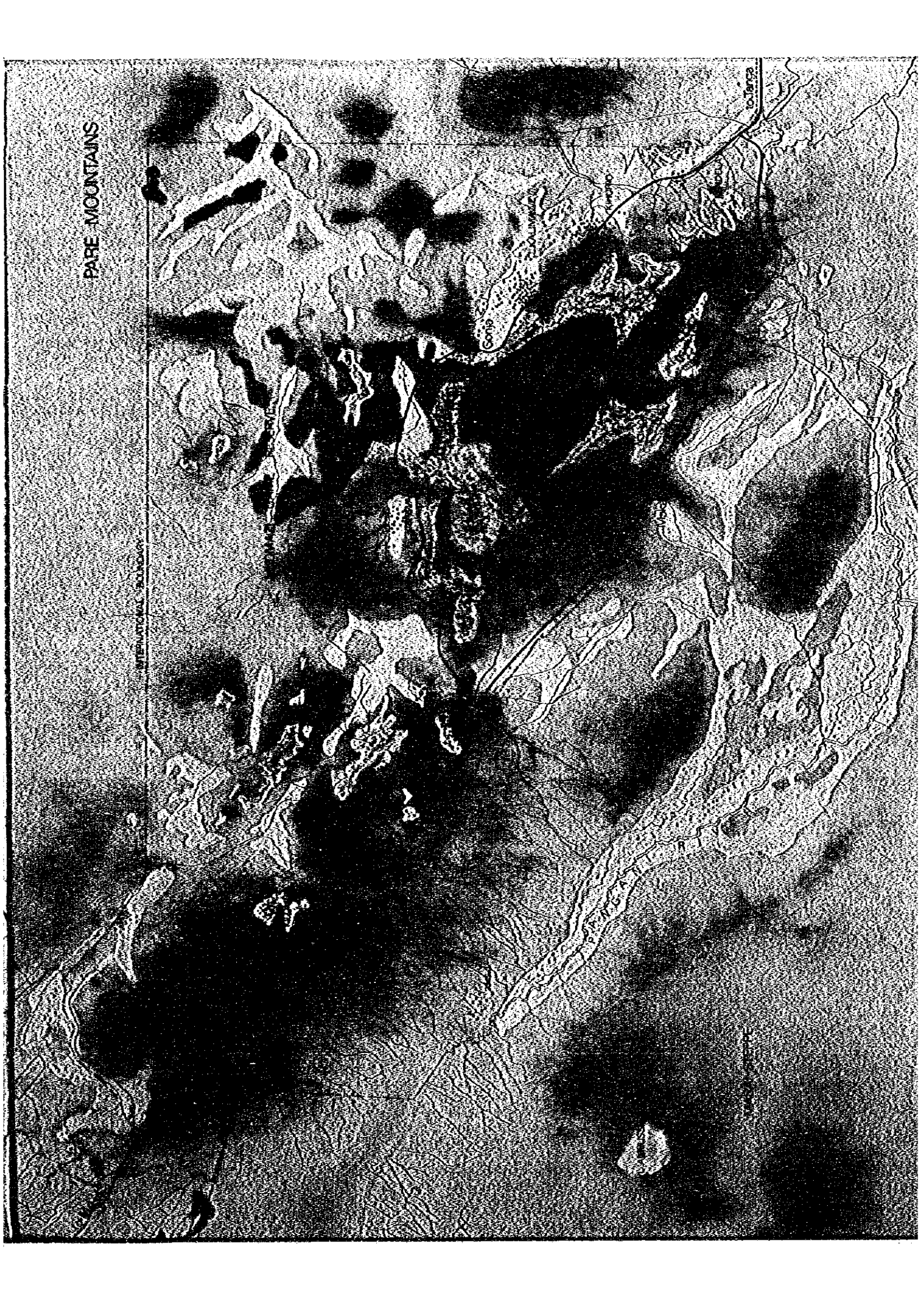


PARE MOUNTAINS

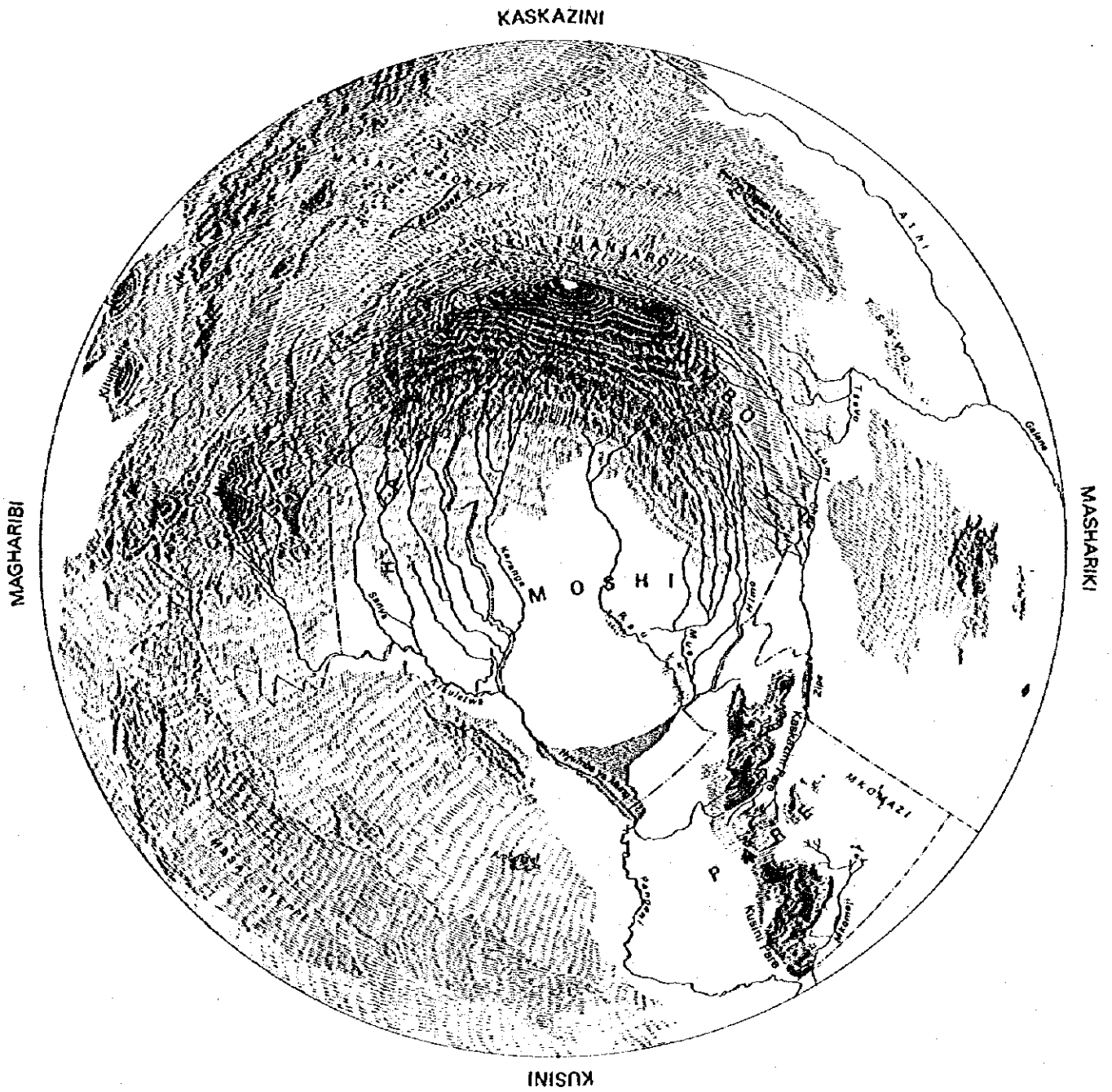
INTERNATIONAL BOUNDARY

10-10-1952



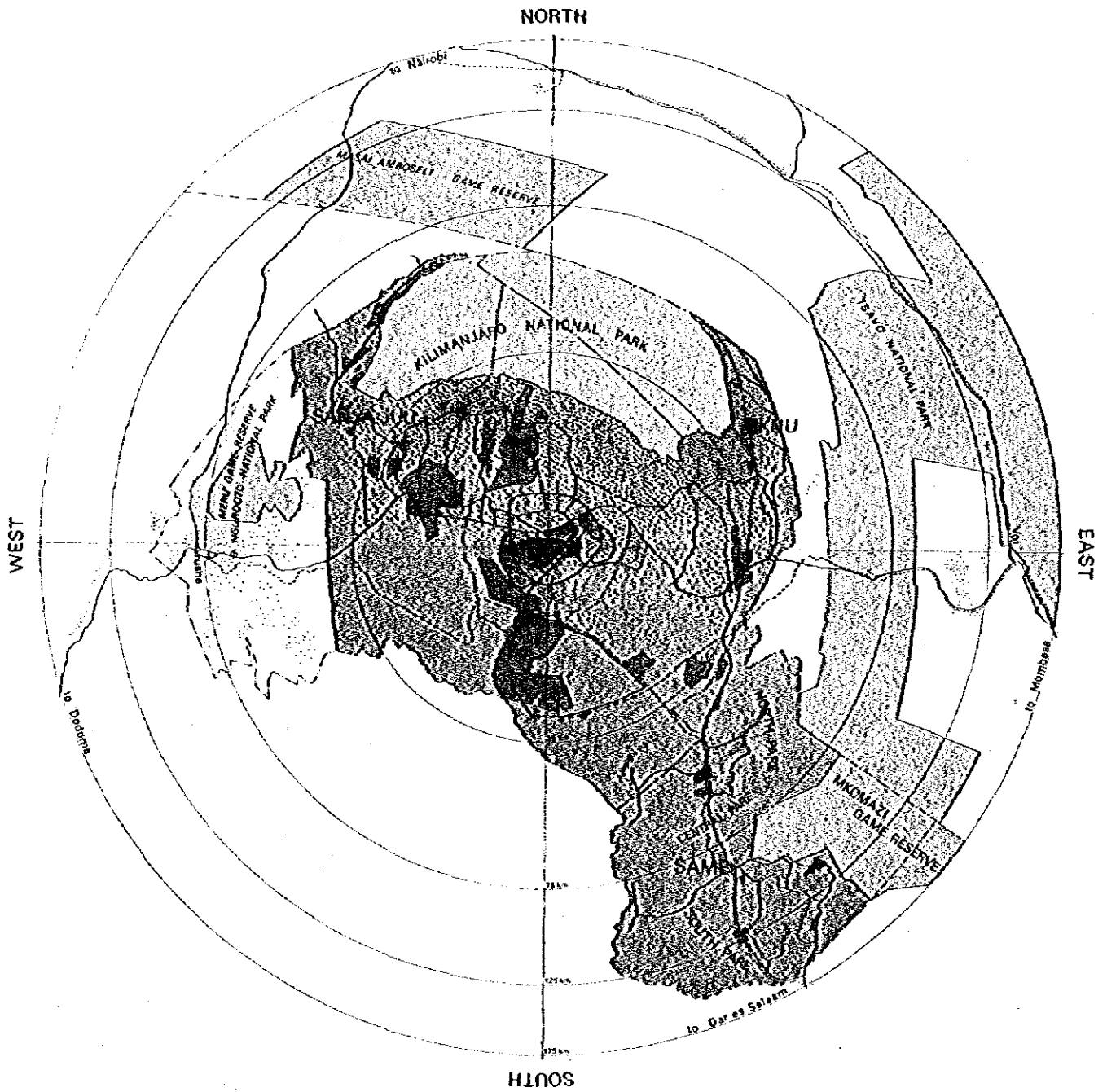
THE LANDS

This drawing maps the area of the region within a radius of 175 km of Moshi Town by the logarithmic method, showing the geographical and surface features. It is as if one were viewing the entire Kilimanjaro Region and neighboring lands through a fish eye finder from an airplane flying over Moshi Town. The writing is in Swahili.



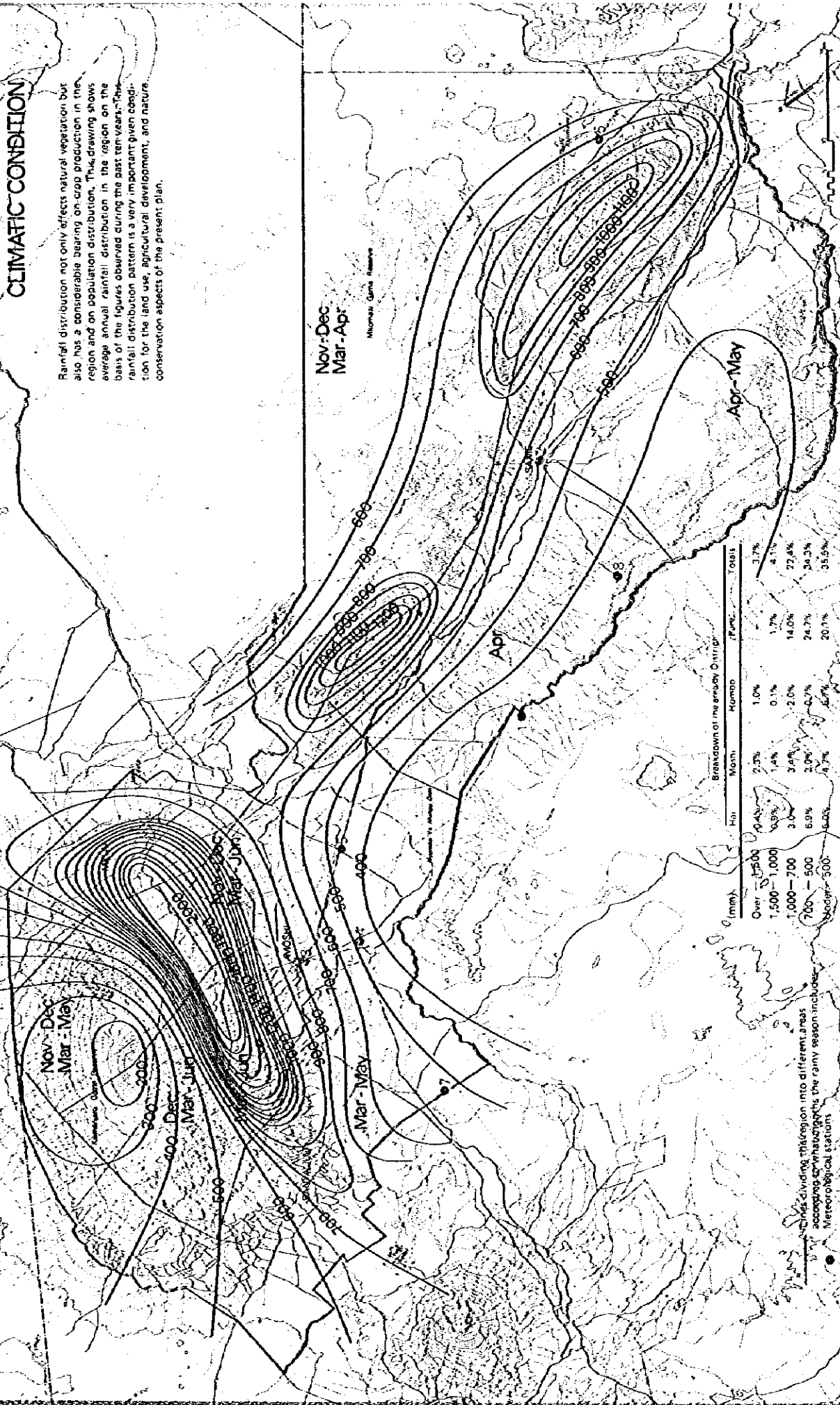
THE PEOPLES

This drawing uses the same method as that on the left-hand page to indicate the population distribution, railroad network, estates, game reserves, and other aspects of the land-use plan for the region for the year 1995. The gray areas outside the region are game reserve areas, the gray areas in the region with orange outlines estates, and the red spots indicate population concentrations.



CLIMATIC CONDITION

Rainfall distribution not only affects natural vegetation but also has a considerable bearing on crop production in the region and on population distribution. This drawing shows average annual rainfall distribution in the region on the basis of the figures observed during the past ten years. The rainfall distribution pattern is a very important given condition for the land use, agricultural development, and nature conservation aspects of the present plan.



Breakdown of the aready District

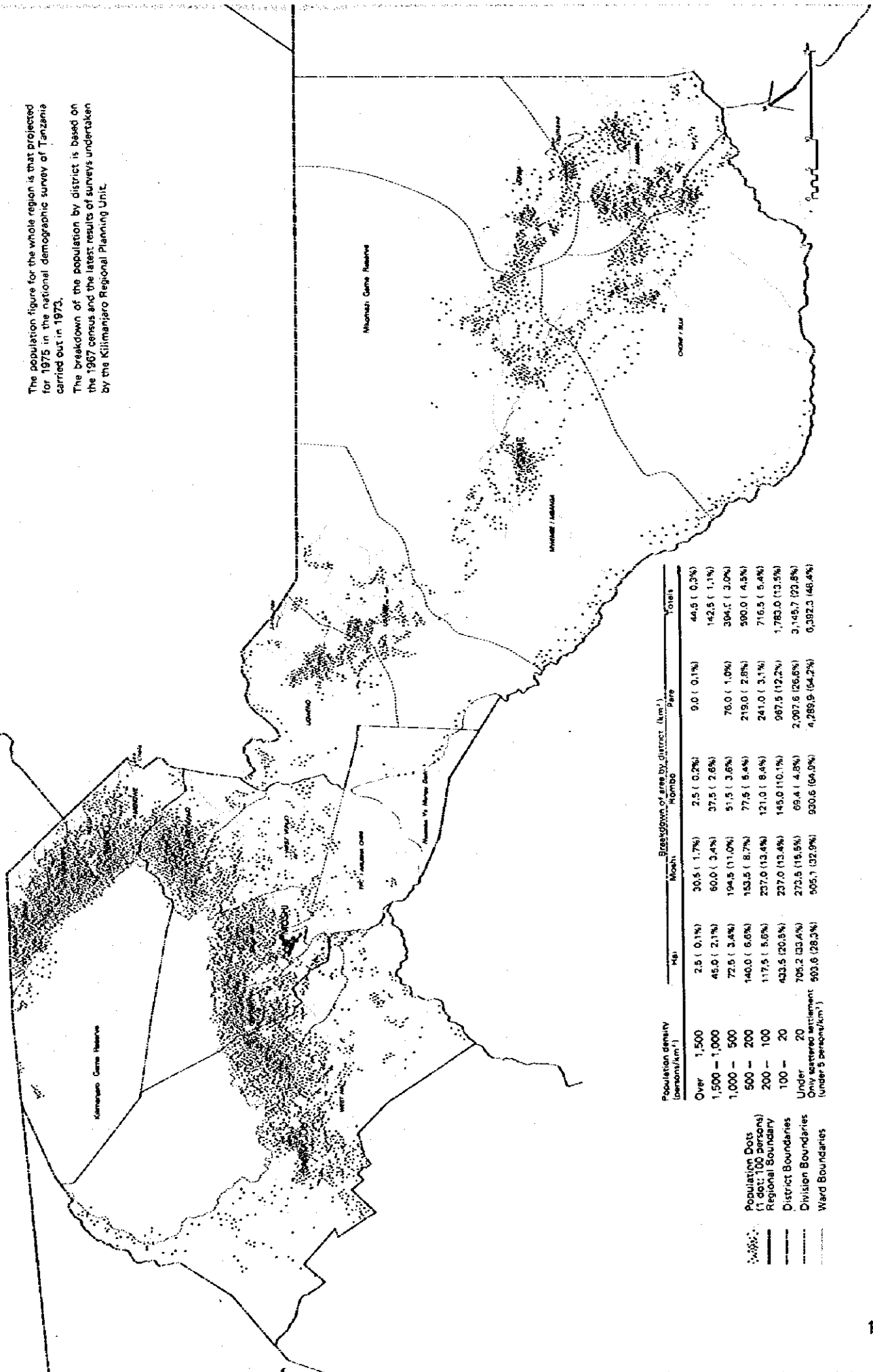
mm	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Over 1500	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1500-1000	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
1000-700	3.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	27.4%
700-500	6.9%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	36.3%
Under 500	5.0%	8.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	35.5%

This dividing this region into different areas according to the rainfall in the rainy season includes Meteorological stations

POPULATION DISTRIBUTION

The population figure for the whole region is that projected for 1975 in the national demographic survey of Tanzania carried out in 1973.

The breakdown of the population by district is based on the 1967 census and the latest results of surveys undertaken by the Kilimanjaro Regional Planning Unit.

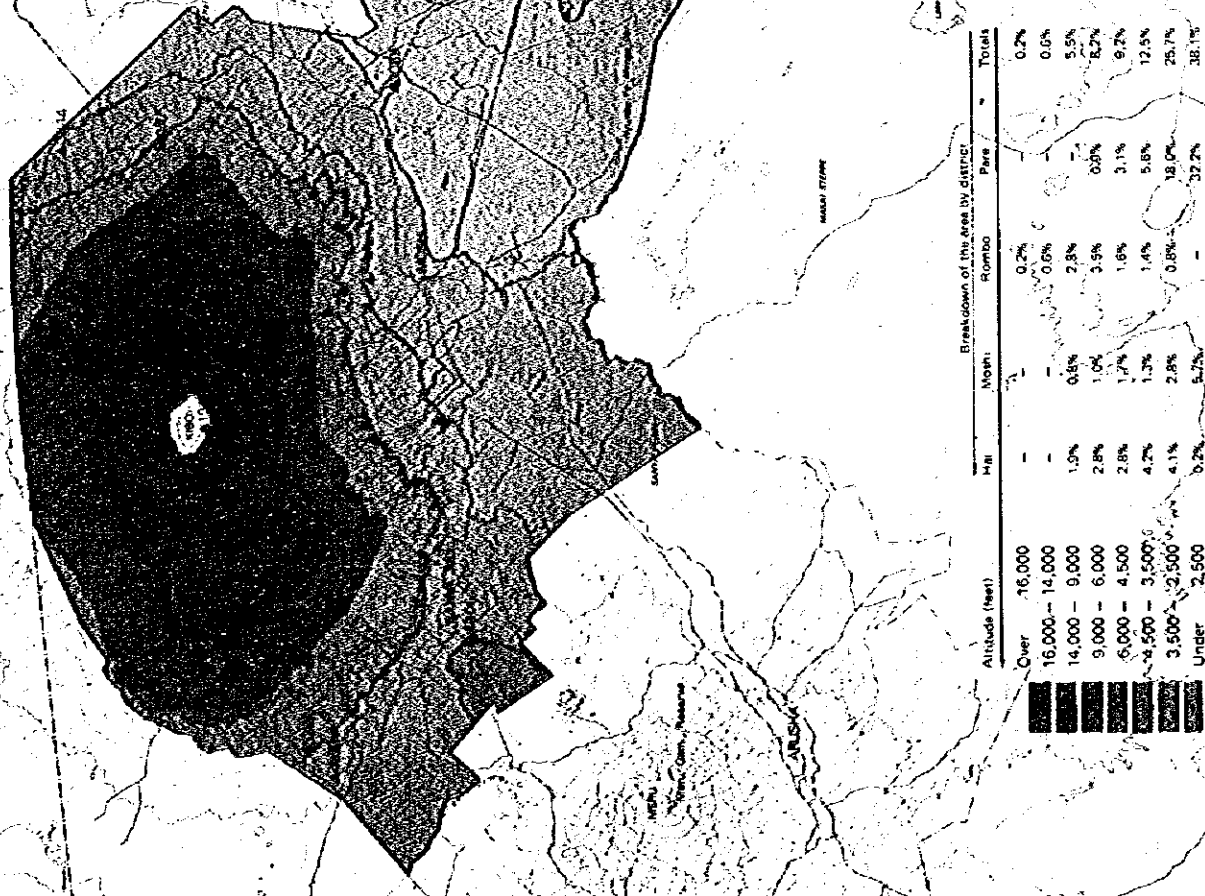


Population density (persons/km ²)	Breakdown of area by district (km ²)				Total
	Moshi	Hombu	Mkwana	Game Reserve	
Over 1,500	2.5 (0.1%)	30.5 (1.7%)	2.5 (0.2%)	46.5 (0.3%)	46.5 (0.3%)
1,500 - 1,000	45.0 (2.1%)	60.0 (3.4%)	37.5 (2.6%)	142.5 (1.1%)	142.5 (1.1%)
1,000 - 500	72.5 (3.4%)	194.5 (11.0%)	51.5 (3.6%)	309.5 (2.0%)	309.5 (2.0%)
500 - 200	140.0 (6.6%)	153.5 (8.7%)	77.5 (5.4%)	390.0 (2.8%)	390.0 (2.8%)
200 - 100	117.5 (5.6%)	237.0 (13.4%)	121.0 (8.6%)	575.5 (4.1%)	575.5 (4.1%)
100 - 20	433.5 (20.5%)	237.0 (13.4%)	145.0 (10.1%)	815.5 (5.9%)	815.5 (5.9%)
Under 20	705.2 (33.4%)	273.5 (15.5%)	69.4 (4.8%)	1,048.1 (7.7%)	1,048.1 (7.7%)
Only scattered settlement (under 5 persons/km ²)	503.6 (28.3%)	930.6 (54.0%)	4,789.9 (34.2%)	6,224.1 (46.5%)	6,224.1 (46.5%)

- Population Dots (1 dot: 100 persons)
- Regional Boundary
- District Boundaries
- Division Boundaries
- Ward Boundaries

TOPOGRAPHY

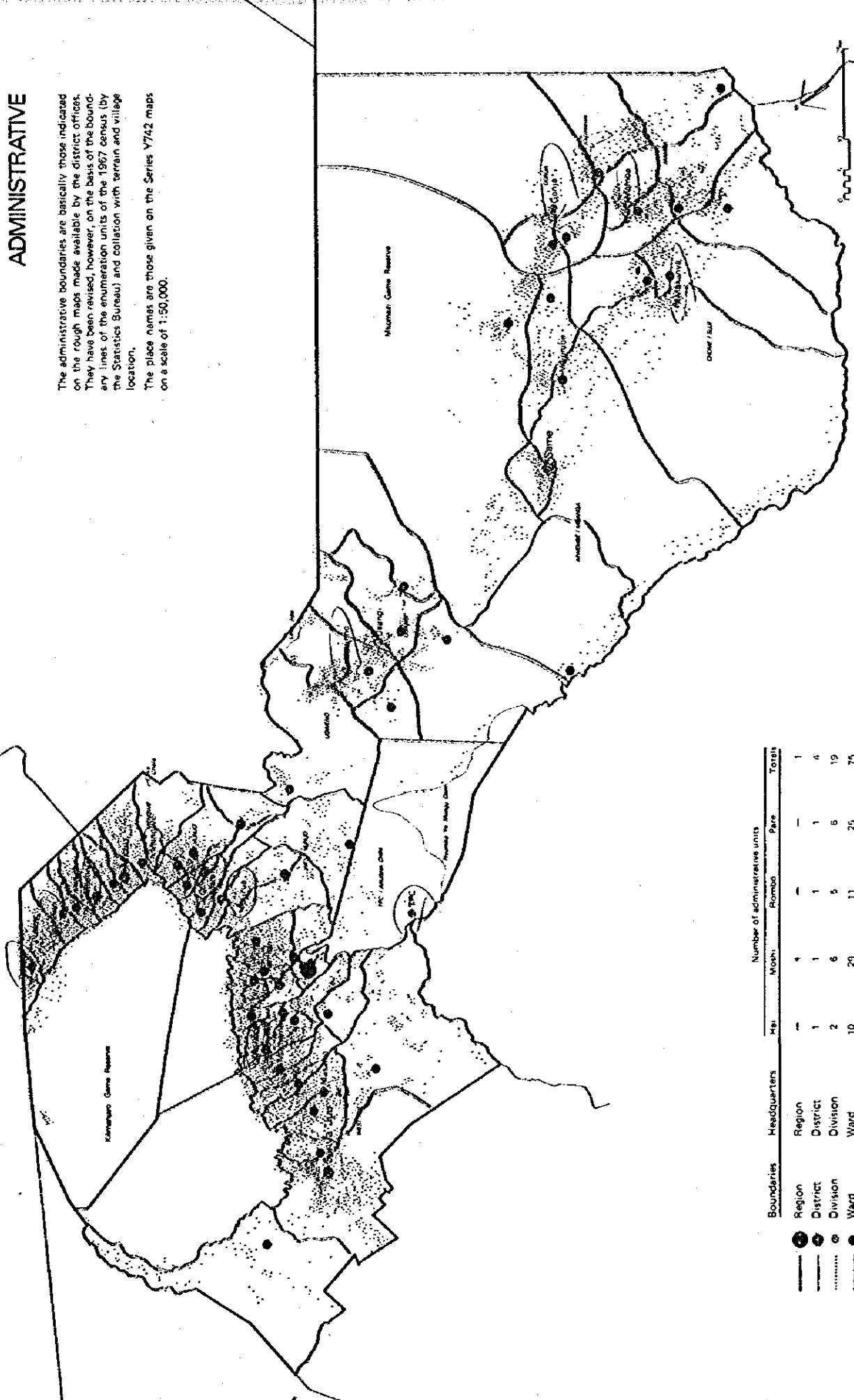
This drawing gives 8 elevation ranges, with each higher range represented by a darker tone. The summit of Mt. Kilimanjaro is 19,340 ft. above sea level, and the highest points in north, central, and south Pare are 6,932 ft., 5,708 ft., and 8,080 ft., respectively. About one-third of the area of the region is above 3,500 ft., another one-third between 3,500 ft. and 2,500 ft., and the remaining one-third below that.



ADMINISTRATIVE

The administrative boundaries are basically those indicated on the rough maps made available by the district offices. They have been revised, however, on the basis of the boundaries shown on any lines of the enumeration units of the 1967 census (by the Statistics Bureau) and collation with terrain and village location.

The place names are those given on the Series Y742 maps on a scale of 1:50,000.

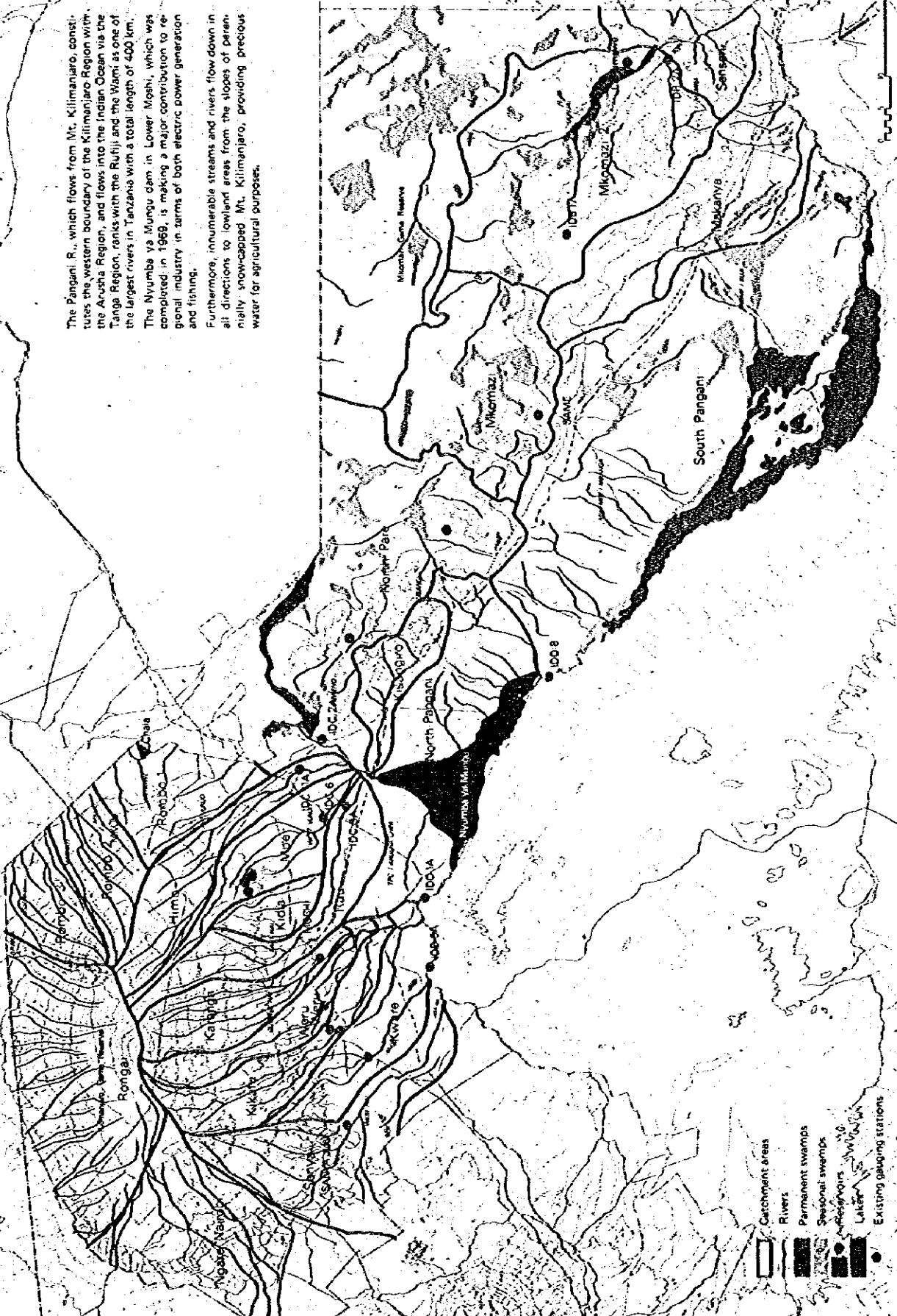


Boundaries	Headquarters	Number of administrative units				Totals
		Res	Dist	Div	Ward	
Region	1	1	1	1	1	4
District	2	6	5	6	19	19
Division	10	20	11	25	75	75
Ward						

RIVER, LAKE, & RESERVOIR

The Pangani R., which flows from Mt. Kilimanjaro, constitutes the western boundary of the Kilimanjaro Region with the Arusha Region, and flows into the Indian Ocean via the Tanga Region, ranks with the Rufiji and the Wami as one of the largest rivers in Tanzania with a total length of 400 km. The Nyumba ya Mungu dam in Lower Moshi, which was completed in 1969, is making a major contribution to regional industry in terms of both electric power generation and fishing.

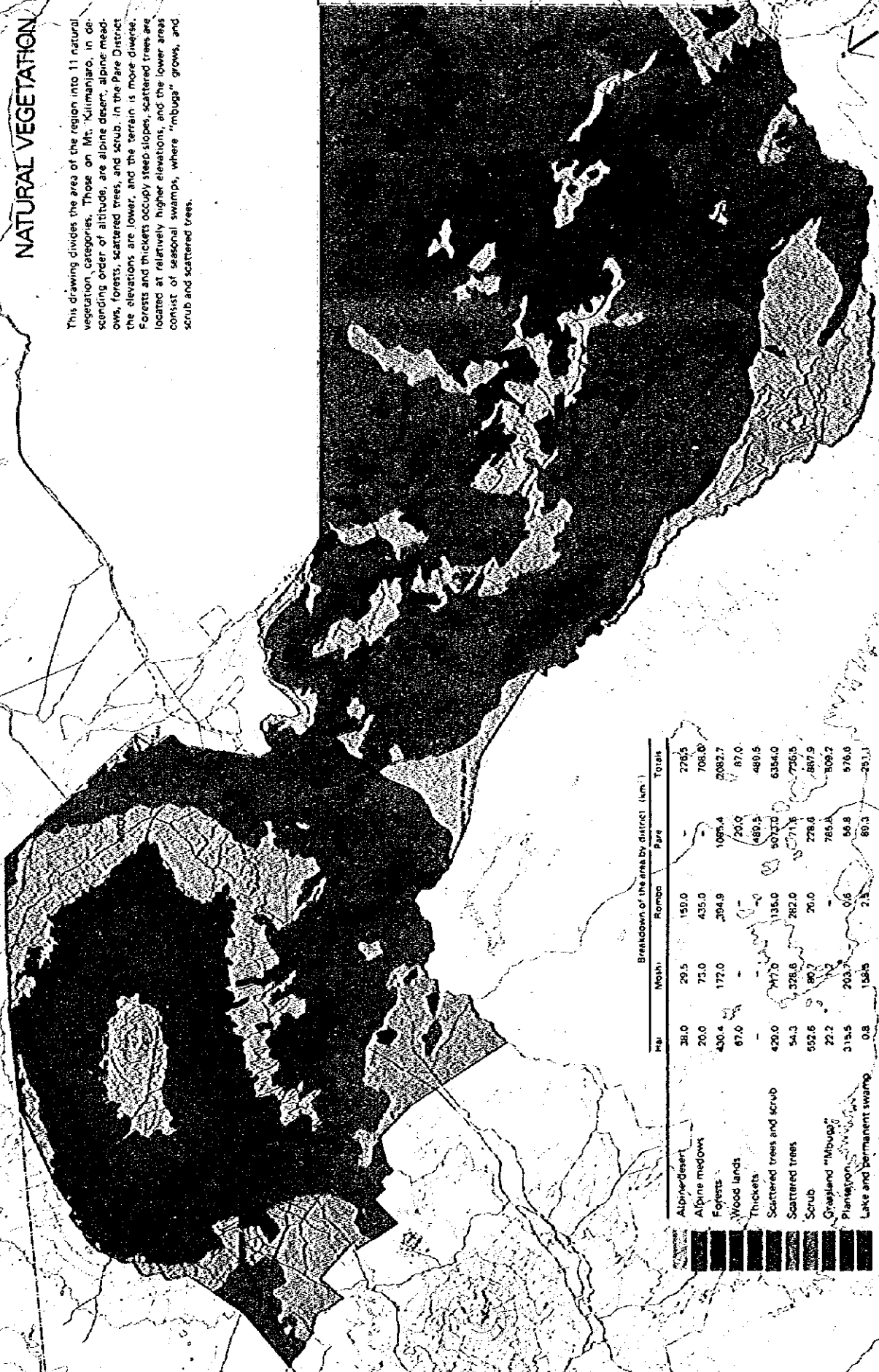
Furthermore, innumerable streams and rivers flow down in all directions to lowland areas from the slopes of perennially snow-capped Mt. Kilimanjaro, providing precious water for agricultural purposes.



- Catchment areas
- Rivers
- Permanent swamps
- Seasonal swamps
- Dams
- Existing gauging stations

NATURAL VEGETATION

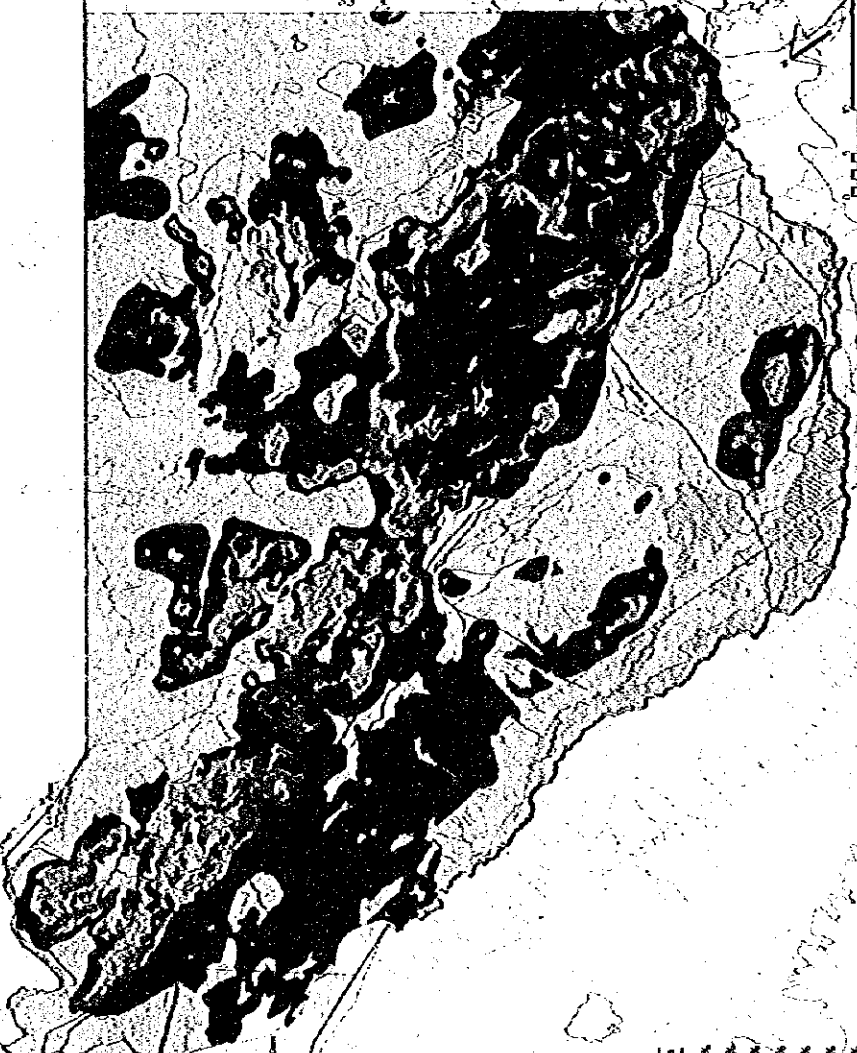
This drawing divides the area of the region into 11 natural vegetation categories. Those on Mt. Kilimanjaro, in descending order of altitude, are alpine desert, alpine meadows, forests, scattered trees, and scrub. In the Pare District the elevations are lower, and the terrain is more diverse. Forests and thickets occupy steep slopes, scattered trees are located at relatively higher elevations, and the lower areas consist of seasonal swamps, where "mbugu" grows, and scrub and scattered trees.



	Breakdown of the area by district (km ²)				Totals
	Ha	Mushi	Rombo	Pare	
Alpine desert	30.0	29.5	150.0	-	209.5
Alpine meadows	20.0	75.0	435.0	-	530.0
Forests	430.4	172.0	394.9	1095.4	2092.7
Scattered trees	67.0	-	-	250.0	317.0
Scrub	-	-	-	480.5	480.5
Thickets	-	-	-	5072.0	5072.0
Wood lands	420.0	117.0	135.0	5072.0	6354.0
Scattered trees and scrub	54.3	328.8	262.0	277.0	1322.1
Scattered trees	552.6	80.7	26.0	278.0	887.3
Scrub	22.2	-	-	785.8	808.0
Grassland "Mbugu"	315.5	203.7	0.6	56.8	576.6
Plain forest	0.8	158.5	2.3	80.3	241.9
Lake and permanent swamp	-	-	-	-	-

LAND RELIEF

This drawing, which is based on a contour map on a scale of 1:50,000 and gives 7 gradient categories, shows the undulation of the land in detail. Approx. half of the area of the region is flat land with a gradient of less than 2 deg., 40% has slopes of 2 - 15%, and the remaining 10% is land with gradients in excess of 15 deg. On the whole, the slopes of Mt. Kilimanjaro have relatively gentle gradients of 4 - 8 deg., and those of the Para mountains are in the much steeper range of 8 - 30 deg.

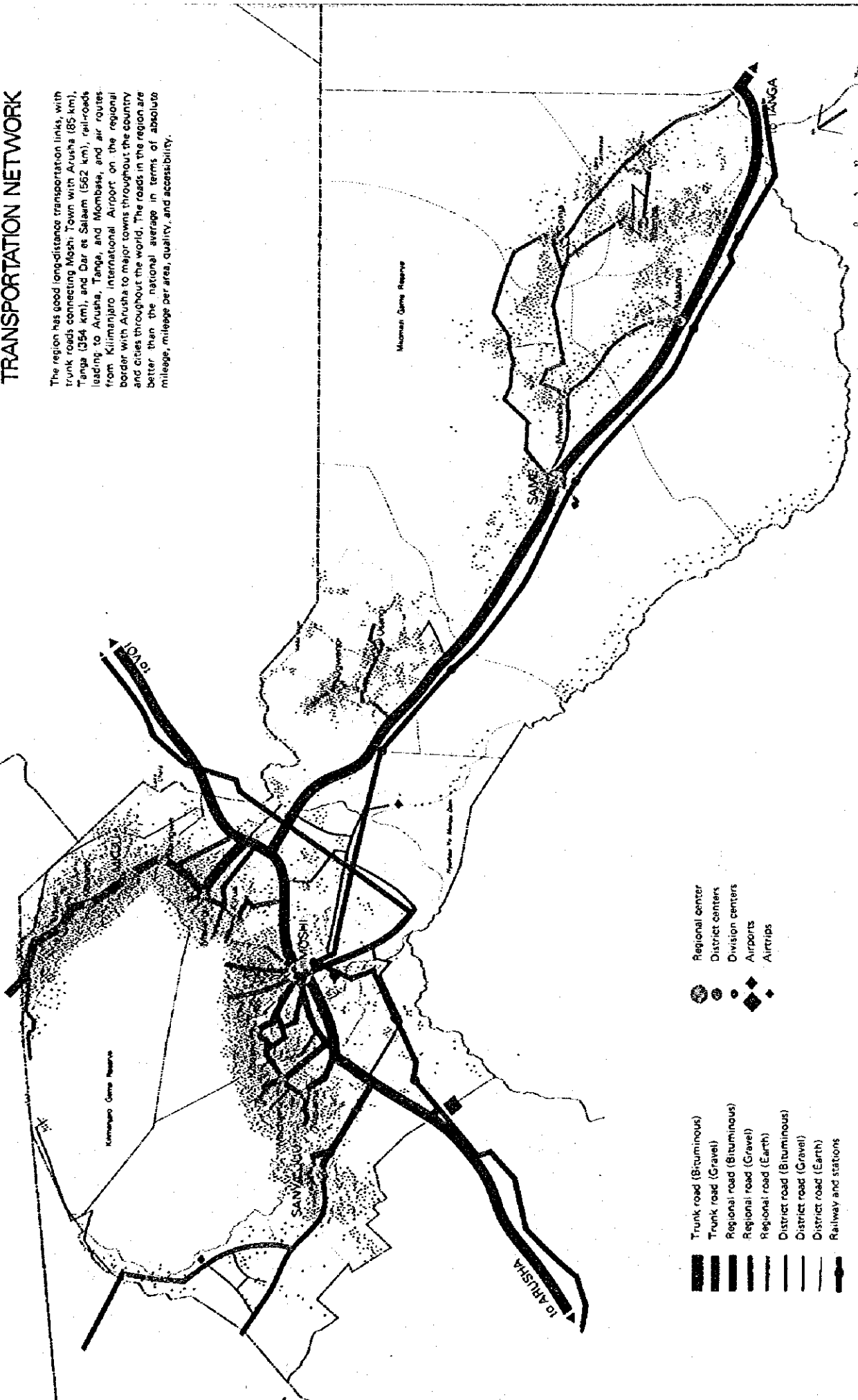


Breakdown of the area by district

	Har	Moah	Rombozi	Para	Total
Over 30°	0.5%	-	-	0.7%	2.2%
30° - 15°	0.1%	0.2%	0.7%	4.3%	5.3%
15° - 8°	1.0%	0.7%	1.2%	3.8%	6.7%
8° - 4°	0.4%	0.3%	0.4%	3.8%	4.9%
4° - 2°	5.6%	5.0%	-	9.3%	20.1%
2° - 1°	2.5%	1.0%	-	5.0%	8.4%
Under 1°	5.5%	4.8%	-	31.2%	41.5%

TRANSPORTATION NETWORK

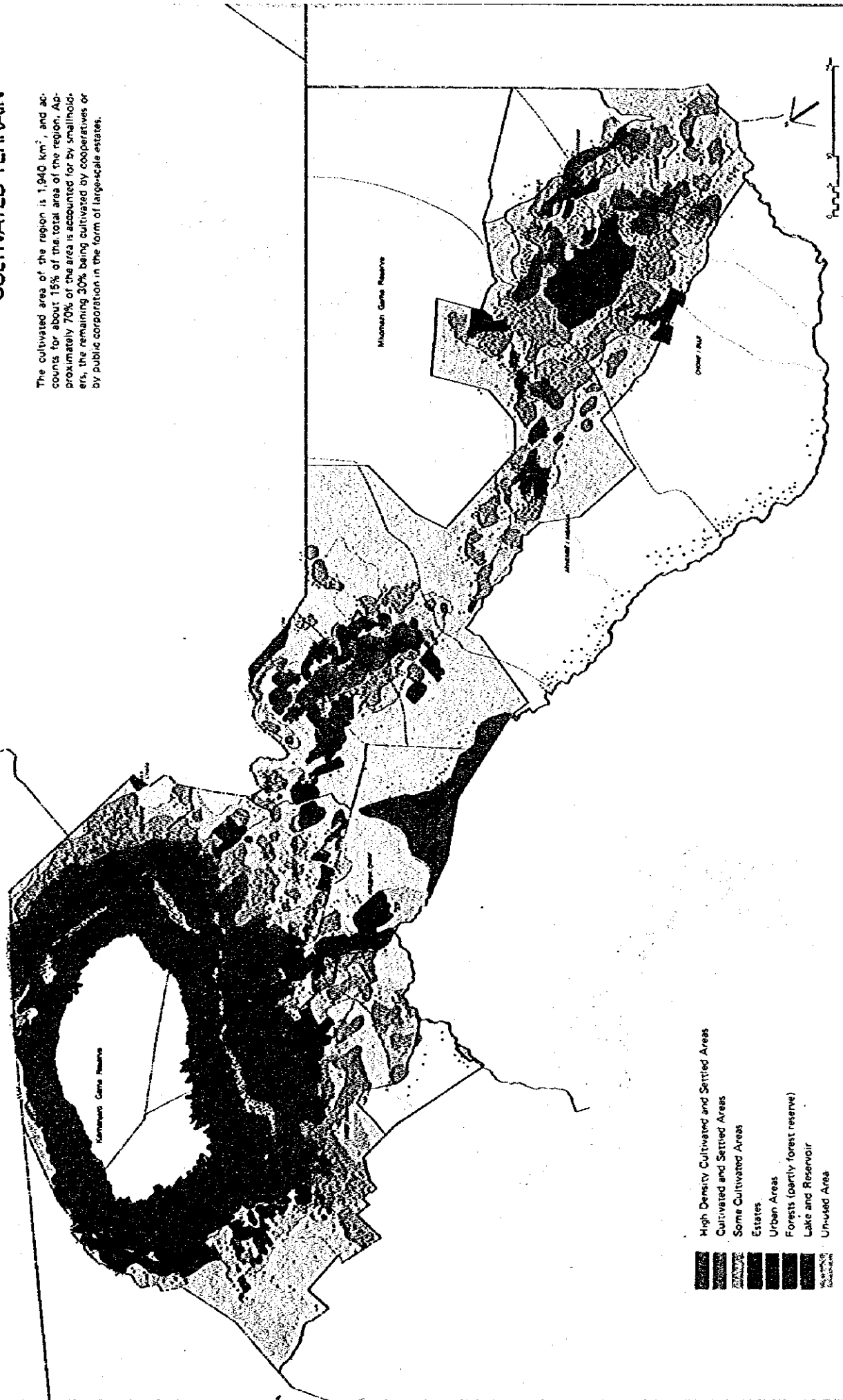
The region has good long-distance transportation links, with trunk roads connecting Moshi Town with Arusha (85 km), Tanga (354 km), and Dar es Salaam (562 km), rail-roads leading to Arusha, Tanga, and Mombasa, and air routes from Kilimanjaro International Airport on the regional border with Arusha to major towns throughout the country and cities throughout the world. The roads in the region are better than the national average in terms of absolute mileage, mileage per area, quality, and accessibility.



- | | | | |
|--|----------------------------|--|------------------|
| | Trunk road (Bituminous) | | Regional center |
| | Trunk road (Gravel) | | District centers |
| | Regional road (Bituminous) | | Division centers |
| | Regional road (Gravel) | | Airports |
| | Regional road (Earth) | | Airrips |
| | District road (Bituminous) | | |
| | District road (Gravel) | | |
| | District road (Earth) | | |
| | Railway and stations | | |

CULTIVATED TERRAIN

The cultivated area of the region is 1,940 km², and accounts for about 15% of the total area of the region. Approximately 70% of the area is accounted for by smallholders, the remaining 30% being cultivated by cooperatives or by public corporation in the form of large-scale estates.



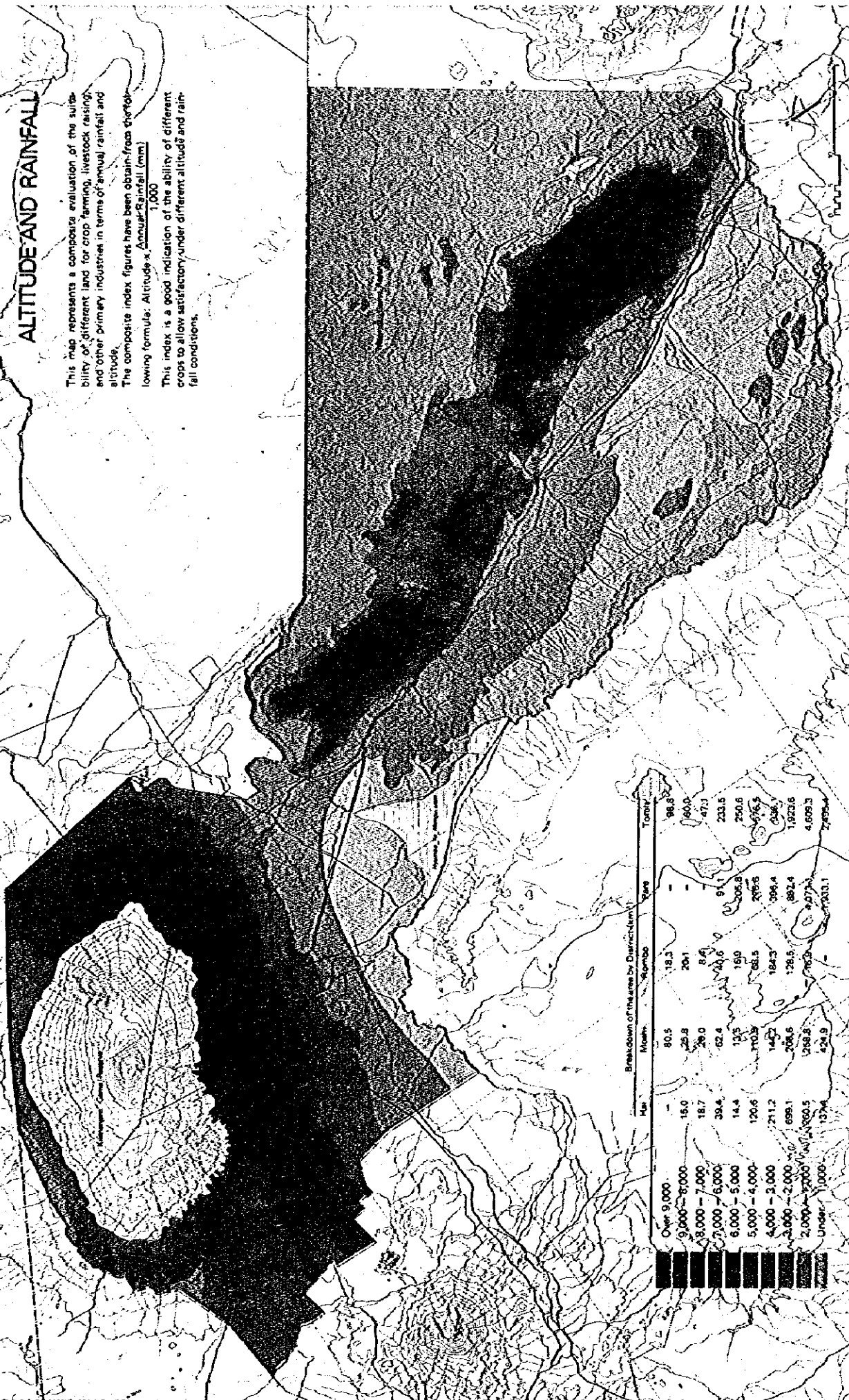
- High Density Cultivated and Settled Areas
- Cultivated and Settled Areas
- Some Cultivated Areas
- Estates
- Urban Areas
- Forests (partly forest reserve)
- Lake and Reservoir
- Unused Area

ALTITUDE AND RAINFALL

This map represents a composite evaluation of the suitability of different land for crop farming, livestock raising, and other primary industries in terms of annual rainfall and altitude.

The composite index figures have been obtained from the following formula: $\text{Altitude} \times \frac{\text{Annual Rainfall (mm)}}{1,000}$

This index is a good indication of the ability of different crops to allow satisfactory yields under different altitude and rainfall conditions.



Breakdown of the area by District (km²)

	Max	Min	Month	Square	Total
Over 9,000	-	80.5	18.3	-	98.3
8,000 - 9,000	15.0	25.8	20.1	-	60.0
7,000 - 8,000	18.7	26.0	8.4	-	47.3
6,000 - 7,000	39.4	62.4	34.6	9	233.5
5,000 - 6,000	14.4	13.5	15.9	205.9	250.6
4,000 - 5,000	120.6	110.3	88.5	276.5	676.5
3,000 - 4,000	21.2	14.7	18.3	306.4	436.7
2,000 - 3,000	699.1	208.6	128.5	382.4	1,923.6
1,000 - 2,000	1,160.5	129.8	76.3	477.7	4,609.3
Under 1,000	137.4	424.9	-	333.1	2,895.4

HUMAN HABITABILITY

This map presents the degree of human habitability of various areas of the region in terms of both natural and social conditions. The categories of evaluation can be briefly described as follows.

Very good: Areas with high population density potential, located chiefly in the highland zone and the Pare mountain zone, except for the four towns.

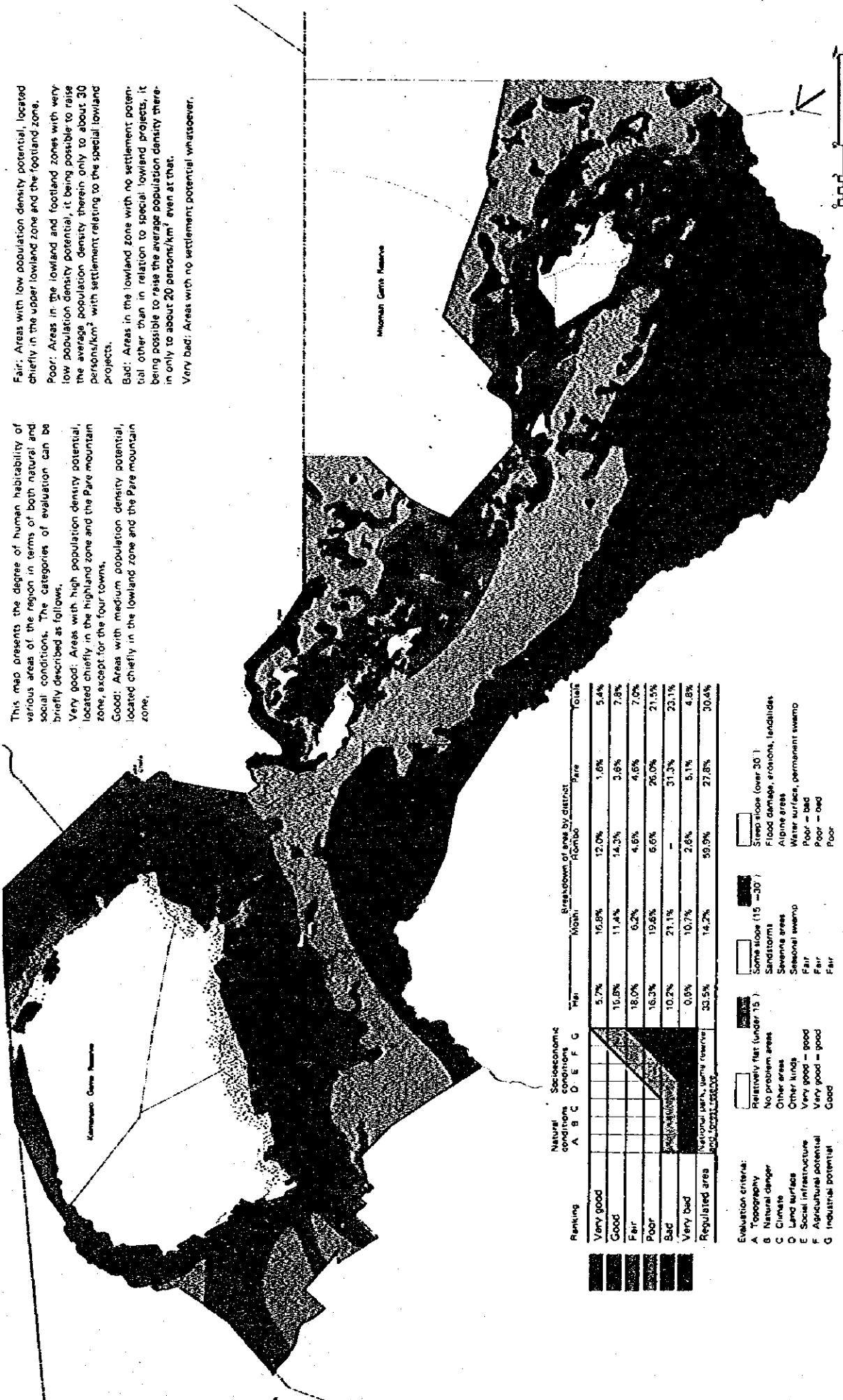
Good: Areas with medium population density potential, located chiefly in the lowland zone and the Pare mountain zone.

Fair: Areas with low population density potential, located chiefly in the upper lowland zone and the footland zone.

Poor: Areas in the lowland and footland zones with very low population density potential, it being possible to raise the average population density therein only to about 30 persons/km² with settlement relating to the special lowland projects.

Bad: Areas in the lowland zone with no settlement potential other than in relation to special lowland projects, it being possible to raise the average population density therein only to about 20 persons/km² even at that.

Very bad: Areas with no settlement potential whatsoever.

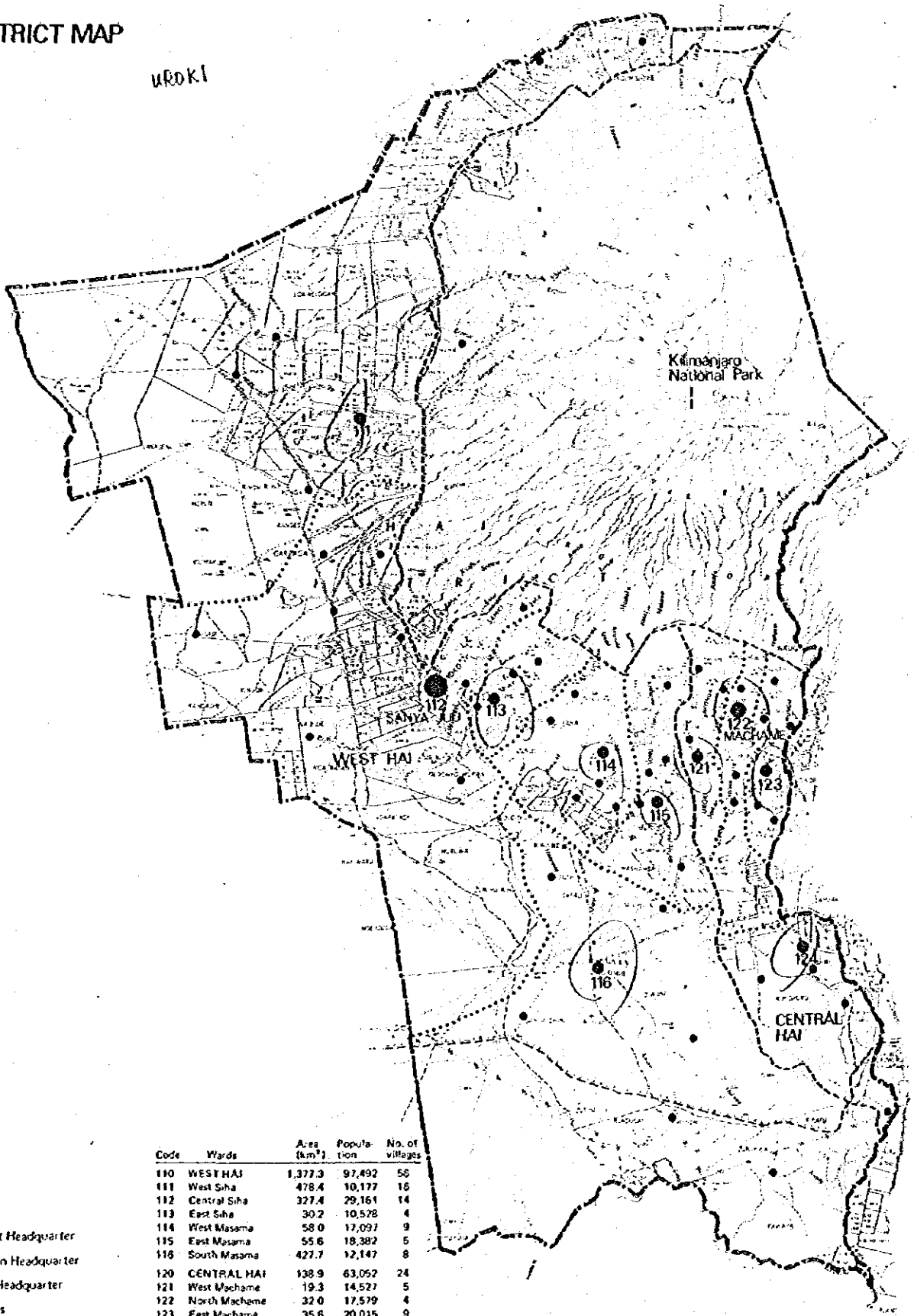


Ranking	Socioeconomic conditions							Breakdown of area by district			
	A	B	C	D	E	F	G	Para	Arusha	Mara	Total
Very good						5.7%		16.8%	12.0%	1.6%	5.4%
Good						10.8%		11.4%	14.3%	3.6%	7.8%
Fair						18.0%		6.2%	4.6%	4.6%	7.0%
Poor						16.3%		19.6%	6.6%	26.0%	21.5%
Bad						10.2%		21.1%	-	31.3%	23.1%
Very bad						0.9%		10.7%	2.6%	5.1%	4.8%
Regulated area						33.5%		14.2%	59.9%	27.8%	30.4%

- Evaluation criteria:**
- A Topography
 - B Natural danger
 - C Climate
 - D Land surface
 - E Social infrastructure
 - F Agricultural potential
 - G Industrial potential
- Natural conditions:**
- Relatively flat (under 15°)
 - No problem areas
 - Other areas
 - Land surface
 - Very good = good
 - Very good = good
 - Good
- Socioeconomic conditions:**
- Some slope (15° - 30°)
 - Sandstorms
 - Seasonal swamp
 - Seasonal swamp
 - Fair
 - Fair
 - Fair
- Breakdown of area by district:**
- Steep slope (over 30°)
 - Flood damage, erosion, landslides
 - Alpine areas
 - Water surface, permanent swam
 - Poor = bad
 - Poor = bad
 - Poor

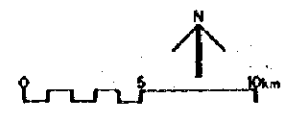
HAI DISTRICT MAP

URDK I

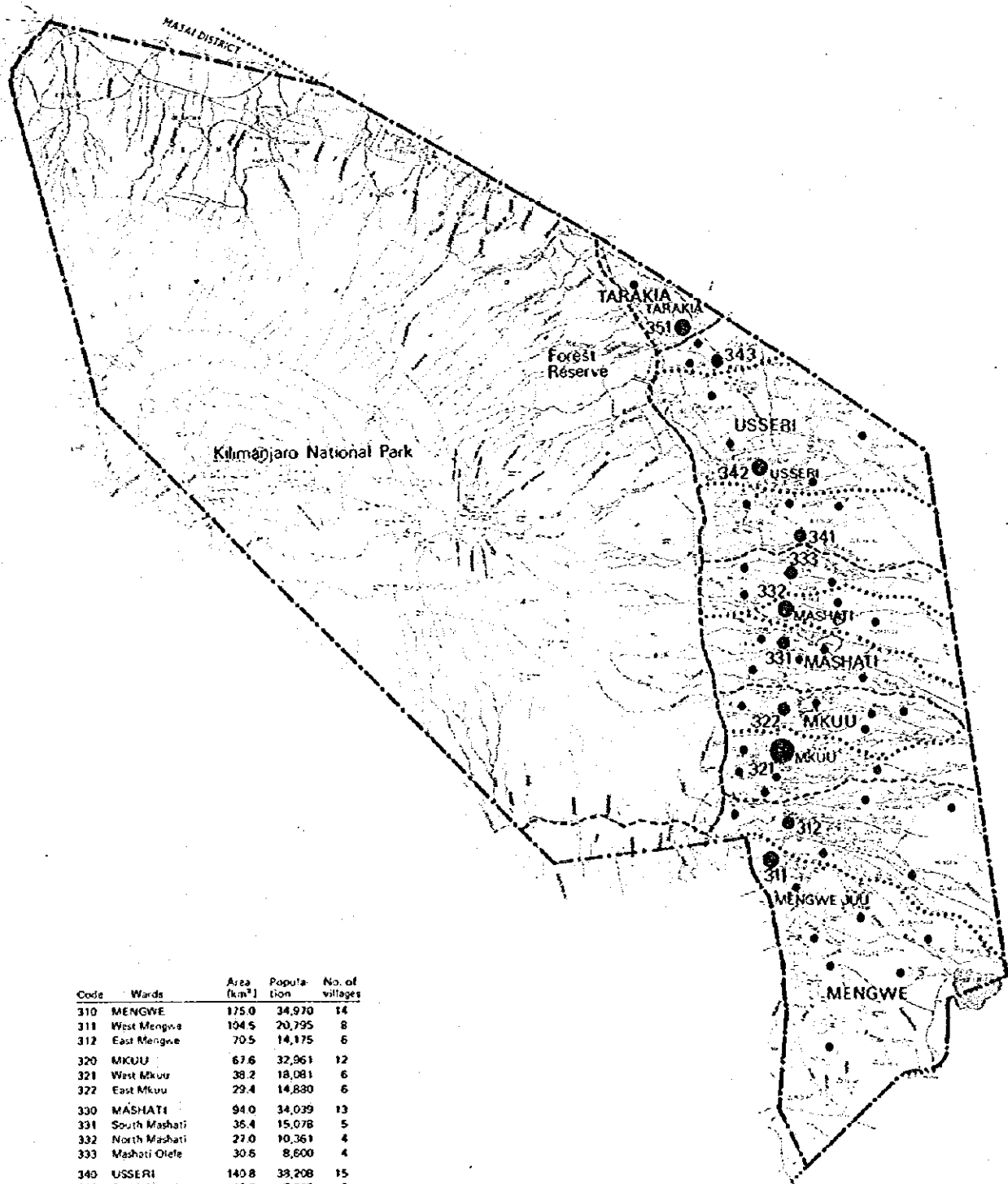


Code	Wards	Area (km ²)	Population	No. of villages
110	WEST HAI	1,377.3	97,492	56
111	West Siha	478.4	10,177	16
112	Central Siha	377.4	29,161	14
113	East Siha	30.2	10,528	4
114	West Masama	58.0	17,097	9
115	East Masama	55.6	18,382	5
116	South Masama	427.7	12,147	8
120	CENTRAL HAI	138.9	63,052	24
121	West Machame	19.3	14,527	5
122	North Machame	32.0	17,579	4
123	East Machame	35.6	20,015	9
124	South Machame	52.0	10,931	6
National park & forest reserve		593.6	-	-
Totals or average		2,109.8	160,544	80

- District Headquarter
- Division Headquarter
- Ward Headquarter
- Villages
- District Boundary Line
- Division Boundary Line
- Ward Boundary Line
- Forest Reserves



ROMBO DISTRICT MAP

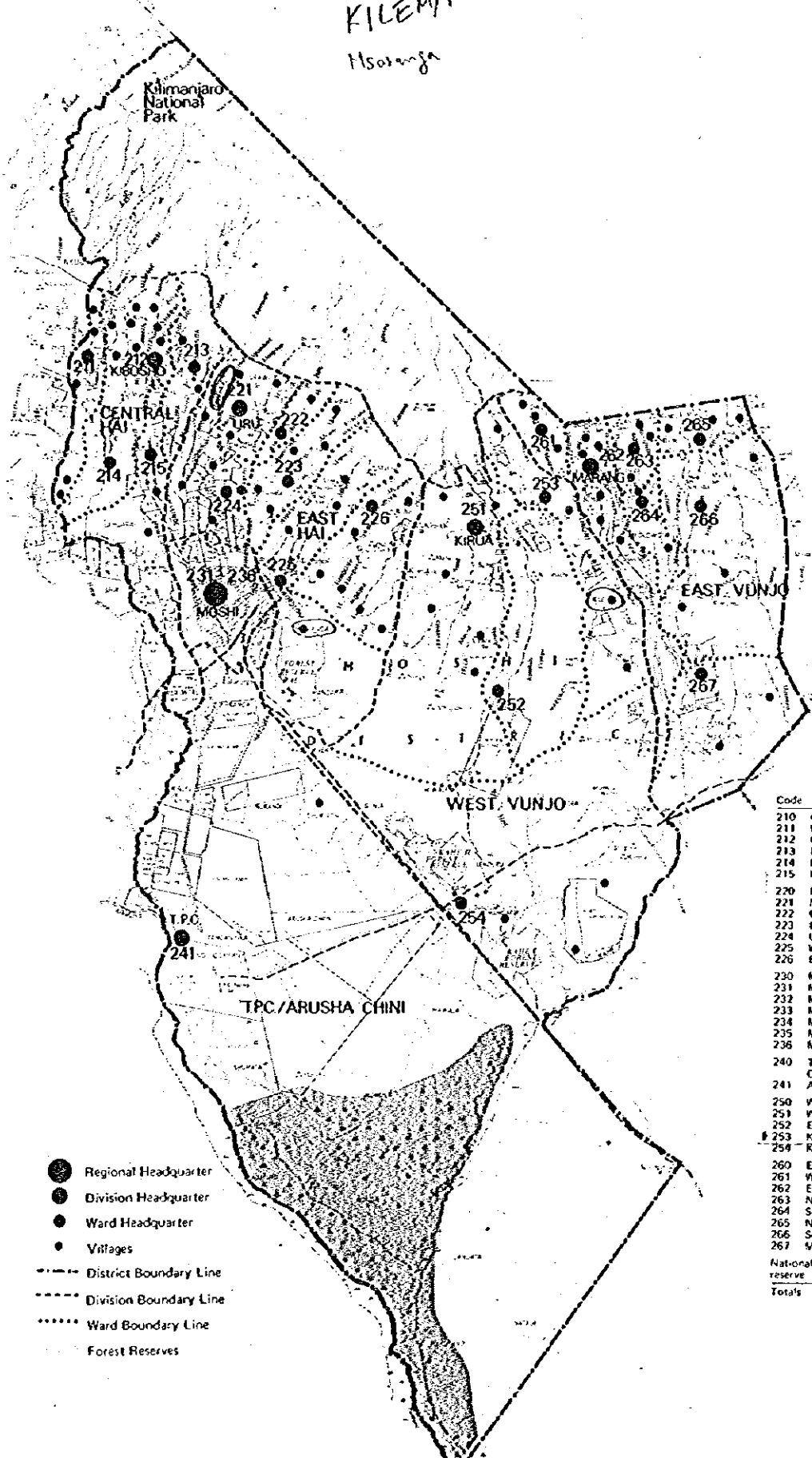


Code	Wards	Area (km ²)	Population	No. of villages
310	MENGWE	175.0	34,970	14
311	West Mengwe	104.5	20,795	8
312	East Mengwe	70.5	14,175	6
320	MKUU	67.6	32,961	12
321	West Mkuu	38.2	18,081	6
322	East Mkuu	29.4	14,880	6
330	MASHATI	94.0	34,039	13
331	South Mashati	36.4	15,078	5
332	North Mashati	27.0	10,361	4
333	Mashati Olele	30.6	8,600	4
340	USSERI	140.8	38,208	15
341	South Usseri	47.5	7,755	3
342	Central Usseri	77.5	20,730	8
343	North Usseri	15.8	9,723	4
350	TARAKIA	27.0	6,094	2
351	Tarakia	27.0	6,094	2
National park & forest reserve		930.6	-	-
Totals		1,435.0	146,272	56



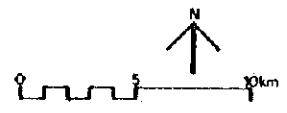
MOSHI DISTRICT MAP

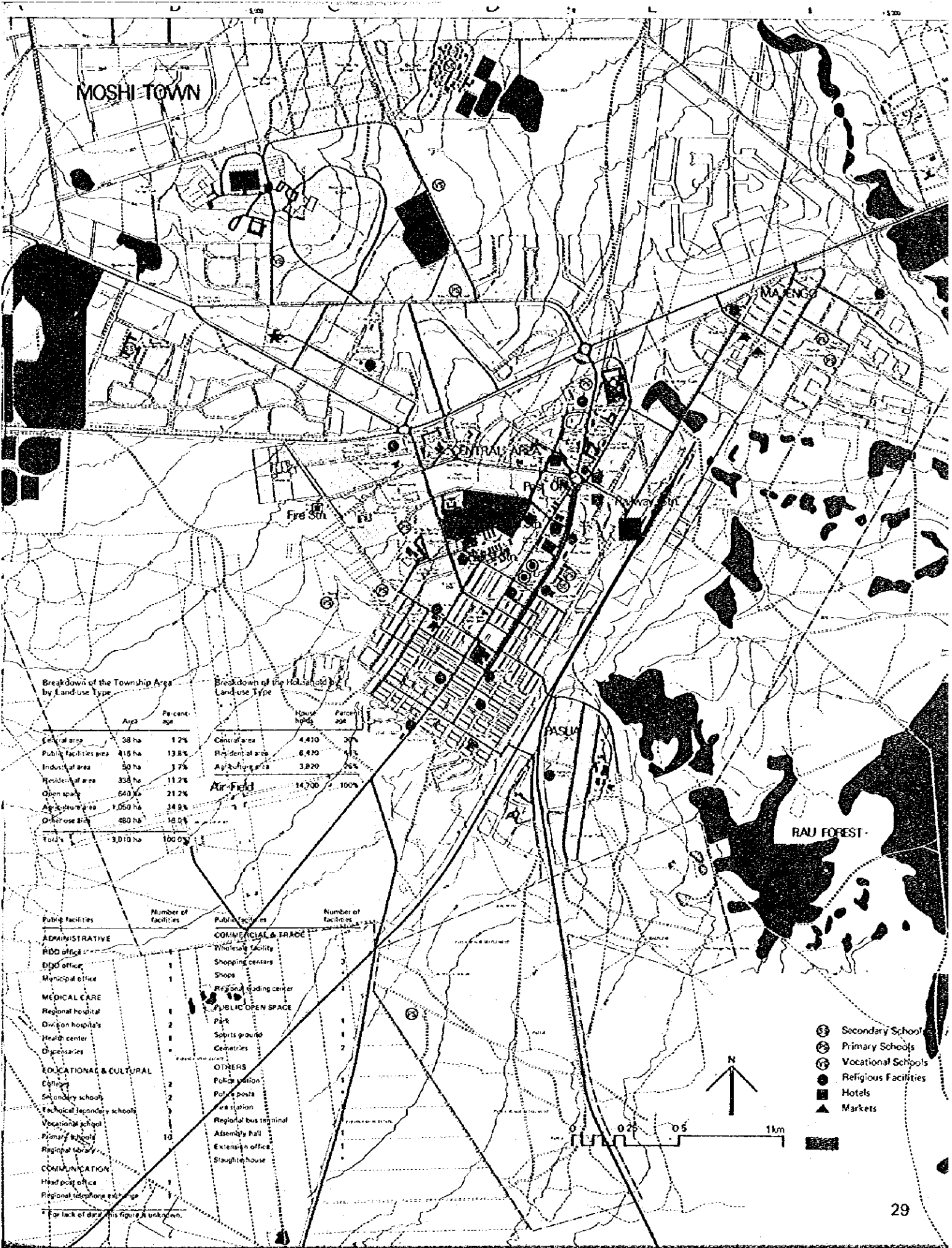
MWEKA
KILEMA
Hsotanga



Code	Wards	Area (km ²)	Population	No. of villages
210	CENTRAL HAI	120.5	74,902	28
211	West Kibosho	23.6	28,129	8
212	Central Kibosho	30.2	20,068	10
213	East Kibosho	11.5	7,284	3
214	Machame Kindi	13.4	13,809	4
215	Kuema	41.8	5,582	3
220	EAST HAI	182.8	89,754	33
221	North Uru	15.1	22,310	4
222	Uru Shimbwe	9.1	4,567	2
223	East Uru	26.6	10,638	7
224	Uru Maxella	34.5	15,582	6
225	West Old Moshi	56.3	20,561	6
226	East Old Moshi	44.2	15,936	8
230	MOSHI	30.1	50,000	-
231	Moshi North	-	-	-
232	Moshi East	-	-	-
233	Moshi South-A	-	-	-
234	Moshi South-B	-	-	-
235	Moshi Central	-	-	-
236	Moshi Pasua	-	-	-
240	TPC/ARUSHA CHINI	599.5	4,818	4
241	Arusha Chini	599.5	4,818	4
250	WEST VUNJO	374.7	58,267	32
251	West Kirua	101.7	18,981	8
252	East Kirua Vunjo	68.4	9,047	4
253	Kilema	44.8	19,923	11
254	Kafe	159.8	10,316	9
260	EAST VUNJO	224.2	88,154	35
261	West Marangu	17.0	16,615	7
262	East Marangu	39.4	16,500	7
263	North Mamba	19.4	7,423	4
264	South Mamba	9.7	8,800	4
265	North Mwiika	21.2	14,033	5
266	South Mwiika	60.0	20,155	5
267	Mwika Makuyuni	48.5	4,588	3
National park and forest reserve		232.3	-	-
Totals		1,764.1	365,895	132

- Regional Headquarter
- Division Headquarter
- Ward Headquarter
- Villages
- - - - District Boundary Line
- - - - Division Boundary Line
- Ward Boundary Line
- Forest Reserves





Break-down of the Township Area by Land-use Type

	Area	Percentage
Central area	38 ha	1.2%
Public facilities area	415 ha	13.8%
Industrial area	30 ha	1.7%
Residential area	338 ha	11.2%
Open space	643 ha	21.2%
Agriculture area	1,050 ha	34.9%
Other use area	480 ha	16.0%
Total	3,010 ha	100.0%

Break-down of the Household Land-use Type

	House holds	Percentage
Central area	4,410	30%
Residential area	6,430	44%
Agriculture area	3,820	26%
Air Field	14,700	100%

Public facilities

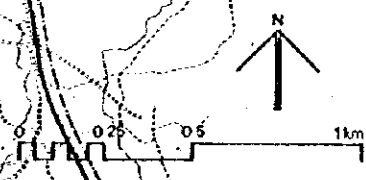
	Number of facilities
ADMINISTRATIVE	
RDD office	1
DDO office	1
Municipal office	1
MEDICAL CARE	
Regional hospital	1
Division hospitals	2
Health center	1
Dispensaries	1
EDUCATIONAL & CULTURAL	
College	2
Secondary school	2
Technical secondary schools	3
Vocational school	1
Primary schools	10
Regional library	1
COMMUNICATION	
Head post office	1
Regional telephone exchange	1

Public facilities

	Number of facilities
COMMERCIAL & TRADE	
Wholesale facility	1
Shopping centers	3
Shops	1
Regional trading center	1
PUBLIC OPEN SPACE	
Park	1
Sports ground	1
Cemeteries	2
OTHERS	
Police station	1
Police posts	1
Bus station	1
Regional bus terminal	1
Assembly hall	1
Extension office	1
Slaughterhouse	1

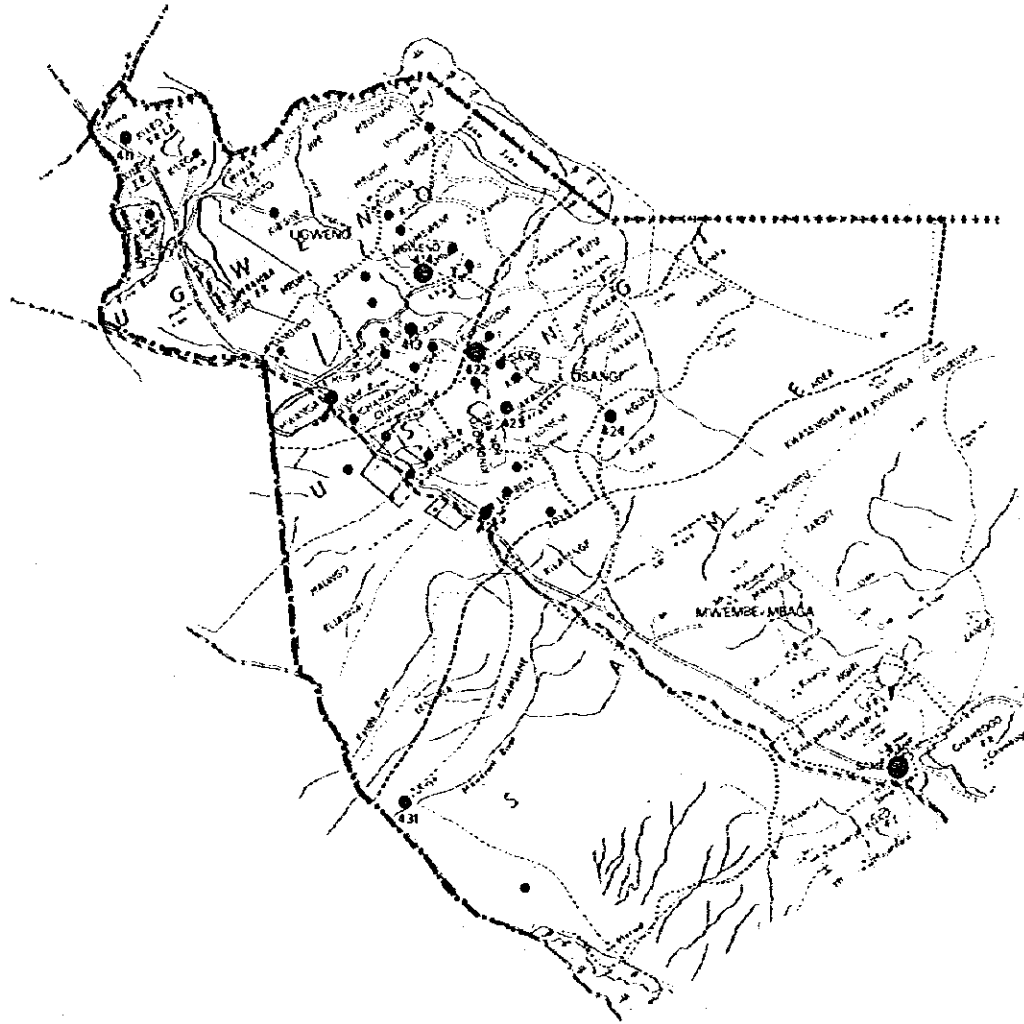
* For lack of data, this figure is unknown.

- ⊙ Secondary School
- ⊙ Primary Schools
- ⊙ Vocational Schools
- ⊙ Religious Facilities
- Hotels
- ▲ Markets



NORTH PARE MAP

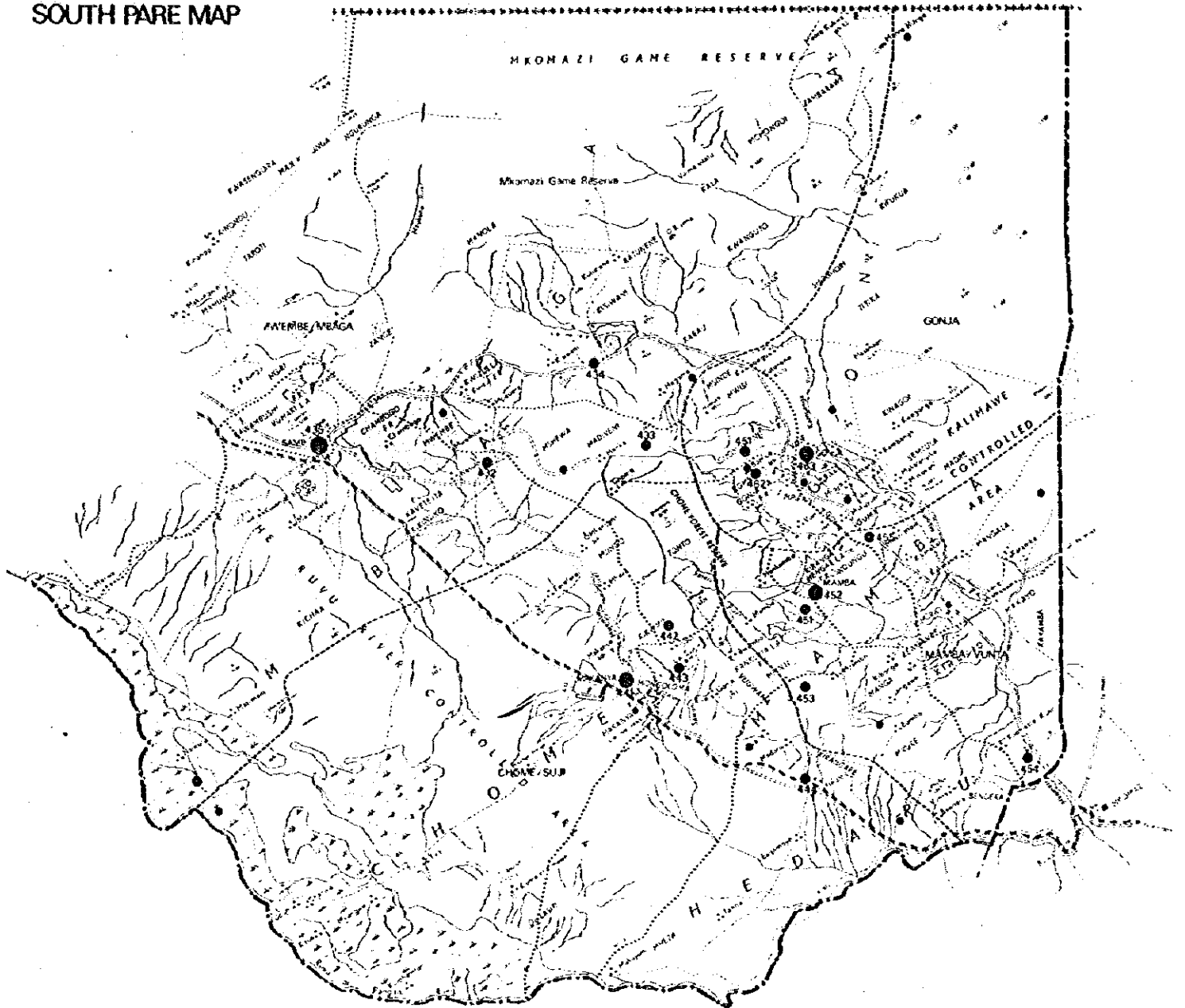
MWANGA



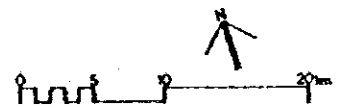
	Code	Wards	Area (km ²)	Population	No. of villages
●	410	UGWENO	584.6	29,266	22
●	411	Kitea	337.4	4,095	4
●	412	Mwanga	75.9	7,318	5
●	413	Msangeni	66.6	9,969	7
●	414	Kidula	104.7	7,834	6
●	420	USANGI	907.7	36,214	26
---	421	Lembeni	358.0	14,276	11
---	422	Kigare	104.6	7,278	4
---	423	Kilongwe	178.4	10,983	8
---	424	Keakoa	266.7	3,678	3
	Totals		1,492.3	65,490	43

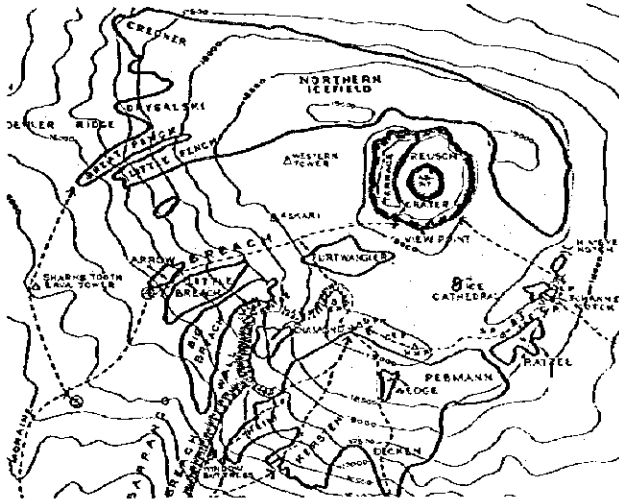


SOUTH PARE MAP



Code	Wards	Area (km ²)	Population	No. of villages
430	MWEMBE/MBAGA	2,818.3	45,451	22
431	Kiryu/Mbaga	468.7	3,939	4
432	Mwembe/Vudee	262.6	10,581	6
433	Mshawa	585.6	8,728	5
434	Kishiwani/Msindo	1,434.8	9,204	5
435	Sama	66.6	15,000	2
440	CHOME/SUJI	1,879.9	18,036	13
441	Makanya	1,080.9	5,442	3
442	Chome	118.0	4,132	4
443	Suji	342.5	4,545	3
444	Hadaru	308.5	3,917	3
450	MAMBA/VUNTA	697.3	36,588	20
451	Bwambo	80.0	10,476	6
452	Mwamba	83.0	4,289	3
453	Vunta	184.6	7,006	4
454	Bendera	172.3	7,411	3
455	Ndungu	177.4	7,406	4
460	GONJA	1,012.2	26,734	18
461	Vuja	81.1	6,019	4
462	M'iti	63.5	10,601	7
463	Gonja/Maore	867.6	10,114	7
Totals		6,407.7	126,809	73



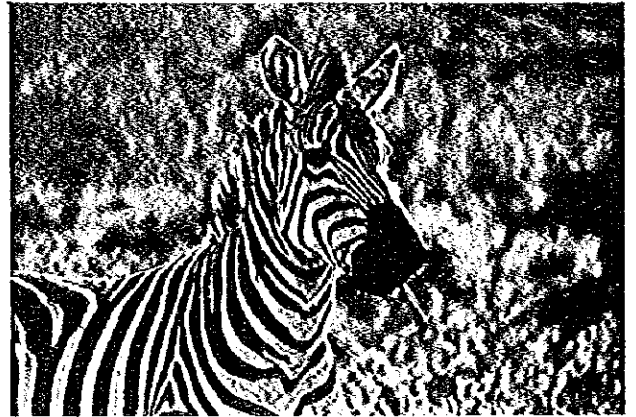


Mt. Kilimanjaro Glacier Scars

The Meaning of Kilimanjaro

From the time of the earliest explorers, visitors have been intrigued by the name Kilimanjaro. The visitor who enquires today will probably receive from most Wachagga the same answer which was given to the early explorers: — It is not a Chagga name. The Wachagga themselves have no name for the whole mountain. They have, however, names for the two peaks, commonly known as Kibo and Mawenzi. These are more properly written, in Kichagga, Kipoo and Kimawenze, and the meanings can be explained. Kipoo means "spotted"; a reference to the black rock which stands out here and there against the snowfield; Kimawenze means "having a broken top, notched"; describing the jagged appearance of this peak. The very well-known Chagga story of how Mawenzi acquired this appearance is retold in the extracts from Bruno Gutmann's work, translated elsewhere in this journal.

Notes by J.A. Hutchinson [THE CHAGGA HISTORY]



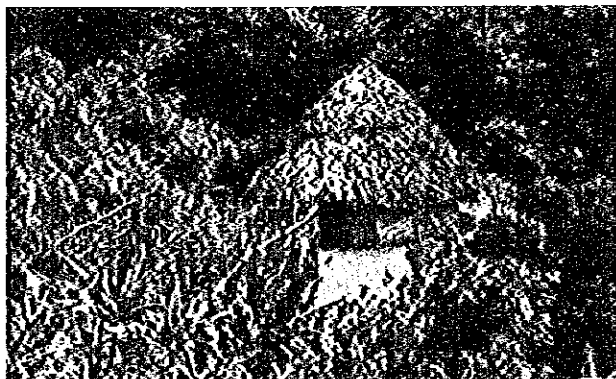
Wildlife

In the Kilimanjaro National Park, the Mkomazi Game Reserve, the Sarya Plain Game Control Area, and other similar areas in the region wildlife and natural vegetation are protected from the adverse influences of civilization. Here are to be found in their natural habitat alpine and other valuable plant life and such wildlife as elephants, giraffes, and "tree-climbing" lions.



Open-air Market

In markets like this, commercial hubs of the region, food, clothing, and other everyday consumer essentials are bought and sold. They are held daily in district centers and 1-3 times a week in rural areas.



Traditional Chagga House

Although houses of this type have long served well in the climatic conditions of the region, family and living styles are changing, and one sees more and more building of new type housing.



Relaxing on Payday: Mkuu Kihamba Land

The three paydays a month are holidays on which people usually go to church in the morning and then gather in public places for refreshments and conversation as a pleasurable interlude in their workaday lives.