



REPUBLIC OF KENYA

MAKUENI
DISTRICT DEVELOPMENT PLAN
1997-2001

OFFICE OF THE VICE-PRESIDENT AND MINISTRY OF
PLANNING AND NATIONAL DEVELOPMENT

FOREWORD

This District Development Plan was prepared by the District Departmental Heads 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 overall 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 theme of the plan "Rapid Industrialization for Sustained Development".

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.

Chapter Three: Lists in 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
Planning and National Development.

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John F. Kennedy
Chairman of the House of Representatives
Washington, D.C.

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The Department of the Interior has been advised by the Bureau of Land Management that the proposed action is in accordance with the National Environmental Policy Act of 1969 and the Federal Land Policy and Management Act of 1982.

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Department of the Interior
Bureau of Land Management
Washington, D.C.

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UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS
WASHINGTON, D. C.

REPORT ON THE
EFFECTS OF THE
AGRICULTURAL
ADJUSTMENT ACT
ON THE
ECONOMY OF THE
SOUTH

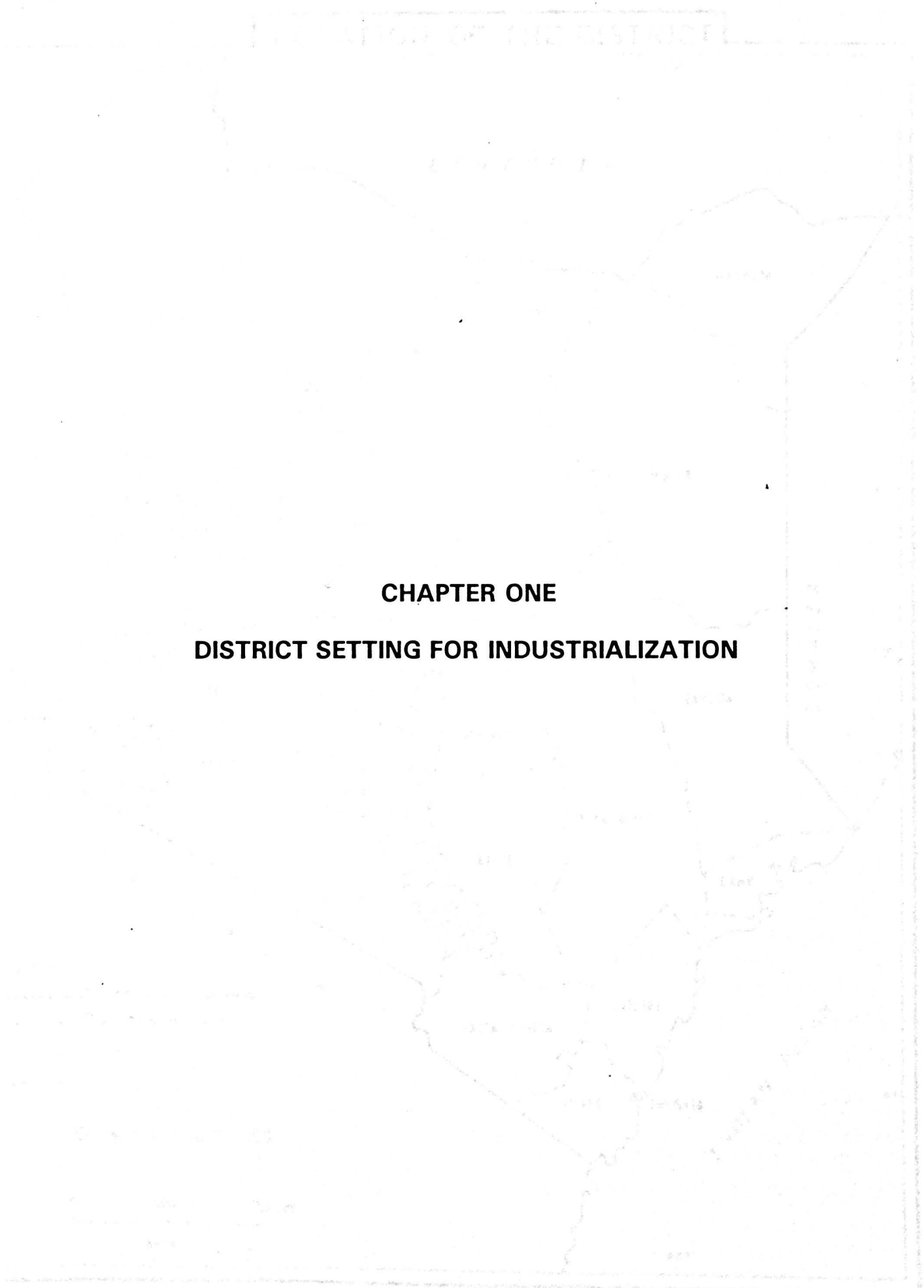
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W. H. HAYES

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1935

AGRICULTURAL ADJUSTMENT ACT
EFFECTS ON THE ECONOMY OF THE SOUTH

CHAPTER ONE
DISTRICT SETTING FOR INDUSTRIALIZATION



BRITISH

POSTAGE GUARANTEED BY THE POST OFFICE

LOCATION OF THE DISTRICT



GEOGRAPHICAL DESCRIPTION

This sub-section covers the district position and size, its topography and climate and the administrative and political units of the district.

Position and Size

Makueni District is one of the twelve districts that form the Eastern Province. It borders Kajiado District to the west, Taita Taveta to the south, Kitui to the east and Machakos District to the north.

The district lies between Latitude 1° 35' South and Longitude 37° 10' East and 38° 30' East. The width of the district in some parts ranges from 100 km in the north and less than 20km in the south. The district covers an area of 7,440 km². Table 1.1 shows the area of the district by division.

Table 1.1

Area of the District by Divisions

Division	Area in KM ²
Wote	254
Kathonzweni	859
Kalawa	378
Kisau	285
Kaiti	278
Mbooni	145
Tulimani	126
Kasikeu	256
Kilome	613
Mulala	217
Matiliku	619
Makindu	1,202
Kibwezi	399
Mtito-Andei	1,809
Total	7,440

Source: District Commissioner's Office, Wote, 1996.

Mtito-Andei, Makindu and Kathonzweni Divisions are the largest in that order whereas Tulimani, Mbooni and Mulala are the smallest. The vast divisions are situated in the low potential areas and are sparsely populated. The smaller divisions are situated in the high potential areas of the district and have higher population densities.

Topography and Climate

The district is generally low lying and rises from about 600m above sea level at Tsavo and reaches 1900m above sea level on the Kilungu Hills. The major land features comprise the volcanic Chyulu Hills which are situated along the south western border in Kibwezi Division.

Other features comprise granite rocks which rise to about 1100m above sea level forming Mbooni and Kilungu Hills to the west of the district. These hills receive good rain and support coffee, horticulture and livestock production. Afforestation is also done here.

To the south lies the low lying grassland plains which have great potential for ranching. The district is mainly drained by the only perennial River Athi and its tributaries of Kambu, Kiboko and Mtito - Andei. The Mbooni and Kilungu Hills are sources of a few perennial streams, but their flows become irregular as they move to the low lying areas. The Chyulu Hills and the low lying parts in the south slope gently towards Athi and drain their water there.

The district receives scarce rainfall which varies with altitude. The average annual rainfall is slightly over 1000mm in the hills which is received in two seasons. The distribution varies across the district.

The long rains occur in March/April while the short rains occur in November/December. The hilly masses to the north and central parts of the district influence climate in the surrounding areas. These areas are cool and wet and receive 800mm - 1200mm rainfall per year whereas the low lying areas are hot and dry and receive 200mm - 900mm rainfall per year.

Most of the district experiences high temperatures during the day and low temperatures at night. During the dry season between May and October, extreme heat is experienced in the low lying parts of the district while the high altitude areas experience cool temperatures. The high temperatures experienced in the low lying areas cause high evapo-transpiration.

Administrative and Political Units

The district has 14 administrative divisions and 52 locations. Table 1.2 shows the administrative units by division.

Table 1.2

Administrative Units by Divisions

Division	No. of Location	No. of Sub-Location
Wote	1	7
Kathonzweni	6	16
Kalawa	5	15
Kaiti	4	15
Mulala	5	20
Kilome	5	14
Kasikeu	5	11
Mbooni	3	9
Tulimani	1	6
Matiliku	5	14
Kibwezi	2	11
Mtito-Andei	4	9
Kisau	3	12
Makindu	3	13
Total 14	52	172

Source: District Commissioner's Office, Wote, 1996.

There are five parliamentary constituencies in the district. These are Makueni, Kilome, Mbooni, Kibwezi and Kaiti. The constituency boundaries go beyond the divisional boundaries as shown on Table 1.3 and in Map 2.

Table 1.3**Distribution of Divisions Amongst Constituencies**

Constituency	Divisions
Makueni	Wote Matiliku Mulala Kathonzweni Kalawa
Mbooni	Mbooni Tulimani Kisua
Kibwezi	Kibwezi Makindu Mtito-Andei
Kilome	Kilome Kasikeu Kaiti
Kaiti	

Source: District Commissioner's Office, Wote, 1996.

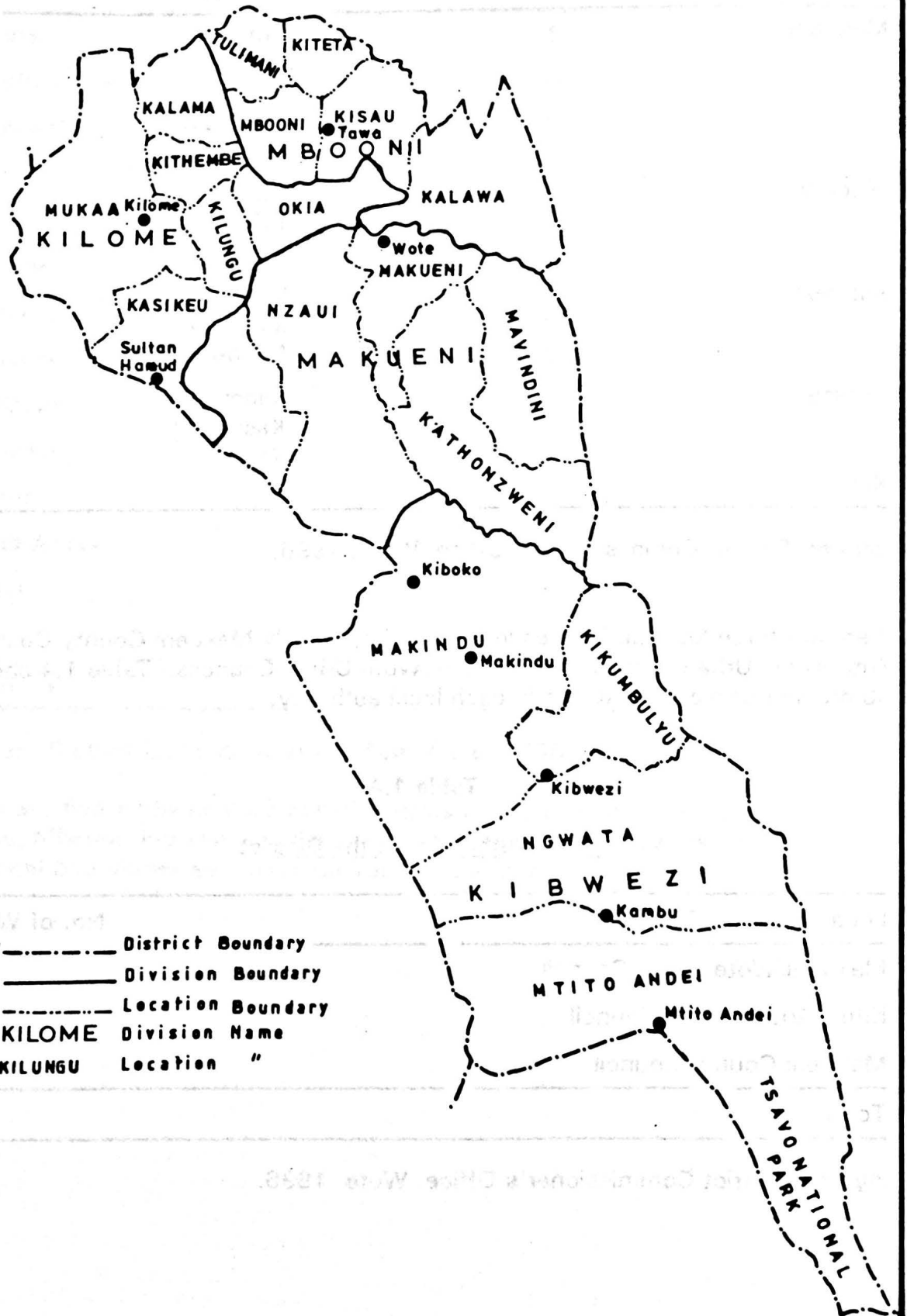
There are three local authorities in the district, namely Makueni County Council, Mtito Andei Urban Council and Makueni/Wote Urban Councils. Table 1.4 shows the number of electoral wards in each local authority.

Table 1.4**Local Authorities in the District**

Local Authority Type	No. of Wards
Makueni/Wote urban Council	6
Mtito-Andei Urban Council	6
Makueni County Council	20
Total	32

Source: District Commissioner's Office, Wote, 1996.

MAKUENI DISTRICT ADMINISTRATIVE BOUNDARIES



- - - - - District Boundary
 _____ Division Boundary
 - - - - - Location Boundary
KILOME Division Name
KILUNGU Location "

POPULATION PROFILES

This section provides the setting for analysis of the effects of population on development in the district. The profiles are given in terms of population size, population structure, distribution, density and urban population.

Population Size

In 1989, the district had a population of 636,994. It is projected to increase to 815,607, 867,596 and 922,902 in 1997, 1999 and 2001 respectively. Table 1.5 shows district population projected by age cohort. The population according to 1989 census was growing at the rate of 3.09% per year and is expected to continue at this rate throughout the plan period. The rapid increase of the district's population is partly attributed to immigration of people from neighbouring districts onto the settlement schemes in the district.

Table 1.5

District Population Projections

Age Group	1989	1997	1999	2001
0-4	114,271	146,313	155,639	165,560
5-9	109,586	140,314	149,259	158,772
10-14	94,766	121,338	129,073	137,301
15-19	76,127	97,473	103,686	110,296
20-24	48,810	62,496	66,480	70,718
25-29	38,194	48,904	52,021	55,337
30-34	30,418	38,947	41,430	44,071
35-39	25,465	32,605	34,684	36,895
40-44	20,125	25,768	27,411	29,158
45-49	15,670	20,063	21,343	22,703
50-54	13,516	17,306	18,409	19,583
55-59	10,081	12,907	13,730	14,605
60-64	12,667	16,219	17,252	18,352
65-69	7,922	10,144	10,789	11,478
70-74	6,136	7,857	8,357	8,890
75-79	5,488	7,027	7,474	7,951
80+	7,167	9,177	9,762	10,384
ANS	585	749	799	847
Total	636,994	815,607	867,598	922,902

Source: District Planning Unit, Wote, 1996.

Population Structure

Table 1.6 shows the population structure of the district for the period 1989-2001.

Table 1.6

Age/Sex Projections

Age Group	1989 Male	1989 Female	1997 Male	1997 Female	1999 Male	Female	2001 Male	2001 Female
0 - 4	57,524	56,747	73,654	72,659	78,349	77,290	83,343	82,217
5 - 9	55,419	54,167	70,958	69,356	75,482	73,777	80,293	78,479
10 - 14	47,774	46,992	61,170	60,169	65,069	64,004	69,217	68,084
15 - 19	38,938	37,189	49,856	47,617	53,034	50,652	56,415	53,881
20 - 24	21,938	26,872	28,089	34,407	29,880	36,600	31,785	38,933
25 - 29	15,986	22,208	20,468	28,435	21,773	30,248	23,161	32,176
30 - 34	13,644	16,774	17,470	21,477	18,583	22,847	19,768	24,303
35 - 39	11,253	14,212	14,408	18,197	15,327	19,357	16,304	20,591
40 - 44	9,059	11,066	11,599	14,169	12,339	15,072	13,125	16,033
45 - 49	6,560	9,110	8,399	11,664	8,935	12,408	9,504	13,199
50 - 54	6,204	7,312	7,944	9,362	8,450	9,959	8,989	10,594
55 - 59	4,548	5,533	5,822	7,084	6,194	7,536	6,589	8,016
60 - 64	5,227	7,440	6,693	9,526	7,119	10,133	7,573	10,779
65 - 69	3,722	4,200	4,766	5,378	5,069	5,720	5,393	6,085
70 - 74	2,862	32,74	3,665	4,192	3,898	4,459	4,147	4,743
75 - 79	2,794	2,694	3,577	3,449	3,805	3,669	4,048	3,903
80+	3,311	3,856	4,239	4,937	4,510	5,252	4,797	5,587
Age Nos	268	317	343	406	365	432	388	459
Total	307,031	329,963	393,122	422,485	418,182	449,416	444,839	478,063

Source: District Planning Unit, Wote, 1996.

Majority of the district population were females as shown in Table 1.6. Females dominated males especially in 20 - 74 age groups. This female dominance in the population is projected to prevail over the plan period. Most of the district's population was youthful (0 - 19 years) and comprised 62% of the district's total population in 1989. During the plan period the youthful population is projected to maintain its dominance.

Table 1.7 shows populations for important selected age groups.

Table 1.7

Population Projections for Selected Age Groups

Age Group	1989		1997		1999		2001	
	Male	Female	Male	Female	Male	Female	Male	Female
6 - 13 (primary)	81,856	80,548	104,808	103,134	108,066	109,708	118,596	116,701
14 - 17 (Secondary)	34,109	33,123	43,664	42,411	45,021	45,114	49,408	47,990
15 - 49 (Female)	-	137,431	-	175,966	-	187,184	-	199,116
15 - 59 (Labour Force)	128,130	150,276	164,055	192,412	174,515	204,679	185,640	217,726

Source: District Planning Unit, Wote, 1996.

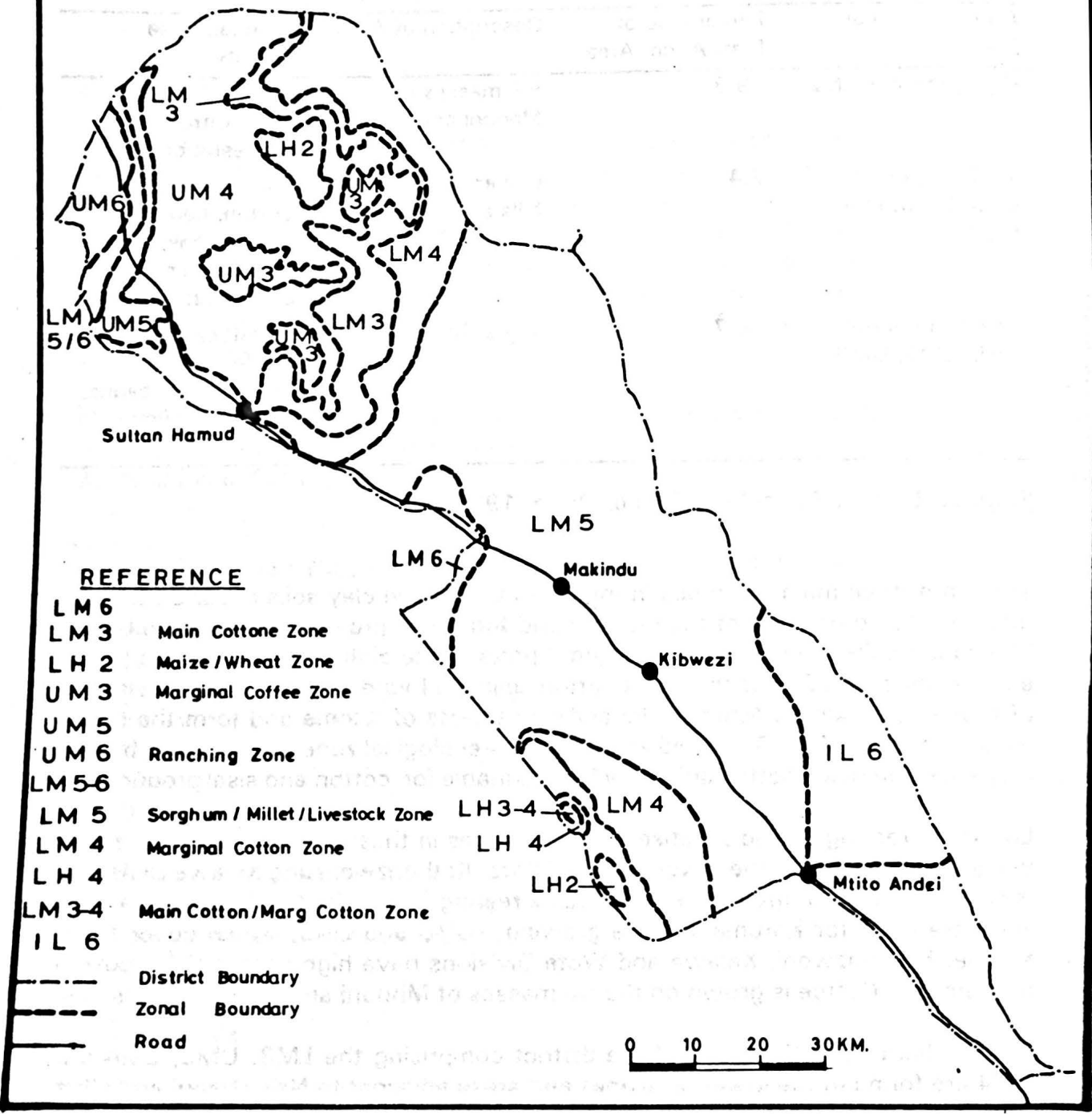
Age Group 6 - 13 (Primary): In 1989 there were 162,404 primary school going children of which 81,856 were males while 80,548 were females. This population is projected to increase to 207,942 in 1997, 217,774 in 1999 and 235,297 in 2001 as shown in Table 1.7. There is therefore need to provide more educational facilities for primary school going children like classes, workshops and secondary schools. There is also a need to construct more vocational centres to cater for drop outs in order to provide skills necessary for industrial development and for self employment.

Age Group 14-17 (Secondary) As regards secondary school going population, there were 67,232 of which 34,109 were males and 33,123 were females in 1989. This population is projected to increase to 86,075, 90,135 and 97,398 in 1997, 1999 and 2001 respectively. This calls for increased facilities like secondary schools, workshops and training centres to impart skills as this group will soon be joining the labour market. There is also need to increase employment opportunities.

15 - 49 (Female Fertility): This group comprise the most fertile group in the population. In 1989 there were 137,431 females in this group. This population is projected to increase to 175,967, 187,184 and 199,116 in 1997, 1999 and 2001 respectively. There is need to institute measures to control fertility among the group so that resources available can be directed to productive activities and to promotion of industrialization in the district.

MAKUENI DISTRICT

AGRO-ECOLOGICAL ZONES



REFERENCE

- LM 6
- LM 3 Main Cotton Zone
- LH 2 Maize /Wheat Zone
- UM 3 Marginal Coffee Zone
- UM 5
- UM 6 Ranching Zone
- LM 5/6
- LM 5 Sorghum / Millet /Livestock Zone
- LM 4 Marginal Cotton Zone
- LH 4
- LM 3-4 Main Cotton/Marg Cotton Zone
- IL 6

- District Boundary
- - - - - Zonal Boundary
- Road



Water Resources

Surface water is scarce in the district. It is mainly derived from rivers, springs and dams. The district has a few perennial rivers most of which drain into River Athi. These are Thwake, Tawa, Kiboko, Makindu, Muoni, Kaiti, Kiangini, Mbanya, Mtito Andei, Kibwezi, Kambu, Thange and Uani rivers. It is only Mbooni and Kilungu Hills that have good surface water supplies. Other areas with high potential for surface water are Luani, Kitondo and Chulu Hills. The Athi River provides a perennial source of surface water along its course. Irrigation of horticultural crops takes place along the Athi and in the seasonal streams of Kibwezi.

Ground water is not uniformly distributed due to varying rock formations. In terms of ground water potential, the area around Chyullu Hills has more potential, due to volcanic bed rocks. Other areas underlain by metamorphic rocks like Kalawa and Makindu, have low yields, while boreholes in Kasikeu, Kibwezi, Mtito Andei have good yields though the water is saline.

Emali and Sultan Hamud areas get their water from Nol Turesh pipelines and there is adequate water in these two towns to support industries. In the rural areas, people use untreated water from rivers, springs and dams while others have to walk long distances of between 4 - 8km in search of water. The distances increase in the dry seasons when the seasonal rivers dry up, particularly in the areas not served by perennial rivers.

Potential for minor irrigation exists along rivers and streams like Thwake, Kambu, Kiboko and Kibwezi. However, this potential has not been fully exploited.

Forestry

The district has five gazetted forests namely Mbooni, Kilungu, Kibwezi, Nthangu and Makuli which cover a total area of 15,297.8 ha. of which natural forests cover 12,250.3 ha. and forest plantation cover 3,047.5 ha. The forests provide raw materials for the furniture and construction industries in the district. Non-gazetted forests include Mbuĩ-Nzau forest, Ndombi and Kakots forest. The common tree species are cyprus and pine and several indigenous trees.

In a year some 2,650m³ of timber and 18,916 running meters of firewood are produced in the district. Currently, the district is self sufficient in timber and firewood production and exports the surplus to neighbouring districts of Kitui, Taita Taveta, Machakos and Mombasa. Many carpentry workshops have been started in the market centres following the high yields of timber from these forests, and the potential for further development exists which can be judiciously exploited during the plan period.

Commercial Minerals and Materials

No commercial minerals have been discovered in Makueni District. However, the district has plenty of building sand which is harvested along rivers and streams. The sand is used in the building and construction industries in the district and in Nairobi. There exists great potential in exploiting the sand to make roofing tiles and concrete blocks. Sand harvesting activities are controlled by the local authorities of Wote Mtito - Andei and Makueni.

Soils found in some parts of the district are used in brick making. There are some limestone deposits which can be exploited for cement manufacture.

Tourist Attractions

Due to the presence of wildlife around the Chyullu Hills, the Tsavo East/West and Kiboko Game Reserves, the district receives a good number of tourists. The market centres along the Nairobi - Mombasa highway such as Mtito - Andei, Mbui Nzua, cater for the tourist. The common animal species found here are elephants, lions, giraffes, gazelles, buffaloes and zebras. Tourism has created employment opportunities because of the people's involvement in handicrafts activities.

The Kiboko Caves and Ngau Rangelands have potential for tourist development. The top of Chyullu Hills, just like the view of Mt. Kilimanjaro and the Coastal plains, are ideal for site seeing.

Fisheries

Fisheries potential in the district is low because of the limited surface water resources. However, some potential exists in the perennial rivers of Athi and its tributaries and dams.

RESOURCE EXPLOITATION

This sub-section describes how the exploitation of the economic potential given in the preceding section, and how it has been used to provide a livelihood for the district. The sub-section covers agricultural activities, livestock production activities other natural resource exploitation, industrial activities, commerce trade and services.

Agricultural Activities

Crop farming in the district is mainly for subsistence purposes. The major food crops grown are maize, beans, pigeon peas and cow peas. The main cash crops

grown in the district are coffee and cotton. Coffee is grown in the highland while cotton is grown in the low land areas.

Irrigated horticultural crop farming is also undertaken but in small holdings on individual farmer basis.

The horticultural crops production is mainly for domestic consumption though surplus is exported. The most commonly grown horticultural crops are tomatoes, kales, onions, beans, biringanyas and okra.

Table 1.11 shows the common crops grown in the district, area under production and their yield.

Table 1.11

Crop Production Trends 1992 -1995

Crops	1992			1993			1994			1995		
	Ha.	Average Yield (Ton/Ha)	Yield (Ton)	Ha.	Average Yield (ton/Ha)	Yield (Tons)	Ha.	Average Yield (Ton/Ha)	Yield (Tons)	Ha.	Average Yield (Ton/Ha)	Yield (Tons)
Maize	89,446	0.6	53,667	72,905	1.1	80,196	143,500	0.565	81,042	13,700	0.584	80,000
Sorghum	8,070	0.55	4,438	6,685	0.4	2,674	5,562	0.45	2,503	8,316	0.3	2,500
Millet	3,322	0.55	1,827	1,810	0.45	815	1,894	0.5	947	7,942	0.3	2,200
Beans	47,700	0.45	21,465	49,000	0.55	26,950	71,720	0.6	43,032	68,200	0.41	27,800
Pigeon Peas	20,700	0.73	15,110	17,150	0.6	10,290	55,660	0.65	36,179	29,000	0.43	12,400
Cow Peas	42,280	0.45	19,026	35,084	0.5	17,542	47,408	0.5	23,704	39,100	0.33	12,750
Green Grams	2,111	0.35	74	186	0.4	75	1,318	0.4	527	750	0.4	300
Cassava	298	9.5		124	9		399		3,591	460		4,000
S/Potatoes	695	9.5	6,600	750	9	6,750	595	9	5,335	500	10	5,000
Cotton	3,200	0.35		4,500	0.3		992		2,976	6,250		5,000
Coffee	-	-	-	1,805	1.6	2,888	1,805	1.5	2,708	1,810	2.9	5,249
Castor	10	12	120	15	9	135	143	9	1,287	250	9	2,250
Irrigated Horticultural Crop	-	-	-	-	-	-	2,000	-	-	2,000	-	-

Source: District Agriculture Office, Wote, 1996.

Table 1.12 indicates that there is potential for increasing production of staple foods maize, beans pigeon peas and cow peas if land under cultivation is increased. Currently, yields per hectare are low and there is a need to increase the by between 30% - 50% if crop potential per hectare is to be realized. The need to increase production of these staple crops arises from the fact that 60% of households depend on these crops as a source of income. This increase can also generate the surpluses which can be used for the development of non-farm agro-based industries.

The potential for production of sorghum, millet, green grams, cassava and sweet potatoes is also not realized. Castor and cotton, which also have great potential for production and provision of industrial raw materials have not been realized due to poor marketing and management systems. The only cotton ginnery in the district stalled due to poor management by the Cotton Board of Kenya, resulting in loss of interest in the growing cotton.

In coffee production, the district produces only 75% of the potential yield. Generally, unreliable rains have contributed greatly to fluctuations in crop yields in the districts. The district has an irrigation potential of 4,500 ha. though the utilized potential is less than 50%. If this potential is exploited, it could assist in the increased production of crops especially horticultural produce in the drier, marginal areas, which can further stimulate the establishment of small scale agro based industries in the district. These would assist in diversifying the agricultural resource base of these areas and open up employment opportunities in the industries.

Table 1.12 shows the number of small farms per division, household per km² and crops produced.

(The content of Table 1.12 is extremely faint and illegible in the provided image. It appears to be a table with multiple columns and rows, likely detailing agricultural data across different divisions.)

Table 1.12**Small Farm Sector**

Division	Farm Area Km2	Rural HH	HH per Km2	No. of S/Holdings	Main Food Crops	Cash Crops
Wote	254	3,970	15	3,370	Maize, beans, pigeon peas, cow peas	cotton, green grams
Kathonzweni	859	11,031	13	8,825	Maize, beans, peas, cow peas	cotton, green grams
Kalawa	378	4,713	12	3,864	Maize, beans, cassava, sweet potatoes	cotton, green grams
Mbooni	145	10,256	70	4,405	Maize, beans cassava, sweet potatoes	coffee, banana, horticulture
Tulimani	126	6,118	48	4,405	Maize, beans, pigeon peas, cow peas	coffee, banana, horticulture
Kisau	285	9,663	34	7,730	Maize, beans, pigeon peas, cow peas	coffee, banana, horticulture
Makindu	1,202	6,880	6	6,192	Maize, beans, pigeon peas, cow peas	horticulture, green grams, cotton
Matiliku	619	6,828	16	5,875	Maize, beans, pigeon peas, cassava, sweet potatoes	horticulture, bananas
Kaitu	278	1,4275	52	10,706	Maize, beans, pigeon peas, cassava	coffee, horticulture
Mulala	217	7,478	34	5,982	Maize, beans, pigeon peas, cassava, sweet potatoes	coffee, bananas
Kilome	644	14,105	22	10,578	Maize, beans, cassava, sweet potatoes	coffee, horticulture, bananas
Kibwezi	1,198	6,288	6	5,660	Maize, beans, pigeon peas, cow peas	cotton, green grams, horticulture
Mtito Andei	810	19,406	24	15,525	Maize, beans, pigeon peas, cow peas	horticulture, cotton, green grams
Kasikeu	225	7,489	33	6,366	Maize, beans, pigeon peas, cow peas	cotton

Source: District Agriculture Office, Wote, 1996.

Table 1.12 shows small-farm sector production of the main food and cash crops per division in the district. The table indicates that Mbooni, Kaiti and Tulimani Divisions have the highest number of households growing food and cash crops in the district whereas Makindu, Kibwezi and Kalawa Divisions have the lowest number per square kilometre growing both food and cash crops. The main reason for this is that Mbooni, Kaiti and Tulimani are high potential divisions whereas Makindu, Kibwezi and Kalawa are low potential divisions with unfavourable conditions for growing food and cash crops. Whereas Mbooni has 70 households

per square kilometre engaged in growing food and cash crops, Makindu has only 6 households per square kilometre growing the crops.

Livestock Production Activities

Livestock is a major economic activity in the district. The livestock reared include beef and dairy cattle, sheep, goats, rabbits, pigs and bees.

The district is divided into high, medium and low livestock production potential zones. The high potential areas are located within the hill masses of Mbooni, Kilome and Kaiti Division while the medium zone covers Wote, Matiliku, Kisau and Mulala Divisions. The low potential zone covers Kalawa, Makindu, Kibwezi and Mito - Andei Divisions.

The livestock products realized in order of economic importance are milk, beef, hides and skins, meat from small stock (sheep and goats), honey, chicken and eggs. The bulk of the milk is produced in the high potential areas and the rest in both the medium and the low potential areas. For all the products except for milk, there exists no organized marketing system.

Product	High Potential Areas	Medium Potential Areas	Low Potential Areas
Milk	10,000	5,000	2,000
Beef	5,000	3,000	1,000
Hides and skins	2,000	1,000	500
Meat from small stock	1,000	500	200
Honey	500	200	100
Chicken	200	100	50
Eggs	100	50	20

Table 1.1: Livestock Production in the District, 1970

Table 1.2 shows small farm sector production of the main food and cash crops per division in the district. The table indicates that Mbooni, Kilome and Kaiti Divisions have the highest number of households growing food and cash crops in the district whereas Matiliku, Kisau and Mulala Divisions have the lowest number per square kilometre growing both food and cash crops. The main reason for this is that Mbooni, Kilome and Kaiti Divisions are high potential livestock areas while Matiliku, Kisau and Mulala are low potential livestock areas. This is due to the fact that Mbooni, Kilome and Kaiti Divisions have favourable conditions for growing food and cash crops. Whereas Mbooni has 10 households

Table 1.13 shows livestock production per division in the district.

Table 1.13

Livestock Production by Division

Division	Area Km ²	H/Hold	HH/Km ²	Main Livestock	Livestock Products
Wote	1,491	1,8459	12.4	Dairy, beef cattle, sheep, goat, poultry, bee keeping	milk, beef, hides and skins, honey, eggs and chicken
Mulala	217	7,003	32.3	Dairy, beef cattle, sheep, goat, poultry, bee keeping	milk, beef, hides and skins, honey, eggs and chicken
Matiliku	619	9,204	14.9	Dairy, beef cattle, sheep, goat, poultry, bee keeping	milk, beef, hides and skins, honey, eggs and chicken
Kisau	285	9,048	31.8	Dairy, beef cattle, sheep, goat, poultry, bee keeping	milk, beef, hides and skins, honey, eggs and chicken
Kilome	869	20,220	23.3	Dairy and beef cattle, sheep, goats, poultry	milk, beef, sheep and goats hides and skin, eggs
Mbooni	271	15,332	56.6	Dairy and beef cattle, sheep, goats, poultry	milk, beef, sheep and goats hides and skin, eggs
Kaiti	278	13,367	48.1	Dairy and beef cattle, sheep, goats, poultry	milk, beef, sheep and goats hides and skin, eggs
Makindu	1,202	6,443	5.4	Beef cattle, sheep and goats, poultry and bee keeping	beef, sheep and goats, meat honey and eggs, hides and skins
Kibwezi	2,208	24,058	10.9	Beef cattle, sheep and goats, poultry and bee keeping	beef, sheep and goats, meat honey and eggs, hides and skins
Total	7,440	123,134			

Source: District Veterinary Office and District Livestock Production Office, Wote, 1996.

Mbooni, Kaiti and Kilome Divisions have the highest number of household, per square kilometre engaged in livestock production whereas Kibwezi, Wote and Matiliku Divisions have the lowest number. These divisions with high concentration of livestock have pasture and water available due to better rainfall

received than the lower divisions. In the high potential areas of the district agro based industries can be established as raw materials from livestock and agricultural sectors are readily available. Some of the viable industries would be milk and meat processing, tanneries as well as fruit and horticultural crops processing.

Table 1.14 shows livestock and their population for the period between 1992-1995.

Table 1.14

Livestock Population, 1992 - 1995

Type of Livestock/Year	1992	1993	1994	1995
Dairy Cattle	25,075	25,180	27,700	30,700
Beef Cattle	183,000	183,000	219,830	228,000
Sheep	80,000	81,000	104,900	116,900
Goats	215,900	215,000	264,500	286,000
Exotic Poultry	9,090	8,400	14,070	14,070
Local poultry	255,780	539,500	569,500	597,970
Rabbits	5,460	5,600	10,400	12,060
Pigs	12	24	10	52
Bees (KTBH)	2,882	2,790	2,620	2,689
Bees (Log Hives)	158,272	159,500	160,100	161,200

Source: District Livestock Production Office, Wote, 1996.

As shown in the table the dairy and beef cattle populations increased steadily between 1992 and 1995. The same trend was noted for sheep, goats and rabbits. This is due to a large local demand for beef, milk and mutton. The population of poultry went down from 9,090 to 8,400 for commercial poultry and increased to 14,070 in 1994 and remained the same in 1995. The main reason for this is the poor quality of chicken feed for commercial poultry which lead to low returns. The number of local poultry increased steadily between 1992 and 1995.

The bees and pigs population fluctuated over the period under review. The main reason for this was lack of organized market for pigs products and honey. The population of bees increased steadily as the producers had organized themselves into co-operative societies for better marketing of their honey.

Table 1.15 shows the sales of livestock and livestock products during the period 1992-1995.

Table 1.15**Quantities of Sale of Livestock and Livestock Products**

Year	No. Livestock			Livestock Products (kgs)				
	Cattle	Goat Sheep	Poultry	Milk	Hide	Skins	Honey	Bees
1992	2,371	547	-	258,521	3,359	11,272	14,280	-
1993	7,593	11,876	6,230	2,341,597	50,877	120,232	280,700	6,079
1994	6,486	21,674	15,550	1,919,637	42,487	103,365	230,500	18,000
1995	4,207	9,112	6,520	2,093,463	44,682	120,082	279,800	55,960

Source: District Livestock Production Office and District Veterinary Office, Wote, 1996.

The sales of cattle increased between 1992 and 1993 (from 2,371 to 7,593 cattle) but dropped gradually between 1993 through to 1995. The main reason for this drop is the 1994/95 drought which had adverse effects on cattle rearing resulting in deaths and thereafter reduced sales due to restocking after the drought. The sale for goats/sheep increased steadily over the period 1992-95 from 547 to 9,112 since sheep/goats are not affected by the drought conditions. The sales of poultry increased between 1993 and 1994 (from 6,230 to 15,550) but dropped drastically in 1995 to 6,520 due to change in quality of feeds in the market. This discouraged poultry farmers. Milk sales assumed the same trend as cattle sales due to the 1994/95 drought. In contrast, the number of hides soared between 1992 and 1995 from 3,359 to 44,682. The sale of skins increased steadily over the period as the sheep/goats rearing was unaffected over the period. The sales of honey fluctuated over the period due to lack of organized market for honey but the sale of bees wax increased steadily from 6,079 to 18,000 kg. and then suddenly dropped to 55,960 in 1995 due to low production of honey in 1995.

If the district can ensure increased sustainable levels of livestock production, they can form the basic of lucrative processing activities some of which could be linked backward to the agricultural sector e.g. animal feeds and honey processing.

Other Natural Resource Exploitation

Forestry and Agro - Forestry: The five gazetted forests of (Nthangu, Mbooni, Makuli, Kibwezi, and Kilungu produce 2650m³ of timber and 18,916 running metres of fuelwood per year for use in the construction industry and for energy in the homes. Forestry earns the district K£45,710 per year.

Farmers are encouraged to grow woodlots in their farms for timber, poles, fuel wood, fencing and also for soil conservation. The activity has assumed an

increasing importance in the light of the fuel wood shortages due to increased demand which has exerted pressure on the existing forest resources.

The area under agro-forestry in the district include the high potential areas of Mbooni, Kisau, Kilome, Kaiti, parts of Matiliku and Mulala Divisions. In the five year plan period emphasis will be directed towards the ASAL areas where existing forest cover is under threat due to the prevalence of charcoal burning.

Fisheries: Makueni District does not have large natural water bodies and therefore fishing activities in the district are limited to culture fishing. This refers to introduction of fingerlings to water bodies tending them to maturity and then harvesting them.

There are a few permanent rivers and streams which are currently being exploited for culture fishing. The rivers are found in Kibwezi, Makindu and Mito-Andei Divisions and in Mbooni and Kilungu Divisions.

Dams constructed by either the Government, NGO's or individuals are also being exploited for production of fish. So far only 20% of the fishery potential in the district has been realized. 28 fish ponds and 15 dams have been stocked with fish where 7,000kg of fresh fish are harvested per year. Currently, the harvested fish is locally consumed. If the potential is fully realized, fish could become a raw material for industrial purposes such as animal feed, fish canning etc thus providing employment and introduce an alternative source of protein to the district.

Industrial Activities

The district has six established manufacturing concerns, four of them producing confectionery products and the other two producing fruit products. There is also a cottage industry dealing with handicrafts in Makindu Division. The other industrial activities include 218 posho mills 102 carpentry shops, 192 tailoring enterprises and 25 metal works units. These activities are spread out in the major urban and market centres in the district. The established manufacturing concerns are located along the Mombasa - Nairobi highway where infrastructural facilities are fairly well developed.

During the Plan Period, cotton will be revived as it can be a key industry in the district. The revitalization of the cotton growing will enable provision of adequate raw materials for the development of textile industries in the district. Apart from supplying raw materials to textile industries, the cotton will produce seeds which would be used in oil processing industry and in the manufacturing of animal feeds and soap.

Proper management of the honey refinery can be of value produced in the district as it can stimulate more production. The Makindu area along the Nairobi-Mombasa

road is renowned for honey production and sale and enhanced production can step up the development of additional refineries for processing the honey.

The district has great potential in the establishment of industries such as roofing tiles and bricks, fruit processing (mangoes and oranges) marble quarrying, cotton ginning, bakery, handicraft, tannery, meat and milk processing. Potentials for these industries have not been fully exploited, and if this is done, it would go a long way in solving some of the key problems of the district such as unemployment and low levels of income.

Commerce Trade and Services

Formal Sector: There are numerous market centres in the district with over 5,000 licensed businesses, which form the backbone of the commercial activities in the district. The activities include both commercial and services such as wholesale, retail, catering and transport.

Most of the formal sector activities take place at market centres located along the Mombasa-Nairobi Highway, such as Salama, Sultan Hamud, Emali, Simba, Kibwezi, Mito-Andei and Machinery. The formal sector provides employment opportunities to approximately 10,000 people and generates about KSh.183 million per year.

Informal Sector: The informal sector activities in the district include handicrafts (carvings & ciondo making), barbers, charcoal burners, motor vehicle repairs and electrical, electronic repairs, tailoring, carpentry, and blacksmiths among others. The sector provides employment opportunities to approximately 2,798 people and generates incomes to the tune of KShs.40.3 million per year.

SOCIO - ECONOMIC INFRASTRUCTURE FOR INDUSTRIALIZATION

Infrastructure can play a key role in the industrialization of district. In pursuit of this, the district will allocate more of its resources to development of the communication network, water facilities, energy supply, education and health facilities. This section deals with the basic infrastructure which is required to support industrialization in the district.

Communication Network

The district has a total of 1,593 kilometres of classified and unclassified roads, out of which 271 kilometres is of bitumen, 447.9 kilometres is gravelled and 874.1 kilometres is of earth surface. The only international trunk road in the district is the Nairobi - Mombasa Road, which covers a length of 220.4 kilometres. All the primary roads in the district are of gravel type and include Emali - Mukuyuni - Mumandu Road and the Kaumoni junction - Wamunyu Road while the Salama - Kiboko Road is the only tarmacked secondary road in the district. The majority of

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the roads in the district are of class E and above, which consists of both minor and special purpose roads making up 64% of the district's total road network. The special roads mainly serve institutions and private homes. Table 1.18 shows the various types of roads, their lengths and the maintaining agencies.

Table 1.16

Road Length of Classified Roads by Surface Type

Class of Roads	Surface Type			Total Km	Maintaining Agent
	Bitumen	Gravel	Earth		
International Trunk Roads	220.4	-	-	220.4	Public Works
National Trunk Roads	3.0	24.8	-	27.8	Public Works/Country Council
Primary Roads	-	152.9	-	152.9	Public Works
Secondary Roads	47.6	85.5	47.5	180.6	Public Works
Minor Roads + SPR + E+	-	184.7	826.6	1,011.3	Admin./Beneficiaries, NGOs
Total	271.0	447.9	874.1	1,593.0	

Source: District Works Office, Wote, 1996.

SPR - Special Purpose Roads
E+ - Class E and above

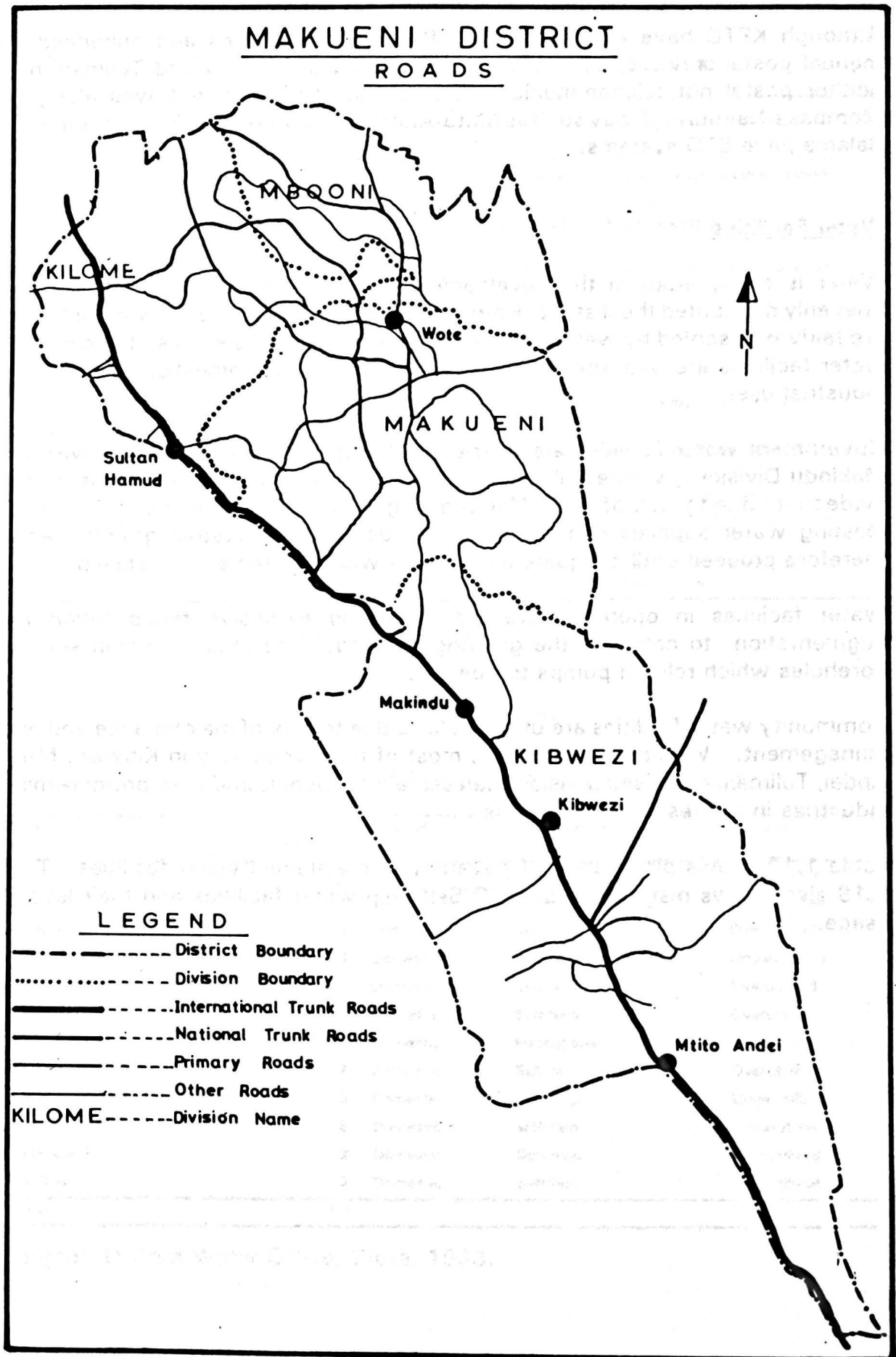
Most roads are under-utilized because of their poor state. During the rainy seasons, they are impassable due to their muddy conditions and flooding at crossing points. The poor state of these roads hinder transportation of goods, and services within and outside the district.

Makindu, Mtito - Andei and Kibwezi Divisions are poorly served by roads network thus retarding economic activities. At present, most of the roads in these divisions are from the main Nairobi - Mombasa highway to the railway line and have an average length of between 4 - 5 km. Construction of new roads is required in order to open up the divisions thereby facilitating the smooth transportation of farm produce such as horticulture and livestock products to the market. Properly defined roads are also lacking in National Parks that fall in Kibwezi, Mtito - Andei and Makindu Divisions. Improvement of these roads is necessary in order to enhance tourism and thus generate incomes in the district.

In the high potential divisions of Mbooni, Kilome, Kaiti and Tulimani, development activities have been held back by poorly road network. Most roads are impassable particularly during rainy seasons and thus hinder transportation of produce and farm inputs.

MAKUENI DISTRICT

ROADS



Postal and telecommunication services do not adequately serve the district. Although KPTC have expanded Wote Post Office services and enhanced the manual postal services, other divisions like Kalawa, Kasikeu and Tulimani have neither postal nor telecommunication services. Only a few towns along the Mombasa-Nairobi Highway such as Mtito-Andei, Emali, Makindu, Sultan Hamud and Salama have STD systems.

Water Facilities

Water is a key input in the development of the district. Water facilities are unevenly distributed the district. However, divisions like Mulala, Kibwezi and Wote are fairly well served by water supplies. Since the district is semi arid, most of the water facilities are over-utilized because they cater for domestic, livestock and industrial uses.

Government water facilities are over-utilized with the exception of Kibwezi and Makindu Divisions, where utilization is normal. Water supply in Wote is grossly inadequate due to lack of power for pumping. Due to increase in population, the existing water supplies can not meet the demand. Industrial growth cannot therefore proceed until adequate and reliable water systems are installed.

Water facilities in operation are old and need extensive rehabilitation and augmentation to cater for the growing demand. The most common supplies boreholes which rely on pumps to operate.

Community water facilities are under-utilized due to lack of maintenance and poor management. With more education, most of them especially in Kibwezi, Mtito-Andei, Tulimani and Kisau Divisions can serve more people and even promote minor industries in the respective divisions.

Table 1.17 shows distribution of government maintained water facilities. Table 1.18 also shows distribution of NGO/Self help water facilities and their level of usage.

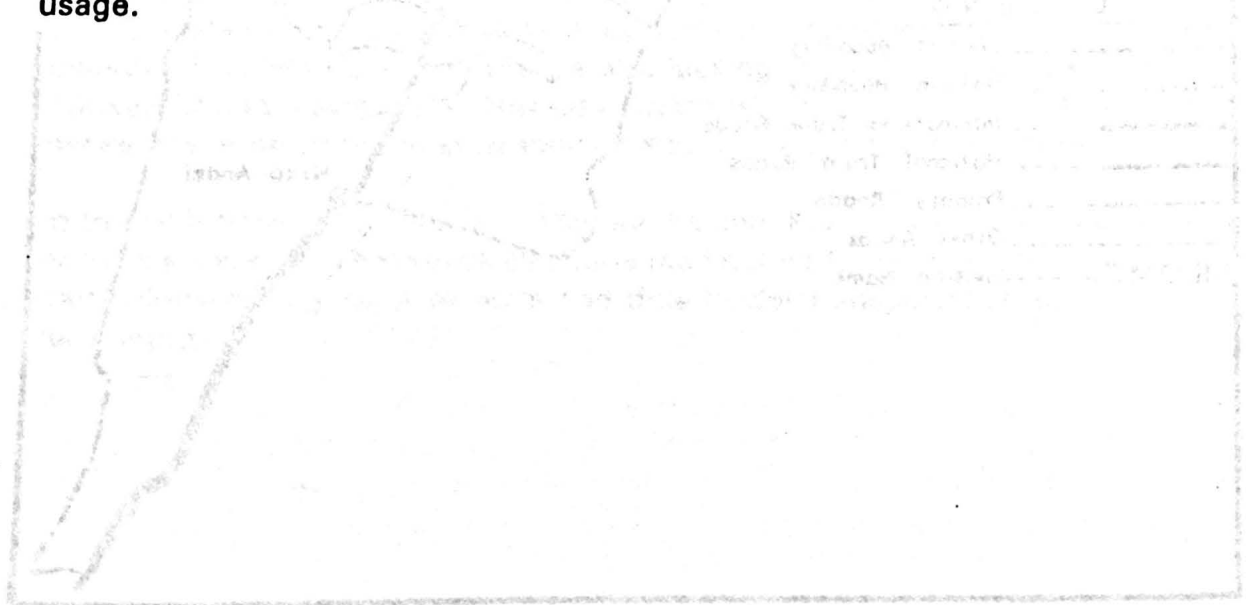


Table 1.17

Distribution of GOK Maintained Water Facilities

Division/Water Facility	Intensity of Water Usage	Purpose	Remarks
<u>Wote</u>			
Mwaani Bore Hole	Over utilized	Domestic	Old and requires Rehabilitation
Malivani Bore Hole	Over utilized	Domestic	Old and requires rehabilitation
<u>Kibwezi</u>			
Kikumbulyu Spring	Normal	Domestic	Electrification going on
<u>Mtito-Andei</u>			
Mtito-Andei Urban Spring	Over-utilized	Domestic	Water supply system very old and requires rehabilitation
<u>Makindu</u>			
Makindu Urban Supply Spring	Normal	Domestic	Water supply undergoing minor rehabilitation
<u>Mulala</u>			
Nol-Turesh Pipe Line	Normal	Domestic	Water supply over-utilized
<u>Kasikeu</u>			
Nol-Turesh Pipe Line	Normal	Domestic	Water supply over-utilized
<u>Kaiti</u>			
Kilala, Kaumoni Spring	Over-utilized	Domestic	Requires rehabilitation
Borehole	Non-operational	Domestic	Old and requires rehabilitation
<u>Kisau</u>			
Mbumbuni Dam	Over-utilized	Domestic	Treatment works requires rehabilitation

Source: District Water Office, Wote, 1996.

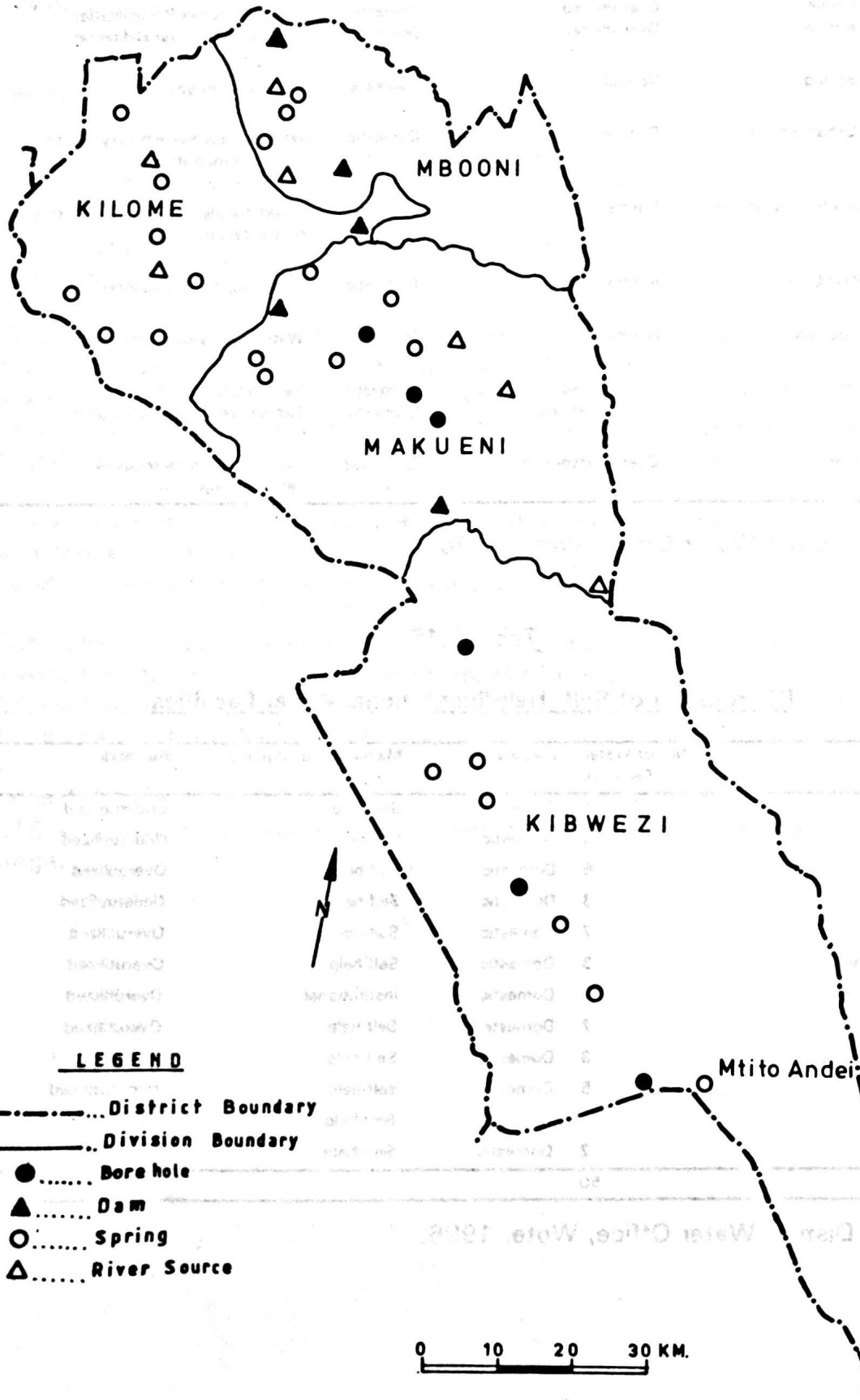
Table 1.18

Distribution of Self- Help/Institutional Water Facilities

Division	No. of Water Facilities	Purpose	Maintenance Urgency	Remarks
Wote	4	Domestic	Self-help	Underutilized
Kibwezi	3	Domestic	Self-help	Underutilized
Mtito Andei	6	Domestic	Self-help	Overutilized
Makindu	3	Domestic	Self-help	Underutilized
Mulala	7	Domestic	Self-help	Overutilized
Kathonzwi	3	Domestic	Self-help	Overutilized
Kalawa	1	Domestic	Institutional	Overutilized
Kilome	7	Domestic	Self-help	Overutilized
Kisau	3	Domestic	Self-help	Underutilized
Mbooni	5	Domestic	self-help	Underutilized
Tulimani	2	Domestic	Self-help	Overutilized
Kasikeu	2	Domestic	Self-help	Overutilized
Total	50			

Source: District Water Office, Wote, 1996.

MAKUENI DISTRICT WATER FACILITIES

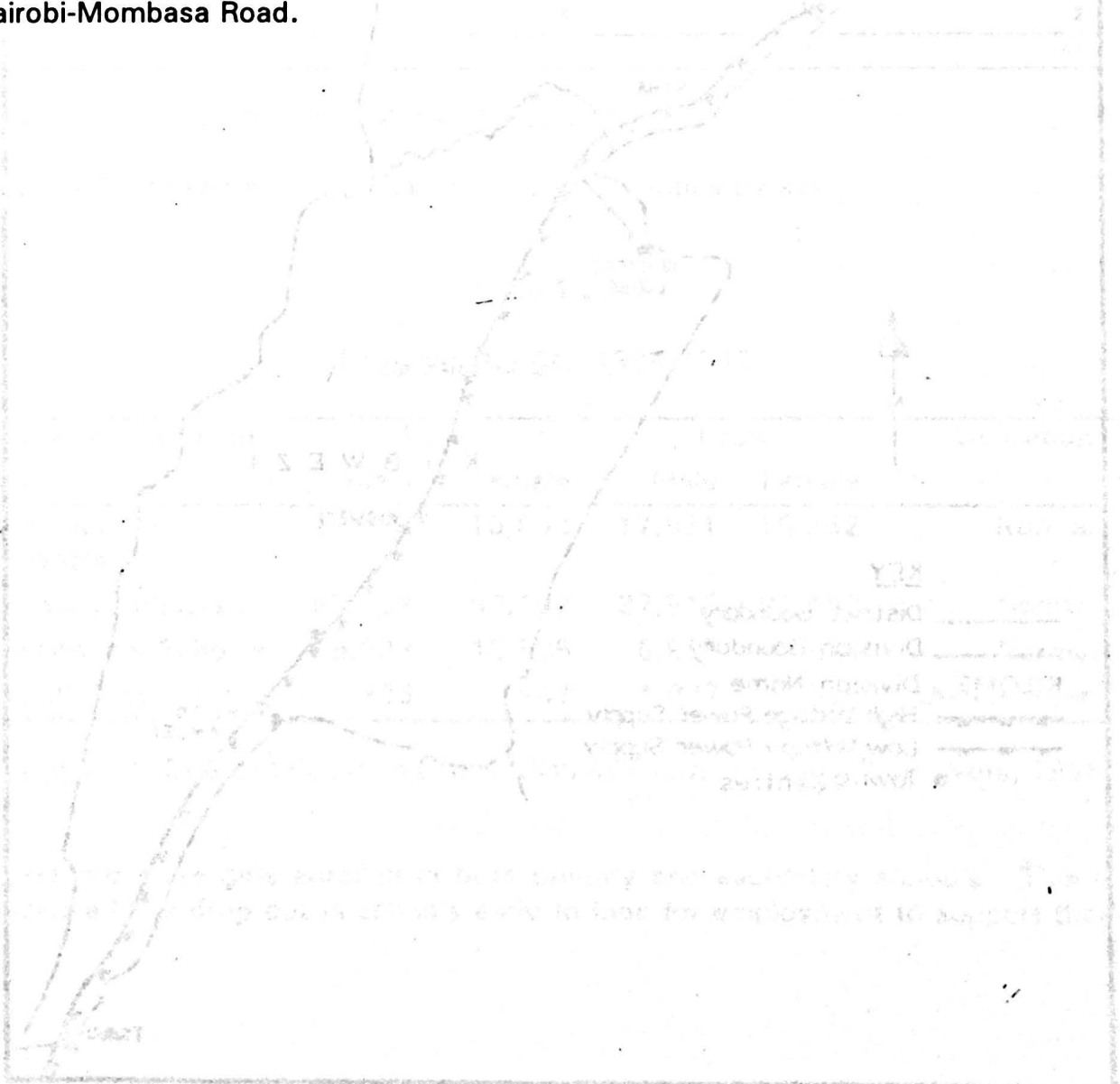


Energy

Makueni District has only one major power line along the Nairobi - Mombasa Road which is of high voltage and a single - phase line from Emali to Kalamba A.I.C Church. Along the high voltage power line, only a few urban and market centres are connected with power, namely Mtito - Andei Urban Centre, Kiboko Market Centre, Emali Market Centre, Nunguni Market Centre and Salama Market Centre. Other centres, like Kibwezi have no power supplies. Plans are under way to supply electricity to the district headquarters and other commercial and production centres in the district.

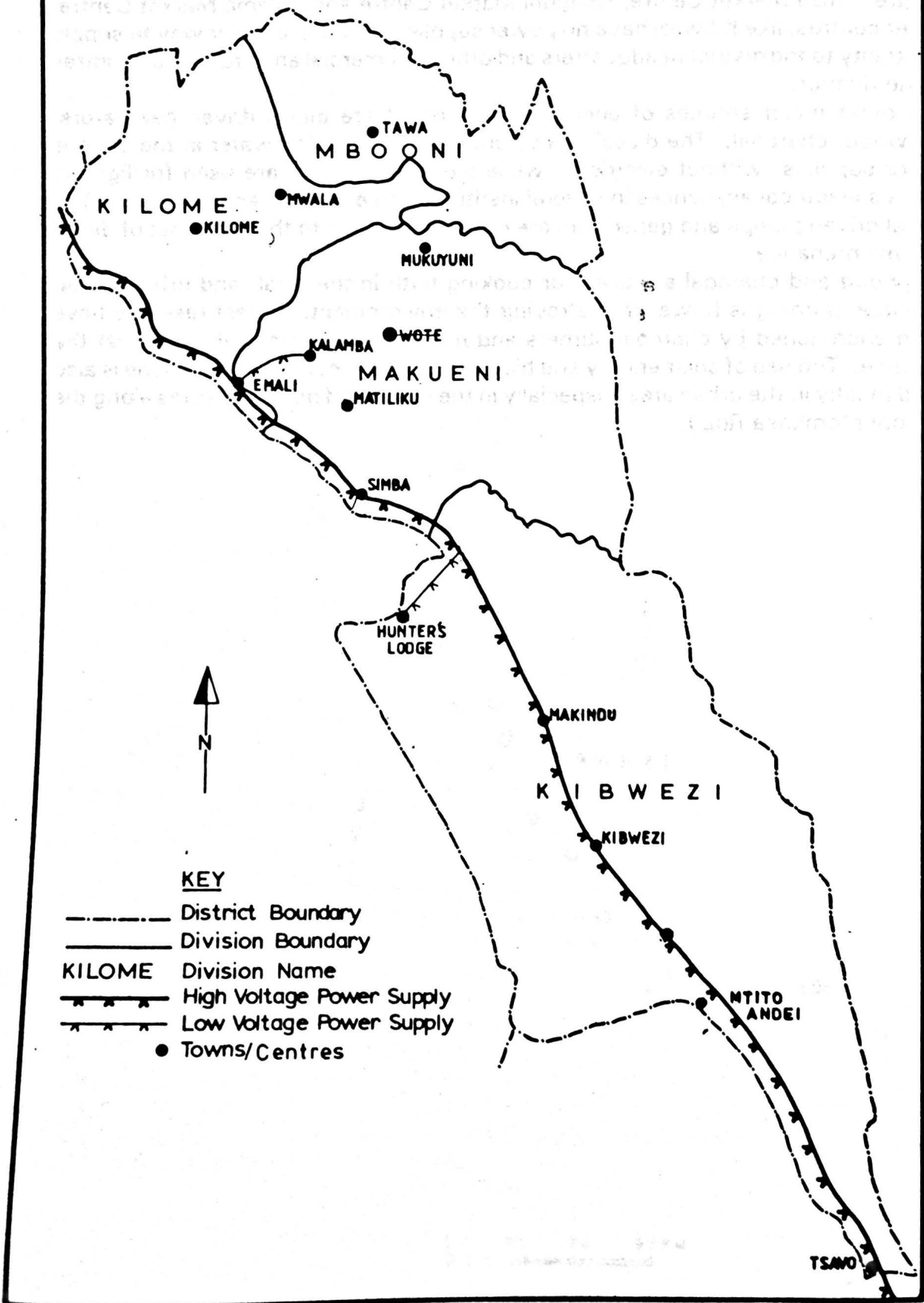
The other major sources of energy in the district are diesel driven generators, fuelwood, charcoal. The diesel pumps are used to pumping water in the various water supplies without electricity, while diesel generators are used for lighting various electrical appliances in several institutions like schools and hospitals. The diesel driven pumps and generators are not effective due to the high cost of diesel and maintenance.

Fuelwood and charcoal are used for cooking both in the rural and urban areas. Charcoal burning is however destroying the environment. Forest reserves have been encroached by charcoal burners and measures are being taken against the practice. The use of solar energy and biogas is not very common. Kerosene is also used mostly in the urban areas especially in the urban and market centres along the Nairobi-Mombasa Road.



MAKUENI DISTRICT

POWER SUPPLY



Educational Facilities

The district has 912 pre-primary, 767 primary, 125 secondary schools and 44 youth polytechnics. Table 1.19 shows the educational facilities by type and division in 1995.

Table 1.19

Educational Facilities by Type & Divisions 1995

Division	Pre-Primary School	Primary School	Secondary School	Youth Polytechnic
Wote	192	167	22	15
Kibwezi	151	141	14	5
Makindu	56	47	6	2
Mulala	55	48	9	2
Kilome	123	104	22	9
Kaiti	92	75	14	2
Mbooni	117	80	23	3
Matiliku	64	58	8	4
Kisau	62	47	7	2
Total	912	767	125	44

Source: District Education Office, Wote, 1996.

Table 1.20 shows enrolment in education institutions by sex.

Table 1.20

Enrolment by Sex 1994-1995

Type of Institution	1994		1995		Utilization
	Male	Female	Male	Female	
Pre-Primary Schools	17,390	16,693	17,891	16,852	Normal
Primary Schools	95,052	97,107	97,910	99,183	Normal
Secondary Schools	9,898	10,538	8,998	9,672	Normal
Youth Polytechnics	726	947	1,077	1,398	Underutilized

Source: District Education Office, District Youth Training Office, Wote, 1996.

There are more girls enrolled in both primary and secondary schools. This is because boys drop out in schools early to look for employment to support their

families. Both secondary and primary schools are normally utilized with exception of town schools which are overutilized.

More girls than boys are enrolled in youth polytechnics. However, these institutions are underutilized due to lack of employment opportunities upon completion hence the unwillingness to join them.

The district does not have institutes of higher learning such as teachers colleges and institutes of technology.

In addition to these institutions, there are six (6) small homes for the physically handicapped which have 62 students, three (3) special units for mentally handicapped with enrolment of 11 students and one family life education centre. These institutions are severely overutilized as they are very few.

The district has 48 full-time adult literacy centres. Table 1.21 shows the enrolment of adult learners by sex.

Table 1.21

Adult Education Enrolment by Sex, 1994-1995

Year	1994	1995
Women	4,015	4,041
Men	364	948
Total	4,379	4,989

Source: Department of Adult Education, Wote, 1996.

More women enrol in these adult education classes than men, since men tend to shy away from these classes.

Health Facilities

Makueni District has 60 established health facilities out of which 5 are hospitals, 30 dispensaries and 25 health centres. 24 of the dispensaries are sponsored by the GOK, while the other 6 are church sponsored (Catholic/AIC). 21 of the health centres are operated by the GOK and the rest are private. Of the five hospitals, two are GOK sponsored while the three are operated by missionaries. Most health facilities lack adequate medical personnel like doctors.

Table 1.22 shows distribution of health facilities by type.

Table 1.22

Distribution of Health Facilities

Division	Hospital	Health Centre	Dispensary
Wote	1	-	3
Kaiti	-	1	3
Kibwezi	1	4	3
Kilome	2	2	1
Makindu	1	1	3
Mulala	-	1	3
Mbooni	-	2	2
Matiliku	-	4	4
Tulimani	-	-	1
Kithonzweni	-	4	4
Kalawa	-	3	-
Mtito Andei	-	1	3
Kisau	-	2	-

Source: District Medical Office of Health, Wote, 1996

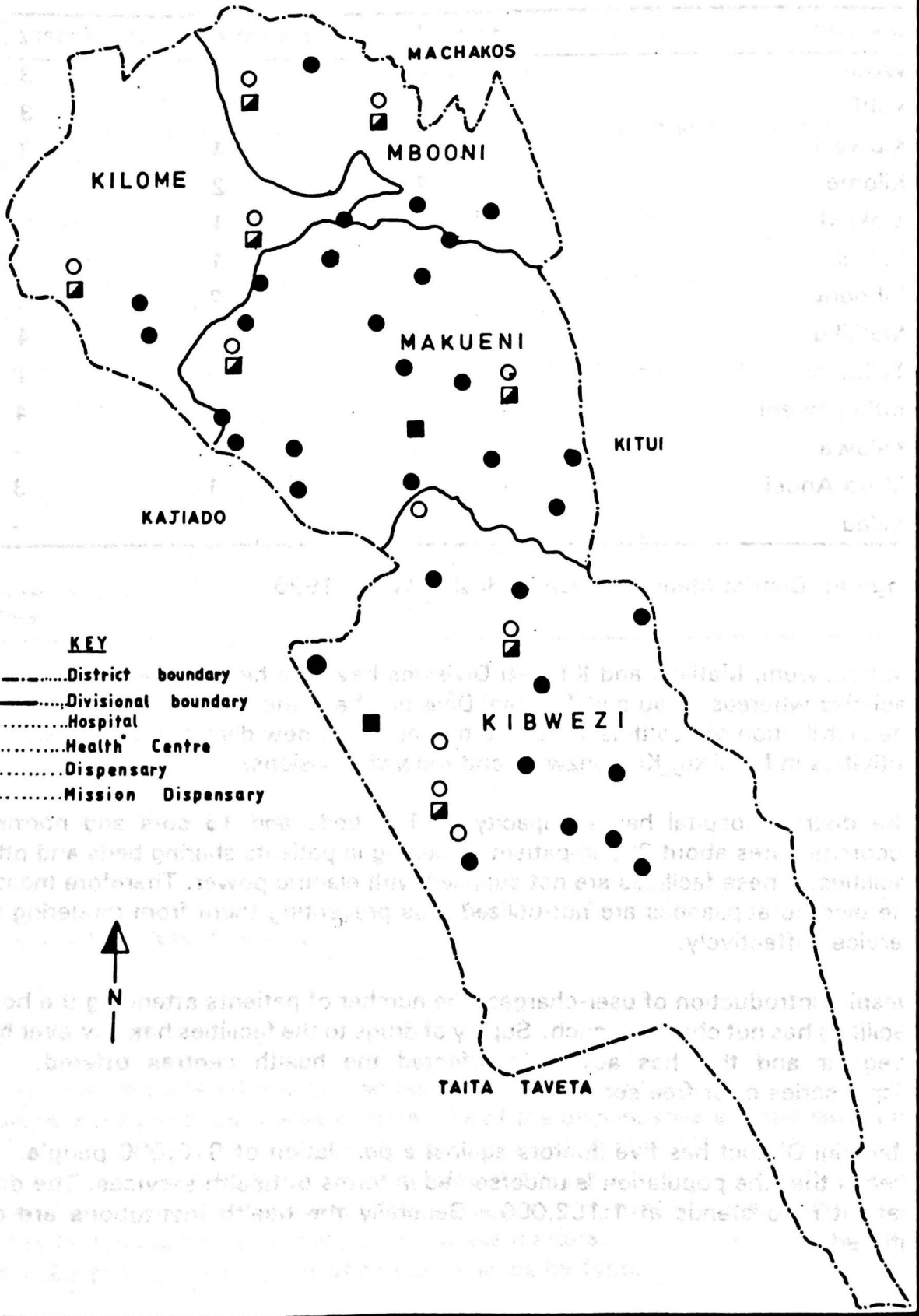
Kathonzweni, Matiliku and Kibwezi Divisions have the highest number of health facilities whereas Kisau and Tulimani Divisions have the lowest. The variation in the distribution of health is attributed to creation of new divisions and missionary activities in Matiliku, Kathonzweni and Kibwezi Divisions.

The district hospital has a capacity of 144 beds and 15 cots and normally accommodates about 300 in-patients resulting in patients sharing beds and other facilities. These facilities are not supplied with electric power. Therefore most of the electric appliances are not utilized thus preventing them from rendering the services effectively.

Despite introduction of user-charges, the number of patients attending the health facilities has not changed much. Supply of drugs to the facilities has however been irregular and this has adversely affected the health centres offered. The dispensaries offer free services.

Makueni District has five doctors against a population of 810,000 people. This means that the population is underserved in terms of health services. The doctor patient ratio stands at 1:162,000. Generally the health institutions are over-utilized.

MAKUENI DISTRICT HEALTH FACILITIES



WELFARE INDICATORS

This section deals with the aspects of welfare of the people that could hinder or foster industrialization of the district. Welfare of the people is a good indicator of the level of development and quality of life enjoyed by the people in the district. The main indicators to be discussed in this section are employment levels, income levels, sources and distribution; infant mortality rates (IMR); disease incidence; nutrition and food availability.

Employment levels

Makueni District currently has labour force of 327,953 people. These are the able persons to be engaged in gainful employment, either paid wages, unpaid on-farm labour or self-employed:

Data on distribution of active labour force is not however available. Going by data in the last District Development Plan (1994-96) it is estimated that 45% of the labour force is based in the agricultural sector, most of which is found in the small farms consisting of both permanent and seasonal employees. The reason for this large share is that the district depends largely on agriculture. Wage employment is found in the urban areas consisting of both private and public sector employees. The public sector employees form the majority among the wage earners with most of them working in the district and divisional headquarters.

Most of the urban self-employed in the district are engaged in both commerce, business, trade and the small-scale informal sector. The employees in the industrial sector take the smallest share of the district labour force. This can be attributed to the poor infrastructure existing in the district particularly the road network, absence of electricity, poor postal, telecommunications and water supplies, all of which have adversely affected the growth of the sector in the district. The annual growth rate of the informal sector is higher in terms of job-creation in the district. This is because employment in the formal sector is scarce forcing more job-seekers to seek employment in the informal sector.

Incomes

Livestock/Agriculture: Data on income is not readily available. However, in a bid to assess the district's income, values have been attached to the livestock and agricultural products to give an overall impression of production values which have been added to the wage earnings of the district's employees to give the estimated district income as shown on Table 1.25.

Table 1.23

Income Earnings for Makueni District 1995 (K£'000)

Source	1994	1995
Wage Earnings	31,809.9	32,168.8
Agriculture	14,484.4	18,042.3
Livestock	3,461.2	4,283.5
Total	49,755.5	54,494.6

Source: District Planning Unit, Wote, 1996.

From Table 1.23 the district income was K£49.8 million in 1994 and increased to K£54.5 million in 1995 representing an annual increase of 9.4%.

Wage Earnings: Table 1.24 shows the wage-earnings, employees and average wage earnings per person for the years 1991, 1993 and to 1995.

Table 1.24

Wage Earnings 1991-95 (K£)

	1991	1993	1995
Earnings in K£'000	30,124.4	31,450.3	32,168.8
No. of Wage Employees	21,685.0	21,801.0	22,150.0
Average Wage (K£)	1,389.2	1,442.6	1,452.3

Source: District Employment Office, Wote, 1996

From Table 1.24 it can be noted that the average wage earning increased steadily over the period 1991-1995 reflecting stability in the district wage employment.

Informal Sector: The informal sector consists of activities such as carpentry, tailoring, metal works, motor vehicle repairs, wiring and panel beating, handicraft, masonry, dress-making, gas welding, pottery, basketry, barber, charcoal burning and blacksmiths. The sector has been characterized by slow growth due to inaccessibility to credit facilities. The sector provided employment to approximately 1,611 persons in 1995 compared to 2,084 youths who graduated from youth polytechnics in the same year.

To enhance development of the informal sector, accessibility to credit should be improved. Infrastructure like water, access roads, power and telecommunication facilities should also be provided, while the existing ones should be improved.

The average earning in the informal sector is KSh.1,200 per month which is too little to meet the basic personal needs. The sector generates about KSh.40.3 million per year and employs about 2,798 people, with an average annual growth rate of about 3.0%.

Support for the growth and development of this sector must be addressed seriously during the plan period as it is expected to provide the main source of employment and income for the bulk of the labour force.

Distribution of Income

Distribution of incomes in Makueni District is unequal both in the urban and rural areas due to varying levels of potentialities in the various geographical areas. The lower divisions of Kathonzweni, Makindu, Kibwezi, Mtito-Andei, Kalawa and Wote are low potential. These divisions receive low and unreliable rainfall most of the year and droughts are prevalent. Agriculture, which is expected to provide employment to the majority of the residents, is unreliable and food deficits are often experienced. The income in these areas is therefore low.

In comparison, the high potential divisions of Mbooni, Tulimani, Kaiti, Kilome and Kisau have relatively sufficient rainfall and earn their livelihood by growing both cash and food crops as well as rearing livestock. This ensures constant and high incomes among the residents of the divisions and other services in the high potential divisions thus assuring employment most of the year in both rural and urban centres.

However, pockets of poverty exist among the district's landless people who are either found residing in shanty dwelling places, or begging in the streets. Others are the jobless people in towns.

Infant Mortality Rates (IMR)

Makueni District has an infant mortality rate of 96 per 1000 live births as of 1995. This rate is higher compared to the National IMR of 61 per 1,000. Among the reasons for the high IMR are the low incomes. Most of the people in this category cannot even afford the health services offered at both Government and private institutions. Because of poverty, their eating habits are also very poor hence the children are undernourished and weak. The other major cause of high IMR is the prevalence of diseases such as malaria, diarrhoea, intestinal worms and other water-borne diseases due to low accessibility to clean drinking water. Prevalence of HIV/AIDs also plays a role in the high IMR in the district.

Disease Incidence

The major disease prevalent in the district are malaria, upper respiratory tract infections, skin diseases, intestinal worms, diarrhoea, urinary tract infections, eye infection, pneumonia, ulcers and HIV/AIDs. These are major killer diseases and adversely affect the process of industrialization and development in general as they prevent those affected from being actively involved in development.

Inaccessibility to clean drinking causes water borne diseases such as bilharzia, intestinal worms and eye infections. The lack of clean environment also causes diseases such as malaria which are common in the district and is the major killer of the district's under-fives.

Poverty among the district residents, particularly in the lower low potential divisions, is a major contributing factor to the high number of disease incidence as a large proportion cannot afford to undertake preventive measures such as use of mosquito nets to reduce the disease incidence.

Nutrition

Makueni District has an average malnutrition rate of 30%, which is expected to rise. Malnutrition, especially among the district vulnerable groups like the under-fives, leads to prevalence of diseases such as Kwashiorkor.

Malnutritional cases in the district are commonly found among the residents of the low potential divisions of Kathonzweni, Kalawa, Makindu, Mtito-Andei and parts of Wote where rains are insufficient. Food, let alone balanced diet, is lacking most of the year. The incomes of the people in these divisions are low hence the low purchasing power for food. This contributes to retarded growth and stunting.

The poor nutritional status in the district hinder faster development as resources are diverted from investment to treating the malnourished in the district. Malnutrition adversely affects development in general as the malnourished are not actively involved in development activities of the district.

Food Availability

Makueni District is semi-arid and receives inadequate and unreliable rainfall most of the year. It depends on the high potential divisions of Mbooni, Kilome, Kaiti and Tulimani for food supply. Food supply during the dry season is insufficient. The district is sometimes given famine relief supplies. Though the famine relief food is intended to offset the food deficit, it is normally not enough to be distributed to all people.

Inter-district trade with neighbouring districts plays a significant role in the district's food availability situation. One cause of food unavailability is that people in the

district sell off their foods at throw away prices during harvest time only to buy it later at higher prices.

Social Dimensions of Development

In Makueni, 50% of the population live below the poverty line. Reduction of poverty therefore remains one of the greatest challenges to the district. The structural and economic reforms in the short-run have exacerbated the status of the poor in the district, thus necessitating Government intervention to cushion the negative effects through the Social Dimensions of Development Programme. This programme will operate within the District Focus for Rural Development Strategy and will rely heavily upon local community participation with the view of enhancing the capacity of the beneficiaries to generate their own incomes.

The target groups to be addressed by the SDD programme comprise the vulnerable groups made up of the landless (shanty dwellers), the unemployed and the street children. The majority of the vulnerable are from the lower potential divisions of the district such as Kathonzweni (Kitise, Kithuki and Mwanja areas), Makindu (Makindu Location), Mtito-Andei and Kibwezi where rainfall is low and irregular, thus resulting in insufficient food and low incomes. In these areas, the school children usually abandon school due to hunger as a result of intermittent droughts which also kills their livestock, making the residents become dependent on relief food.

Pockets of the rural and urban poor are also noticed along the Mombasa-Nairobi Highway and comprise of the landless who have been kicked out of peoples shambas and hence become the landless shanty dwellers. This category of people require assistance to settle them on Government land and hence enhance their capacity to generate their own income.

SDD committees have been formed from the district level down to the sub-locational level. The SDD committees will be responsible for selection of SDD projects, based on the individual needs of the targeted groups.

SUPPORTING DEVELOPMENT INSTITUTIONS

This section presents an overview of some of the most important institutions which support development in Makueni District. The section covers DDC and its sub-committees, Local Authorities, Voluntary Agencies, major Regional Authorities and parastatals, Banks and Non Bank Financial Institutions and the Cooperatives.

DDC and its Sub-Committees

Makueni District Development Committee (DDC) is charged with the responsibility of planning, implementation, monitoring and evaluation of development activities

in the district, while Makueni District Executive Committee (DEC), the technical arm of the DDC, offers the necessary technical advice and services to the DDC. The efficiency of the DDC could however, be improved through training of the members, some of whom are inexperienced.

Since its inception in 1992, Makueni DDC has been able to create an enabling environment conducive to the setting up of industries in the district. Most of the urban and other rural centres have been physically planned and industrial sites set aside in these centres for those willing and able to invest.

Under the auspices of the District Focus for Rural Development strategy, the DDC is responsible for the optimal utilization of all public facilities. Project proposals are deliberated by the DDC before any development activities are started. Progress reports are also presented to the committee for necessary action. Some problems are however experienced by DDC the like shortage of office accommodation, equipment, transport among others, which inhibits the effectiveness of the DDC in identifying, designing and implementing development projects. During the 1997 - 2001 Plan period capacity building in the district will be emphasized so as to improve the effectiveness of the DDC and its sub-committees.

Other sub-committees of the DDC include the District Planning Unit (DPU), the District Tender Board (DTB) and the District Education Board (DEB) among others which are all functional. The DEB is responsible for the management of the education sector and acts as the DDC's advisory body. The DTB deliberates on the awarding of district tenders while the DPU is responsible for costing and designing of developments projects in the district. The effectiveness of these sub-committees can be improved through capacity building, financial and material support. Other committees include the District Agricultural Committee (DAC), the District Health Management Committee (DHMC), the District Water Board (DWB), the District Environment Committee (DEC) and the District Population Management Committee (DPMC). The last two committees are not operational in the district due to lack of the respective ministerial representatives.

Major operational problems are experienced in the lower development committees namely Divisional, Locational and Sub-Locational Development Committees (DVDC, LDC, SLDC) from which development proposals originate. Members of these committees lack the necessary skills in project/programme selection thus resulting in recommendations of unrealistic proposals at times. Meetings at these lower committees are held irregularly and the quality of the deliberations is usually sub-standard. This prompts the District Planning Unit (DPU), to do all ground work for and on their behalf. Skills training is therefore necessary if members of these committees are to function effectively and implement the strategy of the District Focus for Rural Development (DFRD) effectively.

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During the plan period 1997-2001, all the mentioned committees will have the very important role of ensuring the implementation of rapid industrialization. Each committee shall individually and jointly work together, to realize this common goal, so that the local community can look forward to an improved standard of living at the end of the plan period.

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There are three local authorities in Makueni District, namely Wote Urban Council, Mtito-Andei Urban Council and the Makueni County Council, are all fully operational. The first two councils undertake activities such as road maintenance, garbage collection, rehabilitation and initiation of new water projects and construction of public facilities i.e markets, bus/matatu, stands, schools etc. They are also responsible for coordination of trade and commerce through the issuance of trade licenses and loans to traders, industrialists and other entrepreneurs. Plans are also underway for the Makueni County Council to put up a modern tourist hotel in the Chyullu Hills. Wote Urban Council is currently negotiating with donors to fund roads, water and sewage projects in the district headquarters.

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The coffee, cotton, dairy, handicraft, ranching, horticultural and Jua Kali cooperative societies are engaged in marketing of the members' products whereas the SACCO societies are engaged in mobilizing savings for their members.

Most of the societies are not effective in mobilizing financial resources needed for investment due to poor and fluctuating prices for their products, high cost of the farm inputs leading to high cost of production, mismanagement of the societies by the officials resulting in the farmers neglecting their crops. This is especially with coffee and cotton.

The cooperative societies doing well in the district currently are the dairy, ranching, handicraft, horticultural and SACCO's. These have been mobilizing sufficient resources and have invested in commercial and industrial activities and even gone to the extent of attracting non-members to buy shares in their investment ventures. The district SACCO Society has invested in rental housing in Wote Town as well as giving development loans to members. The District Ranching society is engaged in buying of cattle and farms for ranching purposes. The Akamba Handicraft Society is engaged in marketing of Kamba carvings and "Kyondo's". It has been giving development loans to members for investment in other sectors.



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World Vision: This NGO has been operating in the district since 1974. Its activities include assistance in food production, provision of health services, education, afforestation, water projects and protection of springs and dams.

Catholic Secretariat: It undertakes the running of homes for the disabled like Unoa Home, MCH clinics, sponsors schools, constructs dams like Kathonzweni dam and provide piped water to communities.

AMREF: Since 1978 AMREF has been implementing a comprehensive primary health project in the district. More than 400 Community Health Workers (CHWs) and 300 Traditional Birth Attendants (TBAs) have been trained and technically supported since the NGO started its operation in the district.

The activities of these voluntary agencies are well integrated into the district planning process. All the projects to be undertaken by the agencies are discussed and approved by the District Development Committee. Again the district has an established District NGO's Coordination Committee which is responsible for the day-to-day coordination of the development activities of the voluntary agencies in the district.

Since the beginning of 1996, the NGO's funding approach changed to one of partly funding projects initiated by communities through cost-sharing and emphasizing more on capacity building thus preparing the communities to operate and maintain them upon NGO pullout.

Harambee Movement

The harambee movement in Makueni District has played a vital role in resource mobilization for development especially in provision of social welfare and service facilities. Health facilities and schools have been the biggest beneficiaries from the movement.

In 1992, a total of KSh.48,540,185 was raised through harambee and KSh.8,848,816, and KSh.18,184,650 was raised in 1993 and 1995 respectively.

This is a clear evidence that harambee movement in the district is responsible for substantial capital development. The potential of this movement will be further exploited for faster development of the district.

Regional Authorities and other Major Parastatals

Tana and Athi River Development Authority (TARDA), has contributed significantly to the development of Makueni District. The authority is currently supporting a fruit tree nursery at Kibwezi. It also assists in minor irrigation programmes. In liaison with the Ministries of Agriculture Livestock Development and Marketing, Land and Reclamation and Water Development and Culture and Social Services, the

authority offers technical advice and other services pertaining to the Athi River Basin.

Other parastatals operating in the district include the KPLC, the KPTC and the KIE. The KPLC has plans to supply electricity to the district headquarters from Emali via Kalamba AIC church, Hunters Lodge and Kilungu. The Government, through Rural Electrification Programmes; had deposited KShs.10 million with the KPLC and so far survey and design works have been done, the remaining KShs. 30 million of the total project cost awaits allocation by the Government. Supply of power to the district headquarters will enhance water supply to Wote Town as all water supplies will be run by electric pumps. The other urban and market centres planned for electrification include Matiliku, Kibwezi, Mbooni, Mukuyuni, Tawa and Kilala.

KPTC has expanded Wote post office and enhanced the current manual telephone services in addition to opening up sub-post offices in various rural areas. Plans are underway to introduce the STD system upon installation of electricity at the district headquarters and also open up more sub-post offices in the rural centres.

Kenya Industrial Estates in the district works with the Jua Kali artisans and has assisted in opening up Jua Kali sheds at Mtito - Andei, Sultan Hamud and Kibwezi Towns. It also assists Jua Kali operators at Emali and plans are underway to spread its activities to other towns and market centres of the district.

Banks and Non-Bank Financial Institutions

In the district, sources of finance are scarce, a factor contributing to the slow rate of investment in both industrial and commercial activities. Only the Kenya Commercial Bank operates in the district as a sub-branch of the Machakos Branch and in turn has sub-branches in a few urban centres such as Emali, Mtito-Andei, Wote, Kibwezi and Nunguni. The other financial institutions in the district include the KIE with branches at Mbooni, Kibwezi, and Sultan Hamud. The KCB and the KIE do not serve the residents of the district well due to the high interest rates charged which discourage small investors from obtaining loans; Most residents lack collaterals for obtaining loans since they do not have title deeds as land has not be adjudicated and demarcated. The local people also lack information on existence of existing lending institutions in the district.

Co-operative Movement

The district has two types of co-operative societies. These are primary (agro-based) and secondary (distribution of farm products and inputs and commercial/financial SACCO's). Among the primary and secondary co-operative societies operating in the district are coffee, dairy, cotton, handicraft, ranching and horticultural, Jua Kali societies and the credit cooperative (SACCO)societies.

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MAJOR CONSTRAINTS

This Chapter deals with the major constraints holding back the development of the district, with special emphasis being laid constraints to industrial development. It also proposes realistic strategies that will remove the constraints within the next five year plan period.

The major constraints hindering industrial development include lack of adequate infrastructure, underdeveloped human resources, inadequate and poorly developed local raw materials, poor marketing system and inaccessibility to credit facilities.

Inadequate Infrastructural Facilities

Lack of adequate infrastructure has been a major stumbling block to industrial growth and development in the district, the most crucial being the road network, water supply system, power supply and post and telecommunications system.

The existing road network in the district is very poor and inadequate. The district has a total road length of 155 km, (both classified and unclassified) of which 16% is of bitumen, 5% is of gravel and the remaining 79% is earth roads. The 16% said to be of bitumen standard is the Nairobi - Mombasa highway which passes through the district.

The majority of the roads in the district are impassable particularly during the rainy season due to their muddy condition and the overflow of water at river crossing points leading to severe cut offs within and from outside the district. As a result, it is difficult for raw materials for industries and industrial products reach their destinations. The poor condition of roads also result in high cost of transportation. The rough roads also cause high vehicle maintenance costs. This even discourages investment in the urban centres and especially where the roads network is worse.

Important facilities such as Jua Kali sheds and KIE industrial development centres are not fully utilized as they are poorly connected to the markets.

Makueni District is classified as ASAL area due to the little rainfall received. The district has only one perennial river, the Athi, which drains through only a small part of the district. Underground water sources are also limited. As a result, the district has very few water sources for industrial development. Most of the potential industrial centres are not served by adequate and reliable water supplies. As a result of this, the district has experienced slow growth of industries.

Development of water supplies in the district is expensive due to long distance between the consumers and the sources of water. Most of the existing water supplies use diesel pumps. Development of dams and pans has not matched the demand for water, hence the poor and uneven supply of water has affected the location as well as limited industrial growth.

The district has only one high voltage line along the Nairobi - Mombasa highway and a single phase line of 25 km between Emali and AIC Kalamba. The rest of the district is not connected to any power supply. Power plays a vital role in the process of industrial development and the absence of this has held back industrial development in the district. Other sources of power like diesel driven generators and solar energy are expensive and are rarely used for industrial production.

Another constraint facing the district is inadequate postal and telecommunication services. The Kenya Post and Telecommunication Corporation has the capacity to introduce STD services in the district, but this has not been possible because of lack of power supply. KPTC has expanded the manual telephone service to most urban centres in the district but still the demand for the service outstrips the supply.

Underdeveloped Human Resources

Another factor holding back industrial development of the district is underdeveloped human resources. The existing labour force lacks skills needed for industrialization. This is principally due to inadequate educational and training institutions. The district has a few polytechnics which offer training opportunities for basic industrial skills. There are no institutes offering advanced practical industrial skill.

Lack of a sufficient industrial labour force caused by the migration of the few skilled people to the main towns outside the district where the terms and conditions of work are better, is also a major constraint to industrialization. HIV/AIDS and malaria have not also spared the district. The effects of these have been felt in the industrial sector in terms of losses of skilled manpower, and man-hours spent treating diseases.

Inadequate and Poorly Developed Local Raw Materials

Though potential exists for developing adequate raw materials this has not been realized due to various constraints. Currently the agricultural sector does not produce enough raw materials for the industrial sector. The major reason for this is the high cost of agricultural inputs which is a disincentive on the part of the farmers. Cotton, castor seeds, sunflower and horticultural crops which can be raw materials for agro-based industries are not produced in sufficient quantities.

Production of cotton for example has declined because the majority of farmers use poor quality cotton seeds and hence the cotton lint harvested is of poor quality and therefore fetches very low prices. High quality cotton seeds are either scarce or expensive.

Some of the raw materials produced are substandard. In the livestock sector production of high quality hides/skins is hampered by lack of skinning skills among the butchers.

Production of milk is also low although there is potential for improvement. Use of uncertified seeds for horticultural production, coupled with poor farm husbandry results in production of poor products for use in the industrial sector. Currently however, the inadequate and substandard local raw materials for industrial investment are too low to generate employment and any substantial incomes for district residents.

Lack of appropriate technology on how to use several readily available local raw materials is another hindrance to industrialization in the district. Materials like sand, saw dust, tree trunks among others are often left to waste.

Poor Marketing Systems

Another major constraint to the industrialization of the district is the poor marketing systems for industrial raw materials and other products. Most of the district's products are marketed through the co-operative societies, which are poorly managed. Examples of such marketing institutions include the Cotton Board of Kenya, Coffee Board, KCC, NCPB among others. The main factors leading to poor marketing are lack of marketing skills amongst the co-operative societies officials, insufficient market information, inadequate local demand and lack of the necessary incentives for the producers, especially of the industrial raw materials. As a result, the existing industries do not get sufficient raw materials thus operating below capacity.

Most of the industrial products are marketed within the district. Very little has been done to access the external markets. The local market is small compared to the capacity of the industries. The locally produced handicrafts for example are marketed by middle men thus fetching very low prices locally. The honey produced from a refinery in Kibwezi Division is bought by middle men and packed outside the district thus denying the producers good returns for the products. Other products like cotton and horticultural products among others are not marketed by the producers. Thus lack of organized marketing systems for the industrial products prevent firms from reaping the benefits of the economies of scale, as the limited market lead to low prices and returns thus resulting in low profitability to the investors.

The quality of industrial products from the district compare favourably with those produced in other districts in the country and therefore should earn comparable incomes. The scope of expanding the market exists particularly in products like mineral water, honey, tinned fruits and cotton lint which are sold outside the district.

Inaccessibility to Credit Facilities

Credit institutions in the district are scarce, a factor immensely contributing to slow growth of industrial development.

Financial and credit institutions such as AFC, ICDC and DFCK among others are not represented in the district. Makueni District Joint loan board has not been formalized. The credit institutions located in the district are the Kenya Commercial Bank (KCB) and KIE. The KCB operates only as a sub-branch of the its Machakos branch in the district. This situation has denied potential industrialists of access to credit for the establishment and expansion of industries and other ventures. Jua Kali industries have also been facing the same constraints, thus making them unable to purchase equipment.

Other major factors leading to inaccessibility to credit is of lack of collateral, lack of information and the tough lending conditions. Lack of collateral has been a major stumbling block to the district's development as a whole and industrial development in particular. This is because land demarcation and adjudication has not been finalized and most urban and rural centres are not yet physically planned to enable the owners of the plots to obtain title deeds.

The tough lending conditions by the banking , and credit institutions has been a draw back to industrial growth in the district because being an ASAL area, mobilizing the district's savings for investment in industries has been difficult. The only option for the industrialists is to obtain development loans at high interest rates.

Though served by the Kenya Commercial Bank, the KIE and ICDC, the institutions are located far away from the people and are not always accessible due to the poor road network and poor telecommunications system. KIE has offices at Kibwezi and Sultan Hamud, whereas ICDC is at Machakos Town in Machakos District. The only bank operating in the district is the Kenya Commercial Bank with branches at Wote, Kibwezi, Mtito-Andei, Nunguni and Emali.

Lack of information about availability of credit facilities has contributed to the slow growth of industrialization in the district. Awareness campaigns by the administration have not been vigorous among the potential industrialists.

DEVELOPMENT STRATEGY FOR 1997-2001

In order to promote industrial development in Makueni District, the constraints discussed will be addressed and relevant strategies formulated to enable industrial transformation to begin taking place. This section discusses the strategies that shall be formulated to solve the constraints already analyzed.

Improvement of the Infrastructural Facilities

In order to open up the district to the rest of the country the following roads will require tarmacking during the plan period; Kola-Wote Road (C99/C10/D514), Wote-Makindu Road (D513/C101/D514) and Emali-Okia Road (C99). Others will be gravelled to facilitate transportation of goods and services especially Kalawa - Wote Road and Kitise Kavumbu Road. To make Wote-Kalawa Road motorable throughout, a bridge will be constructed across Thwake River.

The Makueni DDC, through the Ministry of Public Works and Housing the local authorities, will undertake routine maintenance of the existing road network. The unclassified roads serving high potential agricultural areas and potential industrial centres will be classified to qualify for regular maintenance and thus facilitate transportation.

During the 1997-2001 Plan period, exploitation of the existing surface water resources within Makindu, Kibwezi and Mtito-Andei Divisions will be enhanced to ensure sufficient water for domestic, agricultural and industrial uses. Existing water supplies will be rehabilitated; while gravity systems will be enhanced where required. In the areas without surface water sources, dams and shallow wells will be constructed to provide water for domestic, livestock, as well as for industrial use. To increase water extraction the existing diesel pumped scheme will be connected to electricity mains. Low cost water harnessing systems such as roof and rock catchments, springs, shallow wells, and sand dams will be promoted over the five year Plan period. Where viable, ground water potential will be exploited through drilling of boreholes especially where no other sources are available.

The Ministry of Land Reclamation, Regional and Water Development (MLRRWD) together with the relevant NGOs and donor agencies operating in the district will be called upon to participate or assist in improving the existing water supplies and in the construction of new ones in the areas with industrial potential. The Provincial Administration will also mobilize the community to contribute towards implementing water projects, and participate in the conservation of water catchments.

During the Plan period, power supply will be extended to the designated urban market centres under the Rural Electrification Programme. In areas not covered under Rural Electrification Programme the local community and area NGOs will be encouraged to provide resources to undertake the projects.

To improve the efficiency of postal services in the district, the roads to postal offices will be improved to ensure accessibility. EMS Speed Post services will be introduced for fast deliveries. The existing postal offices will be improved and new ones opened in designated urban and market centres.

Electric power will be extended to the designated urban and rural centres during this Plan period, to facilitate automation of the telephone services. More telephone lines will be introduced in order to meet subscribers' demand. The DDC, though

the KPTC, will oversee the modernization of the postal and telecommunication services.

Development of Human Resources

During the 1997-2001 Plan period, efforts will be directed towards development of the appropriate technical skills for industrialization. Improvement will be made on the existing youth polytechnics and establishment of new ones to train sufficient labour force. As for higher industrial skills, private individuals will be encouraged to establish institutes of technology to enable the labour force to acquire higher levels of skills.

To combat the adverse effects of HIV/AIDS, malaria and other common diseases, awareness campaigns will be mounted to sensitize the public on the necessary control measures to be taken to prevent and contain these diseases. This will be done through barazas, seminars and workshops. The Ministry of Health will play a leading role in these campaigns.

Development of Local Raw Materials

During the 1997-2001 Plan period, the district will endeavour to produce sufficient raw materials to boost industrialization. The cotton industry will be revitalized. The dormant Makueni Cotton Ginnery will be revived. In liaison with Provincial Administration, awareness campaigns will be stepped up on cotton growing in order to encourage farmers to grow cotton in large amounts to support the ginnery.

Milk production will be increased through improvement of dairy cows. Cooling plants will be established in the milk production zones and storage facilities improved in order to reduce waste. Private investors and self help groups, cooperative societies will be encouraged to provide these facilities.

Vigorous campaigns will be carried out by the Ministry of Agriculture Livestock Development and Marketing and the Provincial Administration to sensitize farmers on the need to increase the production of castor oil seeds, sunflower and horticultural products for the canning and oil processing industries. Appropriate farming technology will be introduced to improve production of raw materials in the agricultural sector.

Other activities such as those which produce furniture and joinery which will maximize the use of tree products in the district will be encouraged. Local entrepreneurs will be encouraged to invest in resin tapping from *pimus eliotii* while extraction of tanning from wattle barks will also be encouraged. The District Industrial Committee in liaison with the District Forest Committee, will play a leading role in guiding the development of forestry materials.

Using the abundant sand available block making and roofing tiles industries will be encouraged. Animal skimmers will be trained to improve their training skill to ensure production of high quality hide and skins of being developed to better end products. The DDC will attempt as much as possible to create an enabling environment by providing the supporting infrastructure and administrative back-up to enable the private sector in particular small scale industrial ventures to thrive in the district.

Improvement of Marketing Systems

During the Plan period efforts will be made to improve the marketing of industrial products to enable the local industries to produce to full capacity. This will involve encouraging industrialists to produce final products as opposed to semi-finished products which fetch very low and uncompetitive prices. The objective will be to enable the industrialists enjoy economies of scale.

The poorly managed co-operative societies will be reorganized for efficiency and formation of new and effective ones will be encouraged. Officials of the co-operative societies especially in cotton, handicrafts, coffee, horticulture and livestock, will be trained on marketing and management skills. Market information will also be disseminated through publications, barazas and the local press to guide local producers on where to take their produce for sale.

Improvement of Accessibility to Credit Facilities

During the Plan period availability of credit will be improved. Credit institutions will be requested to design credit packages appropriate for rural industrial development. To support this issuance of title deeds for plots and farmlands. Finally, information on the types of credit packages available for industrial development will be circulated within the district.

The district envisages to expand the existing credit facilities and introduce new ones in areas which are not served. The AFC, ICDC, DFCK and banking institutions will be requested to open branches in the district to make credit available to the local industrialists and the farming community. The Kenya Commercial Bank and KIE will be impressed upon by the DDC to open full time branches in the district and sub branches in the potential urban and market centres. The District Joint Loans Board will be gazetted and licensed to start disbursing loans to traders.

Request will be made to credit and other financial institutions to consider offering favourable credit terms for investments in the rural areas, so as to encourage more people to take commercial and industrial loans at favourable terms.

Information on available credit schemes and lending conditions of credit and financial institutions will be disseminated to prospective borrowers through barazas and the point and electronic media.

CHAPTER THREE

SECTORAL POLICIES AND DISTRICT SPECIFIC PROJECTS AND PROGRAMMES

INTRODUCTION

Having given the district's setting for industrial transformation in Chapter One and identified constraints to and strategies for industrialization in Chapter Two, Chapter Three provides the projects and programmes the district will implement so as to lay the foundation for industrial transformation during the Plan period.

Industrial transformation of the district will call for increased productivity in the agricultural and livestock sectors of the economy, particularly a dynamic agricultural sector to provide the required raw materials and market for the industrial products.

The Government will continue to provide infrastructure where possible and create an enabling environment for the private sector to participate fully in industrial transformation of the district. Attention will also be paid to alleviation of poverty so that all the members of the community participate actively in development.

The Chapter is divided into sectors each of which is divided into four sections namely: Sectoral Policy Objectives, Review of 1994-96 Plan Period, District Specific Objectives and Targets and Projects and Programme Priorities for the Plan Period.

PUBLIC WORKS AND HOUSING

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 investments 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; and
- Provide decent affordable shelter, coordinate activities and programmes aimed at improving slum and squatter settlements.

Review of the 1994 - 96 Plan Period

A total of 12 km of road was gravelled on the Tawa-Nduluku road (D513) and D 515 Katuaa-Kitandi Road while a total of 13 culvert lines were constructed throughout the district. Most of them were done in the Kisau, Mulala, Kaiti and

Wote Divisions. Two road graders were rehabilitated over the period and one lorry and two tippers were procured for road maintenance.

District Specific Objectives and Targets

Objectives: Maintain roads to good motorable standard and open new ones to improve the communication and transportation.

Target: Increase road length graded from 1,996km to 300km and install 30 culverts;

PROJECT AND PROGRAMME PRIORITIES

A: On-going Projects

Project Name Division/Location	Description of Activities
1. E 712 (Drift)	Completion of reinforced concrete drift. <u>Funding Source:</u> GOK
2. Kiboko - Nunguni (Rd D515)	Completion of 5 km of roads to bitumen standard. <u>Funding Source:</u> GOK
3. Tawa - Nduluku-Wote roads (D513/C101/D514)	Continuation of gravelling works.- <u>Funding Source:</u> GOK
4. Kitandi/Katuaa (D515) road	Spot patching 5 km of road. <u>Funding Source:</u> GOK

B: New Project Proposals

Project Name Division/Location	Priority Ranking	Description of Activities
Machakos - Kilala Wote - Makindu C99/D514/E708/E707	1	Upgrading the road to bitumen standard <u>Justification:</u> The road will open up the district to the rest of the country. <u>Funding Source:</u> GOK

D517/D516 (Tawa/Kalawa 2
- Makutano/DB MKS Road

Gravelling and culverting

Justification: To link up Mbooni Division to district headquarters and the neighbouring Machakos District.

Funding Source: GOK.

Kwa Mwiitu Bridge (Rd 3
E705)

Construction of a single span bridge.

Justification: It will link up Matiliku, Mulala and Kasikeu Divisions to the district headquarters.

Funding Source: GOK

Muoni Drift (Rd 403) 4

Construction of a reinforced concrete drift.

Justification: It will link Mulala, Makindu, Kasikeu Divisions with the district Head quarters.

Funding Source: GOK

Mwaani Drift (Rd C 101) 5

Construction of a drift.

Justification: It will link Kisau Division to the district headquarters.

Funding Source: GOK

Rd E 478 Nduluku/Kola 6
Road

Improvement to gravel standard.

Justification: It will open up and ease communication between Kisau, Mbooni, Mukuyuni and Kaiti Divisions

Funding Source: GOK

Mii River Drift (Rd E 705) 7

Construction of a reinforced concrete drift across River Mii.

Justification: To link up the adjacent divisions with the district Headquarters.

Funding Source: GOK

Wathiri Bridge (E 403 Road) 8

Construction of a double apron bridge.

Justification: To link Matiliku and the surrounding divisions with the district headquarters.

Funding Source: GOK.

AGRICULTURE, LIVESTOCK DEVELOPMENT AND MARKETING

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 and elimination of malnutrition; creation of employment and income earning opportunities; earning of foreign exchange and import substitution. Contribution to these goals occur through supporting the farming community to:

- Produce and market a wide range of food crops and livestock products to feed the nation;
- Produce for export to earn foreign exchange needed for payment of imports into the country;
- Exercise statutory duties pertaining to control and treatment of livestock diseases; and
- Ensure efficient and effective management of food.

Department of Agriculture

Review of the 1994-96 Plan Period

Most of the activities in the department are continuous exercises. Over the last Plan period 1994-96, only one project, the Makueni Smallholder Irrigation Project (MSIP) was completed to 95% level. 10 Training workshops were held while 150 Training sessions for FEWs were accomplished; 600 follow-ups were made and 300 farmers field days were held; 200 demonstration plots were prepared during the plan period. Shortage of funds however, hindered achievement of set targets for the period.

District Specific Objectives and Targets

Objective: Train farmers in appropriate technology.

Revive coffee and cotton growing.

Conserve soils and water.

Targets: Hold farmers' field days once a month in each division.

Visit at least 2,300 farmers every month.

Conserve 2 focal areas (catchment areas) per division per year.

Maintain conservation structures in previously conserved areas.

Organize scheme farmers into marketing groups to avoid exploitation by middlemen.

PROJECT AND PROGRAMME PRIORITIES

A: On-going Projects

Project Name Location/Division	Description of Activities
1. National Extension Project II (NEP II) District wide	Staff and farmer training, Office Construction, and purchase of office equipment. <u>Funding Source:</u> IDA/GOK
2. National Soil Conservation Project District wide	Construction of Soil and Water conservation structures. <u>Funding Source:</u> SIDA
3. Small Holder Coffee Improvement Project (SCIP)	Staff and farmer training. Factory renovation and construction. <u>Funding Source:</u> DANIDA/IDA/GOK
4. Kibwezi Irrigation Projects. Kibwezi	Research and extension on irrigated horticulture products. <u>Funding Source:</u> Israel Government/ USAID/University of Nairobi (UoN).
5. Makueni Small Holder Irrigation Programme II Kibwezi, Makindu	Irrigation infrastructure development at Kwakyai, Matangini, Kiboko, Ngulia, seed bulking (drought resistant crops). Extension services. Support marketing of cotton, castor and sunflowers. <u>Funding Source:</u> GOK/DANIDA
6. Pump Fed Schemes Development Programme Kibwezi, Mtitu Andei	Support irrigation cluster along the perennial river, acquisition of pump sets and accessories on loans terms. <u>Funding Source:</u> BADC/GOK

7. Oil Crops Development Projects Extension and, formation of marketing groups; purchase of oil pressing machines for groups for demonstration purposes.

Funding Source: GOK.

B: New Project Proposal

Project Name Location/Division	Priority Ranking	Description of Activities
Makueni Agricultural Programme (MAP)	1	Improve Agricultural activities by enhancing Irrigation infrastructure. Justification: The district is in the ASAL area with very unreliable rainfall. Funding Source: GOK/DANIDA

Livestock Production Department

Review of the 1994-96 Plan Period

Most of the activities in Livestock Development department are continuous. During the period under review, 12 workshops were held for district and divisional heads. 300 flood ups were made in farmers fields while 116 demonstrations were built. 6 Sahiwals and 9 Ayrshire bulls were also purchased for upgrading programme. 20 high breeding bucks (dairy crosses) were purchased for demonstration as well as 24 KTB hives which were distributed among divisions. The department could not however achieve all targets set due to inadequate funds.

District Specific Objectives and Targets

Objective: Disseminate market information and educate livestock farmers on aspects of marketing.

Target: Rear and exchange 7000 hybrid poultry for upgrading local stock.

Objective: Promote food production.

Target: Increase milk marketed from 650,000kg to 1.2m kg.

Increase beeswax production from 55,000kg. to 100,000 kg.

Increase hides/skins output from 165,000 pieces to 300,000 pieces.

Objective: Promote both dairy and ordinary stock production.

Target: Increase area under improved pasture from 460km² to 500km².

Rehabilitate natural pastures in lower rangelands.

Conduct 600 field days district-wide, thus 4 field days per sub-location per year;

Conduct 280 divisional farmers courses, conduct 15 farmers courses.

Conduct 20 farmers and 10 staff tours.

Objective: Hold staff workshops, and enhance supervision.

Target: Hold 20 quarterly staff workshops, conduct 60 monthly district supervision/follow-ups, train 640 staff.

Objective: Rear and exchange hybrid poultry to upgrade local breeds.

Target: Rear and exchange 7000 hybrid poultry for upgrading local stock.

PROJECT AND PROGRAMME PRIORITIES

A: On-Going Projects

	Project Name Location/Division	Description of Activities
1.	National Livestock Extension Programme (NEP II) District-wide	Educate farmers on better livestock management to promote livestock production. <u>Funding Source:</u> GOK/World Bank.
2.	Poultry Development Programme Kampi-Mawe Wote Division	Rear and exchange hybrid birds. Rear two batches of hybrid birds (up to 700 per batch) and exchanged them. <u>Funding Source:</u> GOK/DANIDA
3.	Dairy Development District-wide	Promote milk production to feed the increasing human population. <u>Funding Source:</u> GOK
4.	Bee-Keeping Development District-wide	Increase honey production and honey products through improved hives and hive management. <u>Funding Source:</u> GOK
5.	Promotion of Livestock Marketing District-wide	Develop an efficient system of gathering and delivering information on prices and availability of livestock and livestock products. <u>Funding Source:</u> GOK

6. **Ranching Development**
District-wide Up-grade the indigenous stock for higher productivity.
Funding Source: GOK
7. **Sheep and Goats Development**
District-wide Promoting production of the small stock by assisting farmers to get up-graded stock and educating them on better stock management.
Funding Source: GOK
8. **Rabbit Development**
District-wide Introduce and propagate rabbit production and utilization as a cheap protein source and for income generation.
Funding Source: GOK.
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B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Bull Camps/Schemes Development Programme The lower ASAL divisions Wote, Kathonzweni, Kalawa, Matiliku, Kakindu, Kibwezi and Kambu Divisions.	1	To develop bull camps/schemes. <u>Justification:</u> Provide cheaper ways of upgrading local stock. <u>Funding Source:</u> DANIDA/Local Community/GOK.
Dairy Development Programme Wote, Kalawa, Kathonzweni Matiliku, Kaiti, Wote, Mbooni and Mulala Divisions.	2	To develop dairy farming through training, provision of inputs and credit to farmers to purchase the animals. <u>Justification:</u> To increase milk production for domestic consumption and generation of income. <u>Funding Source:</u> DANIDA/GOK/Community.
Goats and Sheep Development Programme Wote, Kalawa, Kathonzweni, Matiliku, Makindu, Kibwezi and Kambu Divisions	3	To train farmers in better management and exchange high quality bucks to the farmers for the local bucks and rams improvement. To construct goat and sheep multiplication centre in Wote and/or Kibwezi. <u>Justification:</u> Improve both meat and milk production. The areas have high potential for goat production. <u>Funding Source:</u> DANIDA/GOK.

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| Fodder and Pasture Improvement Project District-wide | 4 | To develop fodder and pasture, establish bulking plots, train farmers on fodder production and conservation and provision of inputs. |
| | | <u>Justification:</u> Improve livestock production. |
| | | <u>Funding Source:</u> GOK/DANIDA. |
|
 | | |
| Bee-keeping Development Kibwezi, Makindu, Kambu, Wote, Kathonzweni, Kalawa and Matiliku Divisions | 5 | To train farmers, provide credit purchase/assembling of improved hives. |
| | | <u>Justification:</u> Improve honey production, which is inhibited by lack of knowledge and hives cast. |
| | | <u>Funding Source:</u> GOK/DANIDA. |
|
 | | |
| Livestock Marketing Development District wide | 6 | Collection of market information (prices and availability of stock and livestock products) and the dissemination of the same. Also Train farmers on marketing. |
| | | <u>Justification:</u> To reduce farmers exploitation by middleman and assist farmers to get more incomes them to know where to sell. |
| | | <u>Funding Source:</u> DAIDA/GOK. |
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Veterinary Services

Review of the 1994-96 Plan Period

During the last plan period one office block and a store were constructed at the district Head quarters and another at a divisional Head quarters while one Tsetse Camp was rehabilitated. One cattle dip was completed and handed over to the community for operation and management. During the plan period artificial insemination services were handed over to community through the cooperative societies in Kilome and Mbooni Divisions. Other accomplishments during the plan period include vaccination of 40,000 heads of cattle, 9909 dogs and destruction by baiting of 851 dogs.

District Specific Objectives and Targets:

Objective: Minimize animal diseases incidence.

Target: Vaccinate at least 40,000 herds of cattle/year vaccinate at least 10,000 dogs/year.

Objective: Promote livestock production.

Target: Conduct 108 training sessions and 300 demonstrations to improve farmers' skills.
Rehabilitate 4 cattle dips/divisional/year and construct one per division/year.

PROJECT AND PROGRAMME PRIORITIES

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Foot and Mouth Disease Kilome, Kasikeu, Mulala, Matiliku, Wote, Makindu and Kibwezi	Vaccination of cattle against foot and mouth disease in the divisions which border Kajiado district where the diseases are common. <u>Funding Source:</u> GOK
2. Rabies Control Programme District-wide	Vaccination of all the dogs and cats in the district to reduce the risk of contraction of the disease to humans. <u>Funding Source:</u> GOK
3. National Extension Project II District-wide	Educating farmers and frontline extension workers on animal health messages to improve their productivity. <u>Funding Source:</u> GOK/IDA
4. Tick Control Programme District-wide	Construction of dips, improving management of dip committees, supervision of dipping and purchase of acaricide. <u>Funding Source:</u> GOK
5. Tsetse Control Mulala, Matiliku, Kibwezi, Makindu and Kambu	Trypanosomiasis survey and tsetse fly control by setting up traps at strategic areas, to reduce effects on livestock. <u>Funding Source:</u> GOK

- | | | |
|-----|---|---|
| 6. | Artificial Insemination
Kilome, Mbooni, Wote | Insemination of cattle to de grade local stock for increased milk production. |
| | | <u>Funding Source:</u> GOK |
| 7. | Kathonzweni Rural Tannery
Kathonzweni Location
Kathonzweni Division | Construction of a leather craft unit, hostels, big store and show-room.

Expand the tanning facilities to increase intake. |
| | | <u>Funding Source:</u> AIC Church/ Donor. |
| 8. | Joe Tanners
Kambi Mawe Location
Wote Division | Construction of a leather craft unit and expansion of tanning facilities.

Construction of store for both chemicals and raw materials. |
| | | <u>Funding Source:</u> Self Help/ Donor. |
| 9. | Miangeni Cattle Dip
Kiboko Location
Makindu Division | Complete the construction of the dip.

<u>Funding Source:</u> GOK/Community |
| 10. | Utaati Cattle Dip
Kilome Division | Complete the construction of the dip which is 75% complete.

<u>Funding Source:</u> GOK/ Community |
| 11. | Miangeni Cattle Dip
Kalawa Division | Rehabilitate the dip which is currently not operating due to cracks in the dip tank. Repair of crushes.

<u>Funding Source:</u> GOK/ Community. |
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B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Kathonzweni Rural Tannery Kikumbulyu Location Kibwezi Division	1	<p>Construction of a rural tannery. The community is already sensitized and have raised some funds.</p> <p><u>Justification:</u> There is a high production of hides and skins and demand for leather is high.</p> <p><u>Funding Source:</u> Community/ Donor</p>
Mbooni Artificial Insemination Scheme Mbooni Location Mbooni Division	2	<p>Privatization of A.I. services. The farmers are already aware and currently fuelling Government vehicles for the provision of the service.</p> <p><u>Justification:</u> Mbooni has a high concentration of dairy animals which require further up-grading. The Government has privatized the service.</p> <p><u>Funding Source:</u> Community/ Donor.</p>
Tawa Tanners Kiteta Location Kisau Division	3	<p>Construction of Tawa Tannery.</p> <p><u>Justification:</u> Tawa market has is high production of raw hides and skins. There is also market for the leather.</p> <p><u>Funding Source:</u> Community/ Donor</p>

New Makueni Dairy Artificial Insemination District-wide	4	Up-grading programme for local dairy cattle. The farmers have already made educational tours on the same. Construction of the cattle Dip for control of ticks
		Justification: There is a high demand for milk in Wote Township and therefore the need for up-grading the existing stock.
		Funding Source: Community/ Donor
Kwa Matungu Cattle Dip Nani Location Matiliku Division	5	Construction of a cattle dip.
		Justification: The area has a high cattle population and prevalence of tick borne diseases is high. The nearest dip is 15Km away.
		Funding Source: Community/ GOK
Kilumilo Cattle Dip Mtito-Andei Location Kambu Division	6	Construction of the cattle dip to control ticks. The farmers have already dug a dip tank.
		Justification: The area has a high cattle population and the nearest dip is 15 Km away.
		Funding Source: Community/GOK.
Yumbani Cattle Dip Kathekani Location Kambu Division	7	Construction of the cattle Dip for control of ticks. The dip tank pit has already been dug.
		Justification: There is a high cattle population and the nearness of this area to Tsavo West National park increase disease incidence.
		Funding Source: KWS/Community GOK

Community Tsetse Trapping

Kathekani Location
Kambu Division

8

Tsetse trapping.

Justification: There is a high tsetse fly incidence along the Mito-Andei river which borders the National Park.

Funding Source: KWS/Community/
Possible Donor.

Sectoral Policy Objectives

The sector is charged with the responsibility of water development, catchment protection, water quality and pollution control. It is also responsible for operation, maintenance and rehabilitation of major water supply systems. The major objectives are to:

- Increase the production of food through livestock and irrigation development to attain food self sufficiency.
- Slow down rural-urban migration by improving the rural infrastructure;
- Develop and distribute water to all rural and urban areas for domestic, agricultural, livestock and industrial usage;
- Plan utilize and conserve water resources;
- Monitor against the dangers of pollution of the water resources; and
- Encourage the beneficiaries to be involved in the planning, implementation and operation and maintenance of water supplies.

Review of 1994-96 Plan Period

During the 1994-96 Plan period, Surveys and designs were done on 6 projects and rehabilitation works were done on three projects. Several projects were initiated and proposed for funding. Lack of funds for implementing the new proposals was a hindrance to water development. Funds received for rehabilitation works were insufficient for the required works.

District Specific Objectives and Targets

Objective: To avail water closer to the people for domestic and livestock use and where it is in abundance avail water for irrigation purposes.

Target: To supply clean water to all the divisional headquarters, install electricity to the existing boreholes supplying water to Wote Township and increase the supply to the town by pumping for 24 hours as opposed to the current 3 hours a day. Water meters will be fixed for all water lines belonging to individuals and community so that revenue is increased for better services and maintenance of the water supplies. The household access to safe water will be increased from the current 35% to 40%.

PROJECT AND PROGRAMME PRIORITIES

A: On-Going Projects

Project Name Location/Division	Description of Activities
1. Kikumbulyu Water Supply Phase II Kikumbulyu/Kibwezi/ Makindu Division	Electrification of the pumping system. Extension to Mikuyuni, Muuni. <u>Funding Source:</u> GOK/Action Aid Kenya
2. Wote Water Supply Wote/Wote Division	Replacing the Malivani rising main pipeline. Replace generation/pumping sets for Malivani and Mwaani boreholes <u>Funding Source:</u> GOK
3. Makindu Water Supply Makindu/Makindu Division	Replacing the rising main pipeline. Construction of additional storage tank. Extension of town pipeline to Kai, Kisingo and Mulili. <u>Funding Source:</u> GOK
4. Mbumbuni Water Supply Kisau/Kisau Division	Rehabilitation of the treatment works. Purchase of standby pumping set. <u>Funding Source:</u> GOK/WUAS
5. Mathangathi Rock Catchment Mavindini/Kathonzwi Division	Construction of 1,200M ³ storage tank. <u>Funding Source:</u> World Vision - Kenya
6. Ikomba Water Project Nzau/Matiliku Division	Construction of storage tanks, laying of pipelines. <u>Funding Source:</u> World Vision - Kenya.

- | | | |
|-----|---|--|
| 7. | Mbitini Water Project
Kyemundu/Mulala Division | Pipeline of 2.8 km

<u>Funding Source:</u> Catholic Diocese of Machakos/ SIDA/Community. |
| 8. | Kyusyani Water Project
Mtito-Andei Division | Construction of intake, pump-house, storage tank and pipeline.

<u>Funding Source:</u> Catholic Diocese of Machakos |
| 9. | Small Earth Dams/Pans
District wide | Construction of the small earth dams and pans and minor rehabilitation

<u>Funding Source:</u> NGOs |
| 10. | Shallow Wells/Springs/Sand Dams
District wide | Digging of shallow wells, spring protection and construction of sand dams

<u>Funding Source:</u> NGOs |
| 11. | Emali Water Project
Emali/Mulala Division | Laying of pipeline from the No. 1 Thresh pipeline to Emali town

<u>Funding Source:</u> National Water Conservation and Pipeline Corporation (NWPCPC) |
| 12. | Simba Water Project
Nguu/Matiliku Division | Laying of pipeline from the No. 1 Thresh pipeline to Simba market

<u>Funding Source:</u> NWPCPC |
-

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Muani-Kasikeu Water Project. Kasikeu Location Kilome Division	1	To tap from existing Kilimanjaro (No 1 Thresh) Pipeline initially but to develop its own source. Justification: The district headquarters does not have adequate water supply. Design of the project done through the government. Funding Source: GOK/Donor
Kalamba Dam Kalamba Location Matiliku Division	2	Construction of a dam Justification: To serve Kalamba market and surrounding areas. Area is dry with no close alternative water source. Funding Source: GOK/Donor
Mtito-Andei Water Supply- Rehabilitation Ngwata/Mtito-Andei Division	3	Rehabilitate the project. Justification: To serve the growing town of Mtito-Andei. A new larger pipeline should be constructed to replace the old railway pipeline. Water will then be available for any industrial use. Funding Source: GOK/Donor

Kibauni-Kalawa Water Project
Kalawa/Kalawa Division

4

To rehabilitate and expand the project.

Justification: To serve the divisional headquarters and surrounding areas. No other source of water around. Very dry area.

Funding Source: GOK/Donor

Boreholes Project
District wide

5

Drilling of the boreholes.

Justification: The district requires more water sources for industrial use and therefore there is need to exploit the ground water potential.

Funding Source: Kenya/ Egypt Development Programme.

Dam Project
District wide

6

Construct new dams and rehabilitate the old ones.

Justification: De-silt existing silted dams and construct new ones. Natural rivers/streams are few and far apart.

Funding Source: GOK/NGO TARDS.

ENVIRONMENT AND NATURAL RESOURCES

Sectoral Policy Objectives

The sectors responsibilities include:

- Providing an appropriate forum for exchange of information on environment;
- To assess and evaluate the impact of development activities on the environment;
- To promote inter-disciplinary approaches and integration of sustainable policies, plans, projects and programmes;
- Sustainable water-shed management and environmental amelioration through silviculturally sound forest management of natural and industrial forest; and
- Reclamation and regeneration of forest cover in ASAL areas and carrying out of environmental assessment on all projects and programmes.

Forestry Department

Review of the 1994-96 Plan Period

Several extension services were accomplished in gazetted, un-gazetted and private farm forests of the district; 36 women groups were assisted with food rations and nursery equipment; 1,350,000 seedlings were raised and 8116.5 ha. of plantations established in various forest stations in the district. The construction of the District Forestry Office Block was completed. Insufficient funding for implementation of the projects and enhancement of extension services was the bigger drawback to the sector's development.

District Specific Objectives and Targets

Objectives: Establishment and maintenance of industrial plantations in gazetted forest areas;
Management of gazetted indigenous forests and woodlands;

Forestry extension services in areas outside gazetted forests.
Production of forestry among the rural poor as a source of income and employment.

Targets: The department aims to raise 600,000-700 seedlings per year both in industrial forestry and forest extension; plant additional 150 ha. of plantation in gazetted forest areas per year; undertake 500-900 ha. of various silvicultural operations per year. Advising the people either as groups or individuals on the production of seedlings in tree nurseries and tree growing and agro-forestry in their farms;

PROJECT AND PROGRAMME PRIORITIES

A: On-Going Projects

	Project Name Location/Division	Description of Activities
1.	Kenya Forestry Development Project	Assistance in establishment and maintenance of plantation and silvicultural operations, through use of permanent and casual labour.
	Makuli Forest Station in Kaiti/Matiliku	Provision of working tools to undertake the above operations.
	Mbooni Forest Station in Mbooni	Improvement of infrastructure.
	Nthangu Forest Station in Kaiti/Kisau	Training of forest officers, sawmillers and workers.
	Kilungu Forest Station in Kilome	<u>Funding Source:</u> IDA/GOK
2.	Assistance to Forestry Activities District-wide	Assisting in reduction of back-logs in silvicultural operations and planting in gazetted forest areas through provision of food rations and part payment of wages for casuals.
		Assisting women groups and self-help groups in raising of seedlings and rehabilitation and establishment of woodlot by provision of food rations and equipment.
		<u>Funding Source:</u> WFP/GOK.

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Improvement of Water Supply to Nthangu Tree Nursery and Kitondo Tree Nursery Kisau Division	1	Improve the water supply. <u>Justification:</u> The present water supply at the two nurseries is inadequate. <u>Funding Source:</u> GOK
Afforestation of Yekanga Hill Wote Division	2	Afforesting the Hill. <u>Justification:</u> The hill is degraded and there is high demand for fuel-wood and building timber in the area. <u>Funding Source:</u> GOK/WFP
Wote Tree Nursery Wote Division	3	Introduce tree nursery activities. <u>Justification:</u> There is no tree nursery serving Wote market and the neighbouring areas. <u>Funding Source:</u> GOK
Afforestation of Kenze Hill. Kilome Division	4	Afforestation of the hill. <u>Justification:</u> The neighbouring community have no source of fire wood and building poles. <u>Funding Source:</u> GOK/WFP

PROJECT AND PROGRAMME PRIORITIES

A: On-Going Projects

Project Name Location/Division	Description of Activities
1. KEPI, Family Planning, Health Education District-wide	Child immunization, control of population growth and related P.H.C. activities. <u>Funding Source:</u> GOK/NGOs/DHMB (F.I.F.).
2. Community-Based Contraceptives Distribution District-wide	Community-based distribution of contraceptives in all divisions, training of T.O.Ts and CBDs. <u>Funding Source:</u> GTZ.
3. Environment, Health Water and Sanitation. District-wide	Construction of ferro-cement tanks, water jars, spring protection, VIP latrines, pre-cast latrines, slabs, incinerators and purchase of impregnated bed nets. <u>Funding Source:</u> SIDA
4. Mtito-Andei Health Centre. Mtito Andei Location Mtito Andei Division	Complete construction of the new health centre and its staff houses. <u>Funding Source:</u> GOK
5. Upete Dispensary	Construction of maternity wing. <u>Funding Source:</u> Community
6. Ukia Dispensary	Fitting being done on the new treatment block which is virtually complete. <u>Funding Source:</u> Community.

7. Nziu Dispensary Construction of maternity wing.
Funding Source: Community/ World Vision.
8. Mwanyani Dispensary Construction of MCH block.
Funding Source: Community
9. Mweini Dispensary Construction of water tank.
Funding Source: Community.
10. Nthongoni Dispensary Construction of the MCH and maternity wing, fittings, plastering, doors and windows.
Funding Source: Community.
11. Health Care Planning and Management District-wide Development of Health Information System (HIS) in support of local health care planning and management.
Training of district health staff, local community members and local health workers on low-cost methods of establishing and operating a broadened H.M.I.S.
Funding Source: AMREF.
12. Kyambeke Dispensary Construction of maternity block.
Funding Source: Community.
13. Kalawa Health Centre Renovation of maternity wing and laboratory.
Funding Source: Community.

14. Kisau Health Centre Construction of laboratory and general renovation.
Funding Source: Community.
15. Mukuyuni Sub-Health Centre Construction of maternity wing and in-patient ward. The block is complete except for windows, doors and floor.
Funding Source: World Vision/
Community.
16. Mavindini Health Centre Construction of water tanks and a maternity block.
Funding Source: Community.
17. Kathulumbi Dispensary Construction of water tank.
Funding Source: Community.
18. Kyuasini Dispensary Construction of water tanks and MCH block.
Funding Source: Community/SIDA.
19. Kithuki Dispensary Construction of MCH block.
Funding Source: Community.
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B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Athi Kumunyuni Dispensary Kibwezi Division	1	<p>Complete the dispensary. Two rooms have already been put up by the community.</p> <p><u>Justification:</u> It is located in newly settled area and far away from the nearest health facility. The area is a malaria prone area.</p> <p><u>Funding Source:</u> GOK</p>
Lani Dispensary Kathonzweni Division	2	<p>Complete the dispensary.</p> <p><u>Justification:</u> It is situated in a needy area which has transportation problem.</p> <p><u>Funding Source:</u> GOK</p>
Katulye Dispensary Kibwezi Division.	3	<p>Complete the Dispensary.</p> <p><u>Justification:</u> It is in a newly settled area.</p> <p><u>Funding Source:</u> GOK</p>
Kali Dispensary Mbooni Division	4	<p>Complete the dispensary.</p> <p><u>Justification:</u> It is situated in a valley area and no other health facility is near.</p> <p><u>Funding Source:</u> GOK</p>

Kithungo Dispensary
Kithungo Location
Mbooni Division

5

Complete the dispensary.

Justification: It is the only facility in the new location.

Funding Source: GOK

EDUCATION

Sectoral Policy Objectives

The objectives of the sector are to:

- Enhance and improve the relevance and quality of education at all levels;
- Expand access to and retention in education at the primary and secondary levels especially in disabled children;
- Strengthen sector management, planning, budgeting and information systems; and
- Release sustainable levels of resource mobilization;

Review of 1994 - 96 Plan Period

During the plan period the following projects were completed; 3 Science teachers' houses, 4 dining halls and kitchens.

District Specific Objectives and Targets

Objective: Strengthen the teaching of science and practical subjects at all levels of education.

Target: Construct and equip science laboratories in at least 6 schools, Training of un-trained teachers in all the educational institutions.

Objective: Improve academic standards in the district.

Target: Provide motor bikes and vehicles to school inspectors and ensure that 75% of the schools in the district are inspected.

PROJECT AND PROGRAMME PRIORITIES

A: On-Going Projects

Project Name Location/Division	Description of Activities
1. Kalulini Secondary School Kibwezi Location Kibwezi Division	Electrification of the school. <u>Funding Source:</u> PTA
2. Utangwa Secondary School Mbooni Division	Construction of dormitory and electrification of the school. <u>Funding Source:</u> PTA/BOG
3. Muthingiini Secondary School Mtito-Andei Division	Construction of a dining hall. <u>Funding Source:</u> PTA/BOG
4. Ititu Secondary School Kalawa Division	Construction of laboratory. <u>Funding Source:</u> PTA/BOG
5. Ngoto Secondary School Mulala Division	Electrification of the school. <u>Funding Source:</u> PTA/BOG
6. Kyumbuni Secondary School	Purchase of science equipment. <u>Funding Source:</u> PTA/BOG
7. Kathonzweni Boarding Primary School Kathonzweni Division	Construction of dormitory. <u>Funding Source:</u> PTA/BOG
8. Vitale Boarding Primary School Kathonzweni Division	Construction of dormitory. <u>Funding Source:</u> PTA/BOG

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Science Equipment Project Mukueni, Kyumbuni, Kithuki and Ivani Secondary Schools	1	<p>Installation of science equipment in selected deserving schools.</p> <p>Justification: Learning of science subjects is hindered by lack of equipment in several district schools.</p> <p>Funding Source: GOK.</p>
School Electrification Project District-wide	2	<p>Electrification of schools.</p> <p>Justification: Electrification of the schools will lead to cheaper cost of lighting and use of electrical appliances.</p> <p>Funding Source: GOK.</p>

Sectoral Policy Objectives

The objective of the sector are to:#

- Mobilize local communities for self reliance in basic needs and involvement in development processes;
- Train 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 visual arts, performing arts, oral traditions, popularization of Kiswahili, and other national languages for national identity and pride;
- Intensify adult education to eradicate illiteracy;
- Provide reading materials in the districts through National Library Services;
- Improve sport facilities in the form of district stadia and other facilities that can promote and improve 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 focused on involving women groups in income-generating activities and in decision making at all levels.

Review of the 1994-96 Plan Period

During the plan period 16 workshops were held for adult literacy teachers, 5 new adult literacy learning centres opened, 30 learning tours were conducted and 30 new adult literacy teachers were recruited.

District Specific Objectives and Targets

Objective: Eradication of illiteracy in the community.

Target: Reduce adult illiteracy rate from 40% to 30% over the plan period. Increase the number of adult education teachers by 10% and organize 4 seminars and refresher courses for these teachers.

PROJECT AND PROGRAMME PRIORITIES

Education Department

A: On-going Projects

Project Name Location/Division	Description of Activities
1. Mbooni Divisional Office Kikima/Mbooni Division	Completion of the divisional office. <u>Funding Source:</u> GOK.
2. Kibwezi Divisional Office Kibwezi Town/Kibwezi Division	Completion of the divisional office. <u>Funding Source:</u> GOK.
3. Matiliku Divisional Office Matiliku Town/Matiliku Division	Completion of the divisional office. <u>Funding Source:</u> GOK.
4. Mbumbuni Divisional Office Mbumbuni/Kisau Division	Completion of the divisional office. <u>Funding Source:</u> GOK.

B: New Project Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Multi-purpose Training Institute Wote Division	1	Construction of the Multipurpose centre. <u>Justification:</u> The district has no facility for hosting meetings and workshops. <u>Funding Source:</u> GOK.

Adult Teachers Training Programme
District-wide

2

Training of newly recruited and existing adult literacy teachers.

Justification: Current number of teachers is inadequate and with low teaching skills.

Funding Source: GOK.

Mbooni Resource Centre
Mbooni Town
Mbooni Divisions

3

Construction of the Resource Centre.

Justification: The division has no place for training its adult teachers and for holding meetings.

Funding Source: GOK.

Kilome Resource Centre
Kilome Town
Kilome Division

4

Construction of the Resource Centre.

Justification: Division has no facilities for meetings and workshops.

Funding Source: GOK.

COMMERCE AND INDUSTRY

Sectoral Policy Objectives:

The sectoral policy objectives of the sector are to:

- Encourage dispersal growth and development of large, medium and small scale industries and businesses;
- Stimulate the growth of and promote the quality of domestic products to meet both the requirements of consumers and for exports;
- Promote effective competition in the distribution sector with a view to increasing its efficiency and ensuring availability of essential commodities;
- Increase viable employment opportunities in both the industrial and commercial sectors;
- Provide appropriate and effective extension services to both the industrial and commercial sectors;
- Increase the role of indigenous entrepreneurs in manufacturing and trade;
- Promote fair trade and protect consumers' interests through standards, weights and measures; and
- Protect consumers from trade malpractice such as fraudulent manipulation of weighing and measuring equipment; ensure correct descriptions of goods and services as well as curbing misleading statements as to the price of goods.

Review of the 1994-96 Plan Period

During the plan period the department was able to hold 20 traders' seminars; disbursed loans amounting to KShs.3.7 million to small enterprises; carried out awareness campaigns in each division on the availability and accessibility of credit facilities for business expansion and development.

District Specific Objectives and Targets

Objective: Promotion of small scale enterprise in the district.

Target: Hold 10 training seminars for traders per year, and creating awareness of the viable business opportunities existing in the district to students in various training institutions.

PROJECT AND PROGRAMME PRIORITIES

B: New Projects Proposals

Project Name Location/Division	Priority Ranking	Description of Activities
Makueni District Trade Development Loans Board. District-wide	1	To advance credit to small scale traders. Justification: The small scale traders cannot acquire credit from financial institutions due to lack of collateral. Funding Source: GOK
Traders Training Programme District-wide	2	To train traders on business skills. Justification: The district has a large number of traders requiring training in skills like book-keeping. Funding Source: GOK.

COOPERATIVE DEVELOPMENT

Sectoral Policy Objectives

The major sectoral policy objectives of the sector are to:

- Strengthen the co-operative movement through ensuring their participation in faster growth of agriculture, livestock and small scale industrial entrepreneurs such as Jua Kali artisans;
- Ensure that co-operatives are well organized and protect the financial interests of members;
- Improve the management of co-operatives through effective training programmes for managers, members and community leaders;
- Promote the spread of co-operative organizations into particular crop and consumer sector;
- 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 1994-96 Plan Period

During the Plan period the sector registered the cooperative societies, rehabilitated four coffee factories in the district, gave loans to cooperative societies in the district to the tune of KShs. 9.5 million under CAPS and KShs. 11.0 million under FILLS held 16 workshops for cooperative officers; held 10 seminars for management staff of cooperative societies, and managed to revive 4 dormant societies. The department experiences shortage of funds to implement its proposed projects.

District Specific Objectives and Targets

Objective: To organize farmers into societies;

Target: To reactivate at least two dormant societies per year; revive the only cotton ginnery in the district so as to revive the district cotton industry.

To organize at least 3 farmers seminars to improve the farmers skills in organization and financial management of the societies. To train societies Management committee and rehabilitate five coffee factories in the district.

PROJECT AND PROGRAMME PRIORITIES

B: On-Going Projects

	Project Name Location/Division	Description of Activities
1.	SCIP II Mbooni, Kilome, Mulala Division	Renovation of Kitanga, Nzaini and Kyuu Cooperative Societies <u>Funding Source:</u> World Bank
2.	ICMIS Makueni District	Complete stages 2 and 3 of ICMIC. <u>Funding Source:</u> GOK/Nordic Countries
3.	CDF Makueni District	Issuance of loans to dairy farmers in the district. <u>Funding Source:</u> Nordic Countries.

B: New Project Proposal

Project Name Location Division	Priority Ranking	Description of Activities
Farm inputs scheme: District-wide	1	Establishment of farm inputs scheme. <u>Justification:</u> Farm inputs for cash crops like cotton and coffee have become too expensive for farmers. The bulk purchase will result in reduced prices, thus creating incentives for increasing production <u>Funding Source:</u> GOK/SDD.
Coffee Factories Rehabilitation Programme District-wide	2	Rehabilitation of coffee factories to increase their efficiency. <u>Justification:</u> Several factories do not operate at full capacity due to old machinery. <u>Funding Source:</u> GOK/ Nordic Countries.
Divisional Cooperative Offices District-wide	3	Construction of offices in the newly opened divisions of the district. <u>Justification:</u> The divisional headquarters have no offices and other facilities. Lack of such facilities leads to ineffectiveness in rendering services to the community. <u>Funding Source:</u> GOK

OFFICE OF THE PRESIDENT

Sectoral Policy Objective

The major objectives the Office of the President are to promote an effective and efficient operation of government activities at the national, divisional, district levels and to ensure security of the nation. The other objectives are as follows:

- Ensure law and order and strengthen security especially in major urban centres in order to reduce crime;
- Ensure proper financial management and adhering to proper procurement procedures of sourced items;
- Register and issue National Identity Cards to all those eligible;
- Registration and issuance of certificates of births and deaths; and
- Ensure effective and efficient operation of Government activities in the district.

Review of the 1994-96 Plan Period

During the Plan period construction of the, the district headquarters continued to stall. The administration block is 85% complete, whereas the staff houses are at various stages of completion. Over this period, Matiliku Divisional Headquarters and DO's house, and the divisional Police Headquarters were constructed and completed. The AP staff quarters were constructed and are 80% complete. The biggest constraint was inadequate funding.

District Specific Objectives and Targets:

Objective: To provide housing and office accommodation for Government employees in the district.

Target: To construct 5 new divisional headquarters in Tulimani, Kathonzweni, Makindu, Kasikeu, Kalawa and Mtito - Andei.

To construct two police stations at Kiboko and Mtito-Andei market centres.

PROJECT AND PROGRAMME PRIORITIES

A: On-going Projects

	Project Name Division/Location	Description of Activities
1.	District Headquarters complex Wote Division Wote Location	Completion of the Administration Block and Staff Houses. <u>Funding Source:</u> GOK
2.	Divisional Police Headquarters Complex Wote Division Wote Location	Completion of the Divisional Police Headquarters. <u>Funding Source:</u> GOK
3.	Administration Police Headquarters and Staff Houses Project Wote Division Wote Location	Completion of the administration block and staff house. <u>Funding Source:</u> GOK

B: New Project Proposals

Project Name Division/Location	Priority Ranking	Description of Activities
Makindu Divisional Headquarters Makindu Division Makindu Location	1	Construction of the divisional headquarters. <u>Justification:</u> Makindu is a new division without offices and staff houses for the divisional staff. <u>Funding Source:</u> GOK

Objective: Provide housing and office accommodation for the ministry's staff so as to boost their working moral.

Target: Construct 3 staff quarters for the DDO, ADDO and DSO and construct and equip an administration block for the department.

Objective: Provision of facilities (Office and Equipment) for a well organized District Information and Documentation Centre (DIDC) which will act as a referral centre for development planning.

Target: Construct and equip DIDC office at the District Headquarters for storage and analysis of data for district planning purpose.

Objective: Carry out a baseline survey on a continuous basis so as to avail vital missing data for planning purpose.

Target: Carry out one general baseline survey for the 1st year of the plan period and then carry out special surveys every year of the plan period for the data needed for development planning.

B: New Project Proposals

Project Name Division/Location	Priority Ranking	Description of Activities
Staff Quarters (class C) 3 No. Wote Division	1	Construction of 3 No. staff quarters for the DDO, ADDO and DSO. Justification: There is an acute shortage of housing in the district Funding Source: GOK
District Information and Documentation Centre (DIDC) Wote Division Wote Location	2	Construction and equipping a DIDC. Justification: It will assist the planning unit to assemble and analyze, store information for use in district planning purposes. Funding Source: GOK/Donor.

District Baseline Survey
District-wide

3

Establishment of a baseline data
system.

Justification: Makueni being a new
district, requires a data base for
development planning purpose. This
will be a continuous programme.

Funding Source: GOK/Donor.
