,329
Envolment Rate	77.6

(b) Secondary Education

Number of Secondary Schools: Govt. 13

Private 11

Enrolment(Total) in

Governmen Schools 3,140 Private Schools 1,889

5.0 **SELECTED SOCIO-ECONOMIC INDICATORS (1996)**

5.1 **Education (Primary)**

Population per School 2.458

Pupils per 1000 population

129

301	Pupils per School
	Pupils per classroom
81	Pupils per Teacher
34	
%Sho	rtage of classroom to requirement
%Sho	rtage of houses to requirement
%Sho	rtage of toilets to requirement

%Shortage of teachers to requirement

Education (Secondary)

Population per Secondary School	52,948
Pupils per 10,000 population	39.6

37.8 90.3 56.1

13.3

Adult Literacy:

1967	Census	27.0
1978	Census	40.5
1988	Census	50.5

5.2 **Health**

(a) Facilities:

Population per hospital (1997) 186,199	
Population per dispensary	7,161
Population per hospital Bed	986
Population per facility	6,420
Faco; otoes [er 10,000	0.6

(b) Services:

< 1 Child Immunization Cpverage (1995)

BCG	85%
DPT3	77%
Polio 3	77%
Measles	70%

< 5 Child Immunisation Coverage 70%

(c) Basic Indicators

Infant Mortality Rate (IMR)

1975	140
1985	101
1995	73

1988 IMR

Rural	101
Urban	103
Male	109
Female	99

Under Five Mortality Rate U5 MR

1975	236
1985	166
1995	116

1988 U5 MR

Rural	165
Urban	169
Male	161
Female	152

Maternal Mortality Rate (MMR)

1992	151
1993	185
1994	130

Life Expectancy

1978	Average	44
1988	Male	53
	Female	54

WATER SUPPLY

Population Supplied with Safe Water against demand (percentage)

Rural Areas

Igunga	15.5
Nzega	24.3
Tabora/Sikonge	18.4
Urambo	24 3

Urban Areas

Igunga	99.1
Nzega	29.5
Tabora (R)	41.8
Urambo	38.8
Tabora (U)	53.6

Regional Total 36.0

Sanitation

Population covered with Toilet facilities.

Igunga	86 %
Nzega	67 %
Tabora (R)	71 %
Urambo	86 %
Tabora (LI)	94 %

Regional Total 73 %

REGIONAL ECONOMY:

Regional GDP at current prices (Millions)

	<u>Tshs.</u>	<u>US \$</u>
1980	1,188	144
1985	3,199	194
1990	21,859	111
1994	55,012	99

Regional Per Capita GDP at Current Prices.

	<u>Tshs</u> .	<u>US \$</u>
1980	1,386	169
1985	3,313	201
1990	19,993	101
1994	44,984	81

OTHER ISSUES:

(a) Women Economic/Gender Issue Groups

Groups	86
Members	762

(b) Cooperatives

-	Cooperative Unions	2
-	Produce Cooperative Societies	170
_	Other Cooperative Societies	88

Members - Produce Cooperatives 19,685Other Cooperatives 5,371

ANNEX 2B2

IGUNGA DISTRICT SUMMARY (1996)

1.0 **GENERAL**

1:1 Location: North Eastern part of the region.

Borders: North: - Shinyanga

Region (Kahama District)

East: - Singida Region
South: - Tabora District
West: - Nzega District

1:2 **Land Area**: 6788 Sq. km. or 8.9 percent of the area

of Tabora Region

1:3 **Administrati**ve Units:

Divisions = 4 Wards = 26 Villages = 96

1:4 **Population:**

(a) Population 1988 Census:

Total = 203,097 Sex Ratio = 96.7 Dependency Ration = 98.5 Growth Rate = 0.7

Population Density = 29.9 /Km^2

% Urban population= 4.2

Average Household

Urban = 4.5 Rural = 6.5 District = 6.4

	(b)	Popula Popula	tion Projec 1996 AG	<u>tions</u> 1998 .	<u>AD</u>	2000 AD
		Total Density	215,225 31.7 32.2	218,	303 32.6	221,425
2.0 E	CONOMIC	ACTIV	/ITIES <u>:</u>			
2.:1 A	Agriculture:	Food c	rops - maiz - Cash	ze, sorghum crops: co	-	•
2:2 L	ivestock:	Livesto	ck population	on (1984 C	ensus)	
			Cat	tle	411,	568
			Go	ats		396
			She	еер	91,	454
L	ivestock Facil	ities:				
		Dips		_	15	
		Veterin	ary Centres	-	7	
		Abbato	irs	-	43	
		Livesto	ck Markets	-	10	
2:3		l Resour				
	Fore	est Reser	ves -	Number	-	
				Area	-	115,271 ha
	Gan	ne Reser	ves -	Number	_	Nil
				Area	-	Nil

Game Controlled Areas -Number Nil - Area Nil **Beekeping:** Total beehives 25,250 **ECONOMIC INFRASTRUCTURE** Roads: Trunk roads Km 88 Regional roads Km 291 District roads 128 Road Density 0.075 Km/Sq. Km. Railway Transport None Air Services Nkinga Airstrip Telecommunicatio: Full Post Office Nil **Sub-Post Office** 1 No. Telephone lines 100 Fax Lines Nil

4.0 BASIC SOCIAL FACILITIES

0.5 percent.

4:1 **Health (1996**

3.0

3:1

3:2

3:3

3:4

3:5

Hospitals 2 Nos.

Energy: Access to electricity (1988) Households

Health Centres 4 Nos.

Dispensaries 26 Nos.

4:2 **Education (1996)**

Number of primary schools	104
Enrollment (Total)	5,444
Enrollment Rate	85.8
Number of Secondary Schools	3

4:3 Water Supply

Rural Water Supply:

Operating No.	ot working	<u>Total</u>	
- Piped Schemes	4	2	6
- Boreholes	5	21	26
- Shallow Wells	70	-	70

[%] of population with clean and safe water.

ANNEX ²C²

NZEGA DISTRICT SUMMARY (1996)

1.0 **GENERAL**

1:1 Location:

Central: Northern part of the region

Borders: North-Kahama district(Shinyanga Region).

East - Igunga district South - Tabora district West - Tabora district

1:2 **Land Area**:

6961 Sq. Km. or 9.1 percent of the total area of Tabora Region

1:3 **Administrative Set Up:**

Divisions - 4 Wards - 37 Village - 131

1:4 **Population**

(a) Population 1988 Census;

Total population	-	295,613
Sex Ratio	-	95.6
Dependency Ration	-	98.3
Growth Rate	-	2.8
Population Density	-	42.5
% Urban population	-	6.9
Average Households:		
Urban		4.5

5.8

Rural

District 5.7

(b) **Population Projections**:

<u>1996 AD</u> <u>1998 AD</u> <u>2000 AD</u>

Total population 368,941 389,801 411,841 Density 53.0 56.0 59.2

2.0 **ECONOMIC ACTIVITIES**

2:1 **Agriculture:**

Food crops - maize, paddy, sorghum, cassava, beans Cash crops- cotton, tobacco, sunflower, groundnuts

2:2 <u>Livestock:</u>

Livestock population (1984 Census)

Cattle 311,345 Goats 90,080 Sheep 62,200

Livestock facilities

Dips	25
Veterinary Centres	11
Abbatoirs	12
Livestock Markets	8

2:3 Natural Resources

Forest Reserves - Number 11 - Area Ha 110,164

Game Reserves-Number Nil -Area Nil Game Controlled Areas-Number Nil Nil Area Beekeeping Total Hives 27,591 **ECONOMIC INFRASTRUCTURE** 3.0 3:1 **Roads** Trunk Roads Km 161 Regional roads Km 240 District roads Km 742 Road Density Km0.164 Km/Sq. Km. 3:2 **Railway Transport**: TRC-Bukene-Isaka (to Shinyanga) 3:3 **Air Services:** Nzega Airstrip **Telecommunications:** 3:4 Full Post Office 1 No. Sub Post Office 1 No. Telephone line 700 Fax lines. 3:5 **Energy:** Access to Electricity (1988) Households 2.6 %

4.0 BASIC SOCIAL FACILITIES

4:1 **Health (1996)**

Number of Hospitals

Number of Rural Health Centres

Number of Dispensaries

4:2 **Education (1996)**

Number of primary schools	-	146
Total Enrollment	-	7,550
Enrollment Rate	-	67.4
Number of Secondary schools	,	
Public	-	1
Private	_	2

4:3 **Water Supply: (1996)**

Rural Water Supply:

<u>Operat</u>	ing	Not working	<u>Total</u>
Piped schemes	2	7	9
Boreholes	15	8	23
Shallow wells	19	26	45

Percentage of rural population with potable and safe water

Urban Water Supply:-

Piped Scheme	1	- 1
Boreholes	1	- 1
Shallowells	_	

Percentage of urban population with potable and safe water 27%

ANNEX ²D²

TABORA (AND SIKONGE) DISTRICT SUMMARY (1996)

1.0 **GENERAL**

1:1 Location: Central - Southern part of the region

Borders: North - Kahama, Igunga and Nzega Districts

East - Singida Region

South - Mbeya and Rukwa regions

West - Urambo District

1:2 **Land Area**:

 $41{,}103\,$ Sq. Km. or 54 % of the total area of the region.

1:3 **Administrative Units:**

Tabora	:	Divisions	4
		Wards	36

Villages 106

Sikonge : Divisions 2

Wards 8

Villages 31

1:4 **Population**:

(a) Population	1988 Census '	Tabora Rural	Tabora Urban
	Total population	n 256,641	93,506
	Sex Ratio	97.5	99.8
	Dependency Ra	ntio 113.4	84.0
	Growth Rate	3.4	3.3
	Population Dens	sity 6.2	-

% Urban Population 3.4 100.0

Average Household:

Urban 4.8 5.4 Rural 5.8 5.6 District 5.9 5.3

(b) **Population Projections**

	1996 AD	1998 AD	2000 AD
Total	341,788	365,472	390,979
Densit	y 8.3	8.9	9.5

2.0 **ECONOMIC ACTIVITIES**

2:1 Agriculture -Food Crops: maize, paddy, cassava, beans

-Cash Crops: tobacco, sunflower, groundnuts

2:2 <u>Livestock</u> -Livestock population (1984 Census)

Cattle - 184,034 Goats - 53,000 Sheep - 26,010

-Livestock facilities

Dips - 20
Veterinary Centres - 5
Abbatoirs - 13
Livestock Markets 0 11

2:3 Natural Resources:

Forest Reserves- Number 15 Areas 2,302,665 ha Game Reserves- Number N+1

Areas N+1

Game Controlled Area-Number 1 No

Areas 2,111,500 ha.

Beekeeping -Total beehives- 550,752

3.0 **ECONOMIC INFRASTRUCTURE**

3:1 **Roads**:

Trunk Roads Km 411
Regional Roads Km 602
District Roads Km 905
Road Density 0.049 Km/Km²

3:2 Railway Transport:

TRC: Tabora - Karangasi (to Dar es Salaam)

Tabora - Mabama (to Kigoma) Tabora - Ipala (to Mwanza)

3:3 <u>Air Services</u>: Tabora Airport

3:4 **Telecommunications**

- Full Post Office 1 No.

- Sub Post Office 1 No

- Telephone lines 2,800

Fax lines 36

3.5 Energy: - Access to electricity (1988)

Rural Households 0.5 % Urban Households 31.6 %

4.0 **BASIC SOCIAL FACILITIES**

4.1 **Health (1996)**

Number of hospitals	=	1
Number of Rural Health Centres	=	2
Number of Dispensaries	=	46

4.2 **Education (1996)**

Number of primary schools	=	114
Total Enrollment	=	4,857
Enrollment Rate	=	46.2
Number of Secondary Schools-	Publi	c 3
	Priva	ite 2

4.3 Water Supply

Rural Water Supply:	Operating	Not working	<u>Total</u>
-Piped schemes	7	9	16
-Boreholes	8	73	81
-Shallow Wells	123	-	128
D	1	. 1.1 1	c ,

Percentage of population with potable and safe water

ANNEX ²E²

URAMBO DISTRICT SUMMARY 1996

1.0 **GENERAL**

1:1 **Location**:

Western part of the region

Borders:North - Kahama district (Shinyanga Region)

East - Tabora district

South - Mpanda District (Ruvuma Region)

West - Kigoma District (Kigoma Region)

1:2 **Land Area**:

21,299 Sq. Km or 28.8 percent of the total area of the region.

1:3 Administrative Set Up:

Division - 4 Wards - 26 Villages - 91

1:4 **Population**

(a) Population 1988 Census

Total population	-	187,436
Sex Ratio	-	96.3
Dependency Ratio	-	112.3
Growth Rate	-	2.3
Population Density	-	8.8
% Urban population	-	11.4

Average Households:-

Urban - 4.8

Rural - 5.4

District - 5.3

(b) **Population Projection**:

<u>1996 AD</u>	1998 AD	2000 AD
Total population224,514	235,083	246,149
Population Density 10.5	11.0	11.6

2.0 **ECONOMIC ACTIVITIES**

2:1 **Agriculture**:

Food crops: - maize, paddy, cassava, beans

Cash crops: - tobacco, cotton, groundnuts

2.:2 <u>Livestock</u>: Livestock population (1984 Census)

Cattle - 75,210 Goats - 25,327 Sheep - 4,009

Livestock Facilities

Dips - 15
Veterinary Centres - 6
Abbatoirs - 3
Livestock Markets - 4

2:3 <u>Natural Resources</u>:

Forest Reserves - Number 4 Nos - Area Ha 994,400

Game Reserves - Number 1

Area

Game Controlled Areas - Number 3 No

Area 1,250,000 Ha

Beekeeping: Total Hives 1,097,593

3.0 **ECONOMIC INFRASTRUCTURE**

3:1 **Roads**:

Trunk roads Km Nil

Regional roads Km 140

District roads Km 1,132

Road Density Km 0.056 Km/Km²

3:2 Railway Transport:

TRC - Ussoke - Ussinge (to Kigoma)

- Kaliua - Ugalla River (to Mpanda).

3:3 <u>Air Services</u>: Urambo Airstrip

3:4 **Telecommunication**:

Full Post Office 1 No (Urambo) Sub Post Office 1 No (Ulyankulu)

Telephone lines 100

Fax Lines Nil

3:5 Energy: Access to Electricity (1988)

Households 1.0 percent

4.0 **BASIC SOCIAL FACILITIES**

4.1 **Health (1996)**

Number of Hospitals - 1 No Number of Rural Health Centres - 3 Nos Number of Dispensaries - 29

4:2 **Education: (1996)**

Number of primary schools - 94
Enrollment - 6,023
Enrollment Rate - 81.9
Number of Secondary Schools:- 3
- Public 2
- Private 1

4:3 Water Supply

-Rural Water Supply: Operat	ıng	Not worki	ng <u>Fotal</u>
Piped schemes	4	5	9
Boreholes	26	17	43
Shallow wells	35	21	56

Percentage of population with clean and safe water: 16.5

- <u>Urban Water Supply</u>:

Piped scheme Nil
Boreholes 6 No
Shallow wells Nil

Percentage of population with clean and safe water: 38.8

ANNEX 2F2

1.0 GENERAL INFORMATION ABOUT TANZANIA

Location: $(29_0\text{E-}41^0; 1^0\text{S} - 12^0\text{S})$

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
Zanzibal 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 sa 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 maximu	m temperatu	re (degrees cer	itigrade)	
	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 manimu	m temperetu	re (degrees cer	ntigrade)	
	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 I	Product at fac	tor cost (billio	n Shs.) 1992.	
At current price				688.0
At constant prices			32.2	
GDP growth rate	at 1976 price	s 1985-92	3.69%	
Per capita				27,355
At cı	arrent price			27,355
At co	onstant price	:		1,280

1.2 SOCIAL SERVICES

HEALTH FACILITIES

YEAR	HOSPITALS	RHC	DISPENSARIES
1960	98 22	975	
1980	149239	2,600	
1990	173276	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)

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

(iv)ARUSHA NATIONAL PARK (MOMELA)	LOCATION: The Park is located between Mount Meru and Mount Kilimanjaro. Formally Ngudoto National Park until 1967. Was commissioned as National Park in 1960.
	AREA: The park covers some 137 square Kilometres.
	MAJOR ATTRACTIONS: 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.
(v)KILIMANJARO NATIONAL PARK	LOCATION: The Kilimanjaro National Park which derived its name from Mount Kilimanjaro is part and parcel of the Mountain. It was established in 1973.
	AREA: The bounderies of the Park include the natural forest under and around the Mountain. It covers some 760 square Kilometres.
	MAJOR ATTRACTIONS: 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.
(vi)MIKUMI NATIONAL PARK	LOCATION: It is situated some 216 km along the Dar - Zambia Highway. It was established in 1964.
	AREA: 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.
	MAJOR ATTRACTIONS: The plains sorrounding 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.

(vii)UDZUNGWA **LOCATION:** This Park is located South of Mikumi National NATIONAL PARK Park along the Mikumi-Ifakara Highway. The Park was established in 1992. **AREA:** The Park which derives its identity from the famous Udzungwa mountain has an area of 1990 square kilometres. MAJOR ATTRACTIONS: 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. (viii)RUAHA LOCATION: The name Ruaha, is derived from the Hehe NATIONAL PARK word "Luvaha" meaning a river. **AREA:** 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. MAJOR ATTRACTIONS: 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. (ix) KATAVI **LOCATION:** It is located in Mpanda District, Rukwa Region. NATIONAL PARK* It was established in 1974. AREA: The Katavi National Park which is about 40 kilometres South -East of Mpanda town covers an area of 2,253 square kilometres. MAJOR ATTRACTION: Lakes Chala and Chada plus other

good attraction to visitors.

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

(x)MAHALE NATIONAL PARK	LOCATION: 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. AREA: Mahale nation Park has about 1,613 square kilometres and was gazzetted in 1948.	
	MAJOR ATTRACTIONS: 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.	
(xi) GOMBE NATIONAL PARK	LOCATION : 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	
	AREA : Covering some 52 square kilometres. National park, was commssioned in 1968.	
	<u>MAJOR ATTRACTIONS</u> : Ever green forests and primates. These include Chimpanzees, Baboons, blue monkey red tails and red colobus.	
(xii) RUBONDO NATIONAL PARK	LOCATION : The Park which form park of a number of archipelagos in Lake Victoria covers some 240 square Kilometres. it was established in 1977	
	MAJOR ATTRACTIONS: 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.	
(xiii) NGORONGORO	LOCATION: It is situated west of Arusha town some 230 kms. AREA: The park covers 8320 sq km	
	MAJOR ATTRACTION: Wildebeest, Lions, Buffalos, Leopards, Variety of birds species, Giraffes, elephans etc	