

FOREWORD

The District Development Plan was prepared by the District Developmental Board of various ministries under the co-ordination of the District Commissioner assisted by the members of the District Planning Unit. The plan drafts were discussed by members of the District Executive Committee and approved by the District Development Committee.

Rural Planning Department of the Office of the Vice President and Ministry of Planning and National Development, provided general guidance through seminars, formulation of the guidelines and was also responsible for editing and publication of the plan.

The plan is divided into three chapters, each of which addresses the theme of the plan "Rapid Industrialization for Sustainable Development".

Chapter One: Provides background information on the district's natural and human resource base, the level of exploitation of these resources, the welfare indicators, as well as socio-economic infrastructure of the district.

Chapter Two: Outlines the district's strategy to industrialization and the main thrusts the district will pursue to achieve rapid growth.

TANA RIVER

DISTRICT DEVELOPMENT PLAN

Chapter Three: Lists the order of priority for each sector, the major projects and programmes which the DDC wishes to implement during the 1997-2001 plan period. Selection and prioritization of projects and programmes was done by the DDC.

The drafting of the plan was guided by the Sessional Paper No. 1 of 1994 and other relevant national and sectoral policy documents.

Rural Planning Department
Office of the Vice President and Ministry of
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- Chapter One: Provides background information on the districts natural and human resource base, the level of exploitation of these resources, the welfare indicators, as well as socio-economic infrastructure of the district.
- Chapter Two: Outlines the major constraints to industrialization and the strategies that the district will pursue to achieve rapid industrialization.
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TABLE OF CONTENTS

FOREWORD	iii
CHAPTER ONE	1
DISTRICT SETTING FOR INDUSTRIALIZATION	1
GEOGRAPHICAL DESCRIPTION	4
Position and Size	4
Topography and Climate	5
Administrative and Political units	6
POPULATION PROFILES	9
Population Size	9
Population Structure	9
Distribution and Density	12
Urban Population	13
RESOURCE POTENTIAL AND EXPLOITATION FOR INDUSTRIALIZATION	14
RESOURCE POTENTIAL	14
Land and Soils	14
Water Resources	18
Forestry	19
Fisheries	20
Commercial Minerals and Materials	20
Tourist Attractions	21
RESOURCE EXPLOITATION	22
Agricultural Activities	22
Livestock Production Activities	27
Other Natural Resource Exploitation	32
Fisheries	32
Forestry and Agro-Forestry	33
Mining	34
Tourism	34
Industrial Activities	35
Commerce Trade and Services	35
Formal Sector	35
Informal Sector	36
SOCIO-ECONOMIC INFRASTRUCTURE FOR INDUSTRIALIZATION	36
Communication Network	36
Energy Supply	39
Educational Facilities	40
Water Facilities	42
Health Facilities	45
WELFARE INDICATORS	48
Employment Levels	48
Incomes	49
Agriculture/Livestock Production	49
Wage Earnings	50

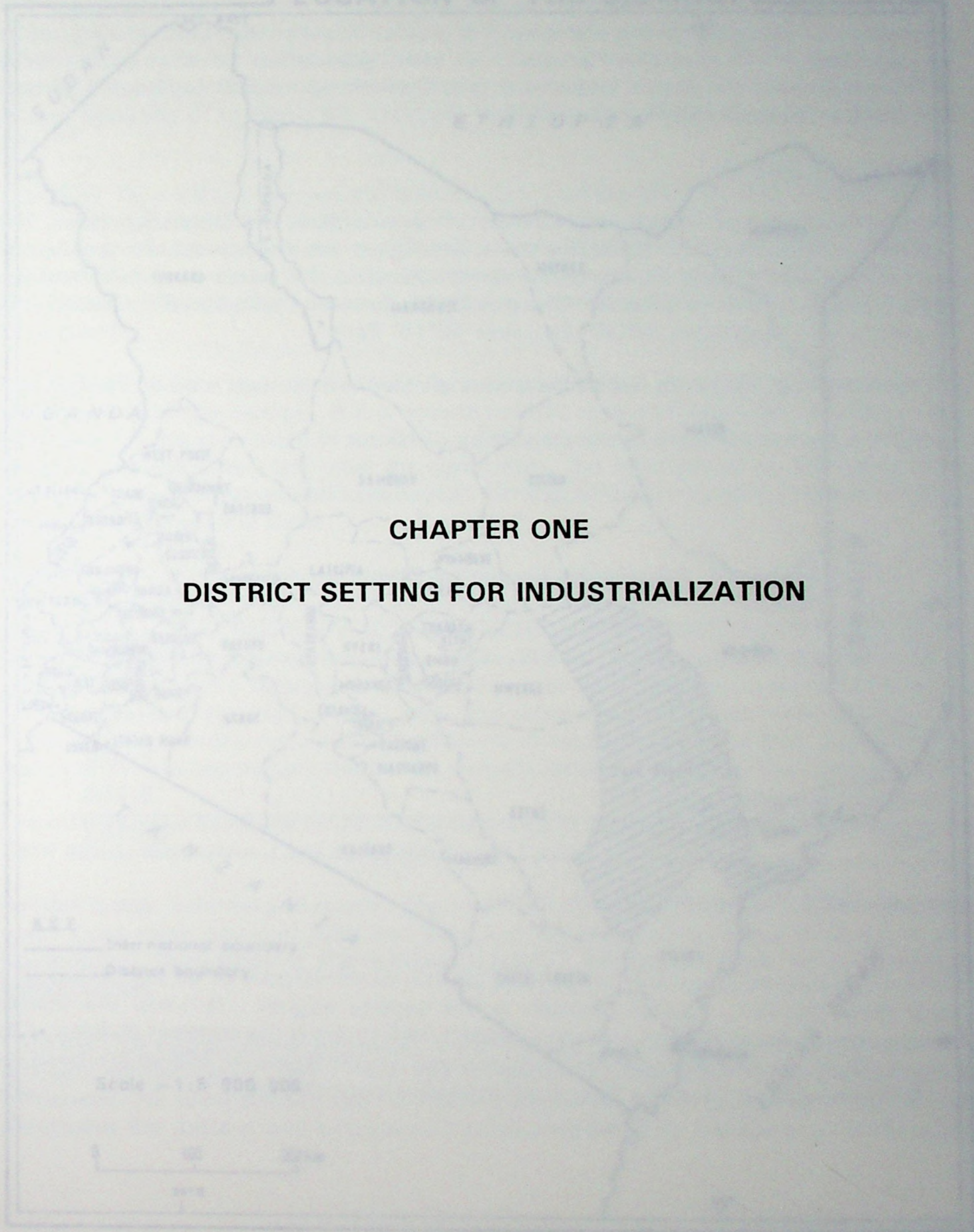
Informal Sector	50
Income Distribution	50
Infant Mortality Rates	51
Disease Incidence	52
Nutrition	52
Food Availability	54
Social Dimensions of Development	54
SUPPORTING DEVELOPMENT INSTITUTIONS	55
DDC and its Sub-Committees	55
Local Authority	57
Voluntary Agencies	58
Harambee Movement	59
Regional Authorities and Other Major Parastatals	59
Banks and Non-bank Financial Institutions	60
Co-operative Movement	60
 CHAPTER TWO	 63
CONSTRAINTS AND STRATEGIES FOR INDUSTRIALIZATION	63
INTRODUCTION	65
MAJOR CONSTRAINTS	65
Inadequate Infrastructural Facilities	65
Energy Supply	65
Communication Network	66
Water Supply	67
Under-Developed Human Resources	67
Inadequate and Poorly Developed Local Raw Materials for Industrialization	68
Poor Marketing Systems	68
Inaccessibility to Credit	68
Insecurity	69
DEVELOPMENT STRATEGY FOR 1997 - 2001	69
Improve the Infrastructural Facilities	69
Development of Human Resources	70
Develop Local Raw Materials for Industrialization	71
Improve Marketing Systems	71
Improve Accessibility to Credit	72
Improve Security	72
 CHAPTER THREE	 73
SECTORAL POLICIES AND DISTRICT SPECIFIC PROJECTS AND PROGRAMME	73
INTRODUCTION	75
ENVIRONMENT AND NATURAL RESOURCES	75
LAND RECLAMATION, REGIONAL AND WATER DEVELOPMENT	80
CULTURE AND SOCIAL SERVICES	91
RESEARCH, TECHNICAL TRAINING AND TECHNOLOGY	101

TRANSPORT AND COMMUNICATION	103
PUBLIC WORKS	105
AGRICULTURE	109
HOME AFFAIRS AND NATIONAL HERITAGE	122
TOURISM AND WILDLIFE	125
EDUCATION	130
COMMERCE AND INDUSTRY	136
HEALTH	140
LOCAL GOVERNMENT	145
ENERGY	148
LANDS AND SETTLEMENT	151
CO-OPERATIVE DEVELOPMENT	145
OFFICE OF THE PRESIDENT	159

CHAPTER ONE

DISTRICT SETTING FOR INDUSTRIALIZATION

LOCATION OF THE DISTRICT



CHAPTER ONE

DISTRICT SETTING FOR INDUSTRIALIZATION

GEOGRAPHICAL DESCRIPTION

The location topography and climate of a district has an important bearing on its development. This section presents a brief description of the geographical characteristics of the district and also access their effects on development in general and industrial development in particular.

Position and Size

Tana River District is one of the six districts that constitute the Coast Province. The district borders Kitui District to the west, Mwingi to the north west, Garissa to the east, Tharaka Nithi and Isiolo to the north, Lamu to the south east, Kilifi and the Indian Ocean to the south east. The district lies between latitudes 0° (equator) and 3° south, and longitudes $38^{\circ}30'$ East and $40^{\circ}15'$ East.

The district is divided into 5 administrative division with a total area of 38,782 sq.

Table 1.1 shows the area of the district by divisions.

Table 1.1

Area of the District by Division(sq km)

Division	Area
Garsen	15,624
Galole	9,427
Bura	5,363
Madogo/Bangale	8,368
Total	38,782

Source: 1989 Population Census, Vol. I

Garsen Division with an area of 15,624 sq.km. is the largest of all the divisions in Tana River District. Galole Division is the second largest. It hosts the district headquarters. Bura Division with an area of 5,363 sq.km is the smallest division. The area for Madogo and Bangale Divisions is given as one figure, 8,368 sq.km because in 1989 the census year the two were existing as one division.

Topography and Climate

The major physical feature in Tana River District is an undulating plain which is interrupted in a few places by low hills. The main hills are Minjila in Garsen Division, Bilbil in Bura and Madogo making these areas the highest points in the district. The land in Tana River District generally slopes south-east wards with an attitude that ranges between 0^o m along the coastline to 200 meters above the sea level on the hills.

The River Tana delta traverses the district from Tharaka Nithi District in the north to the Indian Ocean in the south. As the river transverses the expansive coastal hinterland, it starts to meander in its lower course forming a large basin whose width ranges between two and forty two kilometres. Towards its mouth between Mnazini area and the Indian Ocean, the river creates an extensive delta which is characterized by wetlands.

The extensive delta created by River Tana presents great potential for the industrial development of the district. It is a natural habitat an enormously diverse fauna and flora ideal for the promotion of tourism. It also provides a grazing area during the dry seasons and its waters are used for agriculture, the main crops grown being rice, mangoes, maize, bananas and soya beans. Fishing, forestry and agro-forestry are also supported by the Tana Delta.

Besides the Tana River, there are seasonal rivers in the district. These are found in the area west of River Tana in north eastern part of the district. Popularly known as 'lagas', these rivers flow in a west to east direction from Kitui, Makueni and Mwingi Districts eventually draining into River Tana. Their beds support livestock as well as wildlife during the dry seasons as they retain water when there is no water elsewhere. They are the best sites for shallow wells and sub-surface dams as well as earthpans. However, these lagas are a major bottleneck to road transport as they cut off roads during rainy seasons making the district virtually land locked during the rainy seasons.

The district has a coastline which is characterized by sandy beaches interrupted by the Tana delta where river Tana enter the Indian Ocean.

Rainfall is low, bimodal and erratic. The mean annual range between 300mm and 500 mm. Long rains occur in April and May and the short rains occur in October and November. November is the wettest month. Rainfall in Tana River district is convectional.

With the little erratic rainfall especially in the hinterland, the district almost experiences drought almost every year. The Inter-Tropical Convergence Zone (ITCN) which influences the wind pattern and the non-seasonal air currents of the Indian Ocean determine the pattern and amount of rainfall recovered in the district. It therefore

follows that the coastline is more wet than the hinterland. The coastal region receives rainfall of upto 1,250m annually though the rainfall varies and is unreliable. The higher rainfall at the coast supports crop production especially around Capon where cash crops like cashewnuts, cotton, mangoes and food crops like bananas, maize etc, are grown. The dry climate in the hinterland can only support nomadic pastoralism.

Generally, the district is hot and dry. The average annual temperature is about 30° centigrade. Along the coast temperatures are hot and humid. Temperatures are highest in the months of February, March and April, i.e. before the long rains. They are also significantly high in the months of September and October. The very high temperatures (which top 37°C and 38°C in some instances) leads to very high rates of evaporation and evapotranspiration.

Administrative and Political units

The district is divided into five divisions, thirty one locations and sixty three sub-locations. A summary of these is shown in Table 1.2.

Table 1.1

Administrative Units by Division

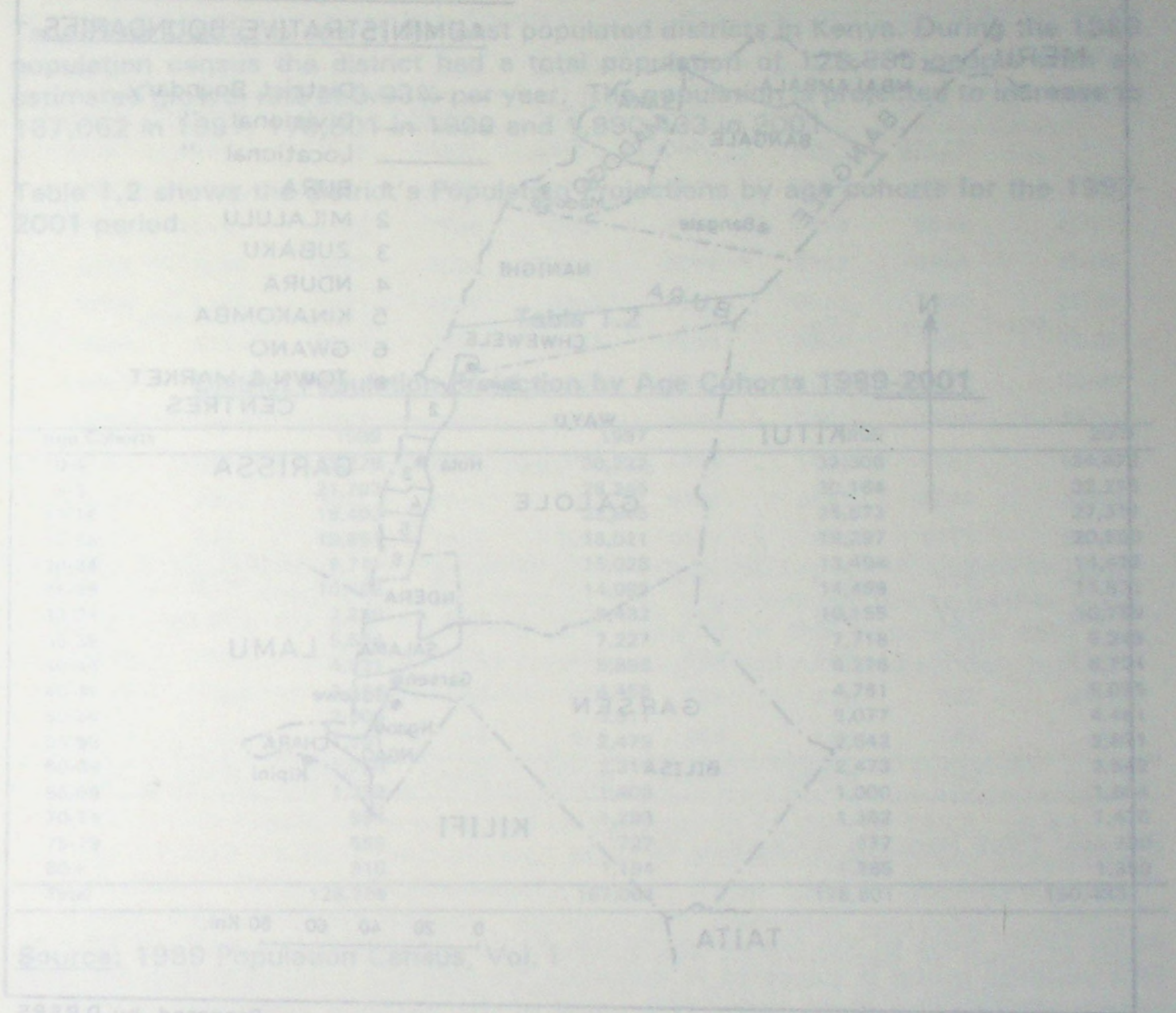
Division	No. of Locations	No. of Sub-locations
Bangale	4	8
Madogo	4	9
Bura	3	6
Garsen	11	20
Galole	9	20

Source: District Commissioner's Office, Hola, 1996

The number of locations in the district has increased from 21 to 31 whereas the number of sub-locations has risen from 47 to 63.

There are only two parliamentary constituencies in Tana River District, namely Galole and Garsen constituencies. Garsen constituency comprises of Garsen Division and part of Galole Division. Galole constituency comprises of Bura, Madogo and Bangale Divisions and part of Galole Division.

Tana River District has only one local authority, Tana River County Council which covers the whole of the district. The number of wards coincide with the number of Locations and hence Tana River County Council has 31 wards.

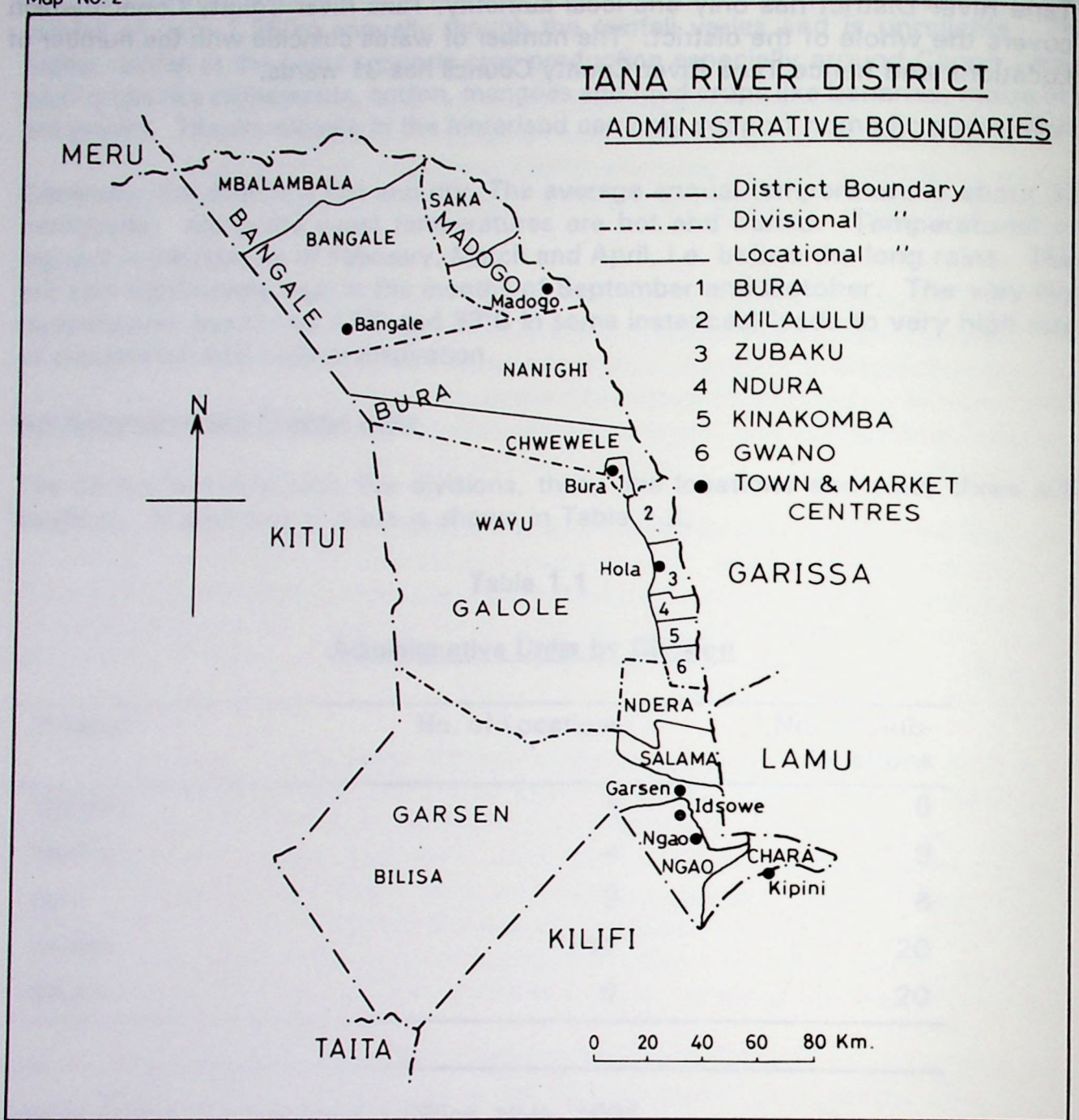


Prepared by DRES

The total district population is expected to grow by 13% from 187,082 people in 1997 to 211,321 in 2001 and 235,561 in 2005.

Population Structure

Age Sex Structure: Table 1.3 gives the district population projections by sex and age for the years 1997-2001.



Prepared by DRSRS

POPULATION PROFILES

Population Size

Tana River District is one of the least populated districts in Kenya. During the 1989 population census the district had a total population of 128,385 people with an estimated growth rate of 3.03% per year. The population is projected to increase to 167,062 in 1997, 178,801 in 1999 and 1,990,433 in 2001.

Table 1.2 shows the district's Population Projections by age cohorts for the 1997-2001 period.

Table 1.2

District Population Projection by Age Cohorts 1989-2001

Age Cohorts	1989	1997	1999	2001
0-4	23,228	30,222	32,308	34,473
5-9	21,707	28,245	30,164	32,215
10-14	18,403	23,945	25,573	27,311
15-19	13,851	18,021	19,297	20,556
20-24	9,711	13,028	13,494	14,412
25-29	10,492	14,099	14,499	15,571
30-34	7,250	9,432	10,155	10,759
35-39	5,554	7,227	7,718	8,243
40-44	4,531	5,896	6,276	6,724
45-49	3,426	4,458	4,761	5,085
50-54	2,806	3,911	5,077	4,461
55-59	1,901	2,473	2,642	2,821
60-64	1,780	2,316	2,473	2,642
65-69	1,282	1,408	1,000	1,604
70-74	994	1,293	1,382	1,476
75-79	559	727	777	730
80+	910	1,184	1,265	1,350
Total	128,385	167,062	178,801	190,433

Source: 1989 Population Census, Vol. I

The total district population is expected to grow by 13%, from 167,062 people in 1997 to 190,433 people in 2001 over the five years.

Population Structure

Age/Sex Structure: Table 1.3 gives the district population projections by sex and age for the years 1997-2001.

Table 1.3

Age/Sex Projections

Age Cohorts	1989		1997		1999		2001	
	Male	Female	Male	Female	Male	Female	Male	Female
0-4	11809	11419	15365	14857	16410	15868	17526	16947
5-9	11116	10591	14465	13780	15447	14717	16497	15718
10-14	9466	8937	12316	11629	13154	12419	14048	13263
15-19	6898	6953	8975	9046	9585	9662	10237	10319
20-24	4462	5249	5805	6828	6200	7294	6622	7790
25-29	5062	5430	6586	7065	7034	7545	7512	8059
30-34	3585	3665	4664	4768	4982	5093	5320	5439
35-39	2815	2739	3663	3564	3912	3806	4178	4065
40-44	2264	2267	2946	2950	3146	3150	3360	3364
45-49	1819	1607	2367	2091	2528	2233	2700	2385
50-54	1328	1478	1988	1923	2123	2954	2268	2193
55-59	1113	788	1448	1025	1547	1095	1652	1169
60-64	927	853	1206	1110	1288	1185	1376	1266
65-69	777	505	751	677	802	198	856	748
70-74	530	464	689	604	737	645	787	689
75-79	336	223	437	290	467	310	399	331
80+	490	420	638	546	681	584	727	623
TOTAL	64797	63588	84309	82733	90043	88758	96065	94368

Source: 1989 Population Census, Vol. I.

As of 1989, 60% of the population of the district comprised the youth (0-19 yrs). This youthful group is expected to dominate the district's population over the plan period. During the same year 1989, most of the district's population comprised males. This was particularly so in 0-14 years, 40-80+ as shown in Table 1.3. This trend is expected to prevail in the plan period. The female only dominated males in 15 - 34 years age group. This ratio is projected to remain so in the plan period. The reason for population of females is 15-34 is that men migrate to towns like Malindi and Mombasa in search of employment thus leaving female headed household. It therefore becomes necessary to incorporate women in development in order to mobilize available resources.

From 40 years and above, men dominate the females. This is when men who had gone to work outside the district start retiring and return to their homes.

Table 1.4 gives the population projection on selected age groups.

Table 1.4

Population Projections on Selected Age Groups

Age Group	1989		1994		1997		1999		2001	
	F.	M	F	M	F.	M	F	M	F	M
6-13 Prim.	15503	16442	18278	19382	20171	21392	21543	22847	23008	24401
14-17 Secondary	5781	6044	6815	7125	7522	7864	8033	8399	8580	8970
15-49 Female	30176	-	35572	-	39262	-	41932	-	44784	-
15-59 labour force	30176	29546	35572	34829	39262	38442	41932	41057	44784	43849

Source: District Statistics Office, Hala, 1996

Age group 6-13 (Primary): This population in this age group rose from 31,945 in 1989 to 41,563 in 1997 which is an increase of 30.0%. It is projected to rise further from 37,660 in 1994 to 47,409 by 2001. The increase in this population calls for establishment of vocational training centres, youth polytechnics and schools to cater for them and train them in various skills.

Age group 14-17 (Secondary): This is the secondary school age population. As shown in Table 1.4, there were 11,825 secondary school going population in 1989 to 17,550. This population is projected to increase to 15,386 in 1997, 16,432 in 1999 and 17,550 in 2001 respectively. Most of this secondary going population comprise males. The projected increase in this population calls for planned increase of facilities they need like schools, colleges and additional secondary schools. Furthermore, employment opportunities should also be increased as most of this population will be entering the labour market at the end of the plan period.

Female Population(Age 15-49): This age group corresponds with the female reproductive age in population. In 1989, there were 30,176 persons in this group. They projected to increase to 39,262, 41,932 and 44,784 in 1997, 1999 and 2001 respectively. The increase in this population calls for increased maternal and child health care as well as measures for reducing the high fertility. With fewer children to take care of, their time and efforts can be directed towards productive activities that will stimulate industrialization.

Labour Force (Age 15-59): As shown in Table 1.4, there were 59,722 persons in this group out of which 30,176 were females while 29,546 were males. This labour force is projected to increase to 77,704, 82,989 and 88633 in 1977, 1999 and 2001 respectively. The Majority of the labour force is semi skilled and unskilled and highly illiterate. There is therefore a need to increase more employment creating opportunities to absorb the increasing labour force. There is also need to train the

labour force in various skills so that they can participate effectively in the industrialization of the district.

The dependency ratio for the district is estimated to be 1:1.24 i.e. 124 people depend on 100 people for their living. This ratio may be highly underestimated because most of the labour force in the 15 - 59 years age groups are either unemployed, underemployed or disguisedly employed, hence also depend on other few people who are employed.

The high dependency ratio reduced the capacity of the local population to participate in the development especially with respect to initiating self-help projects as savings are low. It also means that the district income and savings which would have been invested for development purposes has to be diverted to provide the socio and economic infrastructure needed by the age groups mentioned.

Distribution and Density

In 1989 Garsen Division had the highest population followed by Galole and Bura while Bangale and Madogo had the least. Over the plan period, Garsen is projected to lead other divisions in population size while Bangale will have the least. Table 1.5 shows population distribution among the divisions and their projections.

Table 1.5

Population Distribution by Divisions

Division	1989	1997	1999	2001
Garsen	47,206	61,419	65,596	70,038
Galole	39,712	51,669	55,183	58,936
Bura	25,035	32,573	34,788	37,154
Madogo	9,412	12,246	13,079	13,968
Bangale	7,021	9,187	9,812	10,479
Total	128,385	167,062	178,801	190,433

Source: 1989 Population Census, Vol. I

Garsen and Galole have the highest population size partly due to their larger sizes and potential for agriculture and livestock production as well as their level of urbanization. Garsen and Hola which are the administrative headquarters for Garsen and Galole are the main urb and business centres. Their population is therefore higher as result. The

low population size for the other divisions is attributed to small divisional sizes as well as low agricultural and livestock potentials.

In 1989, the district had a population density of 3 persons per sq. Bura Division was leading with the highest population density followed by Galole and Garsen while Bangale/Madogo had the least. Table 1.6 shows population densities among the divisions and their projections.

Table 1.6

Population Density by Division

Division	Area sq.km	1989	1997	1999	2001
Garsen	15624	3	4	4	4
Galole	9427	4	5	6	6
Bura	5363	5	6	6	7
Madogo/ Bangale	8368	1	1	2	2
Total	38,782	3	4	5	5

Source: 1989 Population Census, Vol. I.

Bura Division had the highest densities due to concentration of people in the giant Bura Irrigation and Settlement Scheme. While Madogo and Bangale Divisions had the least population densities due to their perennial aridity. Bura Division hosts the district headquarters and thus has high population concentration. The highest concentration of population lives along the River Tana which is the only area where livestock and agricultural activities can be undertaken.

Urban Population

Urbanization in the district is low and none of the major market centres can be considered for upgrading to urban council status.

Most of the population live either in villages or market centres scattered throughout the district. Thus the estimated urban population of the district includes all those people living in a particular service centre and those who are served by the centre.

The major market centres namely, Garsen, Hola, Bura and Madogo, are located along Road B8, the chief link between the district and the rest of the country. In terms of their potential for further urban growth, virtually all the market centres in the district have bright prospects.

Hola District Headquarters has a population of about 2000 people. The town offers commercial, administrative, health and some recreational services to its residents and the rest of the district population. Garsen Town is ranked second in the district, Bura third, Madogo Town fourth. Madogo Town benefits a lot from its proximity to Garissa Town.

When the tarmacking of road B8 is completed, it is envisaged that Hola and Bura will experience faster physical expansion due to increased accessibility. The present activities at Garsen market centre might tend to shift to Minjila and Idsowe areas at the junction of roads B8 and C112. Indeed, the re-location of Minjila Health Centre at Garsen and the siting of National Cereal and Produce Board's depot at the same place are pointers towards this direction. Moreover prospective investors are already showing interest in setting up business premises in the Idsowe - Minjilla area. Bura Town is expected to grow faster commercially and industrially since a donor has been identified to revive the Bura Irrigation and Settlement Scheme.

RESOURCE POTENTIAL AND EXPLOITATION FOR INDUSTRIALIZATION

This section outlines the district's resource potential and the level of exploitation of these resources, setting the basis for analysis on how the district can best utilize these resources for the general welfare of the population and rapid industrialization in particular.

RESOURCE POTENTIAL

Land and Soils

The district lies in four agro-ecological zones. These are the coast lowland 3 (CL3), Coast lowland 4 (CL4) and coast lowland 5 (CL5) and coast lowland 6 (CL6). Most of the district lies in CL6 while the other three zones are within Garsen Division.

Due to unreliability of rainfall, agricultural activity is mainly concentrated along the River Tana where the land is suitable for farming and water from the river is used for irrigation. In the zones CL3 and CL4, rainfed agriculture is practiced since the amount of rainfall which is about 800-1100mm, can sustain most crops to maturity. However, the large tracks of forest land that were hitherto not being cultivated have in the recent past been opened up for agriculture in the two zones CL3 and CL4. In CL5 and

CL6 farming is concentrated along the flood plain of River Tana and in or near the beds of seasonal rivers (lagas). Table 1.7 shows the agro-ecological zones, their altitude and average rainfall.

Table 1.7

Agro-Ecological Zones

Agricultural Zone	Altitude (m)	Mean Annual Rainfall (mm)
CL3: Coconut - Cassava zone	3-10	1000-1100
CL4: Cashewnuts -Cassava zone	1-50	800-1030
CL5: Lowland livestock, millet zone	1-60	520-900
CL6: Lowland - ranching zone	20-100	420-640

Source: District Agricultural Office, Hola, 1996

The CL3 zone covers parts of Chara and Capon Locations and is the coconut and the cassava zone. CL4 zone covers a greater part of Chara and Capon Locations and smaller parts of Ngao and Shirikisho Locations. This is the cashewnut and cassava zone. The CL5 zone covers parts of Salama, Ngao, Shirikisho, Bilisa, Chara and Capon Locations and is also known as the livestock and millet zone. CL6 covers all the other parts of the district. This includes Bura, Bangale, Madogo, Galole and a small part of Garsen Division.

The soils in the district are generally black cotton soils with clay, loam and alluvial deposits. They have low or moderate fertility in the hinterland where there is no influence of flooding. High fertility soils are found along the natural depressions and along the flood plains of River Tana. Their fertility is due to the accumulation of silt or clay brought about by flooding.

The soils in the hinterland are excessively drained while those in the flood plain of River Tana are imperfectly drained. Ranching is mainly practiced in the hinterland where the large expanse of grasslands provide ample forage for livestock.

Table 1.8

District Soil Types by Locations

Soil type	Location	Soil Fertility
Flood plain and swamp soils	Along the Tana River flood plain widening towards the delta.	Fertile alluvial soils with potential for agriculture.
Plains (Hinterland)	Covers Coastal plains, river terraces and alluvial plains.	Moderate to low fertility with potential for irrigated agriculture and ranching.
Sand and Dunes	Along the coast broken by only the rivers distribution.	Soils are excessively drained and the fertility is very low. Unsuitable for cultivation.
Mangrove Swamps	Along the coast at the mouth of the rivers.	Poorly drained with low fertility.
Coastal Beach Ridges.	On Coastal beach ridges.	Well drained with moderate to low fertility.

Source: District Agricultural office, Hola, 1996.

SOUTH-EASTERN
TANA RIVER
AGRO-ECOLOGICAL ZONES

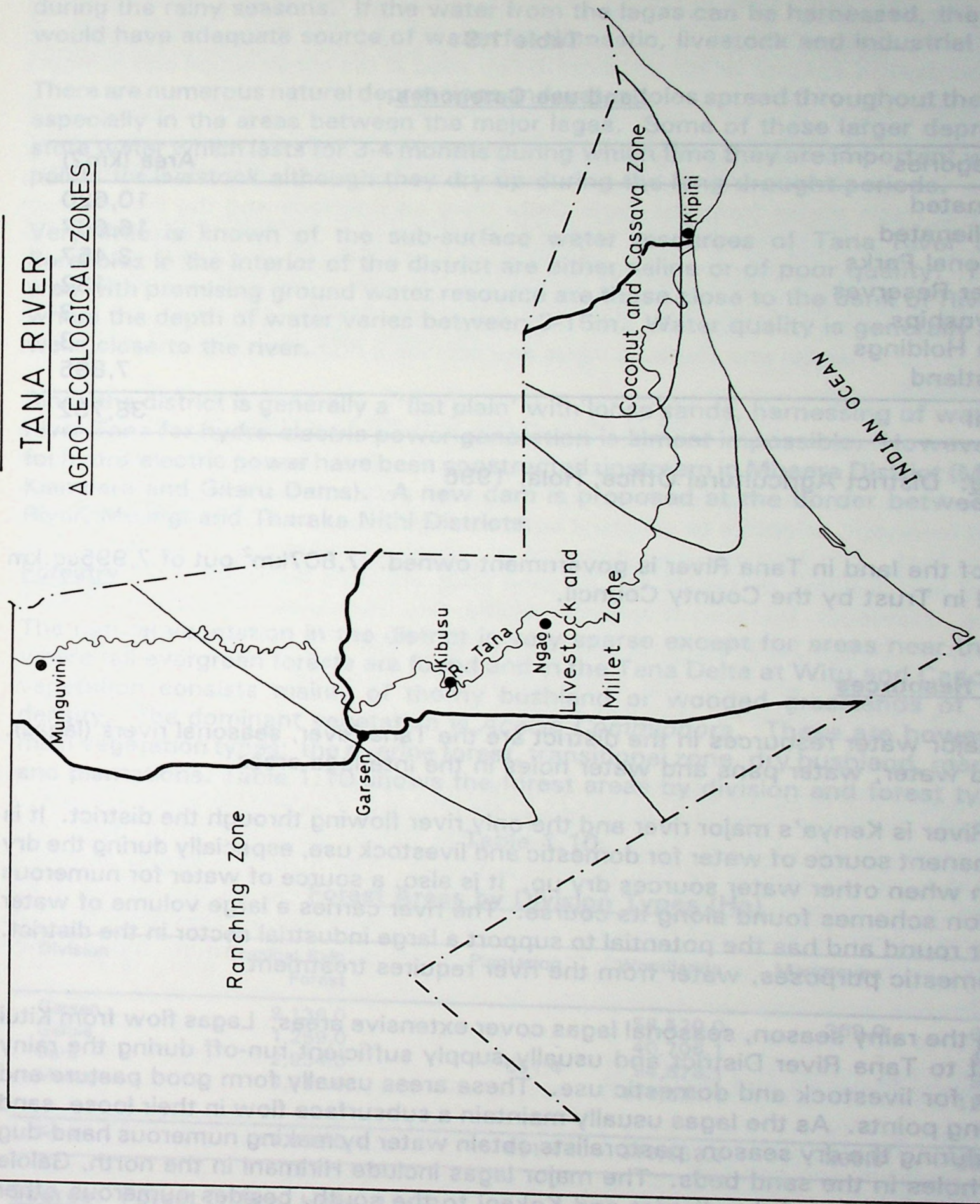


Table 1.9 indicates the land use type by category in the district.

Table 1.9

Land use Categories

Categories	Area (km ²)
Alienated	10,620
Unalienated	16,667
National Parks	3,457
Other Reserves	132
Townships	3
Free Holdings	8
Trustland	7,895
Total	38,782

Source: District Agricultural Office, Hola, 1996

Most of the land in Tana River is government owned. 7,807km² out of 7,995sq.km is held in Trust by the County Council.

Water Resources

The major water resources in the district are the Tana River, seasonal rivers (lagas), ground water, water pans and water holes in the interlaga areas.

Tana River is Kenya's major river and the only river flowing through the district. It is a permanent source of water for domestic and livestock use, especially during the dry season when other water sources dry up. It is also, a source of water for numerous irrigation schemes found along its course. The river carries a large volume of water all year round and has the potential to support a large industrial sector in the district. For domestic purposes, water from the river requires treatment.

During the rainy season, seasonal lagas cover extensive areas. Lagas flow from Kitui District to Tana River District and usually supply sufficient run-off during the rainy season for livestock and domestic use. These areas usually form good pasture and watering points. As the lagas usually maintain a subsurface flow in their loose sand beds, during the dry season, pastoralists obtain water by making numerous hand-dug water holes in the sand beds. The major lagas include Hirimani in the north, Galole in the central part of the district and Kokani to the south, besides numerous other small ones flowing into the main lagas during the rains.

The quality of the water in the lagas is good during the dry season but becomes turbid during the rainy seasons. If the water from the lagas can be harnessed, the district would have adequate source of water for domestic, livestock and industrial use.

There are numerous natural depressions and water holes spread throughout the district especially in the areas between the major lagas. Some of these larger depressions store water which lasts for 3-4 months during which time they are important watering points for livestock although they dry up during the long drought periods.

Very little is known of the sub-surface water resources of Tana River District. Boreholes in the interior of the district are either saline or of poor quality. The only area with promising ground water resource are those close to the bank of River Tana where the depth of water varies between 3-15m. Water quality is generally good in wells close to the river.

Since the district is generally a 'flat plain' with loose sands, harnessing of water from River Tana for hydro-electric power generation is almost impossible. However dams for hydro-electric power have been constructed upstream in Mbeere District (Masinga, Kiambere and Gitaru Dams). A new dam is proposed at the border between Tana River, Mwingi and Tharaka Nithi Districts.

Forestry

The natural vegetation in the district is very sparse except for areas near the river, where tall evergreen forests are found and in the Tana Delta at Witu and Capon. The vegetation consists mainly of thorny bushland or wooded grasslands of varying density. The dominant vegetation is *Acacia Commiphora*. These are however five main vegetation types: the riverine forest, transitional zone, dry bushland, mangroves and plantations. Table 1.10 shows the forest areas by division and forest type.

Table 1.10

Forest Areas by Division Types (Ha)

Division	Tropical Rain Forest	Plantation	Woodlands	Mangroves	Total
Garsen	9,136.0	-	58,520.0	369.0	68,025.0
Galole	1,259.0	-	40,706.1	-	41,965.1
Bura	2,934.0	651.4	94,878.1	-	98,463.9
Madogo	3,910.0	-	119,531.1	-	123,441.0
Total	17,239.0	651.4	313,653.3	369.0	331,895.0

Source: Forest Office, Hola, 1996.

In both the riverine and lowland forests in the district, there are pockets of the African Tropical Rain Forests. In Garsen, there are approximately 9,136 ha under this forest, 1,295ha in Galole, 2,934/ha. in Bura and 3910ha in Madogo. These forests are very rich in hardwood species which are extensively used in the construction and furniture industries.

Mangrove forests are also a natural forest resource the in district. Mangroves are only found in Garsen Division, as they are basically thrive in the estuarine where the sea water and fresh water from the Tana Delta have an interface and the impact from strong oceanic waves is minimal. This is at the mouth of the River Tana. There are about 11.07 ha. of mangrove along the coastline of the district. Apart from being a source of natural hard wood, mangrove ecosystems yield large amounts of fish, crabs, prawns and oysters. They are also important as a habitat for numerous marine species of commercial and touristic value and provide a home for migratory birds and other wildlife.

There are a few exotic trees in the district of which the most important is *juriflora/prosopis*, locally known as 'Mathenge'. This tree has some unique characteristics which enables it to survive in all parts of the district. It is highly drought resistant, adaptive to different agro-ecological zones. It also germinates and spreads fast. The tree provides a source of valuable products such as wood fuel, charcoal and building materials and its seed-pods are used for fodder during the dry seasons. However, because it spreads rapidly, and has vicious thorns and tends to encroach on farms, farmers have begun to see the tree as a terrible weed.

Fisheries

Fisheries potential in the district is mainly concentrated in Garsen Division and specifically along the coastline, along the Indian Ocean. The ox-bow lakes formed by periodic over-flows of River Tana are areas with fishing potential. The River Tana Delta has a high potential for fish farming activities. The district is largely semi-arid with flat plains meaning that only minimal fishery activities can be carried out in the hinterland. Already there are three big dams in the district namely Haroresa, Bangale and Assa with a lot of fish although the Orma community living around them do not eat fish.

Commercial Minerals and Materials

There are a few mineral resources found in the district. These include building sand, ballast, gypsum and sea salt.

Building Sand: This is harvested only along the seasonal water courses. This sand is of good quality, however, it has not been fully exploited as only few building contractors operating within and outside the district use the resource.

Brown Ballast: This is found at Nanighi in Bura Division. This is an activity undertaken by the National Youth Service (NYS) and other building contractors within the district. The brown ballast is available in large quantities in the district.

Gypsum: Some deposits of gypsum are found at Nanighi. However, more should be done to determine its quality and quantity since it is important in cement manufacturing. Alongside this, the possibility of there being limestone in the area should be explored because the rocks that bear gypsum have similar geological formation to those that bear limestone.

Sea Salt: This occurs mainly at Kurawa. It is extracted by Tana Salt Company. The crushing and the refining of the raw salt is done at Mombasa.

Tourist Attractions

The main tourist attractions in the district are the wildlife, found in reserves, bushland and the Tana Delta.

Kora National Park is one of the least exploited attractions in the district. It is located in the northern tip of the district bordering Isiolo and Tharaka Nithi Districts. The wildlife species found in this reserve include the lion, leopard, zebra, giraffe and buffaloes.

Tana Primate Reserve is home to two types of very rare primates in the world namely, the Tana Mangabey and the Red Crested Colobus monkeys. Currently, the Kenya Wildlife Service (KWS) in conjunction with the World Bank's Global Environment Facility (GEF) is developing the reserve to create more awareness on the need to promote peaceful co-existence of the local community with the wild life.

Tana River Delta is largely an undisturbed wetland area, located mainly south west of Capon at the mouth of River Tana, with unique fresh and sea water interface. The Tana Delta has a very high bio-diversity and is a haven for thousands of migratory birds and many other species of wildlife. This area has been earmarked for development into a national park. The objectives of the proposed national park are, among other things, to preserve and maintain the ecosystem and ecological features, and to encourage public understanding, appreciation and enjoyment of these natural resources. This will help in developing the tourist attractions in the district.

RESOURCE EXPLOITATION

This section describes how the economic potential described in the preceding section is being used by the residents of the district to earn them some income. It provides an economic profile of the district showing all the economic activities in which the people of the district are currently engaged in.

Agricultural Activities

Small scale subsistence agriculture is the main form of agricultural activity in the district. The average farm size is 1.5 ha. per household. The crops grown include maize, cowpeas, greengrams, vegetables, mangoes and bananas. Vegetable production has gained prominence due to the recent establishment of minor irrigation schemes through programmes such as Coast ASAL Development Project and the Drought Recovery Programme.

The number of farms that fall under the small farm sector is low considering the total land area of the district. Most small scale farms are situated next to the River Tana within a distance of 500 m. and along the bed of the seasonal rivers (lagas) where the farmers use residual moisture when the rains stop. The sizes of the farms depend on the total area of flood plain and or the size of the village or clan. The larger the population the smaller the size of the farms per family.

Table 1.11

Small Farm Sector

Division	Farm Area Sq Km	Rural HH	HH per Sq Km	Small Holdings Number	Main Food Produce	Main Cash Crops	%HH with High Value Food Crops	%HH with High Value Cash Crops
Garsen	215	8690	41	3330	Bananas, Cow peas, Green grams, Rice Maize, Cassava,	Cotton Mangoes Coconuts	38%	18%
Galole	96	7200	75	2900	Bananas, Cow peas, Green grams, Rice, Maize,	Cotton Mangoes	40%	5%
Bura	45	5190	116	5010	Maize, Green grams, Cow peas, Bananas,	Cotton Mangoes	96%	Nil
Madogo	10	2150	215	430	Bananas, Cow peas, Green grams,	Nil	25%	Nil
Bangale	3	1169	390	10	Maize , Cowpeas	Nil	0.8%	Nil

Source: District Agriculture Office, Hola, 1996

Table 1.11 indicates that Garsen has the largest farm area in the district and Bangale the last. Bura Division has the largest number of small holdings involved in small scale farming on account of the existence of the settlement scheme in the division, followed by Garsen, Galole, Madogo and Bangale Divisions in that order. These households grow more or less the same food crops which include bananas, cow-peas, green-grams, rice, millet and cassava. However, the survival of these crops to harvesting stage differs from division to division for instance, in Bangale Division which has a more 3 km of farm area, most crops planted do not mature due to lack of rains. In terms of productivity therefore, Bangale has the largest agricultural potential.

The main cash crops grown in the district are cotton, mangoes and coconuts. Madogo and Bangale Divisions have no cash crops. Production of cash crops has declined over the years largely owing to the poor performance of the two irrigation schemes at Hola and Bura. Cotton farming in particular has been affected as a result.

However, despite this, some small holdings in Garsen, Galole and Bura grow both high value, cash and food crops, the latter being carried out by 96% of the household in Bura Division.

Production in the small farms can be greater boosted through irrigation and proper marketing, particularly as affects the major cash crops such as cotton, mangoes and coconuts. Mangoes and coconuts, if properly exploited, can form the bases for establishment of agro-based industries such as fruit canning and oil extraction. The Emergency Drought Recovery Programme and Coast ASAL Development Project have provided small scale irrigation schemes along River Tana which has attracted an increase in small holdings along the Tana. It is hoped that this will enhance production of food and cash crops, which will in turn generate surpluses for use as raw materials for industrial processing.

Table 1.12 shows the crop production trends in the district in the last five years.

Table 1.12

Crop Production Trend 1991 - 95

Crop	Description	1991	1992	1993	1994	1995
Maize	Area (Ha)	1921.6	1352.5	1172	1170.3	1168.4
	Yield (tons)	1921.6	1352.5	1172	1773.5	1752
	Av. Yield/Ha	1.0	1.0	1.0	1.5	1.5
Rice	Area (Ha)	149	117	177.3	120.15	121
	Yield (tons)	357.6	234	266	403	420
	Av.Yield/(ha)	2.4	2.0	1.5	3.4	3.5
Cowpeas	Area (Ha)	534.5	192.5	318.5	123.9	118.7
	Yield (tons)	320.7	154.7	223	167	137
	Av.Yield/(Ha)	0.6	0.8	0.7	1.3	1.2
G/Grams	Area (Ha)	487.3	328.75	384	342	20.3
	Yield (tons)	650	822.5	852.5	852.5	852.5
	Av.Yield/(Ha)	0.75	0.8	0.5	5	7
Bananas	Area (Ha)	80	82.25	82.25	90.0	90.25
	Yield/(tons)	650	822.5	852.5	852.5	952.5
	Av.Yield/(Ha)	8.1	10	9.7	9.5	10.6
Mangoes	Area (Ha)	43.3	44.8	51.7	67.2	67.2
	Yield (tons)	650	672	684	676	705
	Av.Yield/(Ha)	15	15	13.2	10	10.5
Vegetables	Area (Ha)	20	16.45	15.9	26.5	27.3
	Yield (tons)	196	120	159.4	238.6	155.5
	Av.Yield/(Ha)	9.8	7.3	10	5.2	5.7

Source: District Agricultural Office, HOLA, 1996.

The total targeted hectareage under maize has continued to decline over the last five years. Production has also shown the same trend. In 1991 a total of 1921.6 ha. were targeted for maize planting, of maize while 1168.4 ha. were targeted for 1995. Output achieved in 1991 was 1921.6 tons compared to 1752 tons achieved in 1995. Hectareage under rice has also fallen though production per hectare has increased. There were 149 ha targeted for rice production in 1991 while only 21 ha were planted. The yield in 1991 was 357.6 and rose to 420 tons in 1995. Bananas and mangoes continued to rise in hectareage but production has been fluctuating. The area

under vegetables has risen steadily from 1992 to 1995 and like mangoes and bananas, its production has also been fluctuating. The general increase in production particularly from 1995. As a result establishment of many small irrigation schemes along River Tana. Agriculture in Garsen Division is mainly rainfed. Vegetables are grown both as food crops as well as cash crops. Rice and mangoes have high potential as industrial raw materials for agro-based industries. Mangoes and bananas are the major cash crops. The crops are mainly grown through irrigation except in Garsen Division where the favourable climate allows rainfed agricultural activities.

Agricultural production is mainly carried out in two forms in the district, that is, rainfed and irrigated agriculture.

In the recent past irrigation has become popular due to continued absence of sufficient rainfall and the emergence of programmes willing to support irrigation development such as the coast Asal Project and the Drought Recovery Programme. There are minor and large irrigation schemes.

Minor Irrigation Schemes: These schemes have been established by groups of farmers for the purpose of crop production. These are small in size and the number of members is restricted by the size of the pumping units. These schemes are more common in Madogo and Garsen Divisions than in Galole Division. Table 1.13 shows the distribution of minor irrigation schemes by division, total acreage and number of farmers.

Table 1.13

Minor Irrigation Schemes

Division	No. Of Schemes	Total Acreage (Ha)	Total No. Of Farmers
Galole	16	319	950
Garsen	10	447	738
Bura	7	120	316
Madogo	12	597	914
Total	45	1483	2918

Source: District Agricultural Office, Hola 1996.

It should be noted that the cultivated areas for schemes given may change from time to time depending on the season. Bangale Division has no irrigation schemes due to its unsuitable soils.

Large Farm Sector: There is only one large scale irrigation scheme which is operational and is owned by Tana and Athi River Development Authority. The other two, Bura Irrigation Settlement Programme and Hola Irrigation Scheme are dormant. Rice is being produced at TARDA in Garsen Division where the project is at its initial stages. The project is expected to cover 16,300 ha. upon completion.

There is a great potential for large scale irrigation schemes production of horticultural crops such as tomatoes, onions and Asian vegetables. Apart from the TARDA operated scheme, ranches and grazing blocks are also found in the district. Mangoes are main cash crop in the district and have potential important base fruit processing industries in the district if power supply was availed. With the planned revival of the two major irrigation schemes at Bura and Hola, cotton will be an important for developing a cotton industry in the district. The ginnery at Hola will be revived if the two schemes start growing cotton.

Livestock Production Activities

Tana River District is basically a rangeland, and it has a high potential for livestock development. Livestock production closely follows the precipitation pattern. Rainfall is low and erratic. Forage is available to the south and along the coastline due to relatively high rainfall (880-1000). The Orma Boran breed of cattle is common in this tsetse fly infested area. Sheep and goats are also kept in relatively small numbers. Bee keeping can be a successful endeavour due to abundance of suitable flora. As one gradually moves to the north rainfall diminishes and the area becomes generally dry. Camel, sheep and goats are found in this area.

Table 1.14 shows the major livestock reared and the products produced by division.

Table 1.14

Livestock Production by Division

Division	Area (sq.km)	HH No.	Main Livestock	Livestock Products	Land Carrying Capacity
Garsen	15624	8598	cattle sheep goats beekeeping,poultry	meat, milk, hides and skins eggs, honey	4
Galole	9427	7214	cattle,goats,sheep beekeeping, poultry	meat, milk, hides and skins, honey, eggs	5
Bura	5363	5140	goats,cattle, sheep,bees, poultry,camels	Meat, milk, hides and skins, honey, eggs	6
Madogo/ Bangale	8368	3177	Goats, sheep, camel, bees, cattle, poultry	Meat milk, hides and skins, honey, eggs	1

Source: DLPO's Office, Hola, 1996.

From Table 1.14 it can be noted that the main types of livestock kept in the district are cattle, goats, sheep, poultry and bees. Livestock products include meat, milk, hides and skins, eggs and honey. Garsen Division has the highest number of households (8598) engaged in livestock keeping activities, followed by Galole with 7214 while Bura has 5140. Bura has also the highest land carrying capacity of 6 animals per square kilometres. Madogo and Bangale have the least number of households keeping livestock and the lowest land carrying capacity. This is due to the arid nature of the two divisions.

Table 1.15**Livestock Population 1991-95**

Type Livestock	1991	1992	1993	1994	1995
Cattle	400,000	420,000	441,000	463,801	450,000
Sheep	283,242	252,000	260,000	250,000	260,000
Goats	418,122	350,000	383,000	380,000	390,000
Camels	15,407	24,300	20,000	23,000	25,000
Poultry	64,390	130,000	130,000	125,000	120,000
Donkeys	11,002	10,500	10,500	10,500	11,000
KTBH (Kenya Top Bar Hive)	360	400	642	783	783
Log Hives	3,600	3,600	3,600	3,000	3,200
Rabbits	150	1,200	1,200	291	500

Source: District Livestock Production Office, Hola 1996

Table 1.15 shows the livestock population totals by type for the years 1991 to 1995. The cattle population has grown steadily during the past five years. In 1991 the district had 400,000 head of cattle which rose to 450,000 in 1995. The number of sheep has been declining by a small margin over the same period. There were 283,242 sheep in the district in 1991 compared to 260,000 in 1995. The same trend applies to goats whose population was 418,122 in 1991 and declined to 390,000 in 1995. Camels showed a marked increase over the years 1991 to 1995. Poultry numbers rose from 64,390 in 1991 to 130,000 in 1992 but declined to 120,000 in 1995. The number of Kenya Top Bar Hives issued to farmers increased from 360 in 1991 to 783 in 1995. However, the log hives fell from 3600 to 3,200 during the same period. The rabbit population also fell.

The decline in number of sheep and goats has been due to the pastoralists' tendency to sell and slaughter in times of drought. Poultry indigenous are preferred over exotic birds mainly because of the high costs of production and lack of feeds. This has restricted the development of this sector.

Tana River is a net exporter of live animals i.e. cattle, sheep, goats and camels. Livestock keepers have depended on their animals (mostly cattle) for their milk needs.

The surplus is sold to other rural households and town dwellers. Some of the factors hindering the development of the dairy industry include the communities attachment to local stock which are not as productive as the exotic breeds.

Beekeeping has shown potential for growth in the district. A major problem faced by bee keepers has been low hive occupancy rates which have resulted in low production of honey.

Table 1.16 shows the sale of livestock and livestock products between 1991 and 1995.

Year	Cattle	Goats	Sheep	Camels	Bees	Other
1991	120,000	10,000	10,000	1,000	1,000	1,000
1992	110,000	10,000	10,000	1,000	1,000	1,000
1993	100,000	10,000	10,000	1,000	1,000	1,000
1994	90,000	10,000	10,000	1,000	1,000	1,000
1995	80,000	10,000	10,000	1,000	1,000	1,000

Source: District Livestock Production Office, Hala Bala

Table 1.15 shows the livestock population totals by type for the years 1991 to 1995. The cattle population has declined steadily during the period. The number of cattle in the district in 1991 was 120,000 and declined to 80,000 in 1995. The number of goats in the district in 1991 was 10,000 and declined to 10,000 in 1995. The number of sheep in the district in 1991 was 10,000 and declined to 10,000 in 1995. The number of camels in the district in 1991 was 1,000 and declined to 1,000 in 1995. The number of bees in the district in 1991 was 1,000 and declined to 1,000 in 1995. The number of other livestock in the district in 1991 was 1,000 and declined to 1,000 in 1995.

The decline in number of sheep and goats has been due to the pastoralists' tendency to sell and slaughter in times of drought. Poultry indigenous are preferred over exotic birds mainly because of the high costs of production and lack of feeds. This has restricted the development of this sector. Tana River is a net exporter of live animals i.e. cattle, sheep, goats and camels. Livestock keepers have depended on their animals (mostly cattle) for their milk needs.

Table 1.16
Quantities of Sale of Livestock and Livestock Products

Year	Cattle	Goats Sheep	Camel	Hides Pieces	Skins Pieces	Milk Tons	Honey Kg	Wax Kg	Eggs No.
1991	27721	12094	49	2720	18760	22000	5800	400	97500
1992	16820	19294	362	6765	34424	30000	9279	655	200000
1993	14426	5768	503	3754	19266	37000	8000	200	100000
1994	10076	6192	224	1923	14323	24000	13000	1200	70000
1995	12000	7500	350	2084	17760	22000	87500
Total	81,043	50,848	1,488	17,246	135,000	36,079	2,455	2,355	555,000

Source: DLPO's Office HOLA, 1996

Table 1.16 shows that cattle sales declined from 27,721 in 1991 to 12,000 in 1995. The trend was also the same with sheep and goat sales, which declined from 12,094 in 1991 to 7,500 in 1995. Camel sales however, increased from 49 in 1991 to 350 in 1995 while sales for hides and skins declined from 2,720 to 2,084 and 18,760 to 17,760 respectively in the same period. Sales of milk kept fluctuating between 1991 to 1995. Honey sales showed a marked increase where 5,800 kg. were sold in 1991 and 1,200 kg. in 1995.

The gradual decline in sales of cattle, sheep and goats can be attributed to illegal movements of animals to adjoining districts without proper documentation.

With reduced local cattle, sheep and goat sales, the sales for hides and skins have also declined. Honey and wax sales have risen due to the communities' adoption of the highly productive KTBH.

Other Natural Resource Exploitation

Fisheries: Fisheries activities are mainly concentrated in Garsen Division in the Indian Ocean. They are also found in ox-bow lakes along the Tana River. Fishing in the district includes marine-fishing, which is carried out along the coastal strip of 75km and fresh water fishing practiced along the River Tana and the ox-bow lakes. To exploit the fishing potential in the district, the Department of Fisheries has recently constructed a fish demonstration pond at Galamani Minor Irrigation scheme in Galole Division and stocked it with tilapia fingerlings.

There is commercial and subsistence fishing in the district. The former is concentrated in Garsen Division while the latter is practiced by the riverine communities. Most of the marine fish is preserved by smoking and sun drying and is sold to distant markets. Ice plants do not exist in the district due to lack of electricity or generators. Fish processing industries would increase the fishing activities as the current preservation methods are not efficient.

Table 1.17 shows the quantities of fish produced and their value in 1995.

Table 1.17

Quantity and Value of Fish Produced, 1995

Year	Locally Consumed		Sold Outside the District		Totals	
	Kgs	KShs	Kgs	KShs	Kgs	KSh
1991	14,470	69,549	260,179	1,683,237	274,649	1,752,786
1992	141,972	905,834	256,177	2,110,781	398,149	3,016,615
1993	142,748	1,403,210	248,708	2,953,082	391,452	4,356,297
1994	161,178	2,237,395	283,821	3,806,166	444,499	6,043,561
1995	153,665	2,563,703	327,964	5,913,585	481,629	8,477,288

Source: District Fisheries Office -Tana River, 1996

Table 1.17 shows that fishing could be a good source of income if well developed. Income earned by over 300 fishermen and about 150 fish mongers in 1995 was KSh. 8,477,288, thus giving an annual per capita of KSh.18,838.40 to those engaged in the fishing industry. The table also shows that slightly over one third of fish produced in the district is consumed locally, whereas two thirds is marketed outside the district. The full exploitation of fresh water fishing is hampered by the menace of hippos and crocodiles in the oxbow lakes and rivers. Only 50% of the marine fishery is being exploited due to lack of modern fishing gear and vessels. Fish processing industries can thrive well along the coastline if the fish resources are well exploited. On the other hand, fish handling equipment (fish nets, handlines, gill nets etc.), can be made locally to create employment and diversify the economy of the district. However, full exploitation is hindered lack of infrastructure such as electricity for cooling plants, access roads and major roads to the big markets of Mombasa, Nairobi and even overseas.

Forestry and Agro-Forestry: Forestry and agro-forestry activities in the district are mainly geared towards provision of fuel wood, which is the major source of energy. Agro-forestry is being introduced gradually to the farmers in the small scale irrigation schemes. Exploitation of forests for industrial purposes like the production of packaging materials, paper and furniture is on a small scale.

Exploitation of the various types of forests for fuelwood is shown in Table 1.18

Table 1.18

Fuelwood Production by Source, 1995

Source	M ³
Gazetted Forest	3000.0
Trust land	150,944.0
Free Home land	26,056.0
Total	180,000

Source: District Forest Office, Hola, 1996.

Fuelwood obtained from gazetted forests was 3000m³ in 1995. Trustlands produced the highest amount of fuelwood free holdings produced the lowest.

Fuelwood demand is expected to be 213,406m³ in 1999 rising to 277,430m³ in 2000. Demand for building poles is projected to be 208,250 poles by 1999 and 260,313 by 2000. Demand for wood for paper production will be 30 tons by 1999 and 80 by 2000. This shows that consumption and demand for wood products like fuel wood, building poles, industrial wood, sawn wood etc outstrips the supply. However, the necessary infrastructure like all weather roads, electricity and water needs to be provided to boost production. Fuel wood and charcoal are the major sources of energy in terms of Since there are very few alternate sources of energy in the district. Building poles are obtained from the mangrove and natural forests along the river and are sold locally and to Malindi and Mombasa.

The exploitation of mangrove forests for timber and other related industrial activities have been restricted by the Forest Department to avoid depletion. The *juriflora/prosopis* ("Mathenge") is widely exploited for firewood and charcoal burning. It is also widely used in construction of houses by the local people. "Mathenge" bushes are also a good source of fodder for livestock especially goats.

Mining: Mining activities in Tana River District are very minimal. There is harvesting of sand and sea salt and production of brown ballast. However the district would benefit from geological studies to determine the quantity and quality of the few mineral deposits in Tana River District like gypsum, limestone etc. This study would therefore determine the exploitation potential of these minerals.

Tourism: The tourist potential in the district is minimally exploited due to lack of adequate infrastructure like roads, telecommunication, power and even water. It is expected that with tarmacking of the Garissa-Hola- Malindi Road more tourists will be able to visit the district.

Industrial Activities

Industrial activities are minimal in Tana River District. This is mainly due to the fact that there is no electricity in the whole district. As a result, most of the industrial activities in the district are of cottage or informal in nature. These include furniture making, of mat making, home made oil extraction and making of local butter from milk by pastoralists.

Weaving of mats is generally an activity carried out by women groups. This kind of cottage industry uses locally available raw materials such as coconut palm leaves and local tree leaves known as "Mukoma". The products made include carpets and mats. Marketing is done by the weavers individually who sell their products to the local markets. Expansion is generally restricted by lack of marketing knowledge and capital.

Furniture making is not very well developed due to lack of locally available timber. This makes timber very expensive since it has to be obtained from other districts. Furniture products are therefore relatively expensive.

Home made oils are popular among the pastoralists and agriculturalists alike. Pastoralists use milk to make home made butter and other beauty oils. Agriculturalists get oils from coconuts for cooking and body lotions. All these home made product could be produced in larger quantities and stored for longer periods if electricity was available.

Commerce Trade and Services

Formal Sector: Formal commercial activities in the district mainly consist of small scale retail shops. These are mainly concentrated in the urban centres of Garsen, Galole, Bura, Madogo and Bangale Divisions which have attracted higher populations. Table 1.19 illustrates the trend of trade licenses for year 1992 to 1995.

Table 1.19

Trend in Trade Licensing 1992 - 1995

Trade/Year	1992	1993	1994	1995
Whole sale	16	19	20	17
Catering	58	16	51	58
Garages	2	-	4	1
Retail Trade	347	438	444	480
Distribution	3	2	-	3
Miscellaneous	11	11	11	12
Total	437	521	522	571

Source: District Trade Development Office, Hola, 1996

The table indicates that the number of enterprises has been increasing except in 1995 when a decrease was noted. The decline noticed in 1995 was as a result of evasion by some traders in buying licenses.

It should be noted that catering and general retail trade constitutes the bulk of business activities as depicted in Table 1.19.

Apart from the cottage industries mentioned earlier, other small scale industries are also coming up in the district. These include about three bakeries in Galole Division. They have sprung up as a result of the growing population in the division, some of whom have higher incomes and hence increased purchasing power.

Informal Sector: This sector employs a larger proportion of the population than the formal sector in the district. This is because it requires little capital to start and no skills. The importance of this sector is growing as more people shift from subsistence agriculture to off farm economic activities.

Informal sector activities in the district include shoe making and repairing, tool making, tailoring, bicycle repairs and posho milling all of which are concentrated in major town centres such as Garsen, Hola and Bura. The main products sold within the informal sector include farm produce like tomatoes, beans, maize, fish, coconut, mangoes and other forms of vegetables. It is vital to note that jua kali items like jikos also are made on small scale. The manufacturing of other items like steel doors and windows have not been initiated as a result of lack of electricity.. However, these commodities are still used meaning the district has to rely on others for metal products.

Handcrafts such as 'mkeka' and baskets are weaved by women. It is vital to note that handcrafts if properly marketed there is potential for more development.

SOCIO-ECONOMIC INFRASTRUCTURE FOR INDUSTRIALIZATION.

Development of infrastructure is vital for industrialization. This sub-section examines the important infrastructure the district will need to develop in support of industrialization. The major infrastructure to be addressed are: communication network, water facilities, energy supply, education and health facilities.

Communication Network

The district has a road network of 1,110.9 km. This network is not adequate to serve the district, given its large size. Most of the roads are earth roads, which are often impassable during the rainy seasons.

Table 1.20 shows the distribution of the road network in the district.

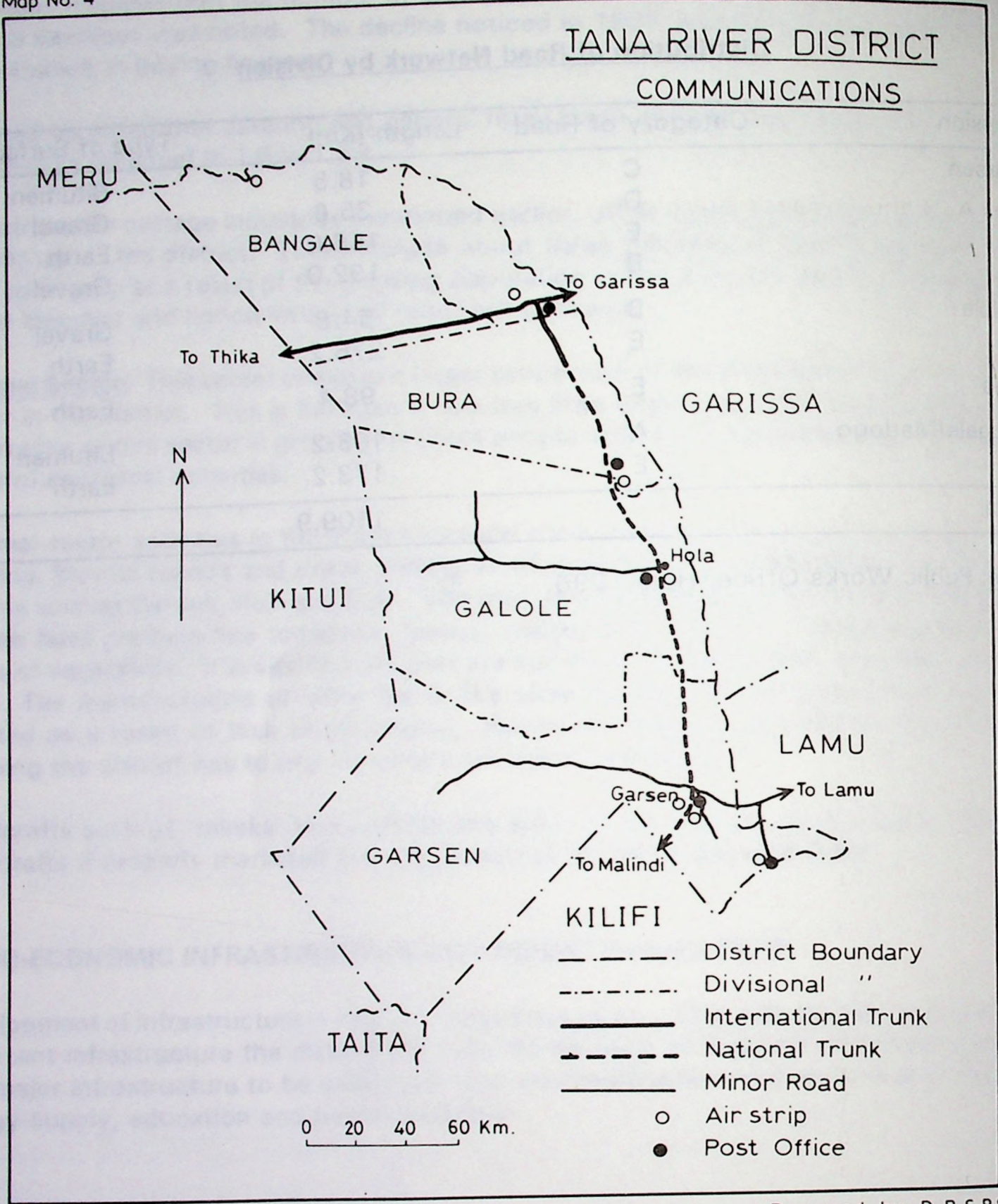
Table 1.20

Distribution of Road Network by Division

Division	Category of Road	Length (Km)	Type of Surface
Garsen	C	18.5	Bitumen
	D	35.6	Gravel
	E	156.0	Earth
	B	192.0	Gravel
Galole	B	54.8	Gravel
	E	276.2	Earth
Bura	E	98.4	Earth
Bangale/Madogo	A	105.2	Bitumen
	E	173.2	Earth
Total		1109.9	

Source: Public Works Office, Hola 1996.

TANA RIVER DISTRICT COMMUNICATIONS



Prepared by D R SRS

Garsen Division has the best developed road network with 192.1 Km of B8, 18.5 Km of C112 that connects Tana River District with Lamu District and several class E and D roads. Bangale and Madogo Divisions have 105 km of class A3 that connects Tana River District, North Eastern Province and other major towns in Eastern Province. Bura Division has only 98.4 km. of earth road. All the roads in the district are maintained by the Ministry of Public Works.

Class A, B and C, roads are highly utilized while class E and D roads are fairly utilized. Class E and D roads are feeder road of B8 or A3 that lead to the populated riverine areas.

To tap the industrial potential in agricultural production access roads have to be opened to the rural farms along the river and coastline. Areas like the Bangale, the coastal areas of Capon and Kurawa and the hinterland areas of Wayu, Waldena, Mbalambala and Assa should be given priority. Opening of the road from Hola through Wayu to Mutomo in Kitui District will improve the communication network between the district and the rest of the country.

Postal and telecommunication services in the district are inadequate. Only the district headquarters, Hola and the divisional headquarters Garsen, Bura, Madogo and Bangale have telecommunication services. Hola is served by STD telephones, while the rest use the manual system which is not efficient. The district depend on public transport for delivery of postal services. This becomes a problem during the rainy season when most roads are impassable. Areas with potential for industrialization have to be served with postal and modern telecommunication services for industrialization to be realized in the district. These include the underserved part of Garsen and Galole Division which have potential for agriculture and livestock production.

There are only four airstrips in the district which are used more for Government business than private ventures. There are no chartered or regular flight within or from outside the district.

Energy Supply

Electricity contributes significantly to a district's industrial development. However, Tana River District is not connected to the national electricity grid and relies on woodfuel and petroleum product as its main source of energy. Solar energy is expensive to install and is therefore used on a limited scale by some dispensaries. About 99% of the population of the district use woodfuel for cooking and lighting. The source of woodfuel is the "Mathenge" trees (*Juriflora prosopis*) which grow widely in the district.

Petroleum fuel (diesel) is used to run privately owned power generators in Hola and Bura Irrigation Settlement Schemes. Kerosene is expensive since it can only be obtained from the market centres, which are far away from where the majority of the people live, hence it is not a popular source of energy. Cooking gas is used to a very limited scale in dispensaries, veterinary clinics homes in the and homes in the urban centre, although the nearest supply point for cooking gas is Malindi Town, 200 km. from Hola Town.

In order for the district to achieve industrial transformation the district has to be connected to the national electricity grid.

Educational Facilities

In 1996 there were 91 pre-primary schools, 103 primary schools, 10 secondary schools and 2 youth polytechnics.

Table 1.21 presents the existing educational facilities in the district.

Table 1.21

Education Facilities in the District

Division	Type of institution							
	Pre- Primary		Primary		Secondary		Youth Polytechnic	
	1994	1996	1994	1996	1994	1996	1994	1996
Galole	18	39	39	39	5	4	2	1
Garsen	28	27	43	43	4	4	2	0
Bura	11	20	19	14	1	1	1	1
Madogo	8	4	9	5	1	1	-	-
Bangale	-	1	2	2	-	-	-	-
Total	65	91	112	103	11	10	5	2

Source: District Education Office, Hola 1996

Since 1994, the number of the primary schools have reduced from 112 to 103 . Secondary schools have reduced from 11 to 10 over the plan period. Similarly, the number of youth polytechnics have also reduced from 5 to only 2 over the same period. The only improvement noted was in the pre-primary schools which increased from 65 to 91, with Galole Division having more than 100% increase from 18 in 1994 to 39 in 1996. However, Madogo registered a 50% decline from 8 to 4 in the same period. Bangale Division had no pre-primary schools in 1994 in 1994 but had one established within the plan period. Table 1.22 shows the school enrolment by division and sex.

Table 1.22

School Enrolment by Division and Sex, 1995

Division	Pre-primary		Primary		Secondary	
	Enrolment		Enrolment		Enrolment	
	Boys	Girls	Boys	Girls	Boys	Girls
Garsen	739	647	3895	3087	297	207
Galole	829	773	3711	2987	321	377
Bura	413	420	1714	1232	33	17
Madogo/Bangale	105	99	771	418	43	41
Total	2086	1939	10091	7724	694	642

Source: District Education Office, Hola, 1996.

From Table 1.22 it can be observed that Galole Division had the highest enrolment of 602 pupils in pre-primary schools, Garsen Division was second in enrolment with 1,386 pupils. The total enrolment in Madogo was only 204 pupils. Pre-primary schools are over-utilized. Most pre-primary schools lack the basic facilities like classes, playing fields and teaching aids.

Garsen Division had the highest total enrolment of 6982 pupils in primary schools in 1995. Galole Division had 39 primary schools with a total enrolment of 6,698. In Madogo Division, enrolment in the 14 primary schools was 1,189 pupils. Enrolment is high in the lower classes and declines progressively in the higher classes of standard six, seven and eight. This is due to high drop out rate of girls due to early marriages and lack of school fees, coupled with the general negative attitude towards education for the girl child among the local community. The primary school participation rate is 43% which shows that most pupils in the primary school going age group are not enrolled in schools.

Existing educational facilities are highly under-utilized. There are 4 secondary schools in Garsen Division, 4 in Galole Division, 1 in Bura Division and one in Madogo. There are no secondary schools in Bangale Division. The average number of students per secondary school in Garsen Division is 126 and 44 in Galole Division. Bura and Madogo Divisions have one secondary school each with 50 and 84 students respectively. This shows an average of 13 students and 21 students per class respectively. The performance of the secondary schools in the national examination in the district has been very poor for the last five or more years.

Table 1.23

Teacher Establishment

Division	Primary Schools					Secondary Schools								Total
	Trained		Untrained		Grand Total	Grand		Dip/Asst		Technical		Untrained		
	M	F	M	F		M	F	M	F	M	F	M	F	
Galole	204	98	29	11	342	26	1	18	5	7	0	4	0	61
Garsen	267	128	26	19	440	20	3	31	4	0	0	8	0	66
Bura	85	26	9	3	123	5	0	3	1	1	0	0	0	10
Madogo	24	13	5	3	45	6	0	7	0	1	0	1	0	15
Grand Total	580	265	69	36	950	57	4	59	10	9	0	13	0	152

Source: District Education Office, Hola, 1996

Galole Division has a total of 342 primary school teachers. Of these 302 are trained. Garsen Division has the highest number of primary school teachers (440). Of these, 395 are trained. Bura Division has a total of 123 primary school teachers and the highest percentage of trained teachers (90%). Madogo has only 45 teachers of which 37 are trained.

Garsen Division has 66 secondary school teachers; 23 graduates, 35 diploma holders and 8 untrained teachers, while Galole Division has 61 secondary school teachers of which 27 are graduates, 23 are diploma holders, 7 are technical teachers and 4 are untrained. Bura Division has a total of 10 secondary school teachers, out of which are 5 graduates, 4 are diploma holders and 1 is a technical teacher. Madogo Division has 6 graduates, 7 diploma holders, 1 technical and 1 untrained teacher making a total of 15.

The teacher/pupil ratio for primary schools is 1:19, which is below the national average of 1:40. For secondary schools, the teacher/student ratio is 1:9 which is drastically lower than the national average of 1:35. The lower pupil/teacher ratios are due to the under-utilization of the existing educational facilities.

Water Facilities

The district's water facilities and their distribution are shown in Table 1.24.

Table 1.24

Type of Water Facility

Division	Piped	Shallow Wells	Earth Pans
Galole	2	45	1
Garsen	4	43	2
Bura	1	5	1
Madogo	1	6	1
Bangale	-	2	2
Total	8	146	7

Source: District Water Engineer's Office, Hola, 1996.

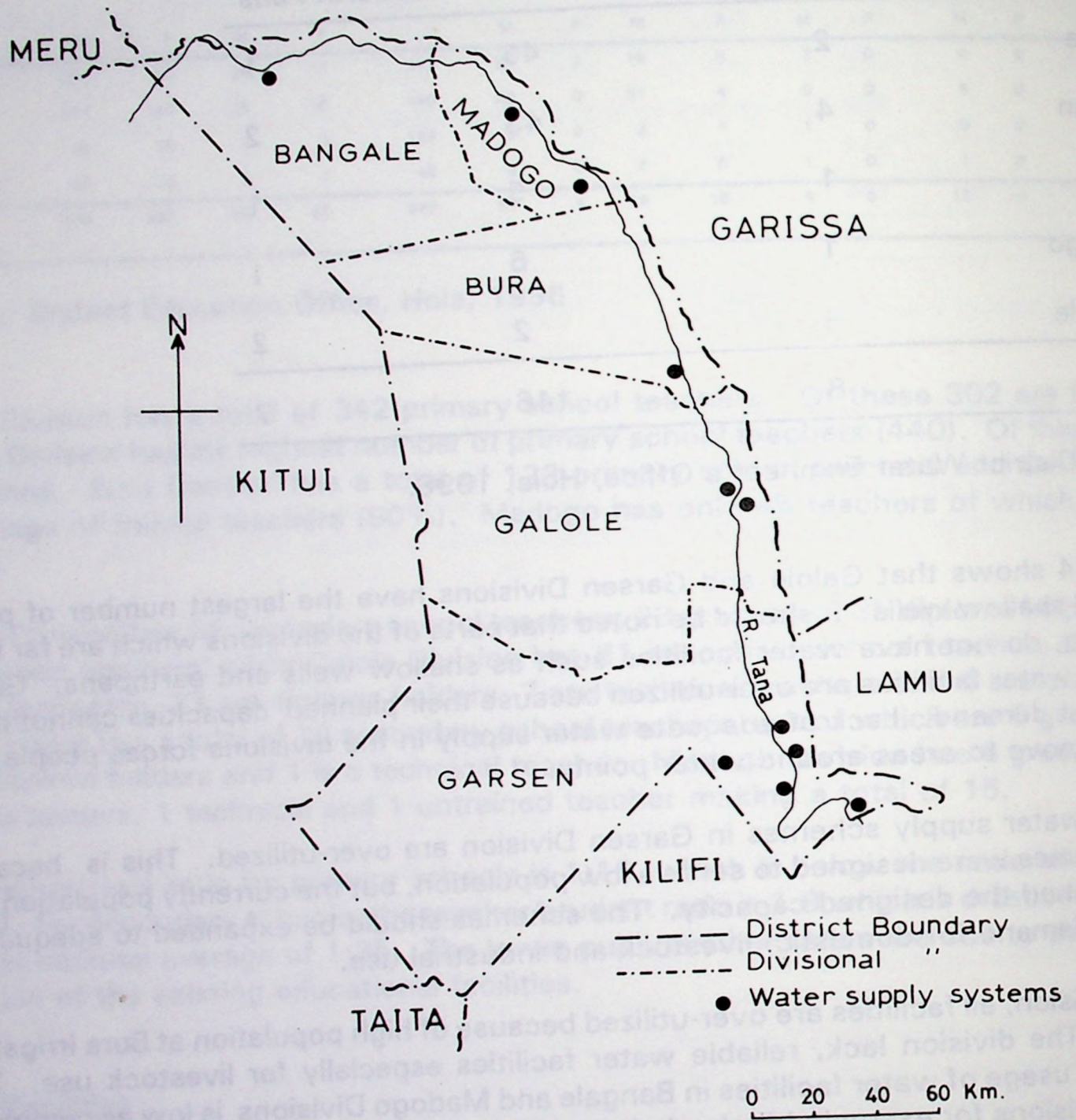
Table 1.24 shows that Galole and Garsen Divisions have the largest number of piped water and shallow wells. It should be noted that parts of the divisions which are far from River Tana, do not have water facilities such as shallow wells and earthpans. Galole Division's water facilities are over-utilized because their planned capacities cannot meet the present demand. Lack of adequate water supply in the divisions forces people and livestock move to areas around water points.

All piped water supply schemes in Garsen Division are over-utilized. This is because these schemes were designed to serve a low population, but the currently population has over stretched the designed capacity. The schemes should be expanded to adequately meet the demand for domestic, livestock and industrial use.

In Bura Division, all facilities are over-utilized because of high population at Bura Irrigation Scheme. The division lack, reliable water facilities especially for livestock use. The intensity of usage of water facilities in Bangale and Madogo Divisions is low as compared to other divisions for example Mbalambala and Mulango water supplies are not optimally utilized. If industries are to be established in these divisions, the schemes should be revitalized to adequately serve industries within the schemes.

The existing water facilities in the district are not enough to adequately provide water for domestic, livestock and industrial use and therefore need to be augmented.

TANA RIVER DISTRICT WATER FACILITIES



Prepared by D R S R S

Health Facilities

There are 2 hospitals, 5 health centres, 36 private and public dispensaries and 7 clinics in the district. Given the vastness of the district the average walking distances to the nearest health facilities is 40 km. This shows that the health facilities in the district are inadequate.

Table 1.22 indicates the health facilities by type and distribution.

Table 1.25

Health Facilities Per Division

Institution	Sponsor	Galole	Garsen	Bura	Madog o	Bangale	Total
Hospital	GOK	1	1	-	-	-	2
Health Centre	GOK	-	3	1	1	-	5
Dispensary	GOK	8	9	4	1	2	24
	Mission	6	2	4	-	-	12
Clinics	Private	2	2	-	-	-	4
	School	1	2	-	-	-	3

Source: Ministry of Health, Hola, 1996.

The health facilities in Bangale and Madogo Divisions are inadequate. There are only 2 dispensaries in Bangale Division and 1 health centre and a dispensary in Madogo Division. These are food deficit areas with many cases of malnutrition and diseases.

Hola District Hospital is highly utilized. However, it has most of the necessary facilities. It has one medical doctor and it is the only referral hospital in the district with a catchment area extending to some parts of Garissa District. Most of the health centres are highly utilized. This is because the health centres are located at divisional headquarters where population is. Dispensaries are also highly utilized as they serve high population. Dispensaries do not charge user fees which explains their high utilization rates. Banditry in some areas especially Bangale and Madogo have led to the closure of about four dispensaries in the previous plan period.

User charges have been introduced health centres and hospitals. The social economic status of the majority of the population is low as well as the literacy levels. The user charges have increased the tendency among the majority of the local population to resort to traditional herbal medicine.

Attendance in private clinics is low, due to the high fee charged and most patients prefer going to Hola District Hospital for treatment. Mission (Church) dispensaries have a moderate attendance since their charges are lower. There are three doctors in the district and 170 para-medics. The doctor/patient ratio is 1: 50,000 which is very high and does not auger well for the health status of the population in the district.

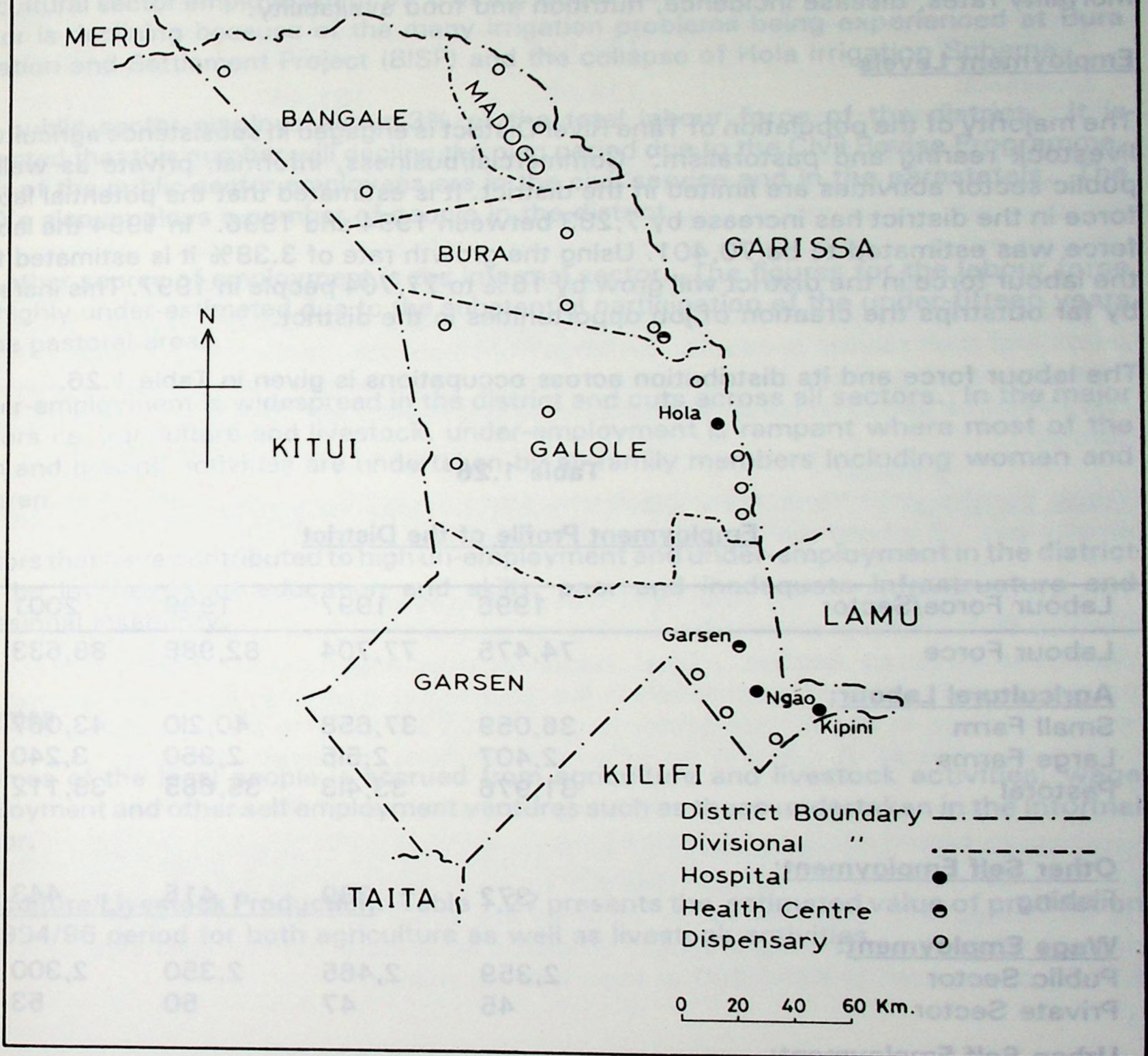
Most health facilities lack the basic equipment such as X-rays and those with these facilities experience operational problems since there is no electric power and have to rely on diesel run generators which are more expensive to maintain.

Table 1.25
Health Facilities Per Division

Division	Doctors	Para-medics	Dispensaries	Health Centres	Total
Bangale	1	10	1	1	13
Madogo	1	10	1	1	13
Other	1	10	1	1	13
Total	3	30	3	3	39

Health facilities in Bangale and Madogo Divisions are inadequate. There are only 2 doctors in Bangale Division and 1 health centre and a dispensary in Madogo Division. The food deficit areas with many cases of malnutrition and diseases. A District Hospital is highly utilized. However, it has most of the necessary facilities. There is one medical doctor and it is the only referral hospital in the district with a treatment area extending to some parts of Gafsa District. Most of the health centres are highly utilized. This is because the health centres are located at divisional level where population is high. Dispensaries are also highly utilized as they serve high utilization. Dispensaries do not charge user fees which explains their high utilization. Bangale in some areas especially Bangale and Madogo have led to the closure of low level dispensaries in the previous plan period. Charges have been introduced health centres and hospitals. The social economic status of the majority of the population is low as well as the literacy levels. The user charges have increased the tendency among the majority of the local population to seek traditional herbal medicine.

TANA RIVER DISTRICT HEALTH FACILITIES



Prepared by DRSRS

WELFARE INDICATORS

Welfare of the population is a good indicator of the level of development and quality of life enjoyed by the people. Some of the welfare indicators to be addressed during the plan period are: employment levels, income sources, levels and distribution, infant mortality rates, disease incidence, nutrition and food availability.

Employment Levels

The majority of the population of Tana River District is engaged in subsistence agriculture, livestock rearing and pastoralism. Commercial/business, informal, private as well as public sector activities are limited in the district. It is estimated that the potential labour force in the district has increase by 7,283 between 1994 and 1996. In 1994 the labour force was estimated to be 70,401. Using the growth rate of 3.38% it is estimated that the labour force in the district will grow by 16% to 77,704 people in 1997. This increase by far outstrips the creation of job opportunities in the district.

The labour force and its distribution across occupations is given in Table 1.26.

Table 1.26

Employment Profile of the District

Labour Force/Sector	1996	1997	1999	2001
Labour Force	74,475	77,704	82,988	88,633
<u>Agricultural Labour:</u>				
Small Farm	36,059	37,658	40,210	43,067
Large Farms	2,407	2,515	2,950	3,240
Pastoral	31,976	33,413	35,685	38,112
<u>Other Self Employment:</u>				
Fishing	372	389	415	443
<u>Wage Employment:</u>				
Public Sector	2,359	2,465	2,350	2,300
Private Sector	45	47	50	53
<u>Urban Self Employment:</u>				
Commercial/Business	427	446	489	532
Informal Sector	744	777	830	886

Source: District Planning Unit, Hola, 1996

Employment in the small farm sector will continue to be the major occupation in the district with the increasing number of minor irrigation schemes along River Tana under the Drought Recovery Programme. This occupation is gaining prominence in Madogo and Bangale Divisions where pastoral communities are adopting crop farming for their livelihood. The small farm sector employs about 48% of total labour force while the agricultural sector employs about 95% of the labour force. Employment in the large farm sector is declining because of the many irrigation problems being experienced at Bura Irrigation and Settlement Project (BISP) and the collapse of Hola Irrigation Scheme.

The public sector employs about 3% of the total labour force of the district. It is projected that this number will decline the plan period due to the Civil Service Programme. Most of the public sector employees are in the civil service and in the parastatals. The NGO's also employ a number of people in the district.

The other source of employment is the informal sector. The figures for the labour force are highly under-estimated due to the substantial participation of the under-fifteen years in the pastoral areas.

Under-employment is widespread in the district and cuts across all sectors. In the major sectors i.e. agriculture and livestock, under-employment is rampant where most of the farm and grazing activities are undertaken by all family members including women and children.

Factors that have contributed to high un-employment and under-employment in the district are the low levels of education and skills, poor and inadequate infrastructure and occasional insecurity.

Incomes

Incomes of the local people is accrued from agriculture and livestock activities, wage employment and other self employment ventures such as those undertaken in the informal sector.

Agriculture/Livestock Production: Table 1.27 presents the estimated value of production for 1994/96 period for both agriculture as well as livestock activities.

Table 1.27

**Estimated Value of Selected Agricultural
and Livestock Commodities (KPH.'000)**

Sector	1993	1994	1995
Agriculture	103,556	105,629	127,704
Livestock	178,007	181,467	207,507

Source: Annual Reports, District Agriculture Office and District Livestock Population Office, Hola, 1996.

Earnings from agricultural production were from sale of crops like mangoes, bananas and vegetables while income from livestock production accrued from sale of cattle, sheep and goats and their related products. Earnings from livestock production activities are higher than the earnings from the agricultural sector. The products from both the agricultural and livestock sector such as mangoes, coconuts, cattle and shoats are sold outside the district.

Wage Earnings: In Tana River District, wage earnings accrue mainly to public sector employees, of whom the majority are teachers and civil servants.

The wage earnings for the year 1991 was estimated at KShs.16 million. Due to the Civil Service Reform Programme, the number of people employed in the civil service in the district is likely to decline. Total wage earnings might increase depending on the government decision of wage levels in the reformed civil service. It is also expected that wage earnings in the private sector in the district are likely to increase during the plan period as a result of opening up of new institutions, parastatal branches and private ventures.

Informal Sector: It is not possible to estimate the amount of income generated from this sector even though informal activities sustain many people in the district. However, it can be estimated that informal sector incomes are about K£2,100 per annum (3,500 per month) while those dealing in locally produced agricultural commodities earn as little as K£180 per annum or KShs.300 or even less per month.

Income Distribution

Income distribution in the agricultural and livestock sectors is skewed. Garsen Division which has better climatic conditions for agricultural and livestock activities has a higher total income and income per capita. Bangale and Madogo Divisions have the lowest incomes and incomes per capita due to the arid nature of the divisions. Hola and Garsen, which host the district headquarters and a divisional headquarter respectively, have skewed income distribution patterns. Major businesses in these towns are owned by a

few residents while the rest own small retail shops, hotels, kiosks, or are hawkers. Other residents are employed by the larger businesses.

Incomes from pastoralism are higher than incomes from agricultural activities, hence pastoralists have a higher per capita income than farmers.

Infant Mortality Rates

In Tana River District, the level of infant mortality is about 110 per 1,000 live births, which is higher than the national average of 100 per 1000 estimated in 1989 census. The incidence of infant mortality may be higher than this because there are many cases which are not reported. The rate of infant mortality is relatively higher among the pastoralist communities. Table 1.28 shows the leading causes of child mortality in the district.

Table 1.28

Leading Causes of Child Mortality

Sickness	Ranking
Diarrhoea and Vomiting	1
Malaria	2
Anaemia	3
Gastro Enteritis	4
Broncho-Preumonia	5

Source: Medical Health Office, Hola, 1996.

Table 1.29 shows that diarrhoea and vomiting rank first as causes of death of the under 5 years. Malaria takes the second place. Anaemia ranks third while gastro enteritis and broncho-pneumonia are fourth and fifth respectively. Malnutrition compounds the mortality problems of the children.

Disease Incidence

Table 1.29 shows the top ten causes of morbidity in the district.

Table 1.29

Top Causes of Morbidity in 1992 - 1995

Disease	1991	1992	1993	1994	1995
Malaria	106671	123333	88933	93046	99261
Respiratory Diseases	63141	71125	65421	65990	63634
Skin Diseases	47405	51428	28954	21685	21406
Diarrhoeal Diseases	15451	18159	15144	16520	15489
Intestinal Worms	15418	10671	8992	7380	7680
Bilharzia	11256	9987	6833	6026	4799
Eyes Infections	8350	8544	7542	5294	6257
Urinal Tract Infections	7899	10231	9299	9223	7511
Anaemia	7677	9334	7336	4997	580
Ear Infections	5823	6651	4113	3911	4095

Source: Medical Office of Health, Hola, 1996

Table 1.29 reveals that malaria and respiratory diseases are the two top causes of morbidity in the district. Of the respiratory diseases, incidence of TB is particularly high among the pastoralists. From the statistics on Table 1.29, it can be concluded that there is dire need to strengthen control measures for the top ten diseases. To combat this, there is need to improve the health services in the district.

Nutrition

Poor nutrition hinders the development of the human resources of the district. Those most affected are children. Table 1.30 shows the status of nutrition in the district in 1994 and 1995.

Table 1.30

Malnutrition Status

Year	T/WT	T/U/WT	Kwash	Maras
1994	57,859	9,928	391	275
1995	50,676	11,253	358	98

Source: Ministry of Health, Hola, 1996.

T/WT - Total Weighed
 MARAS - Marasmus;
 T/U/WT - Total Under Weight;
 KWASH - Kwashiorkor;

Due to frequent droughts that occur in the district, malnutrition is a persistent problem. Agricultural and livestock activities are usually productive enough to support the population's agreements. Poverty is therefore a common feature.

It should be noted that, Tana River District is a net food deficit area and therefore food availability depends on the market distribution system and famine relief supplies. This means that incidence of malnutrition is high.

Table 1.30 shows the prevalence of Kwashiorkor and Marasmus in Tana River District over the 1994/95 period, using weight-for-age as the anthropometric measure. Figures are only for three divisions, namely Bura, Galole and Garsen for which data is available. However there is no doubt that protein calorie malnutrition is prevalent in the other two divisions of Madogo and Bangale. The Table shows that the absolute number of children at risk rose from 9,928 in 1994 to 11,253 in 1995, representing an increase of 13.3%. Underweight cases also accounted for 22% of the children weighed.

Although the underlying cause of malnutrition in the district is lack of food which is further compounded by limited knowledge and deep rooted traditional habits particularly in small children.

Due to the effect of malnutrition, on the labour force, during the plan period, more resources will therefore require to be put in programmes and projects that will improve the nutritional status of the people.

Food Availability

In Tana the district's, supply of staple food stuffs has remained below demand since 1989 when Hola Irrigation Scheme collapsed. The situation further deteriorated in the succeeding years due to drought and declining productivity at Bura Irrigation Settlement Project. Therefore, during the current Plan period, the district is likely to remain a net food deficit area and the excess demand for food will be met with imports from other districts.

Food availability has important implications on the nutritional status of the population and in Tana River District the present food shortages have had adverse effects, as about 43% of the entire district's population depend almost exclusively on famine relief. Retailing of food stuffs from other districts has also gained prominence due to the food deficit in the district. A lot of resources will therefore have to be invested in order to make the district self-sufficient in food production.

Social Dimensions of Development

The Social Dimensions of Development Programme (SDDP) has been initiated after the recognition that despite the introduction of the Structural Adjustments Programmes (SAP) to stimulate the economy and put it on a firm growth path, there is need to put in place programmes targeted at those marginalized by the market forces, as well as the vulnerable groups whose plight has been made worse by the SAP's as seen through loss of jobs (retrenchment), erosion of purchasing power, reduction and removal of government subsidies from a number of essential services.

Most of the projects that have been undertaken, those currently going on and even those proposed in district, are mostly of SDD nature since more than 85 percent of the population still live below the poverty line. The reduction of poverty will continue to be the greatest challenge in the district.

The major characteristics of the vulnerable groups in the district is that they need most basic services. These includes services like immunization; drugs (Essential Drugs Programme for the rural dispensaries as well as construction of these facilities); nutritional support programmes due to the high level of malnutrition especially for children under five and pregnant and lactating mothers; the school feeding programme to improve the nutritional status of pre-primary and primary school children in the disadvantaged groups and the famine relief programme to sustain lives of those critically affected by drought. Though the whole district is affected by the above named problems, special focus will be on the divisions of Bangale, Madogo, Bura and parts of Galole.

The other major target group in the SDD programme will be school children. This will mean improvement of the existing primary schools which are poorly constructed, under trees. Due to poverty and drought, parents cannot afford even primary school text books. The secondary schools' bursary fund has to be expanded to cater for more students especially girls, who are highly disadvantaged. The school feeding programme may have to be expanded to cater for the secondary schools to reduce the running costs and

therefore reduce the fees paid by the students. Training programmes for the youth, farmers, pastoralist and fishermen on the technical skills and basic production technologies will be given high priority to assist the community engage in fruitful activities that will lead to industrialization for sustainable development.

Education and Skill Development Programme will target mostly the vulnerable groups in the north, namely Bangale, Madogo, parts of Bura and Galole Divisions where there are very few primary schools. Bangale Division has no secondary school while Madogo and Bura divisions have only one secondary school each.

The ASAL projects found in the district and aim at improving the living standards of small scale farmers, will have to be given more emphasis during the plan period. These programmes will be in areas of water provision (dams, earth pans, shallow wells, bore holes etc.); minor irrigation scheme projects; land adjudication process; and development of rural access roads to provide access to markets facilitate movement of goods and services (inputs and outputs) to and from remote areas especially for industrialization, employment and development. In this regard the expansion of the informal sector for more employment and income generation will receive attention in SDD during the plan period. This will mainly target school leavers, women's training for jua kali ventures and rural unemployed. Revolving loan schemes for Jua Kali entrepreneurs will go along way in ensuring that the initial capital required to start the business is available.

Although the security situation has generally improved in the district, there is need to give more support to the Security Committee to improve on the public security and crime prevention. Strengthening of extra-mural penal activities will also be encouraged to reduce congestion at the Hola Prison. Prisoners will also be involved in economically productive activities.

Environmental protection will continue to be addresses to avoid environmental degradation. This will generally include agro-forestry including on-farm tree planting programmes. Environmental conservation and rehabilitation projects to prevent soil erosion in overgrazed areas will be mandatory to improve agricultural and livestock production.

SUPPORTING DEVELOPMENT INSTITUTIONS

Institutional support is a key to socio-economic development at the district level, especially with respect to resource mobilization and implementation of projects and programmes. This sub-section describes the institutional framework existing in the district with particular attention to the DDC and its sub-committees, local authorities, parastatals; banks and non-banking financial institutions and the cooperatives and harambee movements.

DDC and its Sub-Committees

Tana River District Development Committee (DDC) is responsible for overall rural development planning, implementation and co-ordination of projects and programmes.

The DDC, considers and approves new project proposals from NGO's, GOK, parastatals, local authorities or regional development authorities, and also establishes priorities for development. The DDC in effect will be responsible for setting the pace is the institution that is to set the pace for industrialization by creating an enabling environment for industries to thrive and survive through its quarterly deliberations on the development agenda of the district.

Land in Tana River District is either government land or land held in Trust for the people by the county council. The DDC, together with the plot allocation committee, which is a sub-committee of the DDC examines and approves, if need be, all applications for the different land users including prospective investors and industrialists. The exercise of land adjudication has started in the district. Town plans are being drawn for Hola Town and other market centres with the recommendation of the DDC. This will enhance the concept of ownership of land and property and hence encourage more private investment made leading to rapid industrialization.

Development projects and programmes which are discussed by the DEC and the DDC come from the deliberations of the sub-DDC's or Divisional Development Committees. During the previous plan period, the sub-DDC's were not very active and only two divisions out of the five held one meeting each instead of the stipulated in the blue book. The operations of the committees is mainly hampered by frequent change-over of the chairmen, that is, the District Officers (DO's). The distances to the divisions are also long and departmental heads do not normally attend the DVDC meetings to advise the committees on development issues. Lack of adequate departmental personnel at the divisional level has also made it difficult for meetings to be arranged.

The same situation is also found at locational and sub-locational level. However, the situation is made worse by the fact that the communities migrate with their livestock in reach of pasture. Literacy is also a problem as well as lack of awareness on issues of development.

Technical representation in these committees is very low and they lack basic operational materials. Literacy is also low among the members.

For the district to undergo industrial transformation these communities will need to be revived as they provide a vital link with the grassroots and ensure development and sustainable of projects.

District Executive committee (DEC) advises the DDC all technical issues. The DDC is also supported by some special purpose committees. These include the District Agricultural Committee, Special Dimensions of Development Committee among others. Two of these committees, the District Industrial and the District Social Dimensions of Development Committees will have important roles to play during the plan period due to the focus on industrialization and poverty alleviation.

District Social Dimensions of Development Committee (DSDD): The DSDD was formed to address wider issues of poverty including relief and rehabilitation. The committee has been formed along the lines of the DFRD strategy and starts from the grassroots.

Functions of the Committee:

- Supervision, management and monitoring of all DSDD activities undertaken at district level;
- Identifying the vulnerable groups and the size of the needy population, including preparation of comprehensive district packages on SDD needs in the district;
- Mobilization of local resources such as transportation and storage facilities required for SDD operation;
- Setting up and maintaining registers and inventory of the SDD operating centres;
- Co-ordination of SDD activities carried out by other collaborating partners such as NGO's etc.

District Industrial Committee: The committee will assist the DDC in the following.

- Initiating, appraising and devaluating district industrial plans;
- Co-ordinating reviewing and evaluating industrial development programmes in the district;
- Advising the DDC on investment and policy matters so as to attract and promote industrial development in the district;
- Ensuring availability of industrial land and infrastructure for approved industrial projects;
- Creating awareness on available facilities, schemes and services for industrial development in the district;
- Advising Ministry of Industry on issuance of industrial registration licenses and;
- Monitoring of entrepreneurial development and business creation programmes of Non-Governmental Organizations.

Local Authority

There is only one local authority in Tana River District, the Tana River County Council (TRCC) The Council has 18 electoral wards, each representing a number of administrative locations. The total number of locations are 31. The major function of the Tana River County Council is to plan for and build physical infrastructure in the urban and market centres in the district. These will create the desired environment for private investors. The council is also responsible for plot allocations in the trading and market centres. So far, the county council has been very cooperative in the allocation of land for the mentioned uses and the DDC will continue to liaise with the county council to achieve the

set industrial objectives. The council also, collects revenue from the traders and is responsible for the development and management of game reserves in the district.

The TRCC has, therefore, a big role to play in the development of the tourist industry in liaison with the Kenya Wildlife Service (KWS). The main problem facing the council is lack of adequate funds. The council is a very narrow revenue base and the problem is worsened by the fact that it no longer collects cess from cotton sales following the collapse in 1989 of the Hola Irrigation Scheme in 1989. The success of the council in the establishment of market centres, provision of infrastructure and their maintenance has therefore been limited. The County Council has successfully arranged for the physical planning of the major towns and centres like Hola, Garsen, Madogo, and is also expected to play a big role in the land adjudication process which is starting in the district. The process is viewed by the DDC as a positive step towards industrialization as the land tenure adopted will enable individuals or groups of individuals to own land could be used as collateral for bank loans.

Voluntary Agencies

The district has a few NGO's which are involved in the field of water, health and education. The GTZ (German Technical Agencies) operates in Garsen Division particularly in the coastal region in Capon area. The Agency together with the GOK assists the local community in land adjudication, settlement and the provision of social amenities such as water, health centres/dispensaries, schools, roads, administrative offices, social halls and other public utilities required by new settlers on the newly opened land. The GTZ Build Operate and Transfer (BOT) the facilities to the communities. It is also assisting groups to start small industrial ventures like cotton seed processing and forest products-related industries.

The YWCA (Young Women Christian Association) is another NGO that also operates in Garsen Division. The NGO is involved in training women groups to start income generating activities. It also gives credit to these groups using the Grameem Model, i.e, credit where the collateral is only being a member of the group. It uses Built, Build, Operates and transfer to the beneficiaries.

KWAHO, (Kenya Water and Health Organization) another NGO operates in Garsen Division. It is involved in the provision of clean water for domestic use by constructing shallow wells and equipping them with pumps. They also train groups on the maintenance and operation of the pumps. They Build Operate and Transfer (BOT) the Facilities to the beneficiaries.

The World Vision, is involved in the training of the Community to allow them to be involved in their own development by training the Community on group dynamics. They also provide farmers with the necessary inputs including on-farm training and follow-ups after training. They are also involved in the provision of water for agricultural and domestic use. The NGO also assists educational institutions with the provision of books, equipment, funds and even construction of buildings. They Build, Operate and Transfer (BOT) the facilities to the user beneficiaries.

The Catholic Mission and the African Inland Church have for a long time been the main and the oldest voluntary development agencies in the district. They mostly supplement efforts by the Ministry of Health in providing health services and have also established pre-primary units at some of the main market centres in the district such as Hola and Garsen. They operate on a built, operated and own basis. NGOs have been an important role play assisting the district to achieve the good of rapid industrialization. During the plan period, the DDC will actively seek for assistance from NGOs particularly in the areas of health provision, education and financial assistance for up-coming entrepreneurs, particularly, women groups.

Harambee Movement

The Harambee Movement is taking root in as a major tool for positive social and economic change. Most of the harambee fund raisings have been towards assistance to schools and students in need of school fees. Generally, the turn-out and response to harambee spirit has not been very satisfactory. Despite the shortcomings, the harambee movement has potential in the district and could have a major impact in the socio-economic development of the district through construction of infrastructural facilities e.g., schools, dispensaries, access roads and even human resources development in education and training.

Regional Authorities and Other Major Parastatals

There are two regional authorities that operate in the district; the Coast Development Authority (CDA) and the Tana and Athi Rivers Development Authorities (TARDA). Among the activities and project proposals the CDA's Tana River office is undertaking include:

Local processing of oil from oil crops: Bahari Women Group in Capon has undertaken this project after being assisted with an oil processing machine, i.e, the RAM Press.

Garsen Meat Supply: This project will undertake marketing of livestock, slaughter, processing and marketing of carcass. It is expected to solve livestock marketing problems for Lamu, Garissa and Tana River District besides creating other industries through forward and backward linkages.

Proposed Dalu Ranch: This is a model Ranch which will act as a beef and dairy multiplication centre for the supply of high quality breeding stock.

The TARDA is involved in implementing a giant Irrigation Project for rice production in the lower part of River Tana in Garsen Division.

A major parastatal operating in Tana River District is the National Irrigation Board (NIB). The Hola Irrigation Scheme was established to grow cotton as the main crop through tenant farming. Farmers were also allowed to grow food crops during the off season. The scheme in 1989 collapsed following a change in the course of River Tana. Plans are underway to rehabilitate the scheme which will be an important base for agricultural related industries.

Kenya Posts and Telecommunications Corporation is another parastatal operating in the district. The parastatal offers postal and banking services. The branches in the divisional headquarters mostly offer postal services which are also hampered by the poor communication network especially during the rainy seasons. Only Hola District Headquarters is served by STD; the rest of the divisional headquarters are served by manual systems. As the district prepares for industrial take off through private investments, postal and telecommunication services have to be expanded and modernized extensively in this district.

Banks and Non-bank Financial Institutions

The Kenya Commercial Bank, is the sole Commercial Bank operating in the district. Its services to the development of this District have been very commendable as it , provides all banking facilities required in the district. The aridity, poor communication network and the fear of banditry are some of the reasons why many of the other commercial banks have not ventured into the district. With the tarmacking of the Garissa - Hola - Malindi Road and the improved security situation in the district, more commercial banks are expected to open branches in the district during the plan period.

The Agricultural Finance Corporation extends credit only to private ranches who have acquired land title deeds.

Co-operative Movement

Co-operative Societies in the district are categorized in Table 1.31 and as can be seen, there are producer cooperatives for cotton , livestock, cereals and other produce. There are a few SACCO Societies. However, cotton production stopped in Galole Division in 1989 and Bura Division in 1992. The cotton based co-operative societies are now dormant.

Table 1.31

Co-operative Societies By Types

Division	Sacco	Cotton	Livestock	Fisheries	Cereal produce	Consumer	Horticultural
Garsen	-	-	1	2	4	1	-
Galole	3	1	-	-	2	1	1
Bura	2	1	1	-	1	-	-
Madogo	-	-	-	-	-	-	-
Bangale	-	-	1	-	1	-	-

Source: District Co-operative Office, Hola, 1996

Apart from the district based SACCOS most of the co-operative societies in Tana River are weak as they have low share capital and capital turnover with few in operation. This might be attributed to the subsistence nature of production in agriculture and related activities and also to the fact that, private dealers still dominate the marketing of valuable cash crops such as mangoes which should have been the base for a vibrant cooperative sector.

Table 1.36

Co-operative Societies By Share Capital and Turnover 1994

Name	Membership	Share Capital Kph('000')	Turnover Kph('000')	Remarks
Ida Sa Godana Ranching Cooperative Society	101	1371	7786	Performance Satisfactory
Tana Teachers Sacco	1256	18374	1254	"
Capon Multipurpose	188	6	417	"
Bura Irrigation Workers Sacco	170	2807	161	"
Tana Bee Keepers Cooperative Society	103	3	5	Lacks Working Capital
Bura Irrigation Farmers Cooperative Society	514	60	82	Dormant
Hola Irrigation Farmers Cooperative Society	634	408	Nil	"
Tana Teachers Consumer	140	920	1420	Unsatisfactory
Umodza Sacco	52	1350	4200	Lacks Working Capital
Madogo Cattle Traders Cooperative Society	67	35	Nil	"
Chana Maro Sacco	51	523	Nil	"
Tana Fruit Cooperative Society Ltd.	200	13	Nil	"
Hola Irrigation Farmers Sacco	220	74	Nil	"
Wayu Livestock Traders	120	80	35	Lacks Working Capital
Total	3816	26024	15360	

Source: Co-operative Office, Hola, 1996.

INTRODUCTION

This chapter is divided into two parts. Part one deals with major constraints which have hindered industrial development as well as general development in the district. Part two deals with proposed strategies which are intended to remove the constraints. Kenya expects to attain the status of Newly Industrialized Countries (NIC) by the year 2020. However for the Tana River District, it should be recognized that it will require a longer time span to solve some of the major constraints outlined here so as to set the district firmly on the path of industrialization, even the five year plan period. It is however, anticipated that the DDC will embark on creating an enabling environment for industrial development and private sector investments so that steps towards industrial transition can at least be achieved within the plan period 1997 - 2001.

MAJOR CONSTRAINTS

Chapter One has portrayed the district's geographical background, resource potential and exploitation for industrialization. The following are the major constraints which hold back the district's industrial development.

Inadequate Infrastructural Facilities

In Tana River District, industrial development in the future if the basic infrastructures such as the communication network, water and energy supply are not put in place as a matter of priority, the district will not be able to industrialize. The following are critically

CHAPTER TWO

CONSTRAINTS AND STRATEGIES FOR INDUSTRIALIZATION

Energy Supply: Energy supply is a basic necessity as an input to many forms of industrial development. The main source of energy in the district are petroleum products which are used in pumping of water supplies of Hola, Dura and Ngao and for domestic use. Diesel as a source of energy in the district is inadequate. There is only one petrol station in the district which is at the Hola District Headquarters.

The district is not connected to the National Electricity Grid and thus the whole district lacks electricity. Food processing and cold storage facilities which have a big potential in mango, horticulture and meat processing in the district cannot be fully exploited for industrial use without electricity. The specific priority areas for these industries would be Hola Town for a mango processing plant and cold storage, Madogo and Garsen for horticultural storage facilities, Wayu and Garsen for meat and livestock products processing. As a result, the diverse industrial potential in the district has not been realized.

The productivity of the irrigation schemes (major and minor) in the Tana Basin with its rich alluvial soils would be greatly enhanced if the schemes use electricity to run the engines and pumps instead of diesel which is expensive and inefficient. These schemes are mainly in Madogo and Garsen Divisions.

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MAJOR CONSTRAINTS

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Inadequate Infrastructural Facilities

In Tana River District, industrial development faces a grim future if the basic infrastructure such as the communication network, water and energy supply are not put in place as a matter of priority within the plan period. The major infrastructural facilities which are critically lacking for industrial development in the district are discussed as follows.

Energy Supply: Energy supply is a basic necessity as an input to many forms of industrial development. The main source of energy in the district are petroleum products which are used in pumping of water supplies of Hola, Bura and Ngao and for domestic use. Diesel as a source of energy in the district is inadequate. There is only one petrol station in the district which is at the Hola District Headquarters.

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The productivity of the irrigation schemes (major and minor) in the Tana Basin with its rich alluvial soils would be greatly enhanced if the schemes use electricity to run the engines and pumps instead of diesel which is expensive and inefficient. These schemes are mainly in Madogo and Garsen Divisions.

Provision of electricity will encourage to the establishment of tourist hotels and lodges in the parks and other areas in the district which have potential for tourism. Areas best suited for tourist lodges would be at the Tana Primate Reserve, Hola Town, Tana Delta (Kipini), Kora National Park and Minfilla in Garsen Division.

Electricity provision will also promote jua kali activities. This will mainly be in the major towns of Hola, Garsen, Bura, Madogo and Kipini. It will also promote the use of basic facilities at the district headquarters i.e. at the District Hospital for X-rays, sterilization and other businesses.

The supply of electricity will also reduce the dependence on the limited forestry resources and give way for replenishing the depleted reserves through agro-forestry.

Communication Network: The district has only 918 kilometers of motorable roads. Access roads to the agricultural flood plains of River Tana within Galole and Garsen Divisions are in need of rehabilitation. These roads include Hola Wenije Road along the river (50 km) in Galole Division, Tarasa - Oda - Furaha - Chora - Ozi Road in Garsen Division and Hola - Bura Road which also runs along the river. In the livestock potential areas, roads needing rehabilitation are Hola-Waldema - Mutomo Road, Garsen - Assa Road, Bangale - Waldena Road and Madogo - Mbalambala Roads. Marketing of agricultural products like mangoes, bananas, tomatoes, rice, papaws etc. would be enhanced if the said roads are rehabilitated. Livestock and livestock products like meat, skins, hides, cattle, sheep and goats would reach the market faster if the mentioned roads were rehabilitated.

Areas lacking roads include the northern tip of the district in Bangale Division where Kora National Park is located, along the coastline from Kipini to Kurawa area in Garsen Division. The coastline has high potential in fishing, mangrove exploitation and farming of crops like cotton, cashewnuts, bananas, cassava etc. Industrial products and raw materials coming into and leaving the district cannot be transported during the rainy season when the district is virtually cut-off. The tourism industry would receive a major boost if more roads in the district would be opened especially to areas like Kora, Kone (bordering Tsavo National Park) and along the coastline to enable tourists penetrate the potential Wildlife areas. The jua kali and business sector will sell their products more easily and cheaply with good roads, due to reduced transportation costs (no breakages or perishability).

Accessibility to basic welfare services like health centres, dispensaries, schools etc. is greatly limited due to lack of or poor road network where patients walk for more than 20 kilometers to the nearest dispensary or children walking for more than 20 kms. to the next primary school.

There are no commercial flights in or out of Tana River District. The district is served by five airstrips at Kipini, Ngao, Garsen, Hola and Bura some of which are in need of maintenance. The potential in tourism can only grow if commercial air transport is given priority. Horticultural and livestock products (fruit, vegetables, meat, cheese, milk etc.) could be greatly boosted if the air transport would be established in the district as these products would reach the national and international market while fresh, thus reducing wastage and earning high prices.

Only Hola Divisional Headquarters is served by STD telephones. Garsen, Bura and Madogo divisional headquarters are the other centres with manual exchanges. The rest of the district is not served by telephone services. Establishment of telephone services in areas with agricultural potential (all centres along the river between Ngao and Kipini) and livestock potential in the rangelands will boost production, and trade

Water Supply: Tana River District has only two gazetted water supplies. Hola and Ngao Water Supplies. Frequent breakdowns lead to frequent interruptions in the provision of water for domestic and industrial use in the two towns of Hola and Ngao.

Lack of water in the hinterland, rangelands of Bangale, Galole, Madogo and parts of Garsen has led to the failure of dipping services for livestock, leading to high expenditures by the government on preventive and curative medical services to eradicate tick bone diseases. Without an adequate source of water, the proposed meat processing plant at Garsen by the Coast Development Authority will never be a reality.

The agricultural potential of the alluvial plains of River Tana from Mbalambala in the north to the Delta in Garsen Division, will only be exploited if water could be tapped for irrigation. Lack of water in these agriculturally and livestock potential areas also limits the possibility of putting up agro-based industries for products such as mangoes, bananas, rice, cotton, meat, hides and skins, milk etc.

Under-Developed Human Resources

Literacy level in Tana River District is less than 30%. This is a problem aggravated by high drop out rates in primary and secondary schools, low enrolment, the general lack of educational institutions including primary schools, aridity and general poverty of the population. Access to education and training is very minimal as schools are poorly equipped, constructed and maintained. Training opportunities are also minimal because the performance in primary education is very poor, hence very few leavers meet the minimum qualifications for training institutions. The institutions are also lacking in the district. The general health of the population is also very poor. As a result, malnutrition is rampant and many families depend on famine relief for survival. Distances to the few health facilities are too long and a lot of man-hours are wasted seeking average distance to the nearest facility is 40kms. The means of communications is very poor. Culturally, nomadism makes going to school very difficult and hence illiteracy is prevalent. This has particularly affected the education of the girl child in the district. There seems to be a cultural attachment to livestock (by Ormas, Waldeis and Somalis) and small scale agriculture (Pokomos) limiting diversification in other areas of investment and industrialization.

Early marriages disrupt education and lead to poor health of the young mothers and children. Culturally the pastoralist are not fish eaters though earth pans (for livestock and human water needs) are good breeding grounds for fish.

The impression is therefor of a population that is plagued with a multitude of socio-economic constraints preventing their full development. This means that alongside the

district's efforts to industrialize, attention will have to be concentrated on raising quality of life of its population.

Inadequate and Poorly Developed Local Raw Materials for Industrialization

Industrialization in the district will mainly be agro-based. The major raw materials for the industries will be cotton, rice, hides and skins. Due to the following the stalling of Bura Irrigation and Settlement Project (BISP) and the Hola Irrigation Scheme, the growing of cotton is on a limited scale in Garsen Division. This has led to the closure of the Hola cotton ginnery. Rice production at the TARDA/JICA sponsored irrigation scheme in Garsen Division is threatened by the diversion of the river water at the Mnasini brook. This has hampered large scale production of rice to support the new rice threshing and packaging mill within the scheme.

Most of the livestock produced in the district are sold as live outside the district. A such hides and skins produced within the district are very inadequate to support a leather industry. Furthermore, the quality of animals is low as farmers have not adopted the breeding of high yielding varieties to improve on meat and dairy production. Production of milk is too low to support any meaningful industries beyond home made milk products like butter and cooking fat.

Poor Marketing Systems

The constraint of poor marketing systems is compounded by the problem of infrastructural development as explained above. Poor and lack of storage facilities lead to a lot of wastage of agricultural produce and most of the potential remain's unexploited.

Inadequate local demand for industrial products and the limited accessibility to outside markets and lack information on the market for goods and services may hinder industrial development of the district.

There are very few marketing cooperatives and those that exist are almost dormant due to lack of operating capital, low demand, poor management skills and even mismanagement in some of them. The demand for agricultural, livestock and other products is generally very low. Industrial potential also remains unexploited due to lack of access to outside markets. Market information on areas of low and high demand as well as areas of surplus and deficits within and outside the district is not available to the local entrepreneurs. High levels of illiteracy make the transmission and exchange of market information very difficult.

Inaccessibility to Credit

The district has only one commercial bank, Kenya Commercial Bank (KCB). Considering the vastness of the district, this means that the rest of the population living outside Hola, where the bank is located, cannot access the facility.

The only other financial institution which offers loans to a restricted type of clients is the Agricultural Finance Corporation (AFC). The institution offers credit to organized and successful group ranches which are few in the district.

The land tenure system (communal ownership) is also a bottleneck in obtaining credit as land cannot be used as collateral for loans. With the high illiteracy levels and lack of exposure to management skills the people lack the basic information on ways to obtain and manage credit. Due to lack of start-up capital, the size of business is reduced to small kiosks, tailoring, cottage industries and small jua kali enterprises.

Insecurity

The security situation in the district has greatly improved. However, for more investor confidence, the peaceful environment has to be maintained over some time for them to be ready to invest in industries requiring heavy capital outlay. Insecurity affects planning, implementation, supervision and evaluation of development projects adversely.

DEVELOPMENT STRATEGY FOR 1997 - 2001

Improve the Infrastructural Facilities

Of immediate concern in Tana River District is the provision of electricity to the major market centres including the district headquarters. Through the DDC, the Ministry of Energy and Kenya Power and Lighting Co. in particular will be called upon to extend lines from the National Grid in Malindi to serve areas with industrial potential i.e. Garsen, Kipini, Tarasaa, Bura etc. If the extension of the national grid will prove costly or be seen to take a long time, in the short term, provision of a generator at Hola District HQs will be an appropriate alternative in energy provision.

The Malindi - Hola- Garissa Road (B8) which is currently being tarmacked will be completed in the next plan period. The Garissa - Hola section of the road by the JICA and GOK will be improved through direct labour from National Youth Service. The Hola - Malindi section has been contracted to a Chinese Road Construction Company. Since the latter section will take sometime to be completed, the contractor has been asked to make the particularly bad sections of the road all weather through selective installation of box - culverts and graveling. In addition, the road linking Tana River District with Kitui and Nairobi through Walderia and Mutomo, will be opened to facilitate easier and cheaper communication between the district and the rest of the country. The increased accessibility will ensure easier marketing of the industrial products as well as accessibility to industrial inputs from the rest of the country. The Department of Public Works will intensify their programme on road opening, grading road maintenance to the riverine regions, which are rich in agricultural production, the coastal strip and other high potential areas in the district.

Through the DDC, the Kenya Airports Authority will be called upon to maintain the airstrips at Ngao, Garsen, Hola and Bura. Alternatively, the DDC will recommend the

Department of Public Works to continue maintaining the airstrips so long as the Authority can guarantee funding.

On telecommunications, the Kenya Posts and Telecommunications Corporation in conjunction with the DDC, will strive to install more lines in growing centres like Ngao, and Bangale and STD services at the divisional headquarters of Garsen, Bura and Madogo.

Through the government and donor sponsored development projects, physical infrastructure will continue to be established and existing ones will be maintained in the plan period. Through the Coast ASAL Development Project, which is expected to resume funding in the 1996/97 financial year, the development of water facilities like earth water pans are planned in Madogo Division and Hirimani in Bura Division. Other Departments covered by Coast ASAL Development Project are Agriculture and Livestock Production and Marketing and Forestry Department, where the necessary infrastructure falling under those departments will be expanded through the said project. The Arid Lands Resource Management Project will strive, in the plan period, to establish more physical infrastructure especially in health (dispensaries and health centres), water, agricultural and livestock marketing. The Social Dimensions of Development Programme has already earmarked development and improvement of education infrastructure such as provision boarding primary schools for nomads is proposed to solve the problem of educating pastoralist children; water development to ensure clean water especially for Garsen Division whose water supply was destroyed by rains in 1989; road network especially rural access roads; sporting facilities and other amenities in the district.

Development of Human Resources

To reduce the low literacy levels, education programmes aimed at improving the quality of education and the performance of education institutions in the district, will continue to be implemented. Merging of primary schools faced with very low enrolment will be a priority for the DEC and DDC. Through the harambee spirit, schools will be equipped to assist them offer technical oriented lessons in line with the 8-4-4 education system. Boarding facilities for girls and boys have already been identified for improvement. The same has been earmarked for primary schools especially the construction of primary schools to cater for the migratory pastoralist children.

The existing youth polytechnics will initiate more courses relevant to industrialization. Food security will be pursued through sufficiency through increased productivity in the existing small scale irrigation schemes and those planned for the next five years. This will be enhanced through the revival and maintenance of the large irrigation schemes in the district. Consequently, increased food availability will help reduce malnutrition and ensure that the districts maintains a healthy manpower for industrialization. To improve on the health status of the population, more health facilities will be constructed while existing ones will be rehabilitated, improved and maintained. Medical schemes for health workers will be improved and more mobile clinics will be provided to the interior where there are no health facilities will be intensified.

Immunization programmes through KEPI will continue to be extended to more areas within the district; Public health programmes to reduce high incidence of diseases like malaria and dysentery will be promoted through malaria control programmes and improved sanitation in the villages and manyattas.

Community sensitization and mobilization to create awareness on the need for diversification from small scale agriculture (for Pokomos) and pastoralism (for Ormas, Waldei and Somalis) will be encouraged during the plan period. The need for educating their children and the risks and disadvantages of early marriages especially for girls will also be given major emphasis. This will be achieved through the combined efforts of the Social Services Department with assistance from IFAD sponsored Coast ASAL Development Project, Health Department and the Provincial Administration.

Develop Local Raw Materials for Industrialization

The Coast Development Authority has already indicated their intention to fund a fruit processing plant which will mainly use mangoes as its raw material. The District Industrial Development Office in the district will also encourage private investors to come in and invest in the industry. Cotton production for the cotton and lint industry is expected to resume when Bura Irrigation Scheme are revived through the cooperation of the Kuwait Government and the Kenya Government. A consultancy to update on the situation and possible interventions has already been sent to the site. Rice production along the Tana Delta through Irrigation will continue to be encouraged and supported by the Government Authorities (TARDA and CDA), NGOs and donor agencies like GTZ and extension assistance through the Coast ASAL Development Project (CADP).

Animal health and production is a major concern of the government through the Departments of Livestock Production and Veterinary Services. Vaccination and disease eradication as well as regular mobilization and awareness campaigns are done by the two departments to maintain animal health and the quality of livestock products. The locally available animals are enough for the proposed meat processing plant at Garsen while the hides and skins industries in the district are enough to support a small scale tannery in the district.

Other locally available raw materials for small scale industries like palm leaves for mat making; fish for fish industries and forest products for carpentry, timber and other related industries will be exploited through the relevant departments.

Improve Marketing Systems

The Communication network will be improved to assist in the marketing agricultural crops and processed agricultural products. Marketing of livestock products including industrial output from cottage; jua kali industries and other products and services from or into the district will also be improved.

The installation of electricity will go a long way in facilitating the establishment of storage facilities for agricultural, livestock and fish products. Meanwhile, other methods of storage will continue to be encouraged like smoking of fish, drying of vegetables etc. The DDC will encourage the revival of dormant marketing co-operatives during the plan period. Training the members and the committees running the co-operatives to improve their management skills will also be a priority. Monitoring and evaluation and auditing of co-operatives will be intensified to avoid embezzlement of members' funds and ensure more benefits.

Community mobilization through "barazas", seminars and workshops will be intensified to increase awareness on the importance of co-operatives in marketing. Production of high quality goods especially in the non-agricultural/livestock sectors will be encouraged to ensure competitiveness with goods and services in the markets outside the district.

Improve Accessibility to Credit

The community, particularly organized groups, will be sensitized on ways and means of obtaining credit. Alongside this, credit management training will also be provided to reduce incidence of loan default. The community in particular will need to be sensitized on credit availability and usage, so that they are more aware of the where to obtain credit and the uses that credit can be put to.

Training programmes in simple book keeping, marketing production technologies, group organization and management etc. This will be provided for groups, lead to a higher efficiency in credit management repayments and high rate of industrialization. Land adjudication process will be hastened to enable people use title deeds as collateral in obtaining loans. With the tarmacking of the Garissa, Hola, Malindi Road (B8), improved security situation and more demand for loans, due to increased awareness more credit institutions are expected to be attracted to Tana River District.

Improve Security

The District Security Committee will continue to be more vigilant to maintain the current peaceful situation in the district for higher investor confidence. More funds and security personnel will be required in the plan period.

INTRODUCTION

Having given the district setting for industrial transformation in Chapter One, and discussed constraints and strategies for industrialization in Chapter Two, Chapter Three provides the plan of action on how the district will achieve this industrial transformation.

It should be noted that industrial transformation calls for an overall growth in all the sectors of the economy, particularly a dynamic agricultural sector to provide the required raw materials and markets for the industrial products.

The government will continue to provide infrastructure where possible as well as creating an enabling environment for private sectors to participate fully in the industrial transformation of the district. Attention will also be paid to ensuring that issues of poverty are addressed so that all the members of the community are allowed to participate actively in development.

The sectors are divided into four sections namely: sectoral objectives; review of 1994-95 district development objectives and targets and programme priorities for the plan period.

ENVIRONMENT AND NATURAL RESOURCES

CHAPTER THREE

Sectoral Policy Objectives

SECTORAL POLICIES AND DISTRICT SPECIFIC PROJECTS AND PROGRAMME

The objectives of this sector are:

Providing an appropriate enabling environment for industrial transformation as well as to discuss national policies and strategies in the area of industrial transformation and integration in the development process.

Assessing and evaluating the environmental impact of development activities.

Promotion of inter-disciplinary and integration of sustainable environmental policies, programmes and projects.

Co-ordination of environmental impact assessment on all programmes/projects in order to integrate environmental considerations in their appraisal and actual implementation.

INTRODUCTION

Having given the district setting for industrial transformation in Chapter One, and identified constraints to and strategies for industrialization in Chapter Two, Chapter Three provides the plan of action on how the district will achieve this industrial transformation.

It should be noted that industrial transformation calls for an overall growth in all the sectors of the economy, particularly a dynamic agricultural sector to provide the required raw materials and markets for the industrial products.

The government will continue to provide infrastructure where possible as well as creating an enabling environment for private sectors to participate fully in the industrial transformation of the district. Attention will also be paid to ensuring that issues of poverty are addressed so that all the members of the community are allowed to participate actively in development.

The sectors are divided into four sections namely; sectoral objectives; review of 1994-96 plan period; district specific objectives and targets and programme priorities for the plan period.

ENVIRONMENT AND NATURAL RESOURCES

Sectoral Policy Objectives

The objectives of this sector are:

- Providing an appropriate forum for exchange of environmental information as well as to discuss national trends and key issues in the integration of environment consideration in the development process;
- Assessing and evaluating the environmental impact assessment on development activities;
- Promotion of inter-disciplinary and integration of sustainable environmental policies, programmes and projects.
- Co-ordination of environmental impact assessment on all programmes/projects in order to integrate environmental considerations in their appraisal and actual implementation.

Table 3.1

Forest Extension Services Achievements

Activity	Divisions				
	Bangale	Bura	Galole	Garsen	Madogo
Seedlings raised	-	412,091	405,960	313,060	241,215
Seedlings distributed		392,060	398,167	303,112	240,012
Seedlings planted	-	92,167	89,126	98,137	79,198
New nurseries established	-	4	6	3	1

Source: District Forest Office, Hola, 1996.

Exploitation: 631 scores of mangrove poles were extracted; 242m³ of timber and 890 m³ of fuel wood were produced within the plan period. The volume of fuel wood may be underestimated due to lack of data.

Training: 240 mandays of training for local farmers, leaders and frontline extension staff were realized over the 3 years.

Coast ASAL Development Project: One departmental nursery was constructed while six group nurseries were supported with a total seedling production of more than 200,000 per year.

Vehicles and Equipment: One 4 - wheel drive pick up, three motorcycles and various nursery tools and equipment were procured.

Agro-Forestry: Agro-forestry was introduced in two minor irrigation schemes in Galole Division and Bura Division.

Lack of staff and the suspension of funding by IFAD hampered the full implementation of the set objectives and targets for the 1994-96 plan period.

District Specific Objectives and Targets

- Objective:** Expansion of forest extension services.
- Target:** A minimum of 2 visits per month to the established forest growers.
- Objective:** Establish and protect group tree nurseries.
- Target:** Establish at least two group nurseries per year for the next five years.
- Objective:** Initiate and encourage establishment of woodlot plots.
- Target:** Fence, plant and prepare sites for a minimum of 12 woodlots in the plan period.
- Objective:** Expand seedling production for more afforestation and agro-forestry activities.
- Target:** Plant, prick, prune, water and distribute 500,000 seedlings per year.
- Objective:** Training for local people on environmental issues.
- Target:** Realize a minimum of 800 man days training for opinion leaders, frontline extension staff and farmers.

PROJECT AND PROGRAMME PRIORITIES

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Forest Extension Services District-Wide	Expansion of forestry extension services; Establishment of small nurseries and woodlot demonstration plots; Provision of seedlings for forestry conservation purposes; Training on environmental conservation. Funding Source: GOK
2. Coast ASAL Development Project District-Wide	Construction of tree nurseries and subsequent provision of trees; Promotion of Agro-forestry in designated areas; Extension support and training. Funding Source: IFAD/GOK

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Forest Survey Garsen Division	1	Conducting survey on mangrove and riverine vegetation. Justification: There is need to carry out forest surveys of both the mangrove forest at the coast and the riverine vegetation in order to have sound management of these resources and document resource potential of these forest reserves. Funding Source: GOK

Afforestation District-Wide 2

Provision of enough tree seedlings for afforestation purposes

Justification: This will encourage growth of food/fodder crops through supply of tree seedlings to the local communities for rehabilitation of specific areas, public areas and conservation areas.

Funding Source:

Tree Nurseries District-Wide 3

Support to group tree nurseries.

Justification: This is to encourage farmers and organized groups to establish tree nurseries through the supply of nursery equipments such as wheelbarrows, jembes, watering cans, polythene tubes/bags and pesticides

Funding Source: GOK

Demonstration Plots District-Wide 4

Establishment of woodlot demonstration plots.

Justification: Increased planting on selected sites to allow natural regeneration which also serve as demonstrations for communities in those areas and also private training grounds for environmental observation.

Funding Source: GOK

Sectoral Policy Objectives

The policy objective of the water sector is to create an enabling environment for orderly, co-ordinated and sustainable development of water resources including their conservation and protection among other aspects. To achieve this objective, the sector will assist in:

- Planning, utilization and conservation of water resources;
- Development and distribution of sufficient and safe water to all rural and urban areas of the country for domestic, agricultural, livestock and industrial use;
- Monitoring and assessment of water quality in order to protect consumers from the dangers of pollution of water resources;
- Encouraging the beneficiaries to be involved in the planning, implementation, and operation and maintenance of water supplies.

Review of 1994 - 1996 Plan Period

Bangale Water Supply Project: One earth pan with a volume of 10,000 m³ of water was initiated and completed. It has also been fenced and protected by planting vegetation all round the pan.

Assa Water Supply Project: 2 No. ferro-cement tanks holding 25³ of water were started and completed.

Hola Water Supply Project: Rehabilitation of the intake works was initiated and completed. One stand-by generating set was procured. Rehabilitation of the treatment works was completed. A new storage tank was constructed and the existing distribution lines rehabilitated.

Ngao Water Supply Project: A new generating set and pump were procured. One storage tank was rehabilitated. Rehabilitation of the treatment works was initiated and completed. Four ferro-cement tanks (25m³ each) were constructed at Ngao and Tarasa Secondary Schools. Rehabilitation of the existing distribution lines will be completed before the end of 1996.

Coast ASAL Project: Construction of six domestic regular wells and seven livestock regular wells were initiated. The domestic wells are 60% complete and the livestock wells 30% complete. Three wells were also upgraded.

The implementation of the Coast ASAL Development Project component was greatly hampered by the suspension of the funds in 1995/96 by IFAD. Transport to the project

sites was a problem as the vehicles expected for the project were not delivered. The department also lacked enough staff to effectively supervise the projects under implementation. Most of the arid zones have dry water tables which lead to dry wells after digging for so many feet. Lack of essential machinery to dig pans, sub-surface wells are lacking.

District Specific Objectives and Targets

Objective: To rehabilitate stalled water supplies in Kipini and Garsen Divisions.

Target: Initiate, construct and complete Garsen and Kipini Water Supplies.

Objective: Provide water for domestic and livestock use in the arid zones of the district.

Target: Construct three earth pans; one at Hirimani, one at Chardede and another one at Wayu. Identify potential sites for regular wells and construct a minimum of four wells per year.

Objective: Provision of roof catchment facilities in institutions.

Target: Support at least two health institutions and two schools to establish roof catchment facilities per year for the next five years.

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Oda Water project Garsen Division	Construction of 100m ³ storage tank; Rehabilitation of the reticulation system; Construction of; 5No. water kiosks; 1No. cattle trough; Pump house; Infiltration gallery <u>Funding Source:</u> GOK
2. Coast ASAL Development Programme District-Wide	Construction of regular wells; upgrading of wells roof catchment; regular wells (livestock); subsurface dams; earth pans and upgrading. <u>Funding Source:</u> IFAD/GOK

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Garsen Water Supply Garsen Division	1	Rehabilitation of the intake; Treatment works; the reticulation works; procurement of pump set and; provision of storage tanks; <u>Justification:</u> It is a fast growing urban centre which has a gazetted water supply system but which stalled in 1989 after it flooded thus washing away most of the component. <u>Funding Source:</u> GOK

Kipini Water Supply
Garsen Division

2

Rehabilitation of stalled gensets and pumping sets; rehabilitation of the reticulation system, existing wells and roof catchment facilities in selected areas.

Justification: The region has a fast growing population, a health centre and other institutions. The water project stalled when the machines broke down.

Funding Source: GOK

Hirimani Earth Pan

3

Site investigation planning and design; construction of earth pans, silt rap and fencing of regular wells

Justification: The area has a large concentration of livestock but with no organized watering points.

Funding Source: GOK

Wayu Earth Pan
Galole Division

4

Site Investigation, planning and design; construction of earth pan, silt rap and fencing of regular wells.

Justification: The area has a large concentration of livestock but with no organized watering points.

Funding Source: GOK

Chandende Earth Pan
Madogo Division

5

Site Investigation planning and design; Construction of earth pan.; silt rap .and fencing of Regular wells.

Justification The area has a large concentration of livestock but with no organized watering points

Funding Source: GOK

Coast Development Authority

Review of 1994-96 Plan Period

The oil crops and/or oil seeds promotion project was implemented. However, most of the other proposed projects remained unimplemented.

District Specific Objectives and Targets

- Objectives:** Promotion of small scale enterprises, particularly cottage industries for mango processing in the mango producing areas of the district.
- Target:** Set-up a solar drier for the preservation of mangoes in Chara Location, Garsen Division and Gwano Location, Galole Division.
- Objective:** Promote farmers clubs and self-help groups for the purposes of implementation of viable and sustainable income generating projects.
- Target:** Selection of two pilot clubs, one in Madogo and Garsen Divisions and support their income generating activities.
- Objective:** Promotion of the livestock sector and the effective utilization of the rangelands through ranch rehabilitation activities.
- Target:** Rehabilitation of a selected ranch in Garsen Division to serve as a model ranch. Also establishment of a dairy ranch in Garsen Division.
- Objective:** Improvement of the education sector through assisting selected primary and secondary schools in order to uplift their performance.
- Target:** Select and support one primary and one secondary school.
- Objective:** Reduction of the mushrooming of substandard houses and their related slum problems through construction of houses for the medium income level people.
- Target:** Construction of tenant purchase housing scheme to be located in Hola, Galole Division.
- Objective:** Eliminate the problems associated with transporting livestock to urban centers of Malindi, Kilifi and Mombasa for slaughter.
- Target:** Establishment of a meat supply slaughter house in Garsen Town, Garsen Division.

Objective: Introduction of Bixa as a new crop variety to act as a cash crop and the promotion of citrus and oil crops such as simsim, soyabeans and sunflower. Promotion of vegetables.

Target: Introduction of Bixa as a pilot project in selected areas of Garsen Division. Also promote citrus growing district-wide.

Project Name	Location/Division	Description of Activities	Funding Source
1. Oil seed Promotion Project	Garsen Division Chata Location	Extraction of simsim oil through use of RAM press machine and its utilization. Increase in the acreage of oil crops.	CDA Community
B: New Project Proposals		Vegetable growing district-wide	
Small Scale Enterprises	Garsen Division Gwano Location	Establish small scale cottage industries. <u>Justification:</u> There is need to introduce cottage industries for preservation and processing of mangoes. Increased shelf-life of mangoes will result in increased farm income.	GOKIDonors
Farmers' Clubs Project	Mabogo Division Ngao Location	Encourage farm productivity by training farmers in groups. <u>Justification:</u> Group approach will enable farmers obtain credit from financial institutions.	GOKIDonors

PROJECT AND PROGRAMME PRIORITIES

Coast Development Authority

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Oil seed Promotion Project Chara Location Garsen Division	Extraction of simsim oil through use of RAM press machine and its utilization. Increase in the acreage of oil crops. Funding Source: CDA/Community

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Small Scale Enterprise promotion. Chara Location, Garsen Division Gwano Location Galole Division	1	Establish small scale cottage industries. Justification: There is need to introduce cottage industries for preservation and processing of mangoes. Increased shelf-life of mangoes will mean increased farm income. Funding Source: GOK/Donors
Farmers' Clubs Project Saka Location Madogo Division Ngao Location Garsen Division	2	Encourage farm productivity by training farmers in groups. Justification: Group approach will enable farmers obtain credit from financial institutions. Funding Source: GOK/Donors

- Ranch Rehabilitation 3
Wachu-Oda Location
Garsen Division
Dairy Ranch
Shirikisho Location
Garsen Division
- Rehabilitation of a cattle ranch and a dairy ranch.
- Justification:** Model ranch to act as a training facility. Source of breeding animals for other ranches and postoralists.
- Funding Source:** GOK/Donor
- Education Development 4
Kalkacha Location
Galole Division
Galili Location
Garsen Division
- Improving education facilities.
- Justification:** Will act as model schools. The standard of education in the district is low.
- Funding Source:** GOK/Donors
- Vegetable Growing Project 5
District-wide
- Growing of vegetables.
- Justification:** Reduce malnutrition in the population. Vegetables have a faster turnover thus farmers' income will be boosted in shorter periods.
- Funding Source:** GOK/Donors
- Tenant Purchase Housing 6
Project
Zubaki Location
Galole Division
- Construction of 100 medium sized houses.
- Justification:** Reduction of mushrooming of sub-standard houses and their related slum problems.
- Funding Source:** GOK/Donors
- Citrus Project 7
Shirikisho Location
Garsen Division
- Set-up a fruit farmer and processing plant.
- Justification:** Increase create and industrialization; Increase incomes of the people.
- Funding Source:** GOK/Donors

Garsen Meat Supplies
Bilisa Location,
Garsen Division

8

Construction of a slaughter house.

Justification: Eliminate problems associated with trekking animals to slaughter houses in Malindi. Reduced rural-urban migration by creating employment opportunities locally.

Funding Source: GOK/Private

Bixa Project
Chara Location
Garsen Division

9

Introduce bixa production.

Justification: Spread risks of crop failures due to drought. Limit dependance on only one type of crop.

Funding Source: GOK/Private Sector.

River Tana Irrigation Scheme

District Specific Objectives and Targets

- Objective:** Complete remaining new canal works.
- Target:** Construction of pontoon towing from Laini to Nakene.
- Objective:** Rehabilitation of existing canal net work.
- Target:** Desilting of night reservoirs and clearing of water conveyance channel network infested with prosopis juliflora trees (Mathenge)

Review of 1994 - 96 Plan Period

In 1989 it was not possible to provide the required volume of irrigation water because of the natural change of the course of River Tana at the irrigation water intake point. This phenomenon resulted in immediate halt of the farming activities in the scheme. By the year 1990 the Kenya Government through NIB obtained the services of NHI consultants from Netherlands with the objective of advising on the possible site where to relocate the pumping station. Makene site was chosen as the best alternative. At the new site 8,000 tonnes of boulders were ferried. The purchase of gabion mattresses required for the completion of the river bank protection works was not bought due to lack of funds.

Through research trials, NIB has provided and still provides all the necessary information that may be needed for similar irrigation in the Tana River Basin.

PROJECTS AND PROGRAMME PRIORITIES

River Tana Irrigation Scheme

A: On-going Projects

Project Name Location/Division	Description of Activities
1. River Bank Protection Galole Division	Purchase of gabion boxes and gabion mattresses <u>Funding Sources:</u> GOK
2. Hydraulic Structures Galole Division	Include spurs, drop, manholes, inlet-outlet boxes for settling basin, wine/flame box culvert and drop structures <u>Funding Source:</u> GOK
3. New Canal Section Galole Division	Shaping of side slopes and construction of road bridge. <u>Funding Source:</u> GOK
4. Water Conveyance System Galole Division	Desilting of night storage reserves and cleaning of water conveyance channel network infested with prosopic juriflora trees (Mathenge) <u>Funding Source:</u> GOK
5. Relocation of Pumping Set Galole Division	Construction of pontoon towing from Laini to Makere overhauling of the pumps and installation of engines, pumps and accessories. <u>Funding Source:</u> GOK

CULTURE AND SOCIAL SERVICES

Sectoral Policy Objectives

The objectives of the sector are:

- Mobilize local communities for self reliance in basic needs and involvement in the development process;
- Train the rural population on balanced diet to reduce malnutrition and improve the life expectancy of children through the family life training programme.
- Promote preservation and role of culture through National languages for national identity and pride;
- Intensify adult education to eradicate illiteracy;
- Provide reading materials in the district stadia, and other facilities that can promote and improve sporting talents in the district;
- Improve sport facilities in the form of district stadia, and other facilities that can promote sporting talents in the district;
- Encourage sports talents from the grassroots by strengthening the district sports administration;
- Identify, train, rehabilitate and resettle disabled persons for self-reliance; and
- Promote and raise the status of women through programmes focussed on involving women groups in the income-generating activities and in decision making at all levels.

Department of Social Services

Review of 1994 - 96 Plan Period

During the plan period the ministry organized women groups in all the five divisions as follows: Garsen 40, Galole 60, Bura 40, Madogo 36 and Bangale 20. Of the registered self-help groups in the district, 4,207 were of women groups while 920 were youth groups. In the same period, 687 members of the self-help groups were trained.

District Specific Objectives and Targets

Objective: Enhance group cohesion and their ability to plan and implement their own projects.

Target Train all registered groups in the district on leadership, project planning and management, marketing, book-keeping and other relevant skills. Carry out other group development activities.

PROJECT AND PROGRAMME PRIORITIES

Department of Social Services

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Training of Groups. District-Wide	Training of women, self-help youth groups and communities on group leadership, project identification, planning, management, book-keeping, marketing and other relevant skills.

Funding Source: GOK/IFAD

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Credit Scheme District-Wide	1	Grant funds to for income generating activities.

Justification: As the majority of members lack collateral, they cannot qualify for institutional loans.

Funding Source: GOK

Disabled Project
District-Wide

2

Resettlement of disabled after
vocational training.

Justification: The disabled who
have been trained need to be
integrated into the society so
that they can be productive.

Source Funding: GOK

Family Life Training Project
Galole Division

3

Construction of a family life
training centre.

Justification: There is need to
provide a training centre for
mothers as malnutrition is
common in the district.

Source of Funding: GOK

Department of Culture

Review of 1994 - 96 Plan Period

The department managed to send a few teams to the music festival up to the provincial level. Five traditional herbalists were identified and advised to get registered.

District Specific Objectives and Targets

Objective: Preservation of material and non-material culture.

Target: Construction of one cultural centre.

PROJECT AND PROGRAMME PRIORITIES

B. New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Multi Purpose Cultural Centre Project Galole Division	1	Construction and equipping of the cultural centre with cultural items.

Justification: This facility will be utilized to preserve cultural items. It will also help attract tourists to the district.

Funding Source: GOK

Department of Sports

Review of 1994 - 96 Plan Period

None of the activities planned during the Plan Period took off due to non remittal of funds.

District Specific Objectives and Targets

Objective: Increase sporting facilities.

Target: During the plan period the department intends to improve the existing Hola Stadium and playgrounds in every division.

Objective: Encourage the formation of more sporting associations and disciplines which will be affiliated to national associations so as to offer better opportunities to potential sportsmen and women. There will be emphasis on proper running and management of the associations.

Targets: For at least 3 sporting associations per year and affiliate them to their national bodies.

Objective: Continue to sensitize the entire populace and more so the youth towards the importance of participating in sports.

Target: Organize at least 2 mobilization seminars and 5 sporting trips per year.

Objective: Provision of office accommodation.

Target: Build one office block to accommodate all the staff in the department so as to have a sound operational and administrative base.

Objective: Acquire facilities and sports equipment to be used during competitions.

Target: Purchase uniforms, balls, nets and other track and field related equipment. Organize and assist in organizing of amateur demonstration events for example divisional and district athletics championships so as to offer opportunities to athletes.

Justification: The department lacks an office block and is accommodated by the Department of Social Services. The office relies on borrowed facilities from other departments e.g. type writer, vehicle duplicating machine etc.

Table 2.2
Sex per Division

Division	1994		1995		1996	
	M	F	M	F	M	F
Garisa, Buri, Madoga, Bagale	112	211	99	202	67	202
Divisional Sports Ground	3	3	09	092	142	241
Funding Source: GOK	25	256	57	307	58	272
Construct a divisional sports ground	12	95	21	95	12	95
Justification: To provide sports facilities closer to the people and encourage the locals to participate in sports activities.	339	272	429	199	242	199

Department of Sports

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Hola Stadium project Zubaki Location Galole Division	1	Construction of a stadium. <u>Justification:</u> It is the only stadium in the district and should be improved to provide standard grounds for sports and public ceremonies. The number of spectators has also increased for the last 3 years. <u>Funding Source:</u> GOK
Office Block Project Zubaki Location Galole Division	2	Construct an office block for sports department. <u>Justification:</u> The department lacks an office block and is accommodated by the Department of Social Services. The office relies on borrowed facilities from other departments e.g. type writer vehicle duplicating machine etc. <u>Funding Source:</u> GOK
Divisional Sports Ground Garsen, Bura, Madogo, Bagale Divisions	3	Construct a divisional sports ground. <u>Justification:</u> To provide sports facilities closer to the people and encourage the locals participate in sports activities. This will provide standard ground for sports activities.

Department of Adult Education

Review of 1994 - 1996 Plan Period

During the plan period a number of achievements were recorded.

- A total of 5151 adults enrolled in adult literacy classes district-wise out of whom 3674 were women;
- 368 passed proficiency tests and were offered certificates;
- 15 full time teachers out of 27 qualified in their in-service course and three of them were promoted to supervisors.
- The number of part time teachers were raised from 52 to 60;
- 11 learners registered for K.C.P.E. and 6 passed;
- There are 12 adult class projects run by learners, ranging from classroom construction , chicken, and goat keeping.

Table 3.2 shows the enrolment levels in adult education classes by division between 1994 an 1995.

Table 3.2

Adult Education Enrolment by Sex per Division

	1993		1994		1995		1996	
	M	F	M	F	M	F	M	F
Galole	92	211	125	256	175	307	65	270
Garsen	100	21	59	359	90	290	142	228
Bura	85	225	65	211	72	185	62	185
M/Bangale	90	195	90	146	92	209	73	185
Total	367	843	339	972	429	991	342	868

Source: Department of Adult Education, Hola, 1996

Constraints: Adult education programme was faced by a number of problems as outlined below:

- The programme has no vehicle both at the headquarters and in the divisions to conduct effective supervision and inspection of the programme. The number of full time teachers are only 24 out of the establishment of 35.
- These are only 60 part time teachers in the district. Operational funds are limited compared to the size of the district and the condition of roads.
- Drought and famine cause a setback as most of the learners are farmers and pastoralists. Banditry in the district which causes insecurity. General apathy towards programme by the local leaders.

District Specific Objectives and Targets

- | | |
|-------------------|--|
| Objective: | To improve coverage, performance and literacy rates among adult education learners. |
| Target: | Distribution of qualified teaching force to every location and also involve for the part time. |
| Objective: | Revitalize advisory committees from grass roots to the district level. |
| Target: | Form and establish adult education advisory committees in every location. |
| Objective: | Mobilize learners and the community to start income generating activities. |
| Objective: | Hold four mobilization and sensitization seminars and tours each year. |
| Objective: | To create a better working environment. |
| Target: | Complete renovation of the district headquarters office block. |
| Objective: | To enhance close supervision and inspection of the programme activities. |
| Target: | Procure one vehicle and three motor bikes. |
| Objective: | Promote bee keeping activities among learners in all visions. |
| Target: | Classes to start bee keeping lessons in all adult education centers. |
| Objective: | Provide offices for staff at the divisional headquarters. |
| Targets: | Construct divisional offices in Madogo, Bangale, Kipini and Wenje. |

Adult Education Department

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Adult Education and Literacy classes District-Wide	Distribution of qualified and part time staff teaching to every location. Revitalizing advisory committees from grass roots to the district level. Mobilize learners and community to start income generating activities.
2. Office Block District Headquarters Galole Division	Complete renovation of office building.

Funding Source GOK

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Procurement of Vehicle and Motor Bikes. District Headquarters Galole Division District-Wide	1	Purchase of one vehicle and three motor bikes. <u>Justification:</u> The present vehicles and motor vehicles and motor bikes have been recommended for boarding . <u>Funding Source:</u> GOK/Donor

Bee Keeping Activities.
District-Wide

2

Start bee keeping lessons in all centers.

Justification: The district has high potential for keeping. This would be a good source of income.

Funding Source:
Community/Donor

Divisional Office Blocks
Madogo, Bangale, Kipini and Wenye
Madogo an Garsen Division

3

Construct divisional offices.

Justification: None of the divisional officers has an office officers are forced to share offices with other departments.

Funding Source: GOK

Sectoral Policy Objectives

The major objectives of the sector are to:

- Ensure that technical, industrial and vocational training offered meets the **district's** current and future economic needs;
- Ensure incorporation of entrepreneurship education in technical education and vocational training at all levels in order to enhance income generation through **self-employment**;
- Design and mount short-term skills upgrading and management courses for the informal sector operators so as to improve their productivity;
- Assist the operators so that they can maximize their contribution to **economic growth** and technological progress;
- Provide suitable working places to the needy artisans.
- Equip training institutions with tools, machinery and equipment that can **match the** latest technological developments in Kenyan industry.

Review of 1994 - 1996 Plan Period

The achievements in the implementation of the 1994/96 plan activities **included** registration of 2 Jua Kali associations. Enrollment in the youth polytechnics **increased by** 30% during the plan period.

District Specific Objectives and Targets

Objective: Provide Jua Kali Artisans with good working areas.

PROJECT AND PROGRAMME PRIORITIES

B. New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Workshops and Dormitories for Tumaini Youth Polytechnic and Tarasa Youth Polytechnic.	1	Construction of two workshops and two dormitories for Tumaini Youth Polytechnic and Tarasa Youth Polytechnic respectively <u>Justification:</u> There is need to be boarding facilities, the existing workshops are semi- permanent. <u>Funding Source:</u> GOK
Rehabilitation of Jua Kali Sheds Garsen Division	2	Re-roofing of two jua kali sheds, at Hola Garsen. <u>Justification:</u> The sheds were vandalized. <u>Funding Source:</u> GOK

TRANSPORT AND COMMUNICATION

Sectoral Policy Objectives

The major objectives of the sector are:

- Providing an efficient and effective modern communication network;
- Promoting air and maritime safety;
- Providing meteorological data to all sectors of the economy, particularly the agricultural sector and to air operations;

District Specific Objectives and Targets

Objective: Modernize and increase the number of telephone exchanges, and particularly extending the subscribe Trunk Dialing (STD) to the divisional headquarters.

Target: Automation of Garsen telephone exchange. Establishment of Wema Sub post office Garsen Division.

Review of 1994 - 96 Plan Period

During the plan period telephone services were automated and a facsimile was installed at Hola District Headquarters.

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description & Activities
Expansion of telephone exchange District-Wide	1	Expansion of telephone services. Justification: There is traffic congestion, leading in delays in getting outside lines. Funding Source: Kenya Post and Telecommunications (KP&TC)
Telephone Exchange Garsen Division	2	Automation of the telephone Exchange. Justification: Lower Tana Irrigation Project requires efficient telephone communication with Mombasa and Nairobi. Funding Source: Kenya Post and Telecommunications (KP&TC)
Wema Sub-Post Office Garsen Division	3	Establishment of a Post office at Wema. Justification: There is demand for postal services especially due to the distance between Wema and Garsen. Funding Source Kenya Post and Telecommunications (KP&TC)

PUBLIC WORKS

Sectoral Policy Objectives

The objectives of the sector are to:

- Provide an efficient, adequate and reliable road transport network.
- Ensure more effective use of existing road infrastructure, preservation of existing investment already made in the development of the road infrastructure, stimulation of rapid socio-economic development plus safer roads and environment.
- Intensify use of labour based technologies for road maintenance and rehabilitation.
- Provide decent an affordable shelter, coordinate activities and programmes aimed at improving slum and squatter settlements.

Review of 1994-94 Plan Period.

During the plan period under review, 66 km of road were tarmaked in Madogo Division and 450.6 km., 446.5 km. and 36.0 km. of roads were graded in Galole, Garsen and Madogo respectively.

Project Name/Location/Division	Priority Ranking	Description & Activities
Graveling Culvering 41 kms Roads Q566, 5878, 5879, 5880, Niger and Old location of zone Garsen Division, eastern taram	1	Road graveling. 41 km - road Justification: Will improve communications between Hols and the two locations from where a lot of farm produce is coming from.
Bush clearing and grading road.	5	Justification: Will open up the area for farm produce to reach market centers from hinterland.
		Funding Source: GOK

PROJECT AND PROGRAMME PRIORITIES

Road Department

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Tana Basin Road Project Road Madogo, Bura, Galole Divisions	Construction to bitumen standard 130 kms. Funding Source: GOK
2. Hola Garsen B8 Garsen-Malindi Road B8	Construction to bitumen standard 209 kms. Funding Source: GOK

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description & Activities
Graveling, Culverting 41 kms Roads D566, E878, E879, E880 Ngao and Oda Location Garsen Division	1	Road graveling. Justification: Will improve communications between Hola and the two locations from where a lot of farm produce is coming from. Funding Source: GOK

Spot graveling 30 kms, construct 3 No. Box culverts road No. E723 Hola-Waldena Wayu and Waldena Locations Galole Division	2	Construction of culvert and graveling of road. Justification: Will ease communication between Hola - Waldena and provide the shortest route to Nairobi via Kitui. Funding Source: GOK
Opening up Furaha-Ozi Road - 25 kms. Oda and Chara Locations Garsen Division	3	Bush clearing and gravel road. Justification: Will open up the area for farm produce to reach market centers from hinterland. Funding Source: GOK
Hola - Haroresa Road 30 kms. Wayu Location Galole Division	4	Grade and gravel road. Justification: Will open up the area for farm produce to reach market centers from hinterland. Funding Source: GOK
Madogo-konoramadha Mulanjo Road - 40 kms Mulanjo Location Madogo Division	5	Bush clearing and gravel road. Justification: Will open up the area for farm produce to reach market centers from hinterland. Funding Source: GOK
Mnazini - Idisa Godana Ranch Road - 10 kms. Ndera Location Garsen Division	6	Bush clearing and grading road. Justification: Will open up the area for farm produce to reach market centers from hinterland. Funding Source: GOK

Construction of a Bailey bridge
across River Tana at Masalani
Ndera Location
Galole Division

7

Bridge construction.

Justification: Will link Masalani
and Hola

Funding Source: GOK

Building Department

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description & Activities
Office Block (Mechanical Section) Zubaki Location Galole Division	1	Construction of an office block with a minimum of 5 rooms Justification: The department is housed in congested sheds made of 'mabati' roofs. Funding Source: GOK
Office Store and Workshop Zubaki Location Galole Division	2	Construction of the office store and workshops Justification: The store and workshop are in congested small 'mabati' houses. Funding Source: GOK

AGRICULTURE

Sectoral Policy Objectives

The main objectives of the sector is to contribute to the overall national development goals of poverty alleviation and equitable income distribution, food security, elimination of malnutrition, creation of employment and income earning agricultural opportunities, earning of foreign exchange and import substitution. These will occur through support to the farming community to:

- Produce and market a wide range of food and cash crops and livestock products to feed the nation;
- Produce for export to earn foreign exchange needed for payment of imports into the country.
- Provide raw materials for our proposed local industries such as cotton, tobacco, oil crops, hides and skins etc;
- Exercise statutory duties pertaining to control and treatment of livestock diseases.
- Ensure efficient and effective management of food;
- Ensure that the foodstuffs are geographically distributed so that all members of the population have a nutritionally adequate diet throughout the year.

Department of Agriculture

Review of 1994 - 96 Plan Period

In 1994 -1996 plan period, funding of Lower Tana Village irrigation project were discontinued and Coast ASAL Development projects funding was suspended. These adversely affected implementation of activities under these programmes. However, Drought Recovery Programme contributed significantly in agricultural development providing twenty seven (27) 5 HP irrigation pumps with support to extension services through trainings of new 27 irrigation groups.

District Specific Objectives and Targets

Objective: Improve agricultural extension services.

Targets: Carry out 20 group demonstrations, 184 T & V plots and hold 40 field days every year.

- Objective:** Rehabilitate over-grazed areas by afforestation, agro-forestry and river bank protection.
- Target:** Assist farmers to establish farmers managed 6 group nurseries and achieve about 20,000 seedlings of forest and fruit tree seedlings to distribute to farmers.
- Objective:** To timely open up more land to be under production of various crops suitable in the district.
- Targets:** To repair and rehabilitate the four (4) existing tractors and other plant and equipment.
- Objective:** Alleviate poverty, ease the dependency on famine relief and introduce new suitable crop varieties through formation of more irrigation groups and effective extension services.
- Targets:** Reduce the number depending on famine relief by 75%.
- Objective:** Increase the volume of marketed crops.
- Target:** Construct two (2) horticultural handling and storage facilities and start one project of adding value to horticulture produce by drying of vegetables and mangoes.

PROJECT AND PROGRAMME PRIORITIES

Department of Agriculture

A. On-going Projects

Project Name Location/Division	Description of Activities
1. Coast ASAL Development Project District-wide	Implementation of Hola tree crop nursery and seed bulking; crop demonstration and T & V plots; small scale pump fed (Minor Irrigation Schemes); small scale flood fed irrigation; water harvesting demonstration and riverbank rehabilitation and protection Funding Source: IFAD/World Bank
2. Soil and Water Conservation Project District-Wide	Afforestation; Agro-forestry; Rehabilitation of over-grazed area; River bank erosion and control Funding Source: SIDA/ GOK
3. Soil and Water Conservation Project District-Wide	Plant Hire Service; farm surveys and planning dam construction Funding Source: GOK
4. Drought Recovery Programme	Provision of demonstration inputs. Implementation of pumpsets for small irrigation schemes. Training of Irrigation Groups. Funding Source: IDA/World Bank

B: New Project Proposals

Project Name/ Location/Division	Priority Ranking	Description of Activities
Crop Production Development project District-Wide	1	Encourage farmers to plant food crops. Justification This will assist in reducing food deficit in the district and also reduce depending on famine relief. Funding Source GOK
Horticultural crops marketing project District-Wide	2	Organize marketing of horticultural crops in the district. Justification A lot of horticultural produce rot especially mangoes during peak production periods. Funding Source: GOK/Donor

Review of 1994 - 1996 Plan Period

During 1994 - 1996 Plan Period the following was achieved under the livestock production department:

Table 3.2**Achievements in Livestock Production Sector**

Project	Achievement
1. Coast ASAL Development project	Two (2) Fodder Plots were established at Garsen and Bura while 33 bucks were purchased and distributed to farmers, 62 beekeeping packages purchased and distributed to farmers, two technical monitoring and evaluation sessions were conducted. One office block was constructed at Bura and 50 Staff were trained. Purchased equipment for new office. One staff and farmers tours conducted. 610 farmers were trained in management, 271 in small stock and 474 in bee keeping.
2. Emergency Drought Recovery Program	Gafuru Minispate was completed and in use, measuring 3 X 490 m with a triangular cross section.
3. Water Points	Protection of watering point done at Hororesa Earth Pan. The pan was fenced.
4. Fodder Bulking	Fodder bulking plot was established adjacent to Gafuru Minispate.
5. Water Supplies	Shallow wells fitted with hand pumps at Nduru (Chara Location) and Sabukie (Bura). More started at Siriri (Madogo).
6. Poultry Development	80 hybrid cocks distributed in Galole 220 hybrid cocks were distributed in Garsen Division
7. Rabbit Development.	3 units were operational among the youth. Constraints was lack of breeding stock.

Source: District Livestock Production Office, Hola, 1996.

District Specific Objectives and Targets

Objective: To improve animal production through enhanced dissemination of Livestock Extension and Production techniques.

Target: 2000 farmers will be trained in Animal Management, 300 in sheep and Goats improvement, 2400 in Beekeeping; maintain 2 fodder plots at Bura and Garsen; conduct 12 tours for both farmers and staff; conduct workshops for 150 technical staff; conduct 6 Technical Monitoring and Evaluation Sessions.

Objective: Raise income of poorest in society by appropriate interventions to manipulate the genetic potential of the local animal.

Target: Purchase and distribute 150 bucks/rams to deserving groups.

Purchase 30 Sahiwal bulls to be distributed to organized producer/herder associations.

Construction of 30 bull sheds accompanied with 30 Napier/Leacaena plots.

Objective: To avail livestock infrastructural facilities - water, auction yards, stock routes, holding grounds - to improve on the livestock marketing environment so that farmers get more income from their animals and consequently raising their standard of living.

Target: Rehabilitate 4 stock routes. Construct on earth pan and 30 shallow wells. Rehabilitate 2 holding grounds. Develop 3 Auction yards. Form producer associations. Improve livestock information dissemination. Training and capacity building in relation to livestock management. Training 100 community Animal Health Workers. Staff trainings in 3 monthly training sessions. To complement crop production and to provide employment. Trainings and Formation of Rice producer Association. Purchase of processing plant to form rice husks and bye products into concentrate. Construction of the plant

Training and capacity building in the management and operation of the facility.

PROJECT AND PROGRAMME PRIORITIES

Livestock Production Department

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Coast ASAL Development Project District-Wide	Improving sheep, goats and bee keeping in the district. Funding Source: IFAD/GOK

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Social Dimensions of Development Project. District-Wide	1	Improve livestock production in the district. Justification: The beneficiaries of the program are the poorest of the society. The project attempts to aid these in the district so that they can also engage in gainful endeavors. Funding Source: GOK/Donor Agencies
Arid Land Management Project District-Wide	2	Rehabilitation of roads. Construction of earth pans and shallow wells and developing auction yard. Justification: These facilities are crucial in the realization of more food and high volume of raw materials to support agro based industries.

Rice Bran Project
Gomba - Garsen Division

3

Form Rice Producer Association.
Conduct training for farmers.
Purchase processing plant to
process rice husks and bye
products. Training and capacity
building in the management and
operation of the facility.

Justification: The program will
complementing crop production.
At present the bye products goes
to waste. The program is self
sustaining and source of
employment.

Funding Source: GOK

Veterinary Services Department

Review of 1994 - 1996 Plan Period

Table 3.3 shows the achievements of the Veterinary Department.

Table 3.3

Achievements in the Veterinary Department

Activity	1994	1995	1996*
1. <u>Annual Disease and Pest Control (Vaccination and Cases Treated):</u>			
CBD	173,958	170,664	50,869
Rinderpest	123,953	170,664	50,869
Anthrax/Black Quarter	1,300	450	75
Rabies (Baiting)	46	58	Nil
New Castle disease	2,549	2,358	900
2. <u>Veterinary Clinical Programme (Vaccination and Cures):</u>			
Trypomoniases	1,300	1,658	539
Other Diseases	3,037	3,196	1,714
3. <u>Tick Control - Beneficiary Dips:</u>			
(Dipping Figures)	1,562	2,505	-
4. <u>Hides and Skins Improvement Inspections for Exports (pieces):</u>			
Hides	1,921	2,084	7748
Skins	13,588	8,724	12,913
5. <u>Improvement of Animal Health Structures:</u>			
Vaccination Crushes Constructed	6	6	2
CBPP Testing Units	-	1	-
Construction of stock yards/Auction Rings	-	1	-
Tsetse Traps	10	6	-
Training of Divisional Staff	4	4	-
Training Technical Assistants	2	2	1
Training of Farmers	100	120	80
CBPP Training	-	3	-
Trainers visited	3,140	4,726	1,778

Source: District Veterinary Department, Hola, 1996

*January to May

Constraints: It should be noted that the department did not achieve the expected targets in 1995/96 Financial Year mainly because the Coastal ASAL Funds were not availed to the district. The other constraints are lack of enough staff, and funds to meet operating expenses.

District Specific Objectives and Targets

- Objective:** Improve on the efficiency of handling animals during vaccination campaign and create organized and specific areas for marketing of animals of which in total will give way to achieving better ways of disease control.
- Target:** Construct three auction rings in Bangale, Bura and Garsen to achieve an organized method of marketing animals and constrain spread of diseases more efficiently.
- Objective:** Uplift the existing methods of Tick Control in an attempt to reduce Tick-borne diseases to minimum level.
- Target:** Procure 20 hand spray pumps per division (100 in total for five divisions for demonstration and training in minimum water utilization (Water is a constraint to dipping).
- Objective:** Combat Trypanosomiasis through reduction of the tse-tse fly population, combined with both prophylactic and curative methods against the disease.
- Target:** Establish and maintain 200 Tse-tse traps in tse-tse fly prevalent areas as demonstrations and training in an attempt to establish casting community based method of reducing tse-tse fly population to minimum. Produce enough prophylactic and curative drugs against Trypanosomiasis for a population of 320,000 animals at the rate of 15 - 20% infection rate for the whole district.
- Objective:** Launch the operation of a district based CBPP Testing Team and Unit to ensure free marketing of cattle outside the district.
- Target:** Complete procuring the remaining CBPP equipment, funding the CBPP Unit on transport and operating expenses, maintenance of the equipment and training of 3.
- Objective:** Increase access to veterinary vaccines and drugs to the pastoralist by effectively decentralizing from the District Headquarters to the Divisional Headquarters.
- Target:** Purchase of six Solar-Powered cold Chain Units (One per division and one for District Headquarters) for effective storage of veterinary vaccines and drugs in Divisional Headquarters.

PROJECT AND PROGRAMME PRIORITIES

Veterinary Department

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Animal Health Rehabilitation, Disease and Pest Control. District-Wide	Provision of vaccines and vaccination programmes against CBPP, Rinderpest, Trypanosomiasis, Anthrax, Rabies & other diseases. <u>Funding Source</u> World Bank/GOK
2. Animal Health Rehabilitation veterinary clinical programmes District-Wide	Provide drugs and veterinary services. <u>Funding Source:</u> World/Bank/GOK
3. Rabies Control District-Wide	Conduct vaccination campaigns against Rabies and destroy all stray dogs. <u>Funding Source:</u> GOK
4. Hides and skins improvement District-Wide	License all bandas and stores; train slaughterman. <u>Funding Source</u> GOK
5. Coast ASAL Development District Wide	Farm visits during treatment and routine vaccination, trainings and general administration of extension system CBPP Testing Unit equipment procurement.
6. Arid Lands Resource Management Project. District-Wide	Establishment of price monitoring and information dissemination service including information on quarantine. <u>Funding Source:</u> World Bank/GOK Animal Health structure improvement & community animal Health voluntary services.

Project Name Location/Division	Priority Ranking	Description of Activities
Social Dimensions of Development Programme District-Wide	1	District Based CBPP Testing & Livestock Disease Sero-Surveillance Unit. Justification: This is required for better disease control. Funding Source: GOK
Divisional Headquarters Project. Six Divisional Headquarters.	2	Installation of solar powered cold chain. Justification: To provide power at the divisional headquarters. Funding Source: GOK
Livestock Development Project Bangale, Hola & Garsen Divisions	3	Construction of stock yards and provision of minimum water utilization methods. Justification: To improve marketing of livestock in the district. Funding Source: GOK
Tse-Tse Control Project Garsen - Tana Delta	4	Tse-tse survey and survey on impact on TARDA (Tana Delta Irrigation Project) on Incidence of Livestock Disease on Tana River, Delta Region. Justification: To control the menace caused by Trypanosomiasis in the district. Funding Source: GOK

Inventory Maintenance.
Whole District

5

Maintenance of stations, plants & Equipment.

Justification: To control the menace caused by Trypanosomiasis in the district.

Funding Source: GOK

Office Project. Bangale, Madogashe, Bura & Galole

6

Construction of office in all five divisions.

Justification: There are no offices in these areas.

Funding Source: GOK

Project Name: Probation Department

Location/Division: Bura Division

Ranking: 1

Probation Office Location: Bura Division

Target: Build probation offices at Bura and Garsen.

Objective: Construct office buildings.

Objective: Improve the quality of Probation officers through training.

Crime Prevention Seminars and Workshops. District Wide

3

Create public awareness of the need to prevent crime.

Justification: Prevention of crime.

Funding Source: GOK

HOME AFFAIRS AND NATIONAL HERITAGE

Sectoral Policy Objectives

The objectives of the ministry are to:

- Curb and control the increase in juvenile delinquency through guidance and counselling activities.
- Ensure that children placed in remand and approved schools adequately fed, clothed, educated and otherwise rehabilitated.
- Promote the rehabilitation of juveniles so that they return to society as responsible citizens.
- Carry out enquiries and prepare reports for courts as required.
- Supervise offenders placed on probation, promote their rehabilitation, and ensure that they do not revert to crime.
- Continue conducting after-care of offenders from penal institutions.
- Promote the rehabilitation of prisoner.
- Construct and maintain prison facilities.

Probation Department

Objective: Construct office buildings.

Target: Build probation offices at Bura and Garsen.

Objective: Improve the quality of Probation officers through training.

Target: Hold seminars and workshops to boost probation officers performance.

PROBATION AND PROGRAMME PRIORITIES

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Office block Hola/Galole Divisions	Completion of remaining works, roofing and roofing and finishes. Funding Source: GOK
2. Rehabilitation programme District Wide	Supervision of offenders placed on probation. Funding Source: GOK

B. New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Probation Office Bura Location Bura Division	1	Building an office at Bura. Justification: Bring probation services to closer to the people. Funding Source: GOK
Probation Office Balisa Location Garsen Division	2	Construction of probation office Garsen. Justification: Bring probation services closer to the people. funding Source: GOK
Crime Prevention Seminars and Workshops. District Wide	3	Create public awareness of the need to prevent crime. Justification: Prevention of crime. Funding Source: GOK

Prison Department

District Specific Objectives

Objective: Establish a prison facility to protect prisoners from epidemics and ill-health.

Target: Relocate Hola District Prison to a new site in the Hola Irrigation Scheme.

Objective: Promote the rehabilitation of prisoners.

Target: Construct three extra mural penal employment centres at Madogo, Bura, Galole and Bangale.

PROJECT AND PROGRAMME PRIORITIES

Prison Department

B. New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
1. Hola District Prison. Zubaki Location Galole Division	1	Construction and relocation of the prison's, staff houses. Establish a prison farm. Justification: The existing prison was built in the 1940's by colonialists and is very old and almost beyond repair. Funding Source: GOK
Extra Mural Penal Employment centres. Bangale, Madogo and Bura Division	2	Construction of offices and workshops; equipping the centres and posting of staff Justification: Rehabilitation of prisoners to contribute to economic development. Funding Source: GOK

TOURISM AND WILDLIFE

Sectoral Policy Objectives

The sectoral policy objectives are:

- To maximize fish production on sustainable yield basis in order to achieve optimum economic and social benefits;
- To maximize benefits to the fishermen and the industry;
- To increase (per capita) consumption of fish;
- To reduce post-harvest loses of fish;
- To ensure the safety of fish and fish products for the consumer through improvement and stabilization of quality products;
- To maximize exploitation of fish and fishery products for foreign exchange earnings;
- To increase employment opportunities.

Fisheries Department

District Specific Objectives and Targets

Objective: Promote fish preservation

Target: Construct at least 8 demonstration fish smoking kilns and educate about 330 commercial fishermen in the district on fish preservation methods.

Target: To raise current annual fish production of about 480 tonnes to about 700 tonnes and construct at least 10 fish ponds for demonstrations.

Objective: Provide extension services on fish quality control and provision of hygienic business premises to ensure the safety of fish and fish products for the consumers through improvement and stabilization of quality products.

Target: Construct 2 fish marketing bandas, construct 3 fish landing depots and educate 200 fish dealers on quality control.

Objective: Provision of office accommodation for Divisional and District Headquarters staff.

Target: Construct at least 4 office blocks.

Objective: Upgrading of fisheries sub-stations.

Target: Post at least 3 Assistant Fisheries officers and one (1) Fisheries Officer to sub-stations.

Objective: Enabling the department achieve its role more effectively.

Target: Open 2 more Divisional offices at Bangale and Madogo Divisions.

Objective: Improve revenue collection through issue of fisheries licenses and permits.

Target: To increase revenue collection from fisheries licenses and permits from KShs.85,000/= annually from the current collection of is KShs.49,000.

Objective: To increase mobility of the department to enable the department to achieve the overall objectives.

Target: Purchase 1 Land Rover and at least 5 motorcycles.

Objective: Improve application of fishing gear technology.

Target: Provision of modern fishing gears and vessels through purchase of at least 500 gill nets, 1,500 fishing hooks and about 10 motor boats for about 330 fishermen in the district.

PROJECT AND PROGRAMME PRIORITIES

A. On-going Projects

Project Name Location/Division	Description of Activities
1. Construction of fish smoking kilns Bilisa, Zubaki and Ngao locations	Initiate and construct the fish smoking kilns. <u>Funding Source</u> : GOK
2. Aquaculture Development Tana Delta, Garsen	Construction of fish ponds. Extension services. <u>Funding Source</u> : GOK
3. Construction of fish marketing facilities Garsen, Galole Divisions	Construction of fish landing bases. Instal and maintain fish processing and preservation facilities. <u>Funding Source</u> : GOK
4. Revenue collection District Wide	Collect revenue in all fish landing bases. Provision of extension services. <u>Funding Source</u> : GOK

B. New Project Proposals

Project Name	Priority	Description of Activities
Location/Division	Ranking	
1. Transport Facilities Project District-Wide	1	<p>Procurement of vehicles and motor cycles purchase a vehicle and 5 motor cycles.</p> <p>Justification : To facilitate monitoring and evaluation of fisheries projects.</p> <p>Funding Source: GOK</p>
2. Fishing vessels and gears improvement project. District-Wide	2	<p>Provide loans to fishermen for the purchase of fishing gears and motor boats for fishermen through co-operative societies.</p> <p>Justification : To increase fishing as a result of improved fishing vessels and gears technology for high fish production.</p> <p>Funding Source: GOK</p>
3. District Fisheries Headquarters Hola Location Galole Division	3	<p>Construction of office block. Initiate construction, of the headquarters office, complete and equip the office building.</p> <p>Justification ; The Department is currently renting a condemned county council building for accommodation.</p> <p>Funding Source: GOK</p>

- | | | |
|--|----------|---|
| <p>4. Fish marketing Bandas and storage facilities.
District-Wide</p> | <p>4</p> | <p>Equip fish bandas with ice storage boxes, generators and fridges.</p> <p><u>Justification</u> : To centralize fish marketing to meet the quality standards of fish in terms of flavour, texture and appearance.</p> <p><u>Funding Source</u> : GOK</p> |
| <p>5. Up grading of fisheries sub-stations
Kipini Sub-station
Kipini Division
Madogo Sub-station
Madogo Division</p> | <p>5</p> | <p>Posting of staff
Rehabilitation of buildings
Purchase a patrol motor boat.</p> <p><u>Justification</u> : To strengthen the sub-station to enable them patrol fishing areas more effectively.</p> <p><u>Funding Source</u> : GOK</p> |
| <p>6. Opening of Divisional Fisheries Offices
Bura and Bangale Divisions</p> | <p>6</p> | <p>Construct the offices and post the staff.</p> <p><u>Justification</u> : To promote development of fisheries industry through extension services. At least each opened up offices should be availed with motor cycle.</p> <p><u>Funding Source</u>: GOK</p> |
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EDUCATION

Sectoral Policy Objectives

The sectoral policy objectives are:

- Consolidate the primary education sector by merging under enrolled schools in order to bring about efficiency in utilization of resources available;
- To provide a nomadic primary school;
- To rehabilitate the existing boarding primary schools so that they can be fully utilized;
- To improve distribution of S.F.P. in all schools in the district;
- Improve physical facilities in selected secondary schools which will act as centres of excellence - in order to promote educational standards in the district;
- To promote good supervision and monitoring programmes of our educational institutions;
- To promote pre-primary education in our schools;
- Improve facilities for special education institutions in the district;
- To improve on human resource and personnel through training, in-service and seminars.

Table 3.4

Enrolment In Educational Institution

Sector	Years	Males	Females	Totals
Pre-Primary	1994	2156	1981	4137
	1996	2419	2116	4535
Primary	1994	10215	7977	18192
	1996	10510	7913	18423
Special Schools	1994	19	12	31
	1996	21	16	37
Secondary	1994	1010	712	1722
	1996	1011	725	1736

Source; District Education Office, Hola, 1996.

District Specific Objectives and Targets

Objective: To promote education among the nomadic community.

Target: Construct one boarding Primary School at Wayu, convert/rehabilitate Kipini Ngao, Garsen, Wenje, Hola, Mororo from day to boarding schools.

Objective: To provide better physical facilities conducive to better learning in all sectors of education (pre-primary, primary, special education and secondary schools).

Target: Construct at least 10 Pre-Primary classes, merge at least six (6) under enrolled primary schools district wide, construction/rehabilitate Hola School for the Mentally Handicapped and Lisa School for the Deaf and provide basic physical facilities to at least five (5) Secondary Schools

Objective: Improve and maintain the health of school going children.

Target: Continue feeding programme for 4025 pre-primary pupils and 17815 primary pupils.

Objective: Improve on human resources and personnel through training, inservice and Seminars.

Target: Conduct inservice training for 50 Pre-Primary Teachers, 100 Primary Teachers, 60 Secondary Teachers and 10 Special Education teachers.

PROJECT AND PROGRAMME PRIORITIES

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Tarasaa Secondary School - Twin Dormitory. Ngao Location Garsen Division	Complete plastering of the outer wall and fixing doors and windows. Funding Source: BOG, PTA, RDF
2. Kipini Secondary School - Laboratory Kipini Location Garsen Division	Completion of the laboratory block, and installation of equipment and furniture. Funding Source: BOG, PTA
3. Ngao Secondary School - Laboratory Ngao Location Garsen Division	Completion of laboratory block and provision of equipment and furniture. Funding Source: BOG, PTA

B. New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Tarasaa Secondary School Ngao Location Garsen Division	1	Rehabilitation of the school physical facilities. Justification: To make the school a centre of excellence. Funding Source: BOG, PTA,

<p>Kipini Secondary School Kipini Location Garsen Division</p>	<p>2</p>	<p>Construction of administration, dormitories and dinning Hall.</p> <p>Justification The school is situated within the newly established Witu Settlement Scheme. It caters for the children of those to be settled in the area.</p> <p>Funding Source: BOG, PTA, GTZ</p>
<p>Hola Secondary School Zubaki Location Galole Division</p>	<p>3</p>	<p>Construct an administration block.</p> <p>Justification: There are no proper premises. Headmaster operates from the staff room.</p> <p>Funding Source: BOG, PTA</p>
<p>Mau Mau Secondary School Zubaki Location Galole Division</p>	<p>4</p>	<p>Construct a laboratory.</p> <p>Justification: To provide this facility to enhance the teaching of science subjects.</p> <p>Funding Source: BOG, PTA</p>
<p>District Education Office Block Zubaki Location Galole Division</p>	<p>5</p>	<p>Construction of a District Education Office.</p> <p>Justification: The offices are scattered making supervision and communication difficult. The main office is situated in a condemned building.</p> <p>Funding Source : GOK</p>
<p>Wanje Secondary School Galole Division</p>	<p>6</p>	<p>Construction of an administration block.</p>

		<p>Justification: There are no proper premises for administration. The headmaster operates from a temporary office (staffroom).</p> <p>Funding Source: BOG, PTA, KWS</p>
School Feeding Programme District Wide	7	<p>Food supply to the schools. Purchase of a lorry.</p> <p>Justification: The programme will provide a balanced meal to needy children and assist the prevailing famine conditions for all schools in the district.</p> <p>Funding Source: GOK, WFP, PTA</p>
Arid Zone School Galole Division	8	<p>Construction of a nomadic Boarding Primary School.</p> <p>Justification: To promote education among the nomadic community and enable them continue with formal education.</p> <p>Funding Source: GOK</p>
Merging of Primary Schools. District-Wide	9	<p>Merging of schools offering classes five (5) and below.</p> <p>Justification: To utilize the available resources more cost effectively.</p> <p>Funding Source : GOK</p>

Support to Boarding Primary
Schools
District-wide

10

Rehabilitation of the existing
Boarding Primary Schools.

Justification This will promote
education among the pastoralist.

Funding Source : GOK/BOG/PTA

COMMERCE AND INDUSTRY

Sectoral Policy Objectives

The sector policy objectives are to promote economic development and growth through:

- Indigenization of trade and industrialization in rural areas;
- Training traders on sound business practices;
- Carrying out market research and feasibility studies on industrial development;
- Providing financial support to small scale traders and investors through joint loan board;
- Protecting customers from exploitation by unscrupulous business people;
- Regulation of business through trade licensing;
- Encourage growth and development of large, medium and small scale industries;
- Increase viable employment opportunities in both the industrial and commercial sectors.

Review of 1994 - 96 Plan Period

- Two traders' courses were held. One at Hola and the other in Garsen.
- Advising and consultancy services continued to the business community.
- Revenue collection increased from KShs.158,444 in 1994 to KShs.308,718 in 1995, an indication there was an increase in the demand for new licenses.

District Specific Objectives and Targets

Objective: Increase the reliability of supply of general merchandise.

Promote the 'Jua Kali' sector in all the divisions, particularly in furniture making, tailoring and mat making.

Bring general awareness to the community of the existing natural resources and their proper use for up small scale manufacturing (industries).

To provide training of interpreneurs and traders on sound business management.

Target: Formulate physical plans for Garsen, Bura, Madogo, Galole and Bangale Divisions with convenient locations set aside for 'Jua Kali' artisans to produce and display their wares.

Provide electricity at Hola by Kenya Power and Lighting Company to take over generators currently run by Ministry of Health, Tana Irrigation Scheme and cotton ginnery.

Provide essential facilities such as public toilets at the major centres such as Hola, Garsen and Bura.

Objective: Reduce post-harvest loss of fruits.

Target: Establish one fruit processing plant.

Objective: Promote tourism industry.

Target: Construct two (2) modern tourist hotels.

Objectives: Promote milk production and marketing.

Target: Establish one small scale milk processing plant.

Objective: Promote and process livestock products.

Target: Establish an abattoir.

PROJECT AN PROGRAMME PRIORITIES

A. On-going Projects

Project Name Location/Division	Description of Activities
1. Trade licensing District-Wide	Issue trade licenses to all business that are under Trade Licensing Act Cap 497 <u>Funding Source:</u> GOK
2. Tana River Trade Development Joint Loan Board District Wide	Give out loans to small scale businessmen. <u>Funding Source:</u> GOK
3. Traders and entrepreneur courses District-Wide	Train businessmen on sound methods of commerce, marketing, business promotion and sources of finance. Conduct traders and entrepreneurs courses. <u>Funding Source:</u> GOK
4. Registration of industries District-Wide	Registration of industries falling under industrial registration act. <u>Funding Source:</u> GOK
5. Identification of Viable Projects District-Wide	Conduct surveys on viable industrial projects. Train entrepreneurs on project identification and project management. <u>Funding Source:</u> GOK

B. New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Office block Zubaki Location Galole Division	1	<p>Initiate construction and complete the building.</p> <p>Justification The Department is housed by the Co-operatives department in a condemned building.</p> <p>Funding Source: GOK</p>
Fruit Processing Plant	2	<p>Construction of the processing plant.</p> <p>Justification: To process fruits which normally go to waste.</p> <p>Funding Source: GOK</p>
Establishment of Modern Tourist facilities. Garsen Division	3	<p>Identification of a private investor</p> <p>Construction of the hotels</p> <p>Justification: Exploitation of the many tourist attractions in Tana River District.</p> <p>Funding Source: GOK/Private Investors</p>
Construction of an abattoir Garsen Division	4	<p>Building and equipping of the abattoir</p> <p>Justification: Facilities livestock products.</p> <p>Funding Source: GOK</p>

HEALTH

Sectoral Policy Objectives

The sectoral policy objectives are to:

- Promote and improve health status of all Kenyas through the deliberate restructuring of the health sector to make all health services more, effective, accessible and affordable;
- Increase coverage and accessibility of health services with active community participation;
- Intensify activities aimed at control, Prevention and eradication of diseases;
- Provide adequate and effective diagnostic;
- Promote and develop cost-effective research aimed at promotion of people's health;
- They are expected to result in a healthy population, decrease loss of working time due to sick offs leading to enabling environment for rapid industrialization.

Review of the 1994 - 96 Plan Period

The current plan was adversely affected by withdrawal of donor funds like SIDA, DANIDA and Drought Recovery Programme. However, the following were achieved.

- | | | | | |
|-----------------|---|---|---|----|
| Training | - | Facilitators | - | 12 |
| | - | Training of Trainers | - | 10 |
| | - | Community Health Workers | - | 40 |
| | - | Traditional Birth Attendants | - | 29 |
| | - | Public Health Officers and technicians in maintenance of rural health facilities. | | |
-
- | | | | |
|--------------------|---|---|--|
| Civil Works | - | Semi - Karo dispensary rehabilitated | |
| | - | Incinerator for Hola District Hospital constructed | |
| | - | One permanent TBA manyatta constructed | |
| | - | Rehabilitation of 10 semi-permanent TBA manayattas (now collapsing) | |
| | - | Equipped Dental Unit (now requires a Dental Officer). | |

District Specific Objectives and Targets

Objective: Increase immunization coverage.

Target: Raise level of immunization from 65% up to 80 % district wide.

Objective: Decrease malnutrition rates district wide.

Target: Reduce malnutrition rates by 5% (i.e. from 18% up to 13%).

Objective: Reduce morbidity and mortality rates by 10%.

Target: Increase supply of drugs.

Procure one 4 - wheel drive lorry.

Objective: To take preventive curative and promotive health services closer to the community.

Target: Construct of 4 dispensaries, rehabilitation of 7 dispensaries, construction of 12 staff houses at various Rural Health Facilities, completion of Minjilla Health Centre and rehabilitation of Hola District Hospital.

Objective: Improve sanitation, reduce diarrhoeal diseases and increase community awareness and participation in health projects and activities.

Target: Construct 50 demonstration VIP latrines in trading centres and institutions, construct 6 incinerators in Health Centres and Ngao Sub-district Hospital, construct 23 ferro-cement tanks in all rural health facilities, training of extension staff and community leaders, district wide.

PROJECT AND PROGRAMME PRIORITIES

A. On-going Projects

Project Name Location/Division	Description of Activities
1. Immunization District-Wide	Establish 12 Kevi centres in 12 dispensaries. Purchase of bicycles for each dispensary for active case funding Funding Source: GOK
2. Nutrition District-Wide	Supplementary feeding for children under 5 years, lactating mothers and expectant mothers. Establishment of demonstration kitchen gardens. Training TBA, CHW and nursery school teachers on growth monitoring and equipping them with weighing scales. Funding Source GOK
3. Essential Drugs Supply District-Wide	Increase amount of essential drugs supplied. Procure one 4 wheel drive lorry for drug distribution district wide. Funding Source: GOK
4. Completion of Minijla Health Centre Garsen Division	Construction of 5 staff houses, Construction of septic tank, Fencing and drainage works Supply of water. Funding Source GOK

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Construction of Dispensaries District-Wide	1	Construction of 4 new dispensaries at Idsawe, Mlanjo, Balambala and Chewani, construction of 12 staff houses at Karo, Oda, Sera, Magiwa, Idoswe, Chemele, Balambala, Kau, Makere, Bangale and Pumwani. Justification: To reduce distances travelled to the nearest health centre. Funding Source GOK
Rehabilitation of Health Facilities District-Wide	2	Rehabilitation of five dispensaries and Hola District hospital. Justification: Most of the dispensaries are housed in semi-permanent buildings which are condemned. Hola District has old buildings which are condemned. Funding Source: GOK

Sanitation
District-Wide

3

Construct demonstration VIP latrines in trading centres and institutions.
Construct incinerators at the health centres and Ngao Sub-district Hospital.

Construct ferro-cement tanks in all rural health facilities
Training of extension staff and community leaders

Justification To facilitate of disposal of waste. Currently the health centres can not be kept because of inadequate water supply. There is also a need to train Public health technicians and heads of health facilities.

Funding Source GOK

LOCAL GOVERNMENT

Sectoral Policy Objectives

The major objectives of the sector is to:

- Support the provision of catalytic infrastructure such as water supply, sewerage treatment facilities, roads, market/trading facilities with the objective of providing incentives for private investments to take place.
- Strengthen managerial and financial capacity of the local authorities to formulate policy, manage activity manpower and resources and out the design, implementation and management of infrastructure investment.
- Improve the capacity of local activities to provide municipal services on a sustainable basis by broadening utilities and realistic pricing of urban services.

Review of the 1994 - 96 Plan Period

The County Council of Tana River prepared physical development plans for Hola, Garsen, and Bura which were done in collaboration with the Survey Department and the Department of Physical Planning.

District Specific Objectives And Targets

For the current plan period the objectives and targets of the Tana River County Council are as follows:-

Objective: Intensify revenue collection from all trading centres.

Target: Collect a minimum of KShs.1 m. per year in all kinds of revenue.

Objective: Do area rating for the various land uses in the district.

Target: Introduce Area Rating in Hola, Garsen, Ranch lands and Government gazetted forests.

Objective: Rehabilitate marketing facilities.

Target: Rehabilitate Hola Fish Market, Kipini fish market and all slaughter houses in Hola, Garsen, Bura, Madogo and Tarasaa.

Objective: Provide a facility for the council and public gatherings. meetings space.

Target: Rehabilitate and expand the Hola Country Hall.

Objective: Provide residential facilities in the district.

Target: Provide residential houses and related services at Hola and Garsen.

Objective: Facilitate land surveys in all trading centres.

Target: Survey Garsen, Bura, Madogo, Bangale and Kipini Divisional Headquarters.

PROJECTS AND PROGRAMME PRIORITIES

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
1. Fish Markets Zubaki Location Hola, Kipini Division Galole and Garsen Divisions	1	Rehabilitation of Hola fish market. Justification: The markets will serve as collecting centres for internal trade and outlet for fish products.

Funding Source: GOK

2. Slaughter Houses
Hola, Garsen, Bura, Madogo
and Tarasa
District-Wide

2

Rehabilitation of slaughter
house.

Justification: All slaughter
houses have not been repaired
for a long time.

3. County Hall
Zubaki Location
Galole Division

Funding Source: GOK

Construction and extension of
country hall.

Justification: The hall will save
the council revenue spent on
hiring halls and ease congestion
at the offices. It will also serve
as hall for meetings.

4. Rental Houses at Hola,
Garsen Division

Funding Source: GOK

Construction of rental houses.

Justification: The investment
will generate revenue and
improve the welfare of the
residents through better
housing.

Funding Source: GOK

ENERGY

Sectoral Policy Objectives

The objectives of the sector are to:

- Promote conservation of all forms of energy
- Continue with development of domestic hydro and geothermal sources of electricity.
- Increase wood production under both on-farm and plantation systems and efficiency in wood fuel utilization
- Encourage domestic wood fuel substitution where possible;
- Strengthen the existing Energy/Agro-forestry centres and at the same time encourage creation of new ones in the district gradually so that all major agro-ecological zones are covered.
- Promote the development of alternative energy sources to broaden the district energy mix and lessen reliability on imported energy;
- Intensify the on-going rural electrification programme to cope with the increased demand for electricity in the rural areas.

Review of 1994-1996 Plan Period

Under the Bura Fuelwood Project, charcoal kilns were introduced to demonstrate to farmers the best technology for using fuelwood in the most economical way. However, very little has been done as it is only at the Bura Irrigation and Settlement Scheme where a fuelwood project has been undertaken.

District Specific Objectives and Targets

Objective Provision of power to the major market centres in the district. The energy sector is the least developed as the district has not been connected onto electricity grid. Consequently, Tana River District is not covered with the rural electrification programme.

Target: Construction of supply lines and installation.

Objective: Develop fuel wood energy in the district.

Target: The Ministry of Energy in collaboration with Kenya Power and Lighting Company to take over generators run by NIB and Hola District Hospital as

a first step towards providing electricity at Hola. These generators are under utilized.

Objective: Introduce charcoal kilns and demonstrate to farmers the best technology for using fuelwood in the most economical way.

Target: Revive the Bura Fuel Project as alternative source of energy.

Period: 1991 - 1994
 Funding Source: KPLC

Table 3.5
 Extension of the National Grid System

Category	1991	1992	1993	1994
Instal supply lines	3	5	4	
Justification: Supply electricity which is a basic necessity for industrial development.				
Justification: These are holding back the development of the town which is also the district headquarters.				
Justification: Taking over existing generators by KPLC.				
Justification: Supply electricity which is a basic necessity for industrial development.				
Justification: These are holding back the development of the town which is also the district headquarters.				
Justification: Taking over existing generators by KPLC.				
Category	1	2	3	
Instal supply lines	1	2	3	
Justification: Supply electricity which is a basic necessity for industrial development.				
Justification: These are holding back the development of the town which is also the district headquarters.				
Justification: Taking over existing generators by KPLC.				

Source: District Settlement Office, Hola, 1996.

The three departments (Physical Planning, Survey of Kenya and Land Administration/Settlement Department) carried out considerable work in the district by having development plans of most of urban centres drawn.

PROJECT AND PROGRAMME PRIORITIES

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Supply Lines and Installation of Generator at Hola	1	<p>Taking over existing generators by KPLC</p> <p>Justification There is no electricity at Hola and this is holding back the development of the town which is also the district headquarter.</p> <p>Funding Source: KPLC</p>
Extension of the National Grid System	2	<p>Instal supply lines.</p> <p>Justification Supply electricity which is a basic necessity for industrial development.</p> <p>Funding Source KPLC</p>

LANDS AND SETTLEMENT

Sectoral Policy Objectives

- The objectives of the sector are to:
- Ensure that the landless Kenyan are settled in available Government Trust Land.
- Safeguard public interest, ensure stable and orderly use of land, safeguard property values, and planning for future development for all human settlements (both rural and urban).
- Ensure creation of employment opportunities in all sectors of the economy, particularly in the rural areas.
- Ensure optimum utilization of land resources for all purposes to increase economic productivity.

Review of the 1994 - 96 Plan Period

Table 3.5

Achievements During 1994 - 1996

Activities	Bangale	Bura	Galole	Garsen	Madogo
No. of Plots Planned	-	-	3	5	4
Boundary Disputes	-	-	2	-	-
Plots Surveyed	-	1	3	-	-

Source: District Settlement Office, Hola, 1996.

The three departments (Physical Planning, Survey of Kenya and Land Adjudication/Settlement Departments) carried out considerable work in the district by having development plans of most of urban centres drawn.

District Specific Objectives and Targets

Objective: Assist the local authority and individuals wishing to develop unsurveyed land.

Target: Survey of urban plots at Hola, Garsen, Kipini, Bura and Madogo.

Objective: Prepare the district for land adjudication process.

Target: Consultation with county council and provincial administration officials on areas suitable for adjudication.

Study the "Gaza" structure and functions.

Construct an office for the land adjudication and settlement officers.

Objective: Prepare physical development plans for the district.

Target: Urban planning and development control will continue to be done in major urban centres of Bura, Bangale, Tarasaa, Madogo and Kipini.

Objective: Provision of office accommodation.

Target: Construct one office block for the department staff.

Objective: Perimeter surveying of Townships.

Target: Perimeter survey to be done for Hola, Garsen, Kipini, Bura and Bangale.

Source: District Settlement Office, Hola, 1986.

The three departments (Physical Planning, Survey of Kenya and Land Adjudication/Settlement Department) carried out considerable work in the district by having development plans of most of urban centres drawn.

PROJECT AND PROGRAMME PRIORITIES

A: On-going Projects

Project Name Location/Division	Description of Activities
-----------------------------------	---------------------------

- | | |
|---|--|
| 1. Survey of Urban Plots
District-Wide | Survey of plots at Hola, Garsen, Kipini,
Bura and Madogo.

Advise to individuals and county council |
|---|--|

Funding Source: GOK

- | | |
|--|---|
| 2. Land Adjudication and
Settlement Scheme
District Wide | Identification of the land adjudication
areas.

Establishment of office.

Consult county council and provincial
administration.

Liaison with "Gaza" (county council
elders) in the process. |
|--|---|

Funding Source: GOK

- | | |
|--|--|
| 3. Preparation of Physical
Development Plans
District-Wide | Urban planning and development control
within the urban centres.

Short and long-term plans preparation to
guide development in the district, prepare
advisory plans for alienation purposes. |
|--|--|

Funding Source: GOK

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Construction of Office Block Zubaki Location Galole Division	1	Initiate construction and complete the building. <u>Justification:</u> The ministry staff are currently accommodated in a crowded commercial building under rental terms. <u>Funding Source:</u> GOK
Adjudication and Settlement Exercise District-Wide	2	Adjudicate and settle the population in the declared adjudication areas. <u>Justification:</u> This is an arid area with vast potential for irrigation and grazing activities. Land pressure is increasing hence need for registration. <u>Funding Source:</u> GOK
Perimeter Survey of Townships Hola, Garsen, Kipini, Bura and Bangale Divisions	3	Perimeter surveying. <u>Justification:</u> Land for townships to be set apart so that council bye laws can be enforced effectively. Urban centres are growing into slums and squatter settlement. <u>Funding Source:</u> GOK

CO-OPERATIVE DEVELOPMENT

Sectoral Policy Objectives

- Strengthen the cooperative movement throughout ensuring their participation in faster growth of agriculture, livestock and small scale industrial enterprises such as Jua Kali.
- Ensure that co-operatives are well organized and protect the financial interests of members;
- Improve the management of co-operatives through effective training for managers, members and community leaders.
- Promote the contribution of co-operatives to the production, processing and marketing of major agricultural products particularly coffee, pyrethrum, maize, horticultural crops and dairy; and
- Ensure co-operatives engage in employment generating activities particularly in small-scale enterprises.

Review of the 1994- 1996 Plan Period

Construction of Office Block and Staff Quarters: The Office is complete. The staff quarters are about 50% complete.

Education and Training of Co-operators: Five member information days were held in the Tana Fruit Co-operative Society's area of operation covering Milalulu, Zubaki, and Ndera Locations to create awareness among members on the role of production and marketing of fruit products. Two committee members' seminars were held in the Ranching Societies at Ida-sa-Godana Ranching Co-operative Society.

Formation of New Co-operative Societies: Three multipurpose co-operative society were registered over the plan period.

Lack of inadequate share capital prevented many co-operative societies from taking off. Lack of transport prevented the co-operative officers from reaching all parts of the district. Transfers without replacements and the civil service Reform Programme did a big blow to the establishment and effectiveness of the department in its operations.

District Specific Objectives and Targets

Objectives: To carry out education seminars of all the newly elected committee members in all the societies in the District

Target: Hold a minimum of four education seminars per year.

- Objective:** To streamline the appointment of staff in the co-operatives and ensure that training opportunities are made available promptly.
- Target:** Hold three mobilization and sensitization seminars on industrial opportunities and training on co-operative policy.
- Objective:** Provision of office accommodation.
- Target:** To complete the district headquarters and staff housing for the ministry which are currently on-going.
- Objective:** To encourage consumer co-operatives to embark on the provision of farm inputs and implements for increased food production in the district.
- Target:** Form and assist in management of at least one consumer co-operative per year.
- Raise funds for the consumer co-operatives to provide farm inputs and credit to shareholders.
- Objective:** To encourage the ranching societies to streamline the marketing of livestock to stabilize prices and transportation of livestock.
- Target:** Train the ranch shareholders on market situations from time to time.
- Objective:** To encourage Tana River co-operative society to set up a fruit preservation and processing plant to reduce post harvest losses and increase value added.
- Target:** Raise funds to construct a fruit processing plant at Hola.
- Objective:** To encourage the multipurpose co-operative to establish fish processing plants and modern storage facilities for food crops of their members.
- Target:** Provide fish smoking kilns to all organized fishing cooperatives along the coast. Construct a fish landing facility at Kipini.
- Provide loans/credit to co-operators for simple coolers for mangoes and other horticultural products - at least 5 groups to benefit per year.
- Objective:** To promote diversification of activities in the Sacco Societies by engaging in employment activities particularly small scale enterprises.
- Target:** Liaise with the Trade Department and Social Services Department to assist a minimum of 5 groups per year. Establish and promote small scale industries of their choice.

Project and Programme Priorities

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Staff quarters Zubaki Location Galole Division	Construction and equipping of the staff houses.
<u>Funding Source:</u> GOK	

B. New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Horticulture Development Programme District-Wide	1	Mobilize community and sensitize them on liberalization. Accommodate more share capital Acquire transport. <u>Justification:</u> For better marketing of horticultural produce for higher incomes. <u>Funding Source:</u> GOK

Livestock Development Programme District-Wide	2	Mobilize for more capital. Register livestock marketing cooperatives.
		Training on marketing strategies.
		Justification: The pastoralist should market their own animals instead of relying on middlemen.
		Funding Source: GOK
Training of Co-operative Members	3	Training cooperative members on role of cooperatives.
		Justification: There is need to train society members in order to make cooperatives to compete effectively.
		Funding Source; GOK
Formation of New Co-operative Societies District-Wide	4	Formation of new cooperative.
Fruit Processing Plant Hola, Zubaki Location Galole Division	5	Establish a fruit processing plant.
		Justification; Reduce post-harvest loss and increase value added.
		Funding Source: GOK

OFFICE OF THE PRESIDENT

Sectoral Policy Objectives

- Ensure a slower growth rate of employment in the public sector.
- Increase the efficient utilization of existing staff and facilities, to achieve better rationalization of the relationship between personal emoluments and operational costs for public entities.
- Ensure that public sector training policies are understood.
- Improve the efficiency of the police force through training and better interaction between the force and the members of the public.
- Registration and issuance of National Identity Cards for Kenyans aged eighteen years and above.
- Registration and issuance of identity cards for civil servants.
- Registration and issuance of certificates of births and deaths.

Specific Objectives and Targets

Objective: Reduce employment growth rate in the public sector.

Target: Continue the awareness and sensitization on the Civil Service Reform Programme to the Civil Servants in the district.

Objective: Ensure that government policies are understood by the public.

Target: Conduct barazas by Chiefs and Assistant Chiefs (at least once is a month).

Objective: Improve the efficiency of the Police Force.

Target: Present for recruitment as many candidates as possible to increase the number in the district.

Construction of at least five more police posts as will be identified by the Security Committee.

Objective: Registration and issuance of National Identity cards.

Target: Issue all legible applicants of the identity cards with the cards.

Replace all the old identity cards with the new generation identity cards.

Objective: Registration of Civil Servants.

Targets: Register all civil servants working in the district who have not been registered and issue them with the civil servants identity card.

Objective: Register births and deaths in the district.

Target: Register all births and all deaths occurring in the district.

PROJECT AND PROGRAMME PRIORITIES

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Bangale Divisional Headquarters Mbalambala Location Bangale Division	1	Construct DO's Office, house and AP lines. Justification: It is a relatively new division and therefore requires the said facilities urgently. Funding Source: GOK
Bura Sub-District Headquarters Bura Locations Bura Division	2	Construct a sub-district Headquarters complex. Justification: Current premises belong to Irrigation and Settlement Project (BISP) Funding Source: GOK
Divisional Headquarters Zubaki Location Galole Division	3	Construct the DDO's office and offices for other divisional staff who are scattered in various buildings in Hola Town. Funding Source: GOK