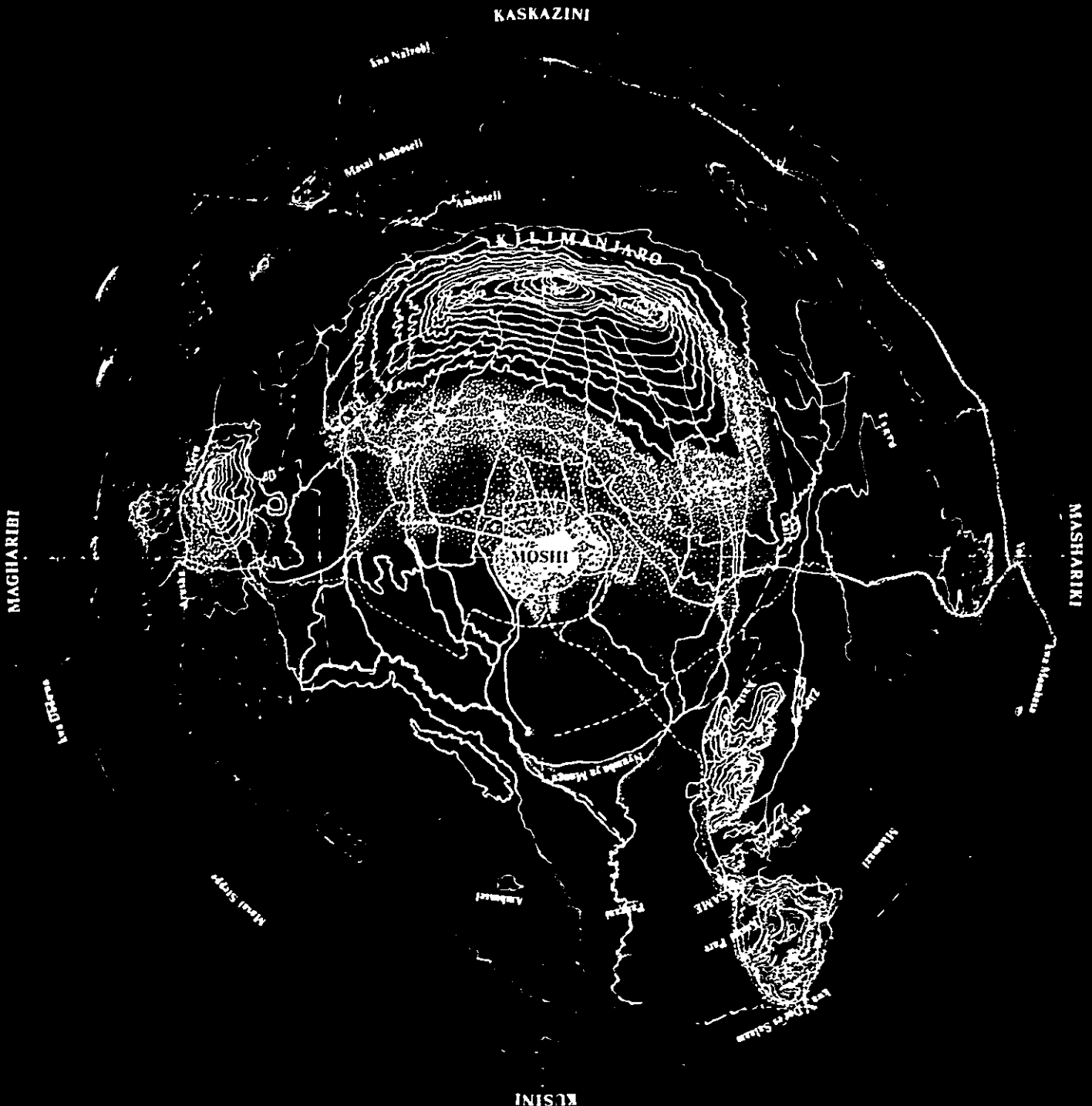


UNITED REPUBLIC OF TANZANIA

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN



JUNE 1977

JAPAN INTERNATIONAL COOPERATION AGENCY

国際協力事業団

受入 月日	'87. 6. 13	416
登録 No.	08637	36
		PLC

JICA LIBRARY



1063498[8]

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN

JUNE 1977

GENERAL CONTENTS

VOLUME ONE

0. INDEX OF THE REPORT
1. INTRODUCTION
2. EXISTING CONDITIONS
3. PLANNING ENVIRONMENTS
4. GOALS SYSTEMS
5. ORIENTATION AND STRATEGY
6. LAND-USE PLAN
7. HUMAN SETTLEMENT PLAN

VOLUME TWO

8. NATURE CONSERVATION
9. WATER RESOURCES
10. AGRICULTURE
11. INDUSTRY
12. TOURISM

VOLUME THREE

13. TRANSPORTATION AND COMMUNICATIONS
14. TOWN
15. VILLAGE
16. PUBLIC UTILITIES
17. SOCIAL SERVICES
18. MANPOWER
19. FINANCIAL ADMINISTRATION

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN

JUNE 1977

VOLUME ONE

0. INDEX OF THE REPORT
1. INTRODUCTION
2. EXISTING CONDITIONS
3. PLANNING ENVIRONMENTS
4. GOALS SYSTEMS
5. ORIENTATION AND STRATEGY
6. LAND-USE PLAN
7. HUMAN SETTLEMENT PLAN

PART ONE : EXISTING CONDITIONS

1. HISTORICAL BACKGROUND	1
1.1 The traditional Society and Economy	1
1.2 The Slavery Period	3
1.3 The Colonial Period	4
1.4 Independency and After	8
1.5 Introducing Kilimanjaro Region	11
2. PHYSICAL CONDITIONS	14
2.1 Regional Setting	14
2.2 Topography	15
2.3 Climates	15
2.4 Soils	17
2.5 Land Use	18
3. PRESENT LEVEL OF SOCIAL SYSTEM	19
3.1 The Production Process	19
3.2 The Consumption Process	23
3.3 The Learning Process	25
3.4 The Protection Process	27
3.5 The Decision Making Process	29
3.6 The Interaction Process	30
4. REGIONAL ECONOMY	34
4.1 Magnitude and Structure	34
4.2 Government Finance	41
4.3 Banking System	49
4.4 Marketing and Distribution System	62

PART TWO : PLANNING ENVIRONMENTS

1. PREMISE OF PLANNING

2. THE CONCEPTUAL FRAMEWORK OF SOCIAL INDICATORS	1
2.1 Why We Use Social Indicators to Evaluate I.R.D.P.	1
2.2 The Concept of Social Indicators	5
2.3 The Concept of Social System	8
2.4 The Major Processes in Social System	10
2.5 A Theoretical Framework of Social Indicators	19
3. PEOPLE'S PREFERENCE SURVEY	23

PART THREE : GOALS SYSTEMS

1. POPULATION PROJECTION	1
1.1 Problem Formulation Growth	1
1.2 Problem Formulation	3
1.3 Population Projection	4
2. ESTIMATION OF MACRO-FRAME	10
2.1 Gross Regional Product	10
2.2 Employment	11
2.3 Fixed Capital Formation	13
3. GOALS OF PLANNING	14
3.1 Overall Goals	14
3.2 The Social System Approach to Setting Planning Goals	16
3.3 Target Setting Methodology	19
3.4 Objectives Setting	22

PART FOUR : ORIENTATION AND STRATEGY

1. BASIC STRATEGY	
1.1 Development Strategy	
1.2 Development Stages	1
2. RURAL DEVELOPMENT STRATEGY	4
2.1 Introduction	4
2.2 The Tanzania Rural Way of Life	4
2.3 Recommendations	15

LAND-USE PLAN

Contents	Page
1. GENERAL	1
1.1 The Purpose of the Land-Use Planning	
1.2 The Main Work Components	
2. LAND-USE INVENTORY	4
2.1 Outline	5
2.2 Agricultural Area	7
2.3 Reserve Area	12
2.4 Land-Use Blocks	16
3. AGRICULTURAL ACERAGE REQUIREMENTS	25
3.1 Crop Production Targets	25
3.2 Yield Targets	27
3.3 Agricultural Acreage Requirements	29
4. LAND AVAILABILITY	31
4.1 Procedure for Identification of New Land with Development Potential for Cultivation	31
4.2 Carrying Capacity of New Land with Development Potential for Cultivation	47
5. PLANNING GOALS AND TARGETS	57
5.1 Use Zoning Plan	58
5.2 Development Zoning Plan	65
5.3 Land Development for Other Purpose Than agriculture	
5.4 Agricultural Land Development Schedule	72

HUMAN SETTLEMENT PLAN

Contents		Page
1.	PHYSICAL AND HUMAN GEOGRAPHY	1
1.1	Regional Setting	1
1.2	The Land and Its People	3
1.3	Past Population Growth in the Kilimanjaro District	6
1.4	Administrative System	7
2.	POPULATION DISTRIBUTION PLAN	10
2.1	Description of the Plan	10
2.2	Urban Population Distribution	12
2.3	Rural Population Distribution	15
2.4	Regional Population Distribution Plan	20
2.5	Population Movement Schedule	24
2.6	Population Density Plan	27
3.	SOCIAL INFRASTRUCTURE DEVELOPMENT PLAN	30
3.1	Outline	30
3.2	Social Infrastructure Diagnosis	31
3.3	Area Classification for Development of Social Infrastructure	37
3.4	Social Infrastructure Development Program	42
4.	COMMUNITY DEVELOPMENT PROGRAM	48
4.1	Description of the Program	48
4.2	Community Hierarchy	48
4.3	Community Plan	52
4.4	Public Facility Distribution Plan	56
5.	STATISTICAL DATA	69

NATURE CONSERVATION PLAN

Contents	Page
1. GENERAL	1
1.1 Purpose of the Planning	1
1.2 Scope of the Studies	1
2. INVENTORY OF THE REGION AS A ECOLOGICAL BACKGROUND	2
2.1 Topography	2
2.2 Climate	6
2.3 Vegetation	13
2.4 Soils of the Kilimanjaro Region	21
2.5 Geology of the Kilimanjaro Region	27
3. FOREST PLAN	37
3.1 Problem Identification	37
3.2 The Need for Forests	39
3.3 Potential Analysis	48
3.4 Project Finding	58
3.5 Project Plans	62
4. GAME CONSERVATION PLAN	73
4.1 The Need for Game Conservation	73
4.2 Potential Analysys	78
4.3 Project Finding	82
4.4 Project Plans	84

SECTORAL DEVELOPMENT: WATER RESOURCES

Contents	Page
1. INTRODUCTION	1
2. RIVER SYSTEM	2
3. RIVER RUN-OFF	4
4. WATER USE	6
5. RATE OF WATER USE	8
6. PROJECTED WATER REQUIREMENT	9
7. WATER BALANCE	10
8. BASIC STRATEGY FOR DEVELOPING WATER RESOURCES	11
9. PROPOSED PROJECTS	13

SECTORAL DEVELOPMENT: AGRICULTURE

Contents	Page
1. PRESENT SITUATION	1
1.1 General View	1
1.2 Cultivated Land	6
1.3 Water Utilization and Control	9
1.4 Agricultural Zone	23
1.5 Changes in Areas Planted with Crops and Changes in Yield	29
1.6 Features of Main Agricultural Products	32
1.7 Use of Agricultural Machines	46
1.8 Farmer's Income	49
1.9 Marketing	61
1.10 Agricultural Service Facilities	68
1.11 Land Institution	72
1.12 Livestock Farming	74
2. IDENTIFICATION OF PROBLEMS	96
3. MIDDLE AND LONG TERM DEMAND SUPPLY OF CROPS	97
4. DEVELOPMENT STRATEGY AND MEASURES	100
4.1 Crops	100
4.2 Livestock	105
5. PROJECTS PROPOSED IN THE AGRICULTURAL SECTOR	109
6. DETAILED DESCRIPTION OF IRRIGATION PROJECTS	138
6.1 Lower Moshi Area	138
6.2 Promotion of Irrigation Scheme (Mkomazi Valley)	146
6.3 Promotion of Irrigation Scheme (Pangani Basin)	149
6.4 Survey for Water Development	152

SECTORAL DEVELOPMENT: INDUSTRY

Contents	Page
1. INTRODUCTION: CONCEPT AND TYPES OF INDUSTRY	1
2. INDUSTRIAL DEVELOPMENT AT THE REGIONAL AND NATIONAL LEVEL	3
2.1 Historical Review	3
2.2 Industrial Sector in the Third Five-year Plan	9
2.3 Role of Industry in Kilimanjaro Region	13
3. PRESENT STATE OF INDUSTRIAL DEVELOPMENT IN KILIMANJARO	14
3.1 General Picture of Industrial Sector in Kilimanjaro	14
3.2 Surrounding Conditions	40
4. MAJOR CHARACTERISTICS AND PROBLEMS ENVISAGED BY INDUSTRIAL SECTOR	55
4.1 Employment	55
4.2 Financing	62
4.3 Production Equipments and Maintenance	69
4.4 Marketting Structure	74
5. PROBLEM STRUCTURE OF INDUSTRIAL SECTOR	77
6. OBJECTIVES	80
7. TARGETS: PROJECTIONS	
8. STRATEGY FOR INDUSTRIAL SECTOR	82
9. PROGRAMME AND PROJECTS	92
9.1 Background	92
9.2 Programme No.1: New Industries and Existing Industries	95
9.3 Programme No.2: Promotion of Rural Industries	

SECTORAL DEVELOPMENT: TOURISM

Contents	Page
0. BASIC CONSIDERATION ON TOURISM DEVELOPMENT	1
1. ASSESSMENT OF THE PAST AND PRESENT STATE OF TOURISM IN THE REGION	5
1.1 Preliminary Assessment of International Tourism	5
1.2 Preliminary Assessment of International Tourism in the East Africa Area	6
1.3 Preliminary Evaluation of International Tourism in Tanzania	8
1.4 Preliminary Evaluation of International Tourism in the Northern Region	11
2. TOURISM DEVELOPMENT	13
2.1 Policy and Guidance of National Tourism Development	13
2.2 Regional Tourism Development	14
2.3 Tentative Plan for "K.I.A. Tourism Center Complex"	15
3. PROPOSED TERMS OF REFERENCE FOR FORMULATING NATIONAL POLICY AND GUIDELINES	18
3.1 National Policy and Guidelines	18
3.2 Development Action Plan on Regional Level	20
3.3 Proposed Work Program	21
4. APPENDIX	

SECTORAL DEVELOPMENT: TRANSPORTATION AND COMMUNICATIONS

Contents	Page
1. ANALYSIS OF PRESENT CONDITIONS	1
1.1 Present Condition of Long-distance Traffic	1
1.2 Present Traffic Situation in the Region	11
1.3 Present Condition of Roads in the Region	27
1.4 Present Condition of Communications Services	38
2. PLAN OBJECTIVES AND BASIC GUIDELINES	43
2.1 Objectives of Plan	43
2.2 Basic Guidelines for the Development Project	46
3. FIVE-YEAR PLAN FOR THE DEVELOPMENT PROJECT	56
3.1 Transportation Plan	56
3.2 Communications Network Plan	72

SECTORAL DEVELOPMENT: TOWN

Contents	Page
1. URBAN AREAS	1
1.1 General	1
1.2 Two Classifications of Urban Area "Urban areas"	3
1.3 Setting of Future Urban Population	6
1.4 Town Models	8
1.5 Employment Schedule for Urban Areas	10
2. MOSHI TOWN DEVELOPMENT PLAN	12
2.1 Present Conditions	12
2.2 Population Projection	16
2.3 Township Boundaries	17
2.4 Development Pilot Plan	18
2.5 Land-use and Population Distribution Plan	24
2.6 Housing Requirements in Moshi Town	29
2.7 Public Facilities	31
3. DEVELOPMENT PLAN FOR DISTRICT CENTERS	33
3.1 Present Conditions	33
3.2 Development Frame	33
3.3 Residential Area Requirements	35
3.4 Land-use and Public Facilities	36
4. DEVELOPMENT PLAN FOR DIVISION CENTERS	42
4.1 Present Conditions	42
4.2 Development Frame	43
4.3 Residential Area Requirements	44

SECTORAL DEVELOPMENT: VILLAGE

Contents	Page
1. VILLAGE INVENTORY	1
1.1 Profile	1
1.2 The Registered Village, the Basic Unit of Human Settlement	6
2. VILLAGE MODERNIZATION PROGRAM	8
2.1 Description	8
2.2 Village Modernization Strategies	9
3. PILOT VILLAGE PROJECTS	13
3.1 General	13
3.2 Development Guidelines	18
4. LOWLAND DEVELOPMENT PROGJECTS	20
4.1 Summary of the Projects	20
4.2 Lower Moshi Project	24
4.3 Mkomazi Valley Project	31
4.4 Pangani Basin Project	35
4.5 Nyumba ya Mungu Project	39
4.6 Implementation	42

SECTORAL DEVELOPMENT: PUBLIC UTILITIES

Contents	Page
1. RURAL WATER SUPPLY	1
1.1 Existing Condition of Rural Water Supply	1
1.2 Present Development of Water Supply	6
1.3 Water Development Plan up to 1995	28
1.4 Proposed Projects	37
2. URBAN WATER SUPPLY	40
2.1 Existing Condition of Urban Water Supply	40
2.2 Planning Policy and Strategy	42
2.3 Urban Water Development Up to 1995	43
2.4 Proposed Projects	49
3. SEWAGE DISPOSAL	50
3.1 Existing Sewage Disposal Situation	50
3.2 Planning Policy and Strategy	51
3.3 Sewage Disposal Plan Up to 1995	53
3.4 Proposed Projects	58
4. POWER SUPPLY	59
4.1 Actual State of Electrification and Electricity Use in Tanzania	59
4.2 Condition of Electrification and Electric Power Supply in Kilimanjaro Region	64
4.3 Power Development Plan	74
4.4 Proposed Projects	85

SECTORAL DEVELOPMENT: SOCIAL SERVICES

Contents	Page
0. THE CONCEPT OF SOCIAL SERVICE...WHAT IS ITS INVESTMENT IMPACT?	1
1. MEDICAL AND HEALTH SERVICE	3
1.1 Introduction	3
1.2 Interregional Comparison of Level of Medical and Health Service	4
1.3 Problems Regarding Medical and Health Service	6
1.4 Thinking Behind System of Provision of Medical and Health Services With 1995 as Long-range Target Year	8
1.5 The Third 5-year Plan	14
2. PRIMARY EDUCATION	19
2.1 Introduction	19
2.2 Analysis of Present Situation	19
2.3 The Third 5-year Plan	24
2.4 Future Goals With Respect to Primary Education	29
3. SECONDARY EDUCATION	30
3.1 Analysis of Present Situation	30
3.2 The Third 5-year Plan	33
4. ADULT EDUCATION	35
4.1 Introduction	35
4.2 Community Development Planning	36
4.3 Literacy Education	39
4.4 The Third 5-year Plan	41
5. FAMILY LIFE IMPROVEMENT SERVICE	44
5.1 Introduction	44
5.2 The Tasks of Family Life Improvement Service	46
5.3 The Third 5-year Plan	59

SECTORAL DEVELOPMENT: MANPOWER

Contents	Page
0. CONCEPT OF MANPOWER	1
1. PRESENT SITUATION	3
1.1 Governmental Manpower Development Policy	3
1.2 Administration	4
1.3 Labour Force and Employment	6
1.4 Education	9
1.5 Vocational Training	13
1.6 Wages, Labour Productivity and Workmen's Compensation	15
2. MANPOWER SUPPLY AND DEMAND	18
3. PROBLEM AREA	22
4. SUGGESTIONS AND MEASURES	24

FINANCIAL ADMINISTRATION

Contents	Page
1. THE PRESENT FINANCIAL SITUATION OF THE CENTRAL GOVERNMENT AND THE KILIMANJARO GOVERNMENT	1
1.1 THE CENTRAL GOVERNMENT	1
1.2 THE KILIMANJARO REGIONAL GOVERNMENT	5
2. RATES OF REFLUX IN KILIMANJARO REGION	8
2.1 FOUR REFLUX RATES	8
2.2 THE PRESENT SITUATION	8
3. THE KILIMANJARO REGION THIRD AND FOURTH 5-YEAR PLAN	10
3.1 MACROFRAME	10
3.2 DEVELOPMENT EXPENDITURES BY PROJECT CLASSIFICATION	10
3.3 MACROECONOMIC FEASIBILITY	11
3.4 ACHIEVEMENT OF THE THIRD AND FOURTH 5-YEAR DEVELOPMENT PLANS	13

KILIMANJARO IN MAPS

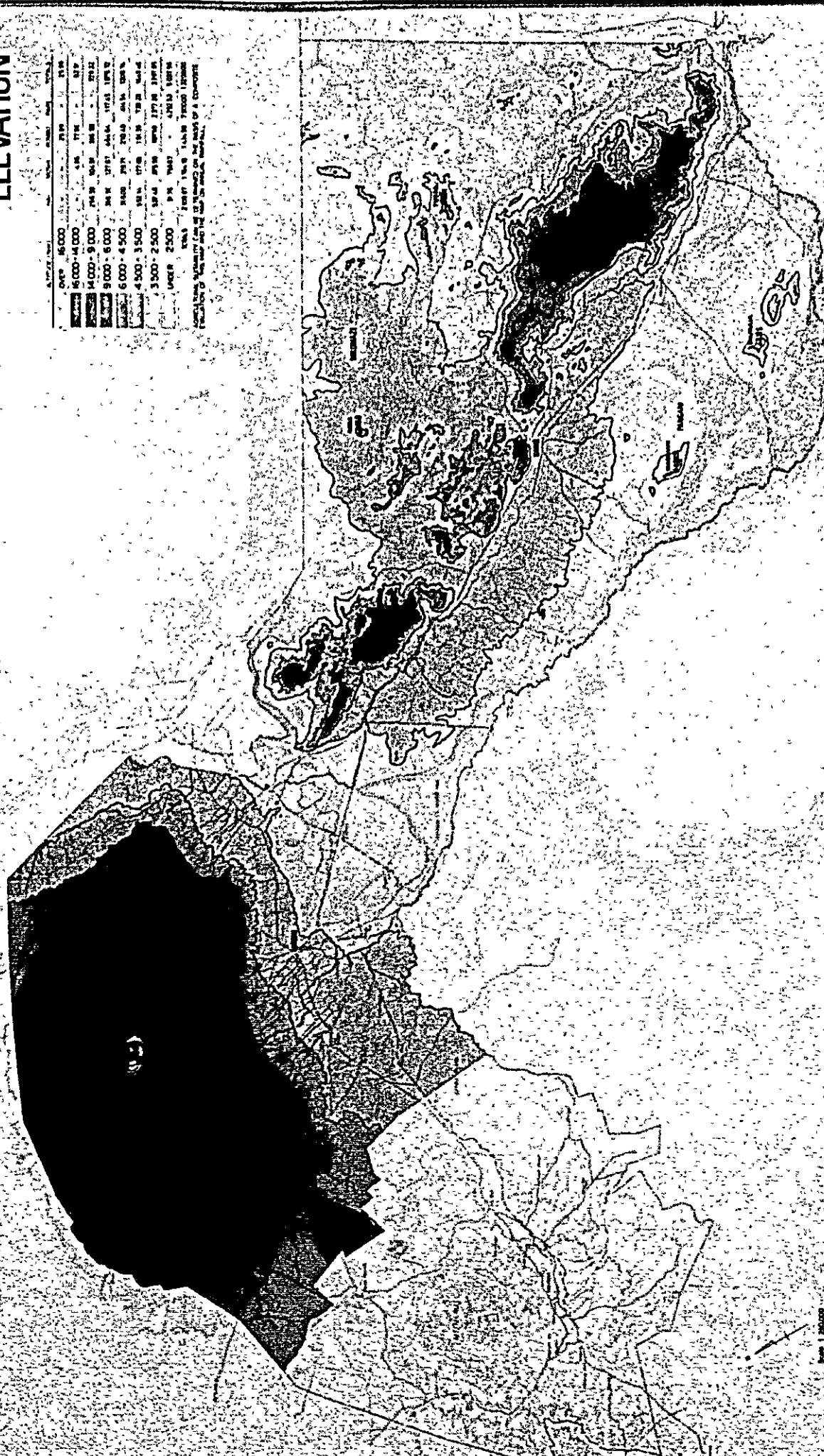
Drawing Title	Scale
1. Elevation	1:250,000
2. Slope	"
3. Annual Rainfall	"
4. Natural Vegetation	"
5. Forest Reserve	"
6. Game Conservation & Tourism	"
7. Soil Types	"
8. Geology	"
9. Hydrogy	"
10. Land Use 1975	"
11. Existing Irrigation	"
12. Irrigation Availability & Accessibility	"
13. Altitude + Rainfall	"
14. Conservation Value	"
15. Natural Land Value	"
16. Forestry Suitability	"
17. Natural Conservation Perspective	"
18. Land Development Analysis	"
19. Use Zonning Plan 1995	"
20. Agricultural Development Plan	"
21. Administrative Map	1:250,000
22. Population Distribution 1967 Census	"
23. Population Distribution 1975	"
24. Population Distribution Plan 1995	"
25. Population Change 1975-95	"
26. Social Infrastructure Diagnosis	"
27. Human Habitability	"
28. Human Settlement Program	"
29. Infrastructure Zonning	"

Drawing Title	Scale
30. Community Zonning 1995	1:250,000
31. Social Service 1977-95	"
32. Transportation Network	"
33. Road Network	"
34. Bus Service Network 1995	"
35. Water Supply 1977-95	"
36. Electricity Supply 1977-95	"
37. Communications Network 1977-95	"
38. Small-scale Industry	"
39. Small-scale Industry 1978-82	"
40. Lower Moshi Project	1:50,000
41. Natural Geography (Hai District)	1:100,000
42. Human Geography (")	"
43. Land-use Plan 1995 (")	"
44. Human Settlement Plan 1995 (")	"
45. Natural Geography (Moshi District)	"
46. Human Geography (")	"
47. Land-use Plan 1995 (")	"
48. Human Settlement Plan 1995 (")	"
49. Natural Geography (Rombo District)	"
50. Human Geography (")	"
51. Land-use Plan 1995 (")	"
52. Human Settlement Plan 1995 (")	"
53. Natural Geography (North Pare District)	"
54. Human Geography (")	"
55. Land-use Plan 1995 (")	"
56. Human Settlement Plan 1995 (")	"
57. Natural Geography (Pare District:North)	"
58. Human Geography (")	"
59. Land-use Plan 1995 (")	"
60. Human Settlement Plan 1995 (")	"

ELEVATION

ELEVATION RANGE	SYMBOL	DESCRIPTION
OVER 6000	(Solid black)	OVER 6000
5000-6000	(Dense dots)	5000-6000
4000-5000	(Medium dots)	4000-5000
3000-4000	(Sparse dots)	3000-4000
2000-3000	(Horizontal lines)	2000-3000
1000-2000	(Vertical lines)	1000-2000
UNDER 1000	(White)	UNDER 1000

DATA FROM 1:50,000 TOPOGRAPHIC MAPS
 AND 1:250,000 TOPOGRAPHIC MAPS
 OF THE UNITED STATES GEOLOGICAL SURVEY



Scale 1:250,000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA · JAPAN INTERNATIONAL COOPERATION AGENCY
THE PLAN WAS PREPARED BY THE JICA PROJECT TEAM IN 1977

SLOPE

CLASS	PERCENT	SYMBOL				
over 30	30-15	15-8	8-4	4-2	2-1	Under 1

THIS MAP WAS PREPARED AS ONE OF THE RESULTS OF THE RESEARCH AND DEVELOPMENT OF THE KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN. THE DATA WERE OBTAINED FROM THE KILIMANJARO REGIONAL DEVELOPMENT AUTHORITY AND OTHER SOURCES IN THE KILIMANJARO REGION, TANZANIA.

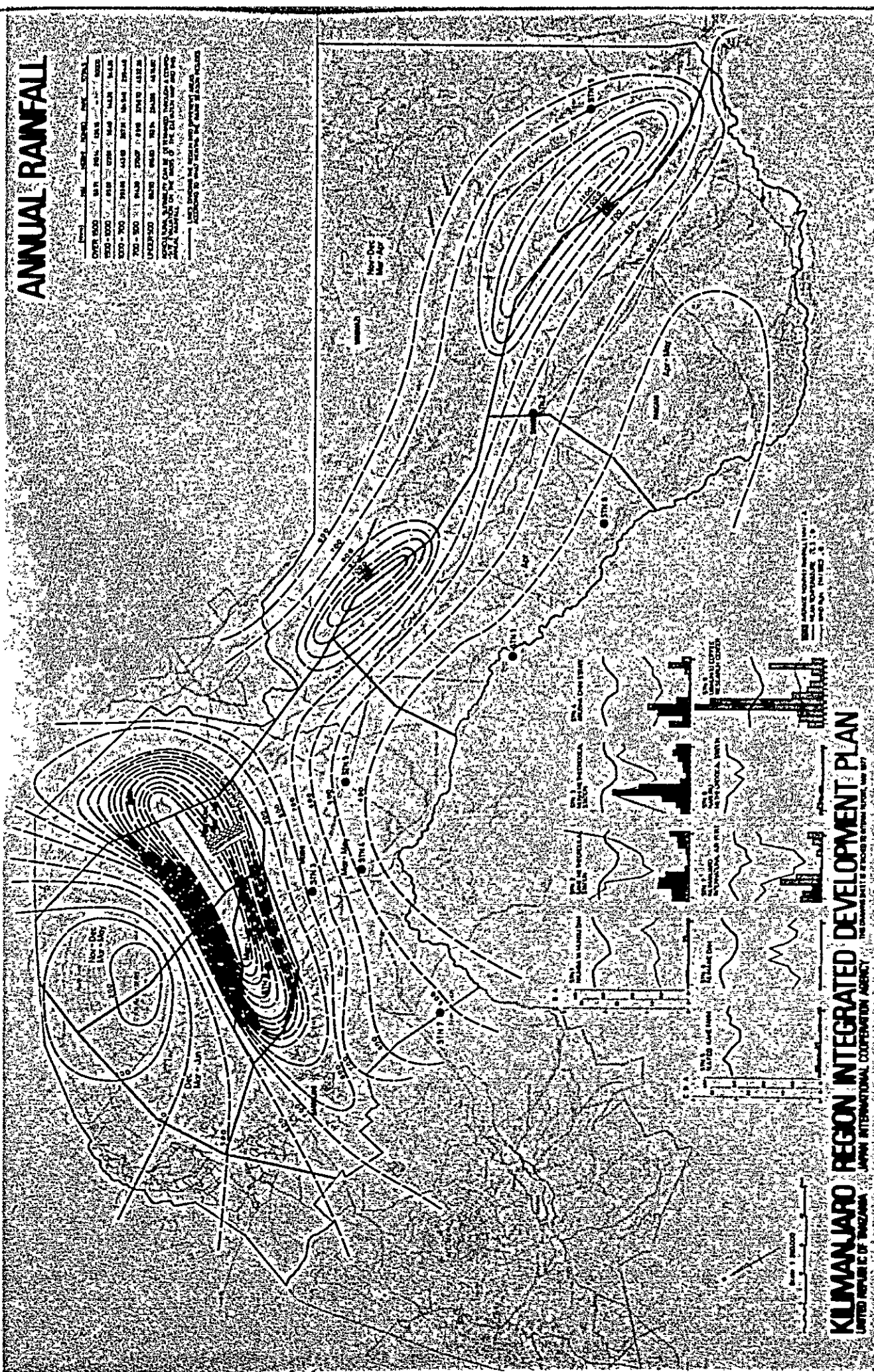


KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DOCUMENT WILL BE AVAILABLE IN ENGLISH AND SWAHILI

ANNUAL RAINFALL

INCHES	MM	100	200	300	400	500	600	700	800	900	1000
0.25	6.35	12.7	19.05	25.4	31.75	38.1	44.45	50.8	57.15	63.5	69.85
0.5	12.7	25.4	38.1	50.8	63.5	76.2	88.9	101.6	114.3	127	139.7
1.0	25.4	50.8	76.2	101.6	127	152.4	177.8	203.2	228.6	254	279.4
1.5	38.1	76.2	114.3	152.4	190.5	228.6	266.7	304.8	342.9	381	419.1
2.0	50.8	101.6	152.4	203.2	254	304.8	355.6	406.4	457.2	508	558.8
2.5	63.5	127	190.5	254	317.5	381	444.5	508	571.5	635	698.5
3.0	76.2	152.4	228.6	304.8	381	457.2	532.8	608.4	684	759.6	835.2
3.5	88.9	177.8	266.7	355.6	444.5	532.8	621.7	710.6	799.5	888.4	977.3
4.0	101.6	203.2	304.8	406.4	508	608.4	708.8	809.2	909.6	1010	1110.4
4.5	114.3	228.6	342.9	457.2	571.5	685.8	790.1	894.4	998.7	1103	1207.3
5.0	127	254	381	508	635	762	889	1016	1143	1270	1397

ANNUAL RAINFALL IS BASED ON RECORDS AVAILABLE AT THE TIME OF PREPARATION OF THIS MAP. IT IS NOT NECESSARILY ACCURATE IN ALL AREAS.



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 PREPARED BY THE JAPAN INTERNATIONAL COOPERATION AGENCY, TOKYO, JAPAN, 1977

NATURAL VEGETATION

SYMBOL	VEGETATION TYPE	AREA (SQ. KM.)	PERCENTAGE OF TOTAL AREA
ALPINE DESERT	ALPINE DESERT	2,100	1.5%
ALPINE MEADOWS	ALPINE MEADOWS	2,800	2.0%
FORESTS	FORESTS	10,500	7.5%
WOOD LANDS	WOOD LANDS	10,500	7.5%
THORNETS	THORNETS	1,500	1.0%
SCATTERED TREES AND SCRUB	SCATTERED TREES AND SCRUB	10,500	7.5%
SCATTERED TREES	SCATTERED TREES	10,500	7.5%
SCRUB	SCRUB	10,500	7.5%
GRASSLAND / MELKA	GRASSLAND / MELKA	10,500	7.5%
PLANTATION	PLANTATION	10,500	7.5%
LAKE AND PERMANENT SWAMP	LAKE AND PERMANENT SWAMP	10,500	7.5%

THE DATA FOR THIS MAP WAS OBTAINED FROM THE NATIONAL BUREAU OF SURVEYING AND MAPPING, TANZANIA, AND THE NATIONAL BUREAU OF STATISTICS, TANZANIA.

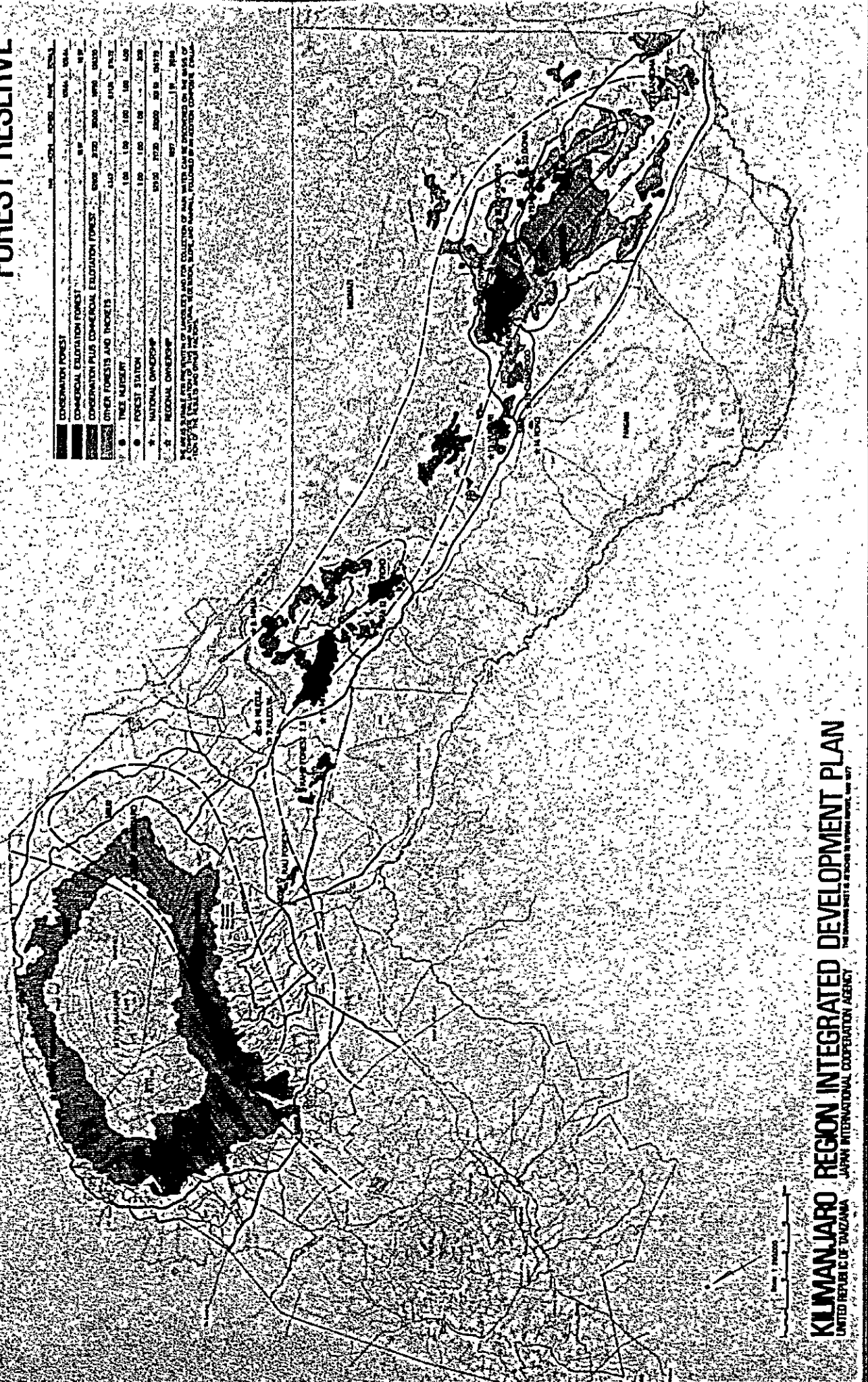


KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE CHANGAMUSHA DISTRICT OFFICE, DAR ES SALAAM, TANZANIA

FOREST RESERVE

SYMBOL	DESCRIPTION	AREA (SQ. KM.)	PERCENT
(Solid black)	CONSERVATION FOREST	1,000	10.0
(Stippled)	COMMERCIAL CULATION FOREST	1,000	10.0
(Horizontal lines)	CONSERVATION PLUS COMMERCIAL CULATION FOREST	2,000	20.0
(Vertical lines)	OTHER FORESTS AND TRICKETS	1,000	10.0
(Dotted)	WATER RESERVES	1,000	10.0
(Cross-hatched)	FOREST STATION	1,000	10.0
(Diagonal lines)	NATIONAL PARKS	1,000	10.0
(Wavy lines)	REGIONAL CONSERVATION	1,000	10.0

THE DATA IN THIS MAP WERE COLLECTED AND THE COLLECTION OF DATA WAS FINANCED BY THE GOVERNMENT OF JAPAN THROUGH THE JAPAN INTERNATIONAL COOPERATION AGENCY (JICA). THE DATA WERE COLLECTED BY THE FOREST RESERVE DIVISION OF THE FOREST DEPARTMENT OF TANZANIA.



Scale: 1:50,000
 0 1 2 Kilometers

GAME CONSERVATION AND TOURISM

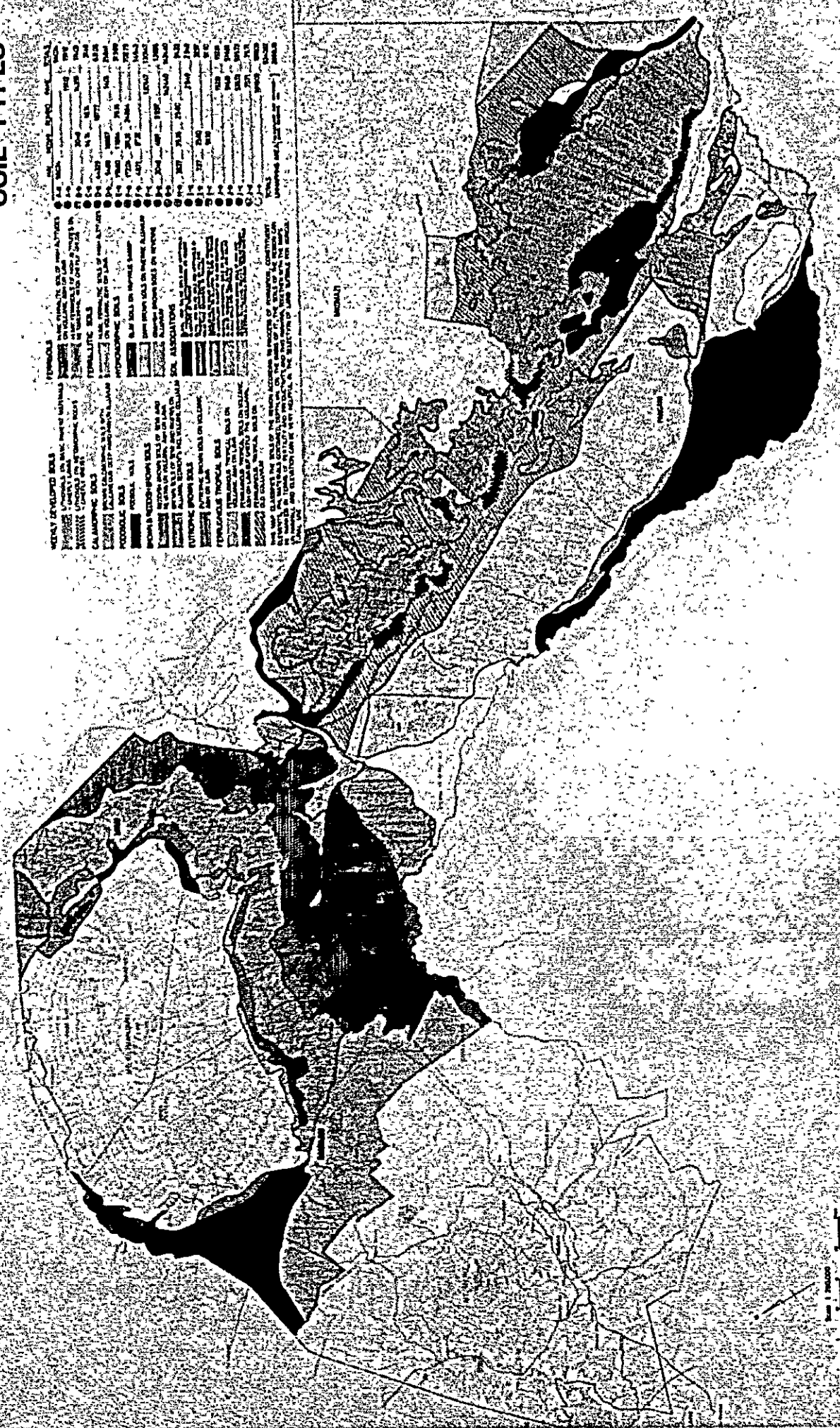


Symbol	Description
[Diagonal lines /]	Mitchell Park Area 1945-1953
[Diagonal lines \]	Game Reserve Area 1953-1959
[Cross-hatch]	Game Control Area 1959-1965
[Dotted]	Game Control Area 1965-1970
[Solid black]	Game Reserve
[Circle with dot]	Game Reserve Facilities
[Circle with cross]	Proposed Game Reserve Boundary
[Circle with vertical lines]	Game Centre Complex
[Circle with horizontal lines]	Hotel
[Circle with diagonal lines /]	Hot and Springs
[Circle with diagonal lines \]	Ice Climbing Route
[Dashed line]	Tourism Route

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DRAWING IS A REPRODUCTION OF AN ORIGINAL DRAWING, MAP 577

SOIL TYPES

SYMBOL	SOIL LEVEL	SOIL
①	100	100
②	100	100
③	100	100
④	100	100
⑤	100	100
⑥	100	100
⑦	100	100
⑧	100	100
⑨	100	100
⑩	100	100
⑪	100	100
⑫	100	100
⑬	100	100
⑭	100	100
⑮	100	100
⑯	100	100
⑰	100	100
⑱	100	100
⑲	100	100
⑳	100	100
㉑	100	100
㉒	100	100
㉓	100	100
㉔	100	100
㉕	100	100
㉖	100	100
㉗	100	100
㉘	100	100
㉙	100	100
㉚	100	100
㉛	100	100
㉜	100	100
㉝	100	100
㉞	100	100
㉟	100	100
㊱	100	100
㊲	100	100
㊳	100	100
㊴	100	100
㊵	100	100
㊶	100	100
㊷	100	100
㊸	100	100
㊹	100	100
㊺	100	100
㊻	100	100
㊼	100	100
㊽	100	100
㊾	100	100
㊿	100	100

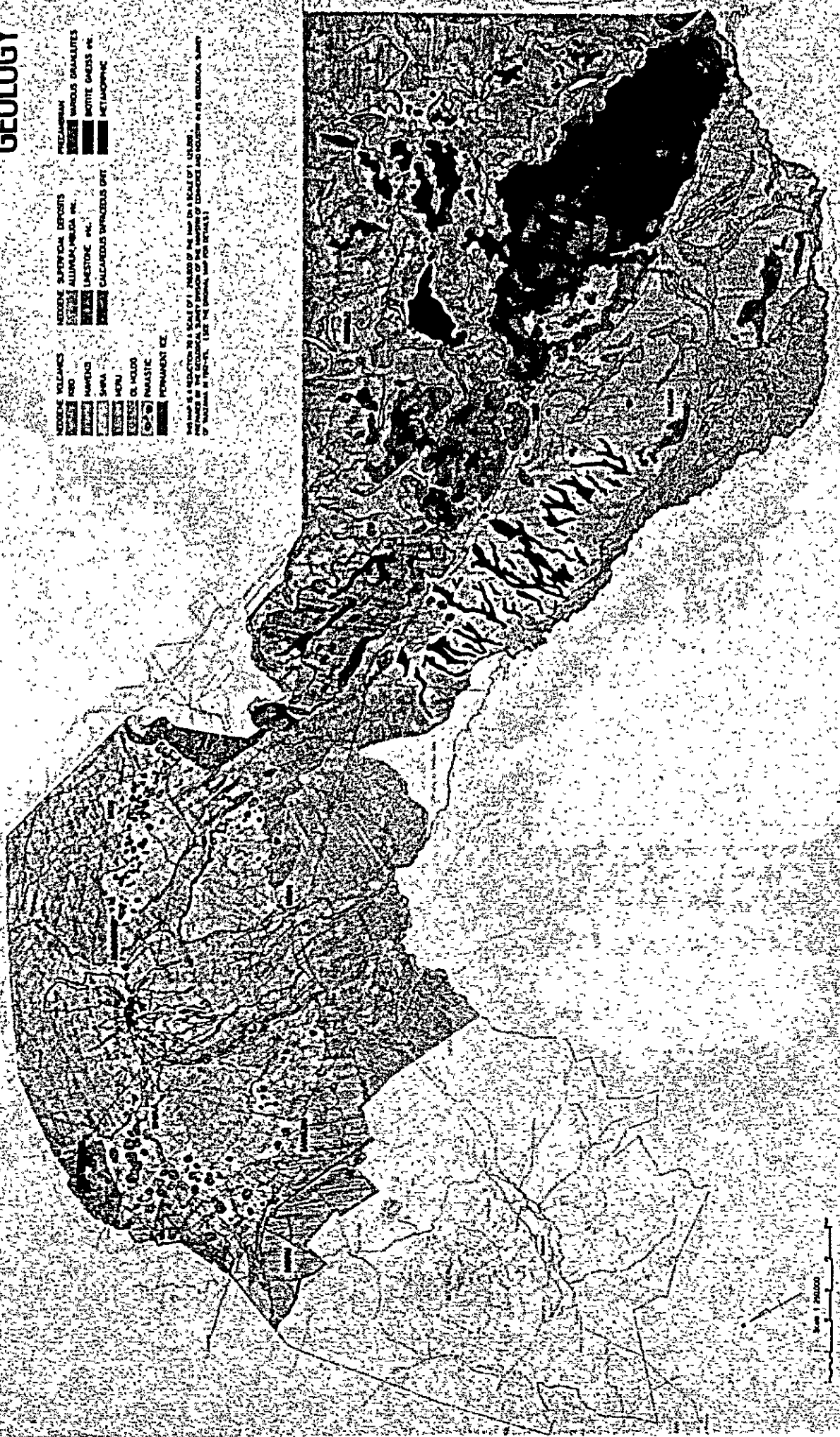


KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DRAWING SHEET IS A PART OF A SERIES OF MAPS, MAP 1077

GEOLOGY

- | | | |
|-------------------------|-------------------------------------|--------------------|
| MODERN VOLCANICS | MIOCENE SUPERFICIAL DEPOSITS | PRECAMBRIAN |
| ● (1) KILIMANJARO | ■ ALLUVIUM-NEGLIGIBLE | ■ GRANULITE |
| ● (2) MANDRO | ■ LIMESTONE | ■ GNEISS |
| ● (3) MERA | ■ CALCAREOUS SANDSTONES | ■ METAMORPHIC |
| ● (4) MANDRO | | |
| ● (5) MANDRO | | |
| ● (6) MANDRO | | |
| ● (7) MANDRO | | |
| ● (8) MANDRO | | |
| ● (9) MANDRO | | |
| ● (10) MANDRO | | |
| ● (11) MANDRO | | |
| ● (12) MANDRO | | |
| ● (13) MANDRO | | |
| ● (14) MANDRO | | |
| ● (15) MANDRO | | |
| ● (16) MANDRO | | |
| ● (17) MANDRO | | |
| ● (18) MANDRO | | |
| ● (19) MANDRO | | |
| ● (20) MANDRO | | |
| ● (21) MANDRO | | |
| ● (22) MANDRO | | |
| ● (23) MANDRO | | |
| ● (24) MANDRO | | |
| ● (25) MANDRO | | |
| ● (26) MANDRO | | |
| ● (27) MANDRO | | |
| ● (28) MANDRO | | |
| ● (29) MANDRO | | |
| ● (30) MANDRO | | |
| ● (31) MANDRO | | |
| ● (32) MANDRO | | |
| ● (33) MANDRO | | |
| ● (34) MANDRO | | |
| ● (35) MANDRO | | |
| ● (36) MANDRO | | |
| ● (37) MANDRO | | |
| ● (38) MANDRO | | |
| ● (39) MANDRO | | |
| ● (40) MANDRO | | |
| ● (41) MANDRO | | |
| ● (42) MANDRO | | |
| ● (43) MANDRO | | |
| ● (44) MANDRO | | |
| ● (45) MANDRO | | |
| ● (46) MANDRO | | |
| ● (47) MANDRO | | |
| ● (48) MANDRO | | |
| ● (49) MANDRO | | |
| ● (50) MANDRO | | |

THIS MAP IS A REDUCTION TO A SCALE OF 1:100,000 OF THE MAP ON A SCALE OF 1:50,000
 PREPARED BY THE GEOLOGICAL SURVEY OF TANZANIA AND INDIA IN THE GEOLOGICAL SURVEY
 OF INDIA IN 1962. (SEE THE PREFACE AND INTRODUCTION OF THE GEOLOGICAL SURVEY
 OF INDIA IN 1962.)



Scale 1:100,000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DRAWING PART IS A WORK OF ARTIST NAKAYAMA, 1967

HYDROLOGY

- PERMANENT SWAMP
 - SEASONAL SWAMP
 - RESERVOIR
 - LAKE
 - CATCHMENT AREA
 - MAIN RIVER
- THE BOUNDARY OF THE CATCHMENT AREA IS INDICATED BY A THICK LINE. THE BOUNDARY OF THE PERMANENT SWAMP IS INDICATED BY A THICK LINE WITH DASHES. THE BOUNDARY OF THE SEASONAL SWAMP IS INDICATED BY A THICK LINE WITH DOTS. THE BOUNDARY OF THE LAKE IS INDICATED BY A THICK LINE WITH WAVES. THE BOUNDARY OF THE RESERVOIR IS INDICATED BY A THICK LINE WITH WAVES AND A DASH.

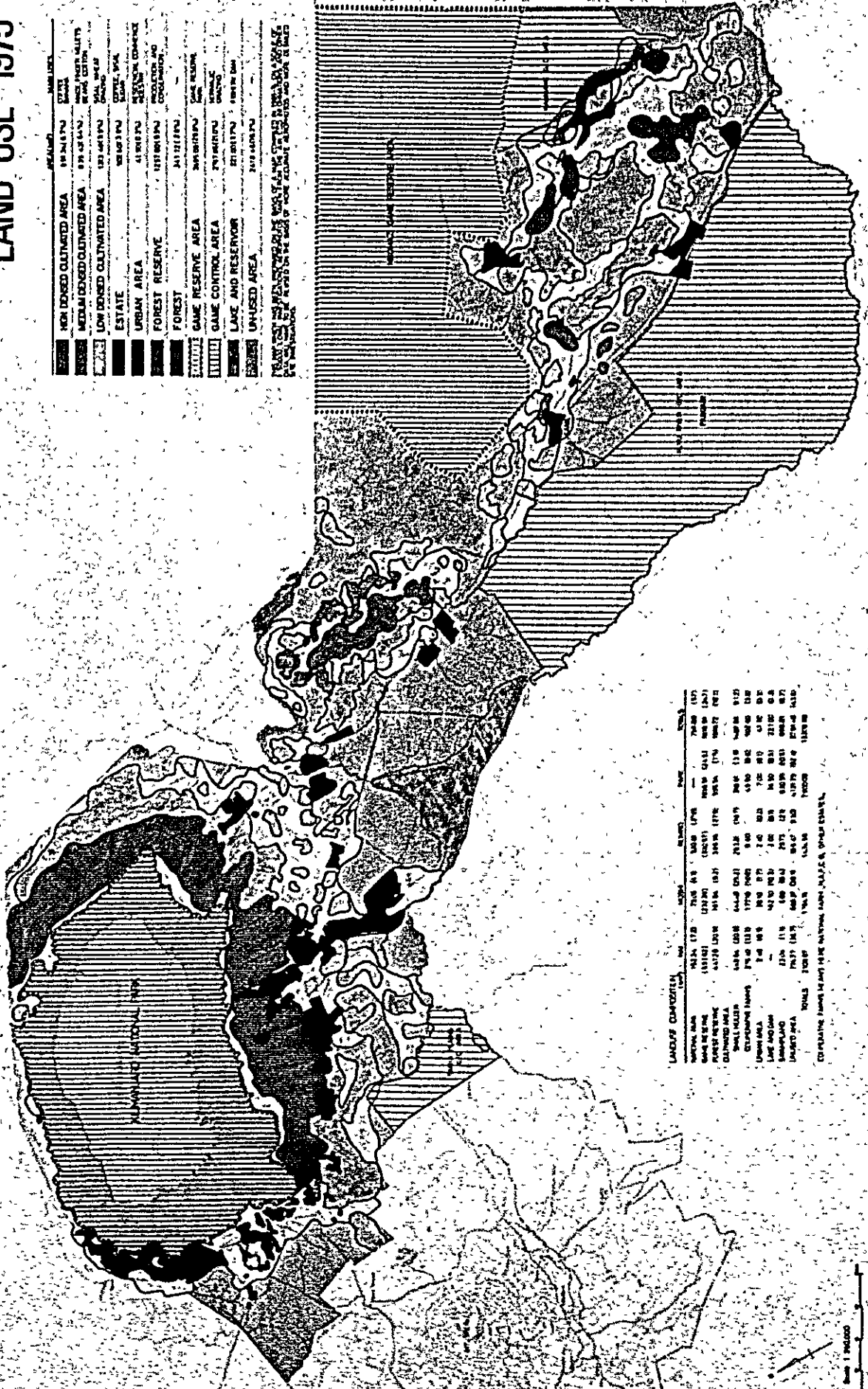


Feature Name	Area (sq. km)
1. PERMANENT SWAMP	117.00
2. SEASONAL SWAMP	871.00
3. LAKE	270.00
4. RESERVOIR	10.00
5. CATCHMENT AREA	10,000.00
6. MAIN RIVER	1,000.00
7. PERMANENT SWAMP	117.00
8. SEASONAL SWAMP	871.00
9. LAKE	270.00
10. RESERVOIR	10.00
11. CATCHMENT AREA	10,000.00
12. MAIN RIVER	1,000.00
13. PERMANENT SWAMP	117.00
14. SEASONAL SWAMP	871.00
15. LAKE	270.00
16. RESERVOIR	10.00
17. CATCHMENT AREA	10,000.00
18. MAIN RIVER	1,000.00

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DRAWING PART IS PROVIDED BY HYDRO SURVEY, 1977

LAND USE 1975

LAND USE	AREA (SQ. KM)	PERCENTAGE
HIGH DENSED CULTIVATED AREA	10,241.70	10.24
MEDIUM DENSED CULTIVATED AREA	17,451.44	17.45
LOW DENSED CULTIVATED AREA	12,141.12	12.14
ESTATE	10,103.70	10.10
URBAN AREA	1,111.11	1.11
FOREST RESERVE	10,103.70	10.10
FOREST	11,111.11	11.11
GAME RESERVE AREA	1,111.11	1.11
GAME CONTROL AREA	1,111.11	1.11
LAKE AND RESERVOIR	1,111.11	1.11
UNCLASSIFIED AREA	1,111.11	1.11



LAND USE CATEGORY	AREA (SQ. KM)	PERCENTAGE
TOTAL AREA	100,000	100.00
AGRICULTURE	40,000	40.00
FOREST	20,000	20.00
URBAN	1,000	1.00
WATER	1,000	1.00
UNCLASSIFIED	38,000	38.00

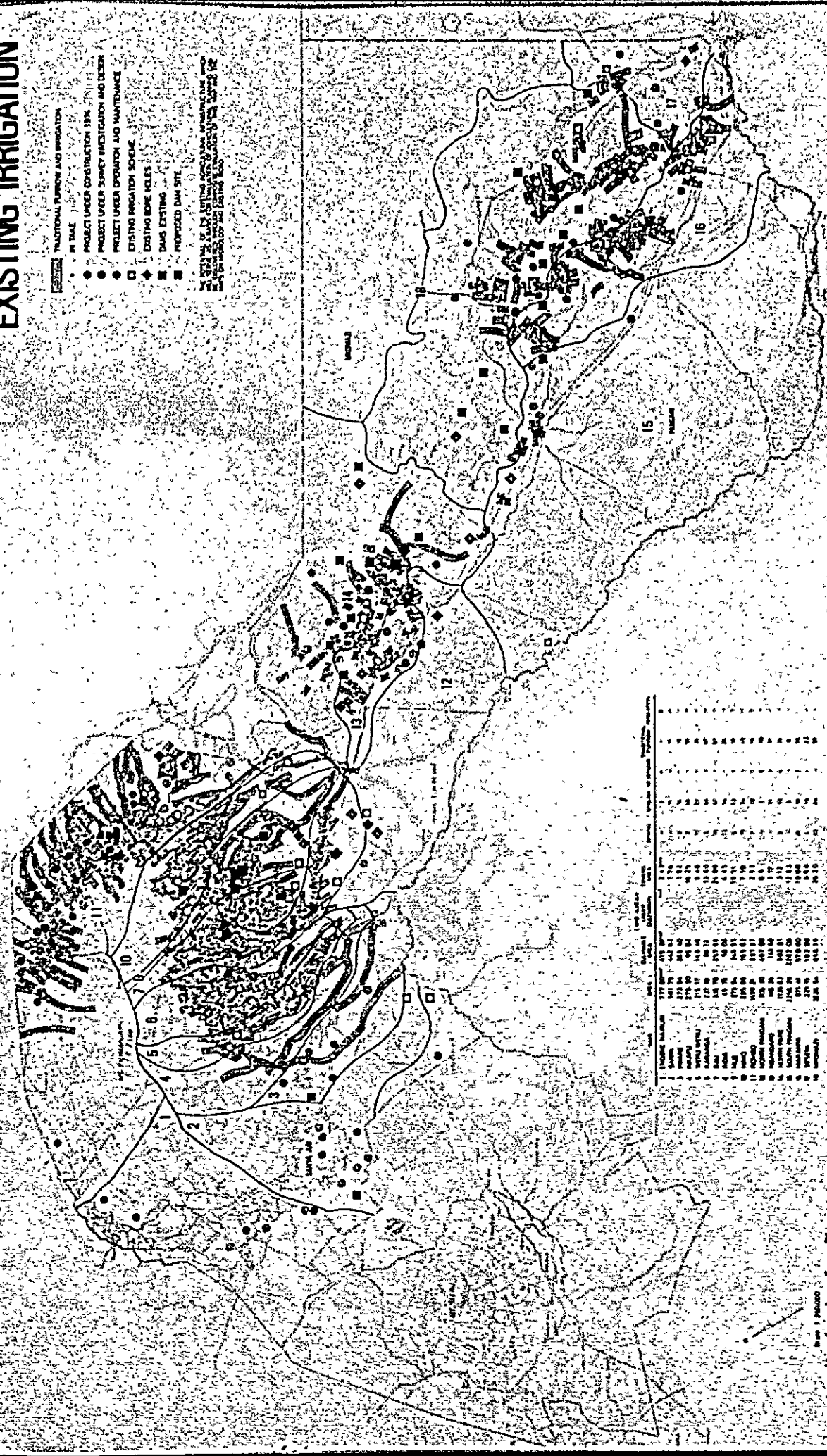
Scale 1:100,000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

THE DATA IS BASED ON THE DATA FROM THE 1975 LAND USE SURVEY.

EXISTING IRRIGATION

- LEGEND**
- TRADITIONAL FURROW AND IRRIGATION IN USE
 - PROJECT UNDER CONSTRUCTION 1974
 - PROJECT UNDER SURVEY INVESTIGATION AND DESIGN
 - PROJECT UNDER OPERATION AND MAINTENANCE
 - EXISTING IRRIGATION SCHEME
 - ◆ EXISTING BONE WELLS
 - DAMS EXISTING
 - PROPOSED DAM SITE
- NOTES**
1. AREA OF 1000 HECTARES TO BE INVESTIGATED FOR THE CONSTRUCTION OF A DAM AND IRRIGATION SCHEME.
 2. AREA OF 1000 HECTARES TO BE INVESTIGATED FOR THE CONSTRUCTION OF A DAM AND IRRIGATION SCHEME.



Section	Area (Ha)	Population	Number of Farms	Number of Cattle	Number of Goats	Number of Sheep	Number of Pigs	Number of Chickens
1	1000	1000	100	100	100	100	100	100
2	1000	1000	100	100	100	100	100	100
3	1000	1000	100	100	100	100	100	100
4	1000	1000	100	100	100	100	100	100
5	1000	1000	100	100	100	100	100	100
6	1000	1000	100	100	100	100	100	100
7	1000	1000	100	100	100	100	100	100
8	1000	1000	100	100	100	100	100	100
9	1000	1000	100	100	100	100	100	100
10	1000	1000	100	100	100	100	100	100
11	1000	1000	100	100	100	100	100	100
12	1000	1000	100	100	100	100	100	100
13	1000	1000	100	100	100	100	100	100
14	1000	1000	100	100	100	100	100	100
15	1000	1000	100	100	100	100	100	100
16	1000	1000	100	100	100	100	100	100
17	1000	1000	100	100	100	100	100	100
18	1000	1000	100	100	100	100	100	100

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

THE DRAWING SHEET IS A PART OF A PROJECT REPORT, MAY 1977

Scale 1:50,000

IRRIGATION AVAILABILITY AND ACCESSIBILITY

Category	100	200	300	400	500	600	700	800	900	1000
VERY GOOD	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
GOOD	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
FAIR	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
POOR	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
BAD	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000
VERY BAD	0000	0000	0000	0000	0000	0000	0000	0000	0000	0000

IN THE CASE OF CONTINUING...

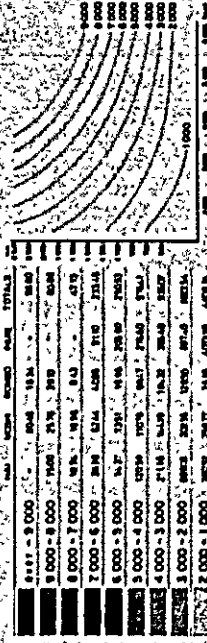
IN THE CASE OF FORESTRY...

IN THE CASE OF UNDEVELOPED...

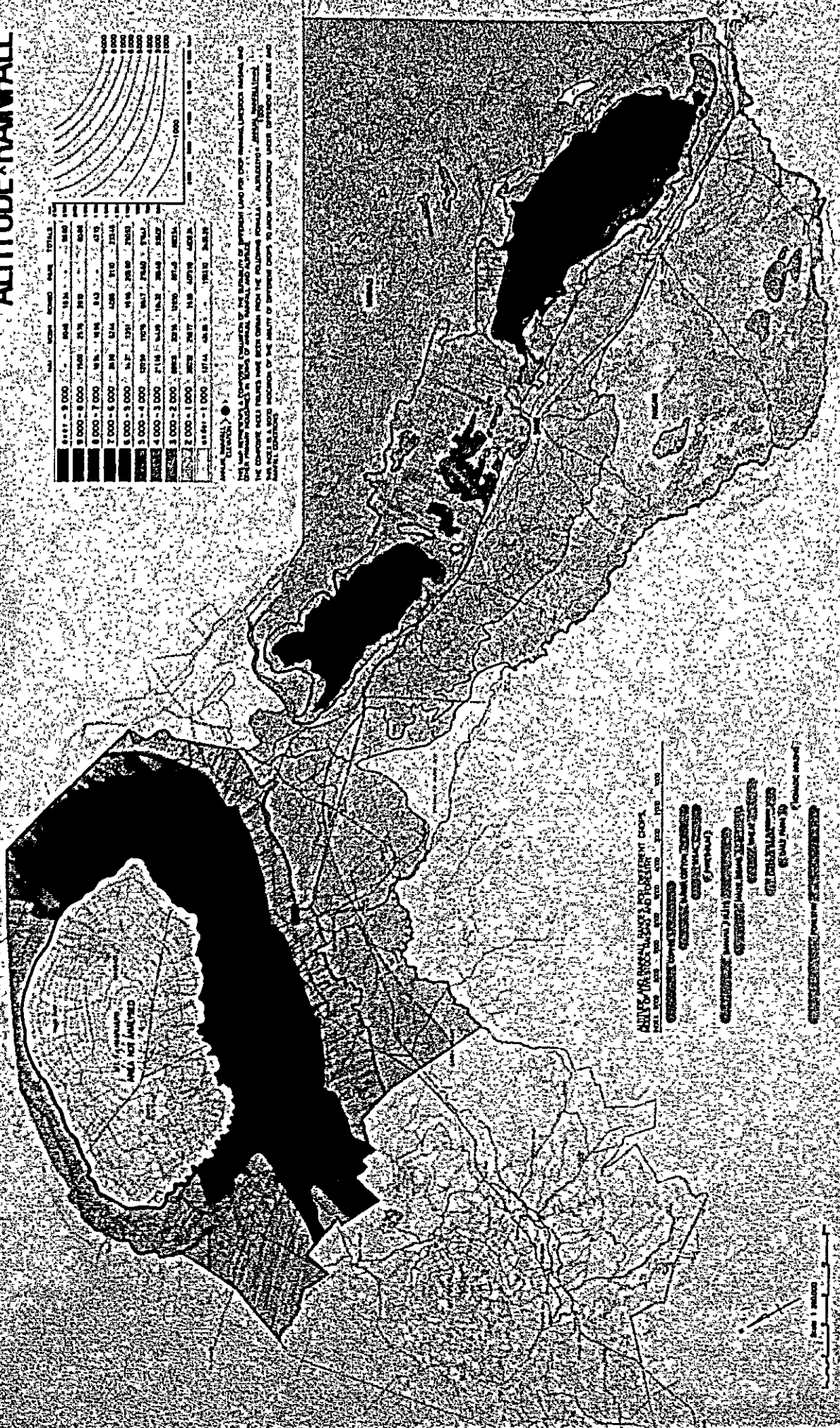


KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THE SHADING IS NOT IN ACCORD WITH THE ORIGINAL PLAN, APRIL 1977

ALTITUDE x RAINFALL



This map illustrates the relationship between altitude and rainfall in the Kilimanjaro region. The contour lines represent altitude, and the shaded areas represent rainfall. The map shows that rainfall generally increases with altitude, particularly in the higher mountain regions.



CHINA NATIONAL GEOGRAPHIC SOCIETY
 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000

CHINA NATIONAL GEOGRAPHIC SOCIETY
 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000

CHINA NATIONAL GEOGRAPHIC SOCIETY
 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000

CHINA NATIONAL GEOGRAPHIC SOCIETY
 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000

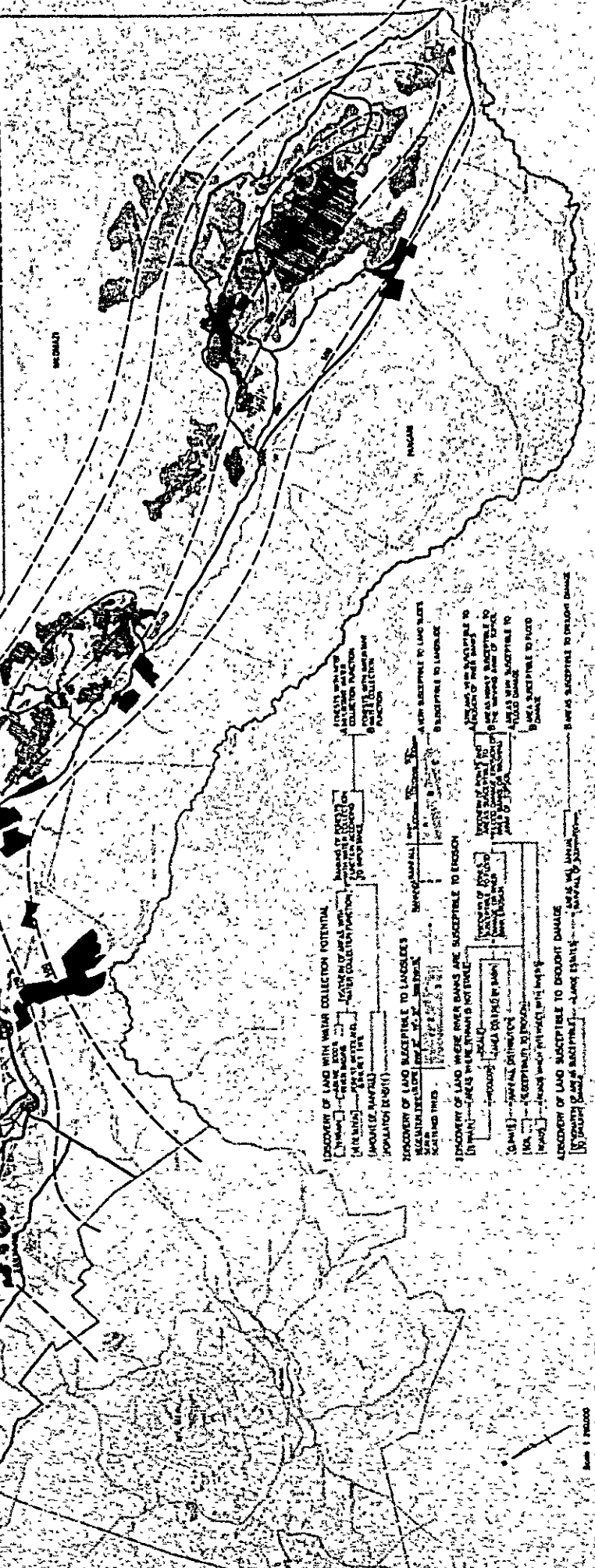
CHINA NATIONAL GEOGRAPHIC SOCIETY
 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

CONSERVATION VALUE

NO.	AREA	NO. OF DISTRICTS	NO. OF VILLAGES	NO. OF PEOPLE	NO. OF FAMILIES	NO. OF HOUSES	NO. OF PLANTATIONS	NO. OF ANIMALS	NO. OF CATTLE	NO. OF BUFFALOES	NO. OF PIGS	NO. OF CHICKENS	NO. OF BEES	NO. OF BIRDS	NO. OF OTHERS	NO. OF OTHERS	NO. OF OTHERS	NO. OF OTHERS
1	Area I	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
2	Area II	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
3	Area III	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
4	Area IV	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
5	Area V	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
6	Area VI	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
7	Area VII	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
8	Area VIII	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
9	Area IX	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
10	Area X	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
11	Area XI	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
12	Area XII	10	100	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

AREAS WITH HIGH CONSERVATION VALUE ARE IDENTIFIED BY THE FOLLOWING SYMBOLS:
 A - AREAS WITH HIGH CONSERVATION VALUE (HCV) - AREAS WITH HIGH CONSERVATION VALUE (HCV) - AREAS WITH HIGH CONSERVATION VALUE (HCV)
 B - AREAS WITH MODERATE CONSERVATION VALUE (MCV) - AREAS WITH MODERATE CONSERVATION VALUE (MCV) - AREAS WITH MODERATE CONSERVATION VALUE (MCV)
 C - AREAS WITH LOW CONSERVATION VALUE (LCV) - AREAS WITH LOW CONSERVATION VALUE (LCV) - AREAS WITH LOW CONSERVATION VALUE (LCV)
 D - AREAS WITH VERY LOW CONSERVATION VALUE (VLCV) - AREAS WITH VERY LOW CONSERVATION VALUE (VLCV) - AREAS WITH VERY LOW CONSERVATION VALUE (VLCV)
 E - AREAS WITH NO CONSERVATION VALUE (NLCV) - AREAS WITH NO CONSERVATION VALUE (NLCV) - AREAS WITH NO CONSERVATION VALUE (NLCV)
 F - AREAS WITH UNKNOWN CONSERVATION VALUE (UKCV) - AREAS WITH UNKNOWN CONSERVATION VALUE (UKCV) - AREAS WITH UNKNOWN CONSERVATION VALUE (UKCV)



- AREAS WITH HIGH CONSERVATION VALUE (HCV)
- AREAS WITH MODERATE CONSERVATION VALUE (MCV)
- AREAS WITH LOW CONSERVATION VALUE (LCV)
- AREAS WITH VERY LOW CONSERVATION VALUE (VLCV)
- AREAS WITH NO CONSERVATION VALUE (NLCV)
- AREAS WITH UNKNOWN CONSERVATION VALUE (UKCV)
- AREAS WITH HIGH CONSERVATION VALUE (HCV) - AREAS WITH HIGH CONSERVATION VALUE (HCV)
- AREAS WITH MODERATE CONSERVATION VALUE (MCV) - AREAS WITH MODERATE CONSERVATION VALUE (MCV)
- AREAS WITH LOW CONSERVATION VALUE (LCV) - AREAS WITH LOW CONSERVATION VALUE (LCV)
- AREAS WITH VERY LOW CONSERVATION VALUE (VLCV) - AREAS WITH VERY LOW CONSERVATION VALUE (VLCV)
- AREAS WITH NO CONSERVATION VALUE (NLCV) - AREAS WITH NO CONSERVATION VALUE (NLCV)
- AREAS WITH UNKNOWN CONSERVATION VALUE (UKCV) - AREAS WITH UNKNOWN CONSERVATION VALUE (UKCV)

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN

UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE PLAN WAS PREPARED BY THE TANZANIAN GOVERNMENT AND THE JAPAN INTERNATIONAL COOPERATION AGENCY IN 1977

NATURAL LAND VALUE



VERY GOOD	GOOD	FAIR	POOR	VERY POOR	VERY BAD
100-150	150-200	200-250	250-300	300-350	350-400
100-150	150-200	200-250	250-300	300-350	350-400
100-150	150-200	200-250	250-300	300-350	350-400
100-150	150-200	200-250	250-300	300-350	350-400
100-150	150-200	200-250	250-300	300-350	350-400
100-150	150-200	200-250	250-300	300-350	350-400

PREPARED BY THE JAPAN INTERNATIONAL COOPERATION AGENCY
 FOR THE GOVERNMENT OF TANZANIA
 UNDER TECHNICAL ASSISTANCE FROM THE JAPAN INTERNATIONAL COOPERATION AGENCY

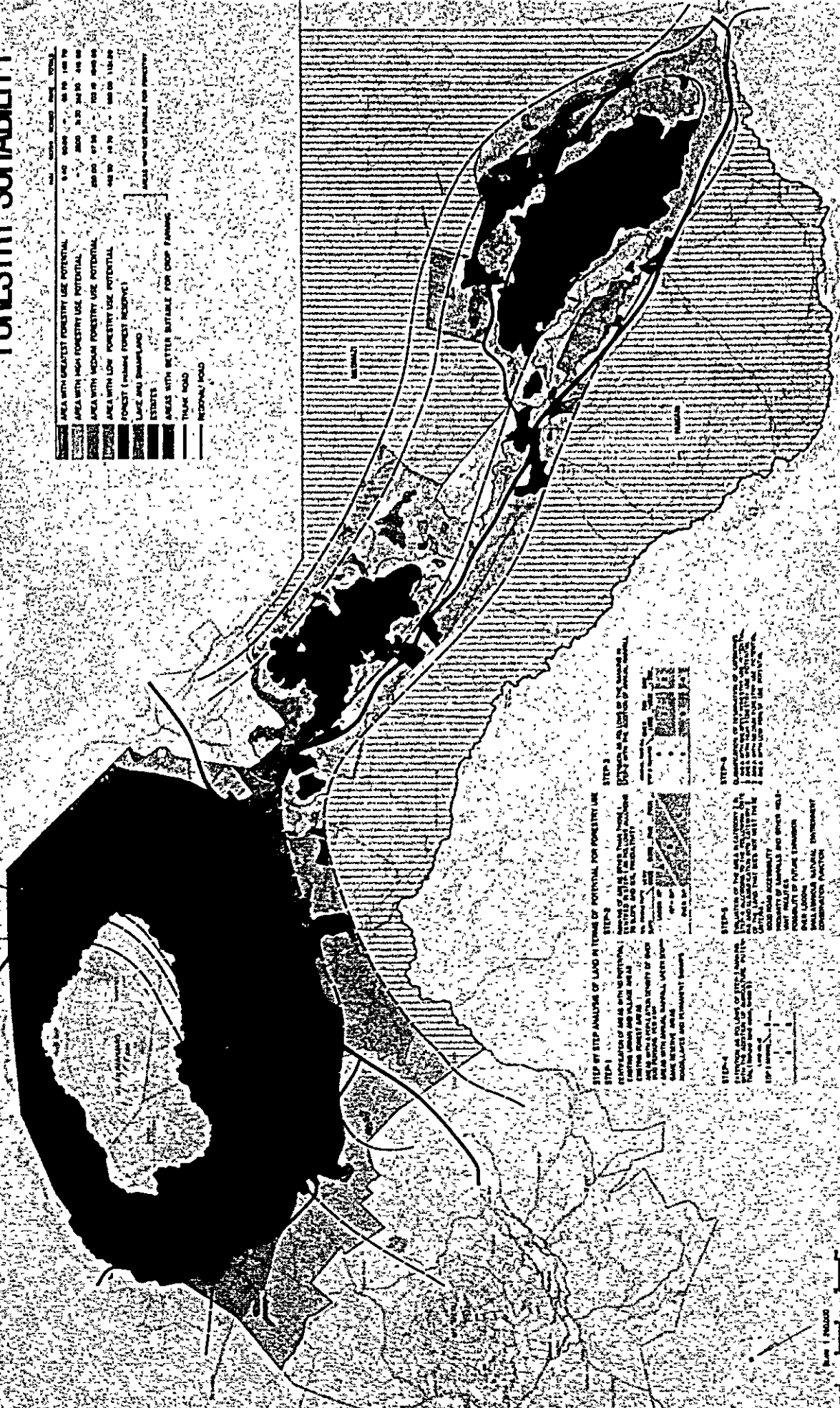
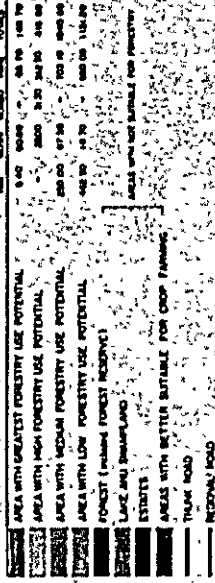


Land Value	Area (sq. km)	Area (%)	Area (sq. miles)	Area (%)	Area (sq. miles)	Area (%)
VERY GOOD	100-150	10.0	38.6	10.0	38.6	10.0
GOOD	150-200	20.0	77.2	20.0	77.2	20.0
FAIR	200-250	30.0	115.8	30.0	115.8	30.0
POOR	250-300	40.0	154.4	40.0	154.4	40.0
BAD	300-350	10.0	38.6	10.0	38.6	10.0
VERY BAD	350-400	0.0	0.0	0.0	0.0	0.0



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 PREPARED BY THE JAPAN INTERNATIONAL COOPERATION AGENCY FOR THE GOVERNMENT OF TANZANIA UNDER TECHNICAL ASSISTANCE FROM THE JAPAN INTERNATIONAL COOPERATION AGENCY

FORESTRY SUITABILITY



STEP 1
IDENTIFICATION OF AREAS WITH POTENTIAL FOR FORESTRY USE

STEP-2
EVALUATION OF AREAS WITH POTENTIAL FOR FORESTRY USE IN TERMS OF SOIL, CLIMATE, TOPOGRAPHY, AND OTHER FACTORS THAT AFFECT FORESTRY SUITABILITY

STEP-3
IDENTIFICATION OF AREAS WITH POTENTIAL FOR FORESTRY USE IN TERMS OF SOIL, CLIMATE, TOPOGRAPHY, AND OTHER FACTORS THAT AFFECT FORESTRY SUITABILITY

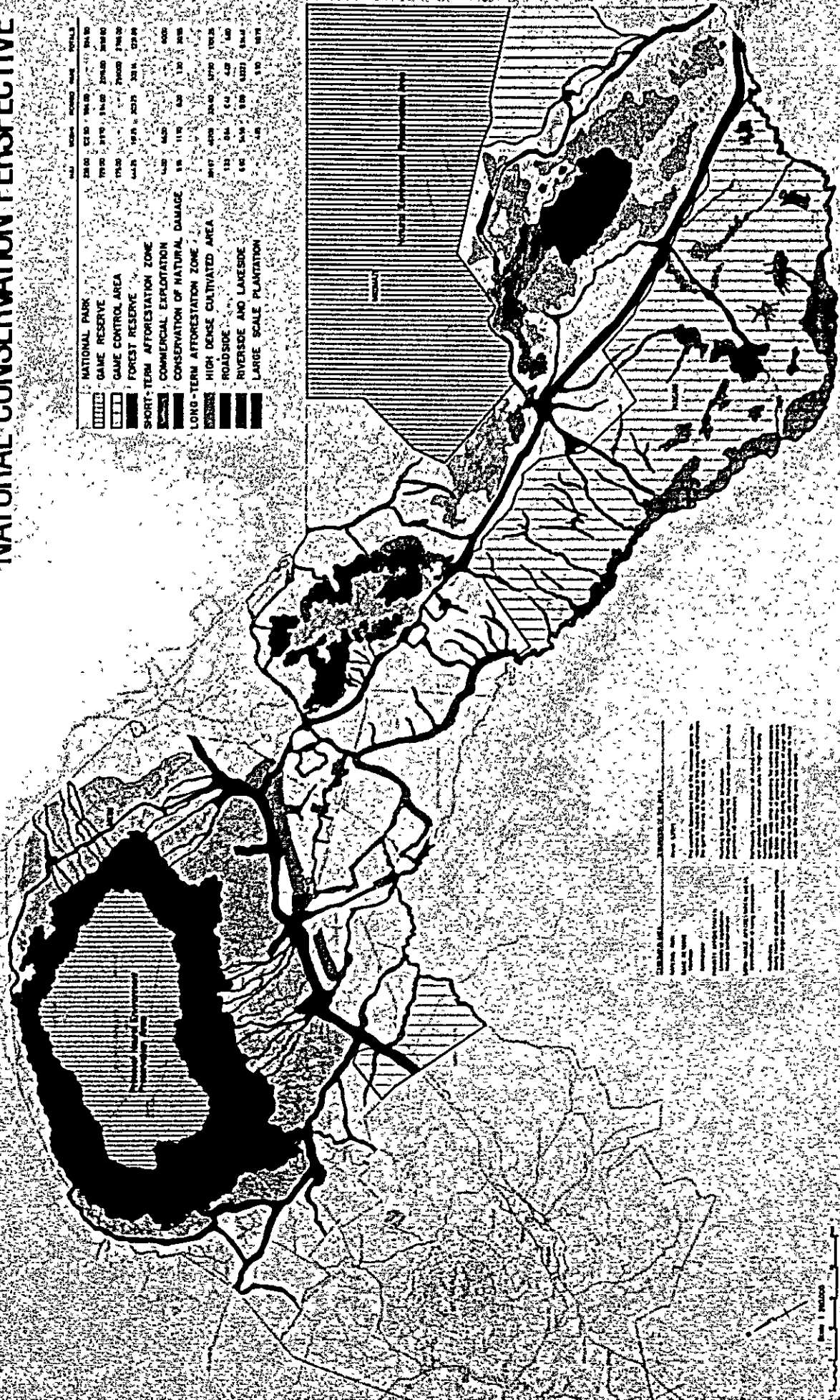
STEP-4
EVALUATION OF AREAS WITH POTENTIAL FOR FORESTRY USE IN TERMS OF SOIL, CLIMATE, TOPOGRAPHY, AND OTHER FACTORS THAT AFFECT FORESTRY SUITABILITY

STEP-5
IDENTIFICATION OF AREAS WITH POTENTIAL FOR FORESTRY USE IN TERMS OF SOIL, CLIMATE, TOPOGRAPHY, AND OTHER FACTORS THAT AFFECT FORESTRY SUITABILITY

Scale 1:50,000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DRAWING SHEET IS ATTACHED TO SITTING REPORT, MAY 1977

NATURAL CONSERVATION PERSPECTIVE



LAND USE	AREA (SQ. KM)	PERCENTAGE	TOTALS
NATIONAL PARK	28,100	100.00	28,100
GAME RESERVE	19,500	69.39	19,500
GAME CONTROL AREA	17,000	60.50	17,000
FOREST RESERVE	14,415	51.30	14,415
SHORT-TERM AFFORESTATION ZONE	1,400	4.98	1,400
COMMERCIAL EXPLOITATION	1,100	3.91	1,100
CONSERVATION OF NATURAL DAMAGE	1,100	3.91	1,100
LONG-TERM AFFORESTATION ZONE	1,100	3.91	1,100
HIGH DENSE CULTIVATED AREA	1,100	3.91	1,100
ROADSIDE	1,100	3.91	1,100
RIVERSIDE AND LAKE SIDE	1,100	3.91	1,100
LARGE SCALE PLANTATION	1,100	3.91	1,100

LEGEND

NATIONAL PARK
 The National Park is a large area of land set aside for the protection of natural resources and for the enjoyment of the people. It is a place where nature is preserved in its original state and where the people can enjoy the beauty of the natural world.

GAME RESERVE
 A Game Reserve is a smaller area of land set aside for the protection of game animals. It is a place where the animals are protected from hunting and where they can live in their natural habitat.

GAME CONTROL AREA
 A Game Control Area is an area of land where the hunting of game animals is controlled. It is a place where the hunting of game animals is allowed, but only under certain conditions.

FOREST RESERVE
 A Forest Reserve is an area of land set aside for the protection of forests. It is a place where the forests are protected from logging and where they can grow and mature.

SHORT-TERM AFFORESTATION ZONE
 A Short-term Afforestation Zone is an area of land where trees are planted for a short period of time. It is a place where the trees are planted to improve the soil and to provide shade for the people.

COMMERCIAL EXPLOITATION
 Commercial Exploitation is the use of land for commercial purposes. It is a place where the land is used to produce goods and services for sale.

CONSERVATION OF NATURAL DAMAGE
 Conservation of Natural Damage is the protection of areas of land that have been damaged by natural forces. It is a place where the damage is protected and where the land is allowed to recover.

LONG-TERM AFFORESTATION ZONE
 A Long-term Afforestation Zone is an area of land where trees are planted for a long period of time. It is a place where the trees are planted to improve the soil and to provide shade for the people.

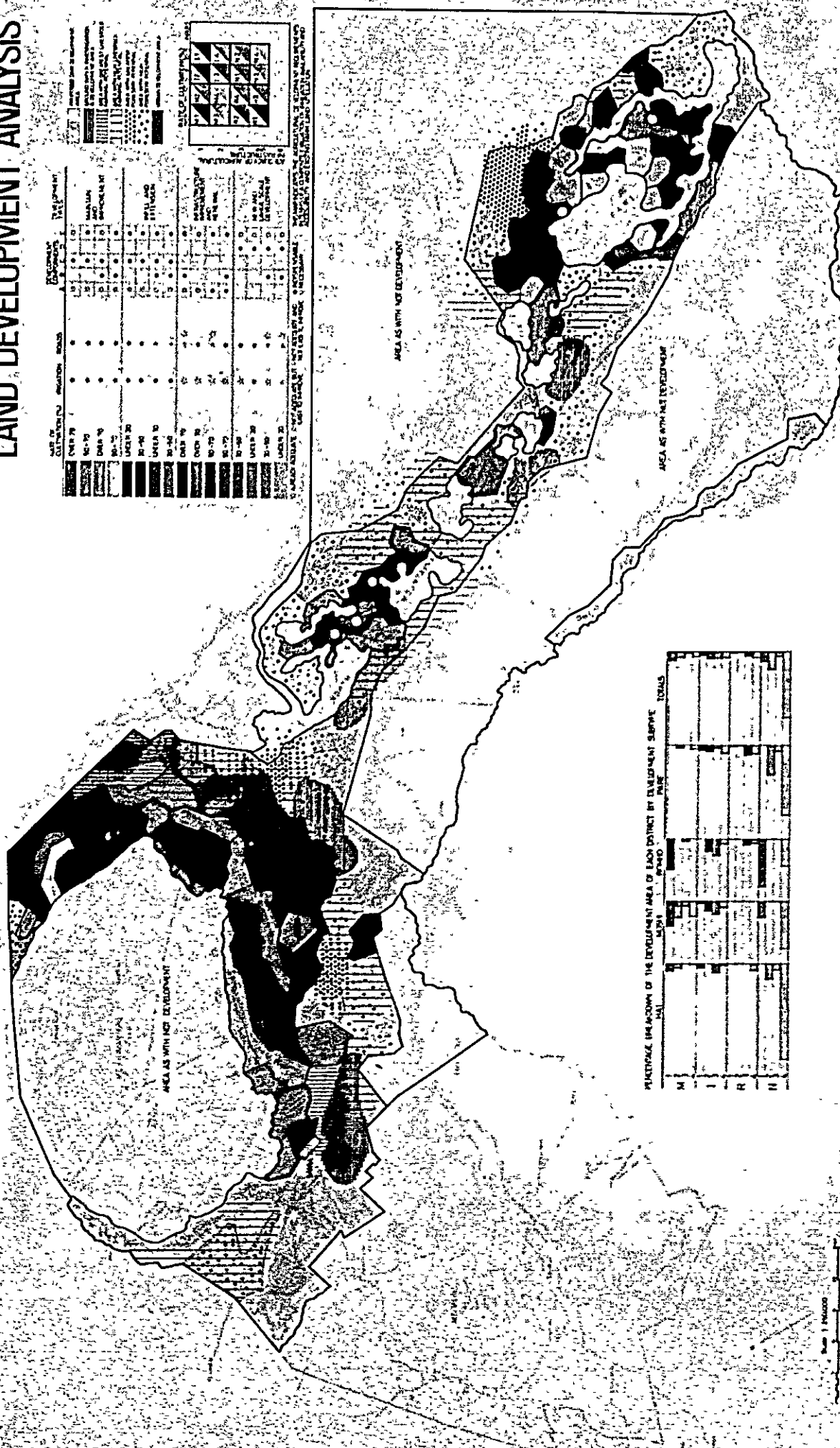
HIGH DENSE CULTIVATED AREA
 A High Dense Cultivated Area is an area of land where the land is used for agriculture. It is a place where the land is used to produce food and other goods.

ROADSIDE
 A Roadside is an area of land along a road. It is a place where the land is used for various purposes, such as planting trees and flowers.

RIVERSIDE AND LAKE SIDE
 A Riverside and Lake Side is an area of land along a river or lake. It is a place where the land is used for various purposes, such as planting trees and flowers.

LARGE SCALE PLANTATION
 A Large Scale Plantation is an area of land where trees are planted on a large scale. It is a place where the trees are planted to improve the soil and to provide shade for the people.

LAND DEVELOPMENT ANALYSIS



USE OF DEVELOPMENT	DEVELOPMENT	PERCENTAGE	AREA (HA)
URBAN	U-1	10	100
URBAN	U-2	10	100
URBAN	U-3	10	100
URBAN	U-4	10	100
URBAN	U-5	10	100
URBAN	U-6	10	100
URBAN	U-7	10	100
URBAN	U-8	10	100
URBAN	U-9	10	100
URBAN	U-10	10	100
URBAN	U-11	10	100
URBAN	U-12	10	100
URBAN	U-13	10	100
URBAN	U-14	10	100
URBAN	U-15	10	100
URBAN	U-16	10	100
URBAN	U-17	10	100
URBAN	U-18	10	100
URBAN	U-19	10	100
URBAN	U-20	10	100
URBAN	U-21	10	100
URBAN	U-22	10	100
URBAN	U-23	10	100
URBAN	U-24	10	100
URBAN	U-25	10	100
URBAN	U-26	10	100
URBAN	U-27	10	100
URBAN	U-28	10	100
URBAN	U-29	10	100
URBAN	U-30	10	100
URBAN	U-31	10	100
URBAN	U-32	10	100
URBAN	U-33	10	100
URBAN	U-34	10	100
URBAN	U-35	10	100
URBAN	U-36	10	100
URBAN	U-37	10	100
URBAN	U-38	10	100
URBAN	U-39	10	100
URBAN	U-40	10	100
URBAN	U-41	10	100
URBAN	U-42	10	100
URBAN	U-43	10	100
URBAN	U-44	10	100
URBAN	U-45	10	100
URBAN	U-46	10	100
URBAN	U-47	10	100
URBAN	U-48	10	100
URBAN	U-49	10	100
URBAN	U-50	10	100
URBAN	U-51	10	100
URBAN	U-52	10	100
URBAN	U-53	10	100
URBAN	U-54	10	100
URBAN	U-55	10	100
URBAN	U-56	10	100
URBAN	U-57	10	100
URBAN	U-58	10	100
URBAN	U-59	10	100
URBAN	U-60	10	100
URBAN	U-61	10	100
URBAN	U-62	10	100
URBAN	U-63	10	100
URBAN	U-64	10	100
URBAN	U-65	10	100
URBAN	U-66	10	100
URBAN	U-67	10	100
URBAN	U-68	10	100
URBAN	U-69	10	100
URBAN	U-70	10	100
URBAN	U-71	10	100
URBAN	U-72	10	100
URBAN	U-73	10	100
URBAN	U-74	10	100
URBAN	U-75	10	100
URBAN	U-76	10	100
URBAN	U-77	10	100
URBAN	U-78	10	100
URBAN	U-79	10	100
URBAN	U-80	10	100
URBAN	U-81	10	100
URBAN	U-82	10	100
URBAN	U-83	10	100
URBAN	U-84	10	100
URBAN	U-85	10	100
URBAN	U-86	10	100
URBAN	U-87	10	100
URBAN	U-88	10	100
URBAN	U-89	10	100
URBAN	U-90	10	100
URBAN	U-91	10	100
URBAN	U-92	10	100
URBAN	U-93	10	100
URBAN	U-94	10	100
URBAN	U-95	10	100
URBAN	U-96	10	100
URBAN	U-97	10	100
URBAN	U-98	10	100
URBAN	U-99	10	100
URBAN	U-100	10	100

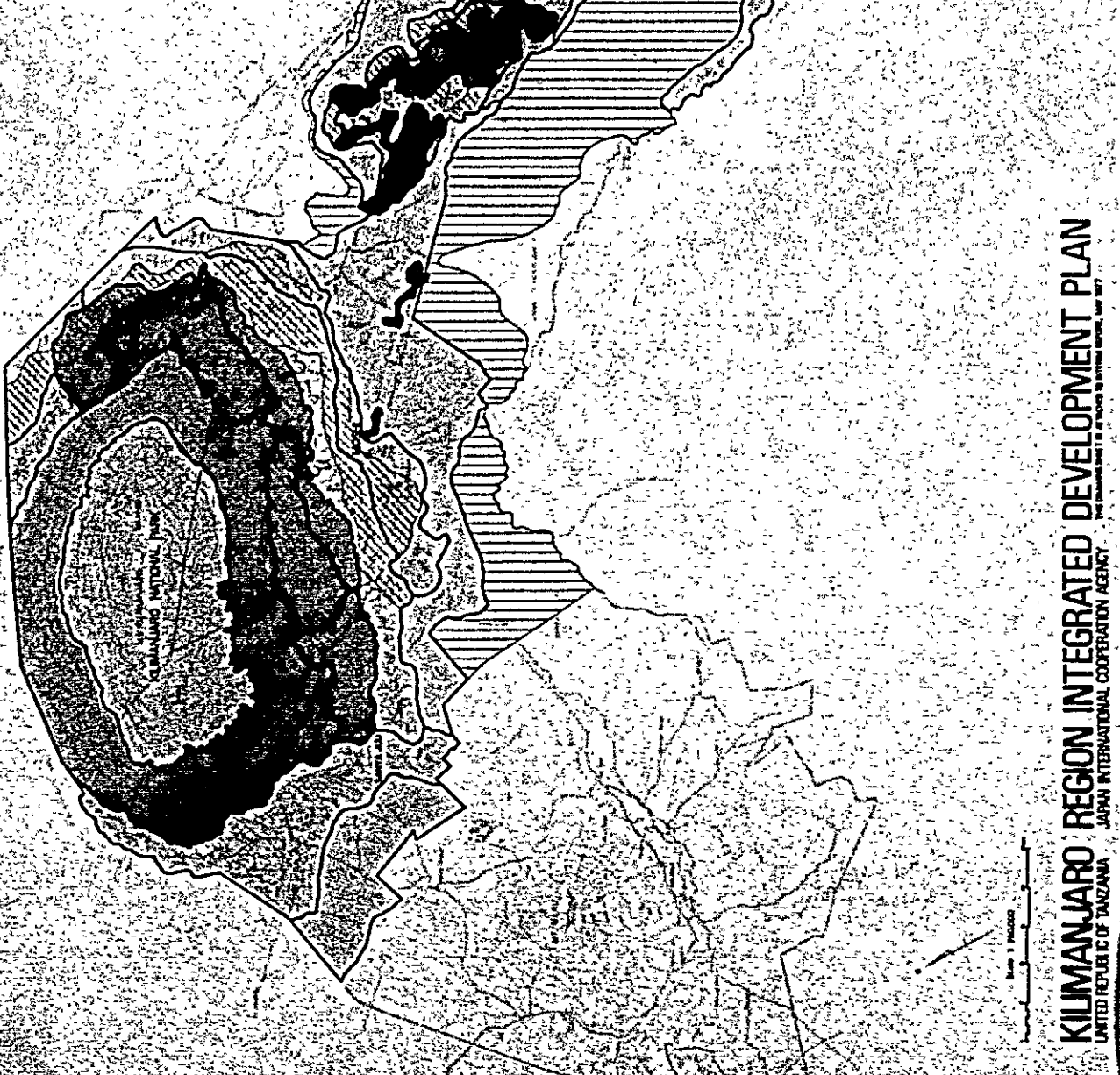
PERCENTAGE BREAKDOWN OF THE DEVELOPMENT AREA OF EACH DISTRICT BY DEVELOPMENT SURVEY

DISTRICT	URBAN	INDUSTRIAL	COMMERCIAL	RESIDENTIAL	AGRICULTURAL	PROTECTED	TOTALS
M	10	10	10	10	10	10	100
I	10	10	10	10	10	10	100
R	10	10	10	10	10	10	100
II	10	10	10	10	10	10	100

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DRAWING PART IS AS SHOWN TO OTHER PARTS, APR 1977

USE ZONING PLAN 1995

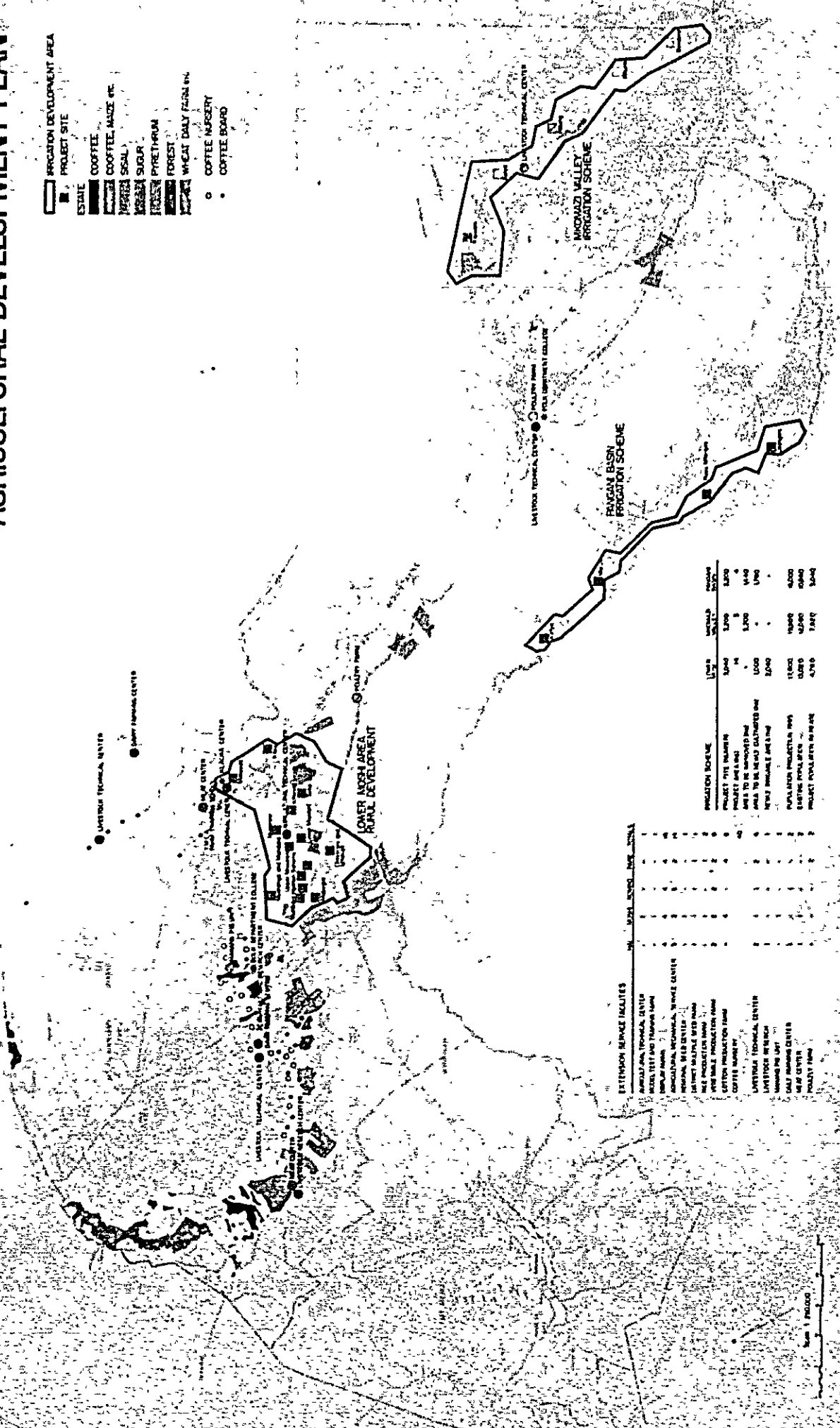
USE ZONING	LAND USE	RELATION	POP. (1995)	POP. (2000)	POP. (2010)	POP. (2020)	POP. (2030)	POP. (2040)	POP. (2050)
RESIDENTIAL	RESIDENTIAL	RESIDENTIAL	100	100	100	100	100	100	100
COMMERCIAL	COMMERCIAL	COMMERCIAL	200	200	200	200	200	200	200
INDUSTRIAL	INDUSTRIAL	INDUSTRIAL	300	300	300	300	300	300	300
AGRICULTURAL	AGRICULTURAL	AGRICULTURAL	400	400	400	400	400	400	400
RECREATION	RECREATION	RECREATION	500	500	500	500	500	500	500
UNDEVELOPED	UNDEVELOPED	UNDEVELOPED	600	600	600	600	600	600	600
WATER	WATER	WATER	700	700	700	700	700	700	700
ROADS	ROADS	ROADS	800	800	800	800	800	800	800
RAILWAYS	RAILWAYS	RAILWAYS	900	900	900	900	900	900	900
PORTS	PORTS	PORTS	1000	1000	1000	1000	1000	1000	1000



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE PLAN WAS PREPARED BY THE JICA PROJECT TEAM IN 1995.

AGRICULTURAL DEVELOPMENT PLAN

- IRIGATION DEVELOPMENT AREA
- PROJECT SITE
- ESTATE
- COFFEE
- COFFEE, MAIZE ETC.
- SOJA
- SUGAR
- PYRETHRUM
- FOREST
- WHEAT DAILY FARMING
- COFFEE NURSERY
- COFFEE BOARD



IRRIGATION SCHEME	AREA (HA)	WATER AVAILABLE (ML)	POPULATION (1975)	EXISTING PROBLEMS	PROJECT EVALUATION IN 1977
PROJECT SITE (MASH)	1000	1000	1000		1000
PROJECT AREA (M)	1000	1000	1000		1000
AREA TO BE IRRIGATED (M)	1000	1000	1000		1000
AREA TO BE IRRIGATED (M)	1000	1000	1000		1000
POPULATION PROJECTED 1975	1000	1000	1000		1000
EXISTING PROBLEMS	1000	1000	1000		1000
PROJECT EVALUATION IN 1977	1000	1000	1000		1000

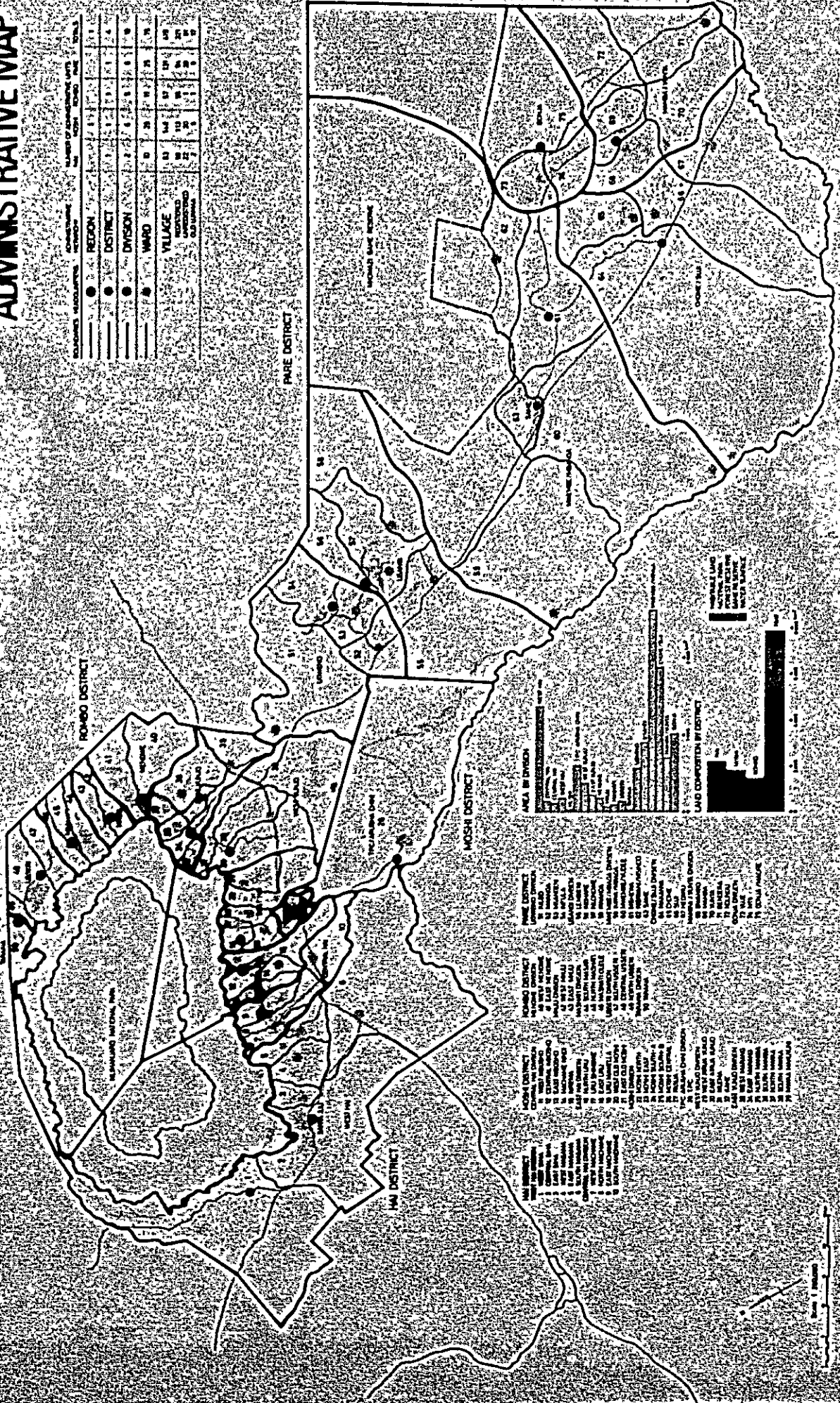
- EXTENSION SERVICE FACILITIES**
- AGRICULTURAL TECHNICAL CENTER
 - MODEL TEST AND TRAINING FARM
 - IMPROVED SEEDS
 - AGRICULTURAL, TECHNICAL, SERVICE CENTER
 - AGRICULTURAL CENTER
 - WATER PRODUCTION FARM
 - COTTON PRODUCTION FARM
 - COFFEE NURSERY
 - LIVESTOCK TECHNICAL CENTER
 - LIVESTOCK REFERENCE
 - WHEAT DAILY FARM
 - DAILY MARKING CENTER
 - WHEAT CENTER
 - PROJECT FARM

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

THE DRAWING IS SUBJECT TO TECHNICAL REVIEWS AND 1977

ADMINISTRATIVE MAP

RELATIONSHIP	SYMBOL	NUMBER OF ADMINISTRATIVE UNITS			
		REGION	DISTRICT	DIVISION	WARD
Region	●	1	1	1	1
District	○	1	1	1	1
Division	○	1	1	1	1
Ward	○	1	1	1	1
Village	○	1	1	1	1
Unsettled	○	1	1	1	1
Unplanned	○	1	1	1	1
Other	○	1	1	1	1



AREA BY DISTRICT

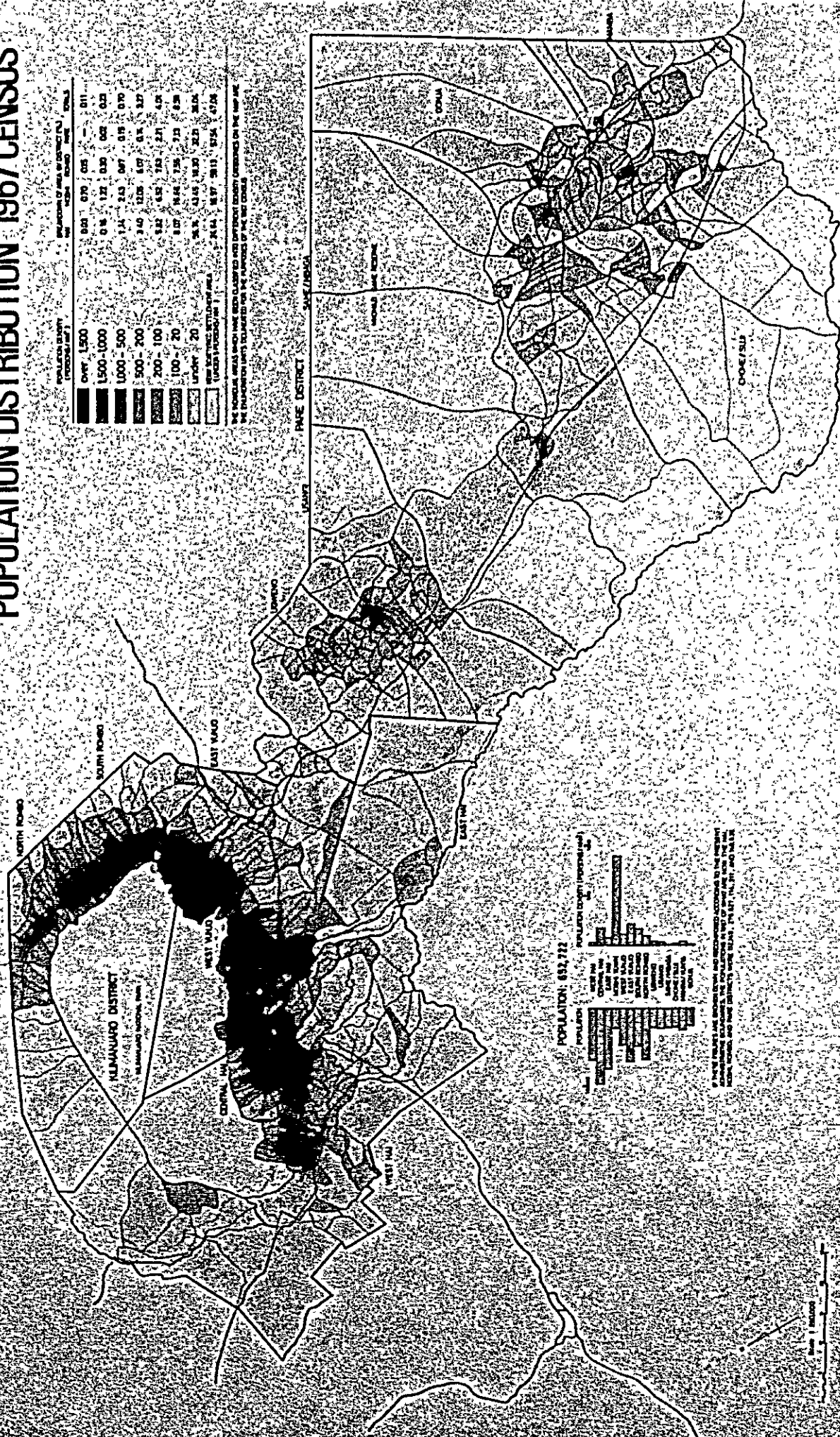
DISTRICT	Area (sq. km)
ROMBO	1,200
PALE	1,500
MOSHI	1,800
URU	2,000
TOTAL	6,500

LAND COMPOSITION BY DISTRICT

DISTRICT	Arable	Forest	Barren	Water	Other
ROMBO	15%	45%	25%	10%	5%
PALE	20%	35%	30%	10%	2%
MOSHI	25%	30%	25%	15%	5%
URU	30%	25%	20%	15%	10%

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

POPULATION DISTRIBUTION 1967 CENSUS



POPULATION RANGE	PERCENTAGE OF AREA	PERCENTAGE OF POPULATION
Over 1,500	0.01	0.70
1,500-1,000	0.16	1.12
1,000-500	1.14	3.13
500-200	3.40	10.18
200-100	12.22	35.28
100-70	17.07	49.35
Under 70	58.9%	17.10

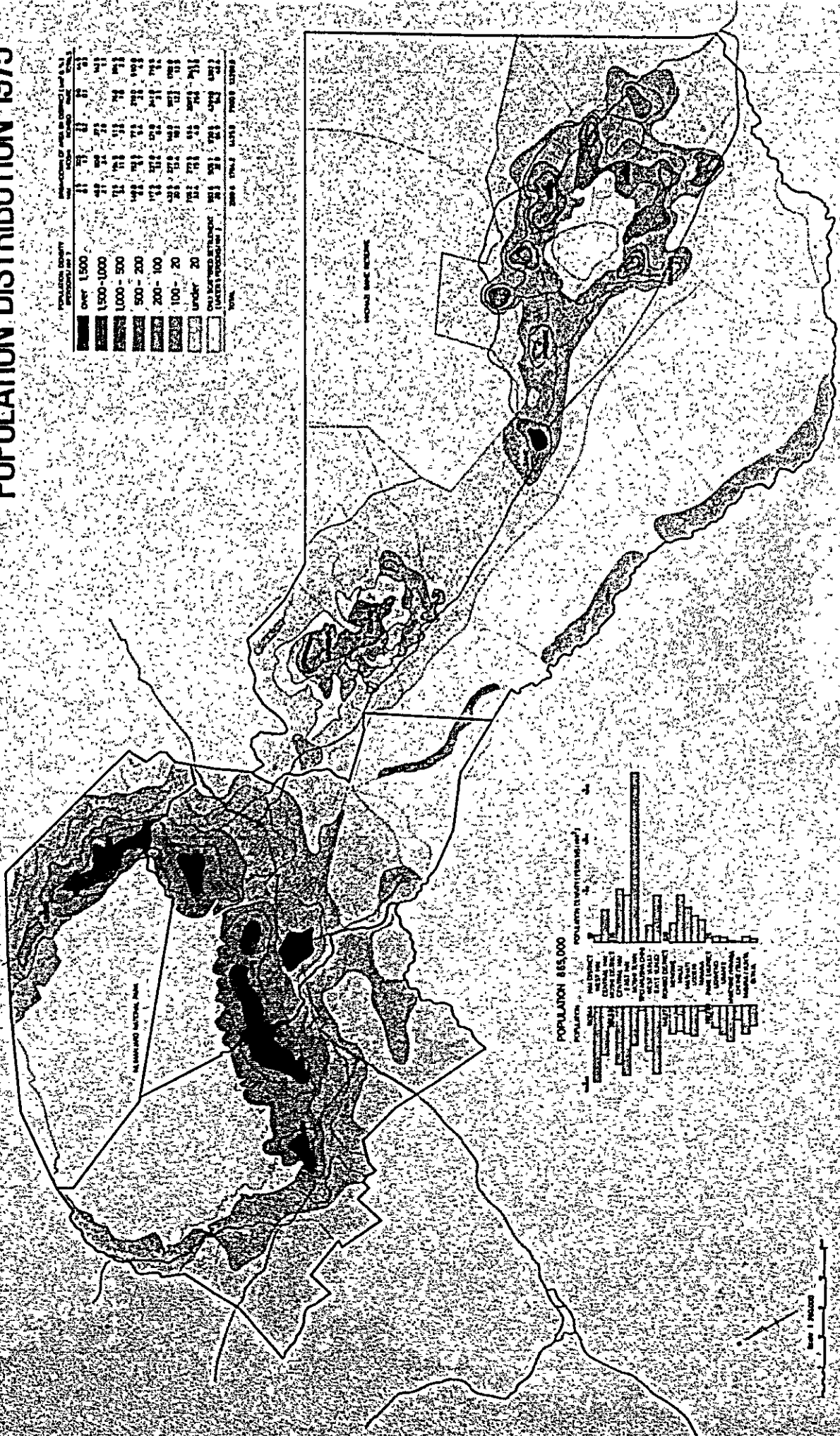
THE POPULATION DATA WERE OBTAINED FROM THE 1967 CENSUS. THE POPULATION DATA WERE CLASSIFIED INTO DISTRICTS ACCORDING TO THE MAP SHEET. THE POPULATION DATA WERE CLASSIFIED INTO DISTRICTS ACCORDING TO THE MAP SHEET.

POPULATION: 832,722

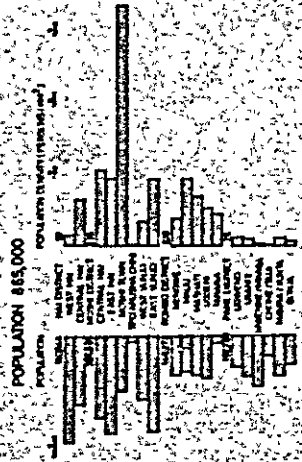
POPULATION RANGE	PERCENTAGE OF AREA	PERCENTAGE OF POPULATION
Over 1,500	0.01	0.70
1,500-1,000	0.16	1.12
1,000-500	1.14	3.13
500-200	3.40	10.18
200-100	12.22	35.28
100-70	17.07	49.35
Under 70	58.9%	17.10

THE POPULATION DATA WERE OBTAINED FROM THE 1967 CENSUS. THE POPULATION DATA WERE CLASSIFIED INTO DISTRICTS ACCORDING TO THE MAP SHEET. THE POPULATION DATA WERE CLASSIFIED INTO DISTRICTS ACCORDING TO THE MAP SHEET.

POPULATION DISTRIBUTION 1975

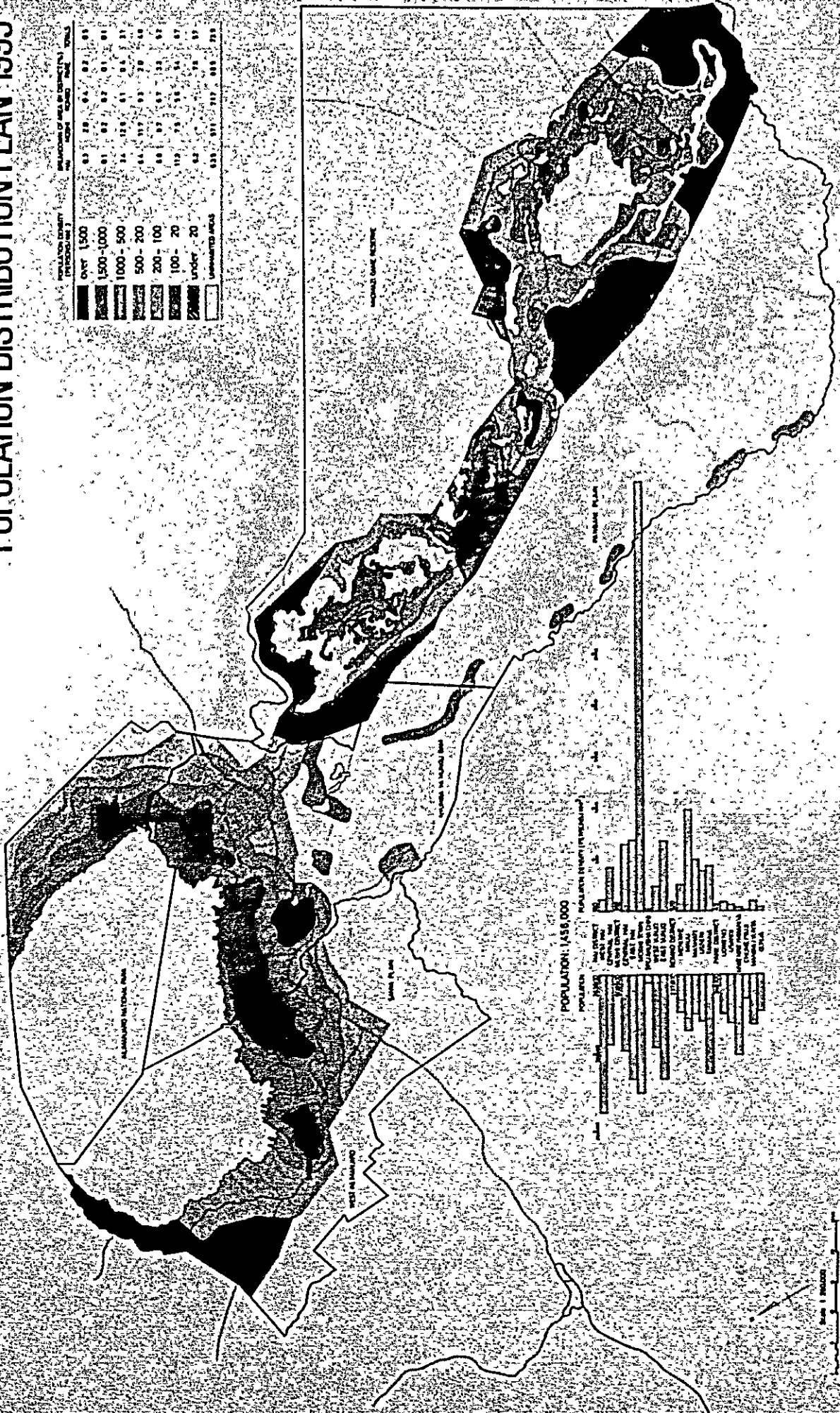


POPULATION DENSITY (PERSONS PER SQ. KM.)	PERCENTAGE OF AREA SO DENSED (PERCENT)	PERCENTAGE OF TOTAL POPULATION (PERCENT)
over 1500	11	21
1500-1000	41	32
1000-500	31	17
500-200	14	11
200-100	13	11
100-20	21	12
under 20	28	15
TOTAL	100	100



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THE DETAILED PLAN IS ATTACHED IN SEPARATE VOLUME, APRIL 1977

POPULATION DISTRIBUTION PLAN 1995



POPULATION DENSITY (PERSONS PER HA)	PERCENTAGE OF AREA BY DISTRICT (%)		TOTALS
	Area	Pop.	
Over 1500	0.3	2.9	0.2
1500-1000	0.1	0.2	0.1
1000-500	1.4	12.9	0.4
500-200	4.4	31.7	7.9
200-100	0.8	0.2	0.2
100-20	11.9	7.9	0.5
Under 20	0.2	0.1	0.1
UNDEVELOPED AREAS	0.0	0.1	0.0

POPULATION: 1,458,000

DISTRICT	POPULATION	POPULATION DENSITY (PERSONS PER HA)
Moshi	450,000	1,500
Hai	350,000	1,200
Mkwinda	250,000	800
Kilimanjaro	150,000	500
Other Districts	208,000	200

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THE DRAINAGE BASIN IS SHOWN IN WHITE ON MAP SHEET 1077

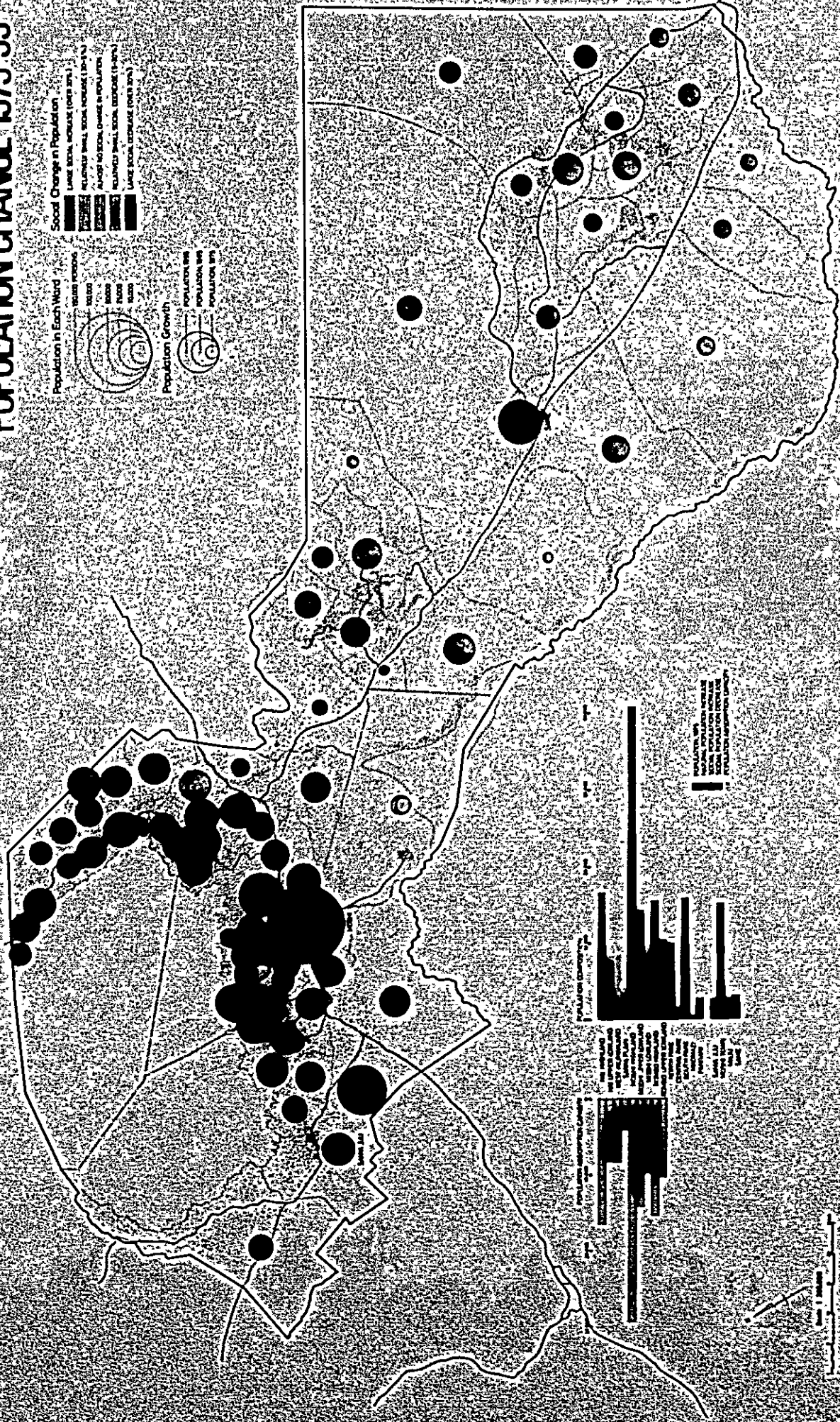
POPULATION CHANGE 1975-95

Social Change in Population
 Least social increase (over 20%)
 Moderate social increase (10-20%)
 Average social increase in population
 Large social increase (5-10%)
 Large social increase (over 5%)

Population in Each Ward
 0-1000
 1000-2000
 2000-3000
 3000-4000
 4000-5000



Population Growth
 POPULATION IN 1975
 POPULATION IN 1995

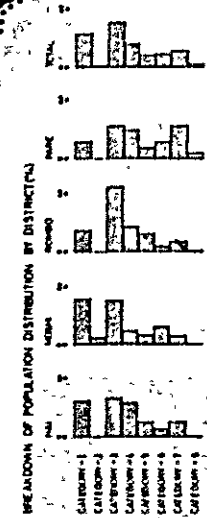
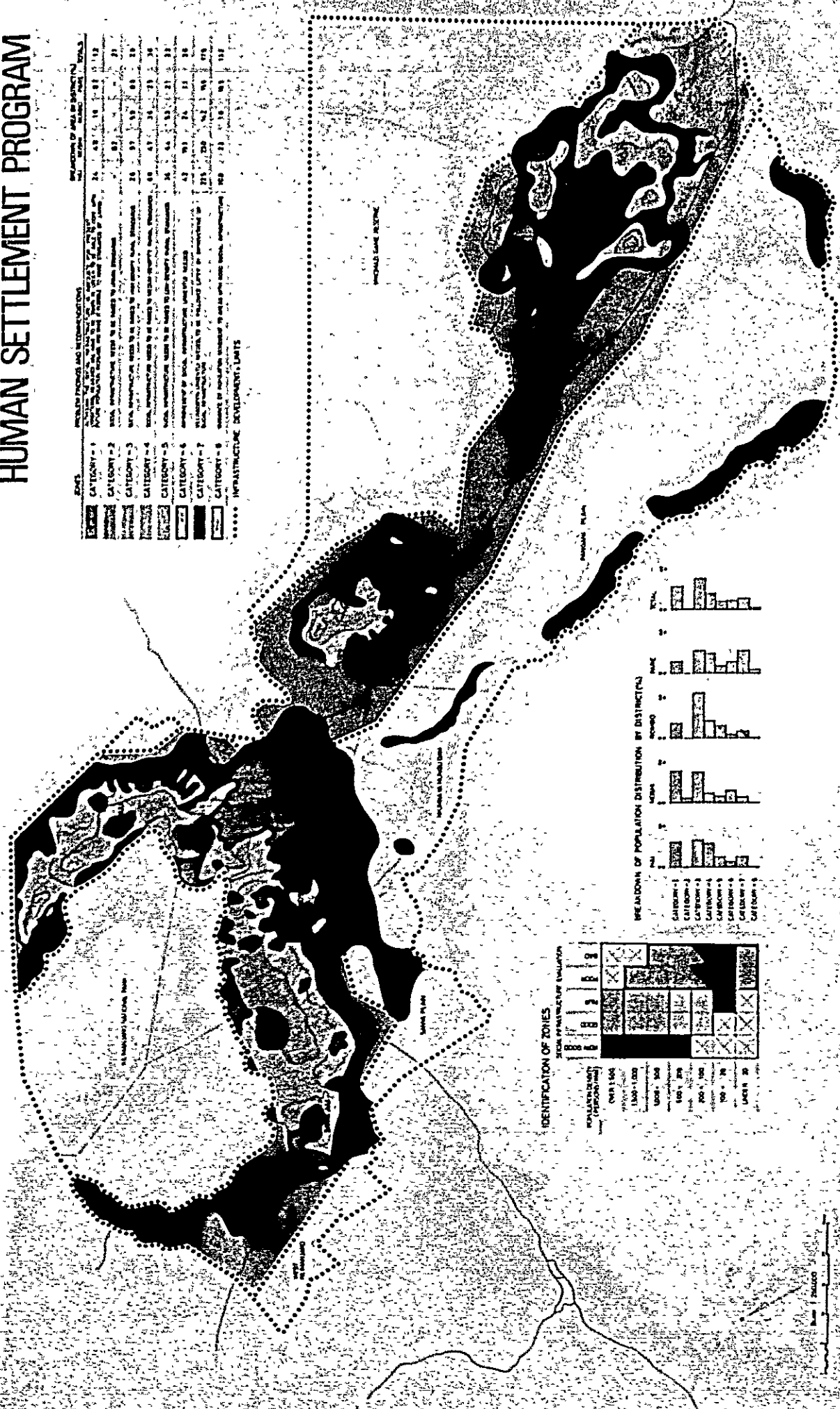


POPULATION CHANGE
 Moshi
 Mkwinda
 Mbezi
 ...

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 1975-1995
 Kilimanjaro Regional Council
 Kilimanjaro Region

HUMAN SETTLEMENT PROGRAM

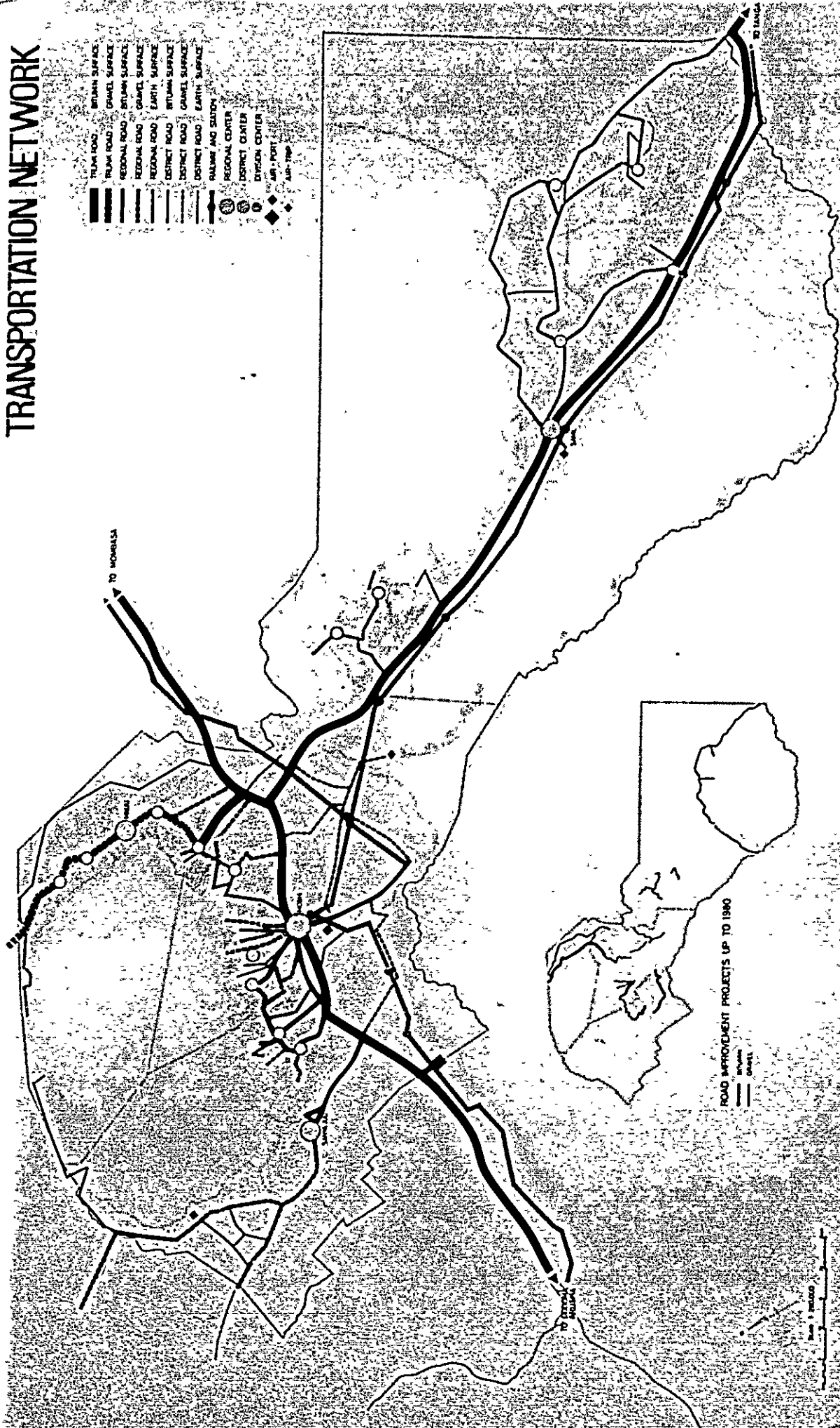
CATEGORY	AREA IN SQUARE KILOMETERS	PERCENTAGE OF AREA OF DISTRICT			
		POPULATION	LAND	WATER	TOTAL
CATEGORY - 1	24	4.9	1.0	0.1	1.2
CATEGORY - 2	87	16.5	3.4	0.4	4.3
CATEGORY - 3	25	5.7	1.2	0.1	1.3
CATEGORY - 4	68	13.1	2.7	0.3	3.1
CATEGORY - 5	42	8.1	1.7	0.2	2.0
CATEGORY - 6	215	42.0	8.8	1.1	12.9
CATEGORY - 7	215	42.0	8.8	1.1	12.9
CATEGORY - 8	159	31.1	6.5	0.8	8.4



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

TRANSPORTATION NETWORK

- TRUNK ROAD - BITUMEN SURFACE
- TRUNK ROAD - GRAVEL SURFACE
- REGIONAL ROAD - BITUMEN SURFACE
- REGIONAL ROAD - GRAVEL SURFACE
- REGIONAL ROAD - EARTH SURFACE
- DISTRICT ROAD - BITUMEN SURFACE
- DISTRICT ROAD - GRAVEL SURFACE
- DISTRICT ROAD - EARTH SURFACE
- RAILWAY AND STATION
- REGIONAL CENTER
- DISTRICT CENTER
- DIVISION CENTER
- RAIL - PORT
- AIR - TRIP



ROAD IMPROVEMENT PROJECTS UP TO 1980

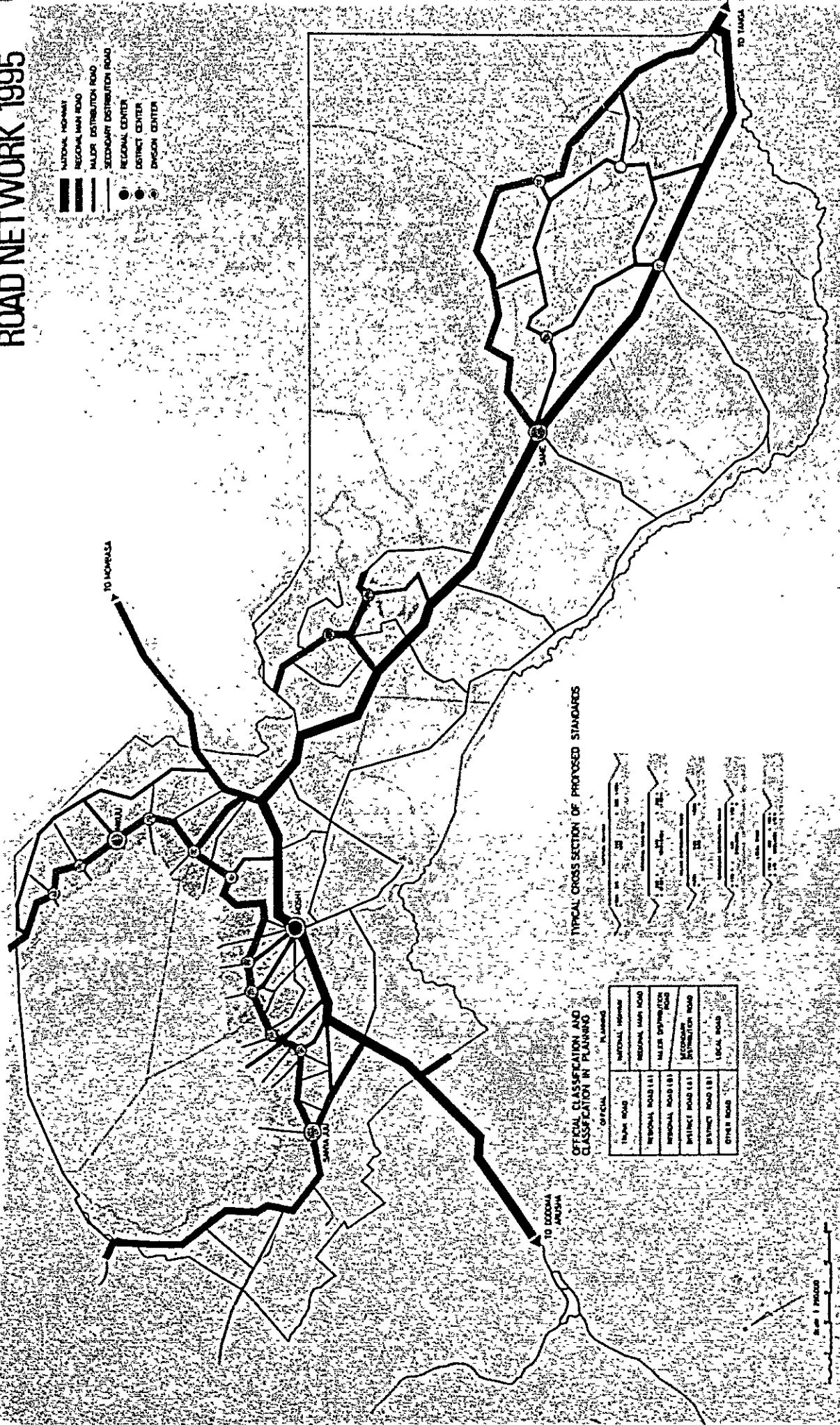
- IMPROVED
- OTHER

Scale 1:50,000

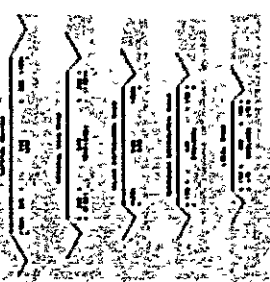
KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

ROAD NETWORK 1995

- NATIONAL HIGHWAY
- REGIONAL MAIN ROAD
- MAJOR DISTRIBUTION ROAD
- SECONDARY DISTRIBUTION ROAD
- REGIONAL CENTER
- DISTRICT CENTER
- DIVISION CENTER



TYPICAL CROSS SECTION OF PROPOSED STANDARDS



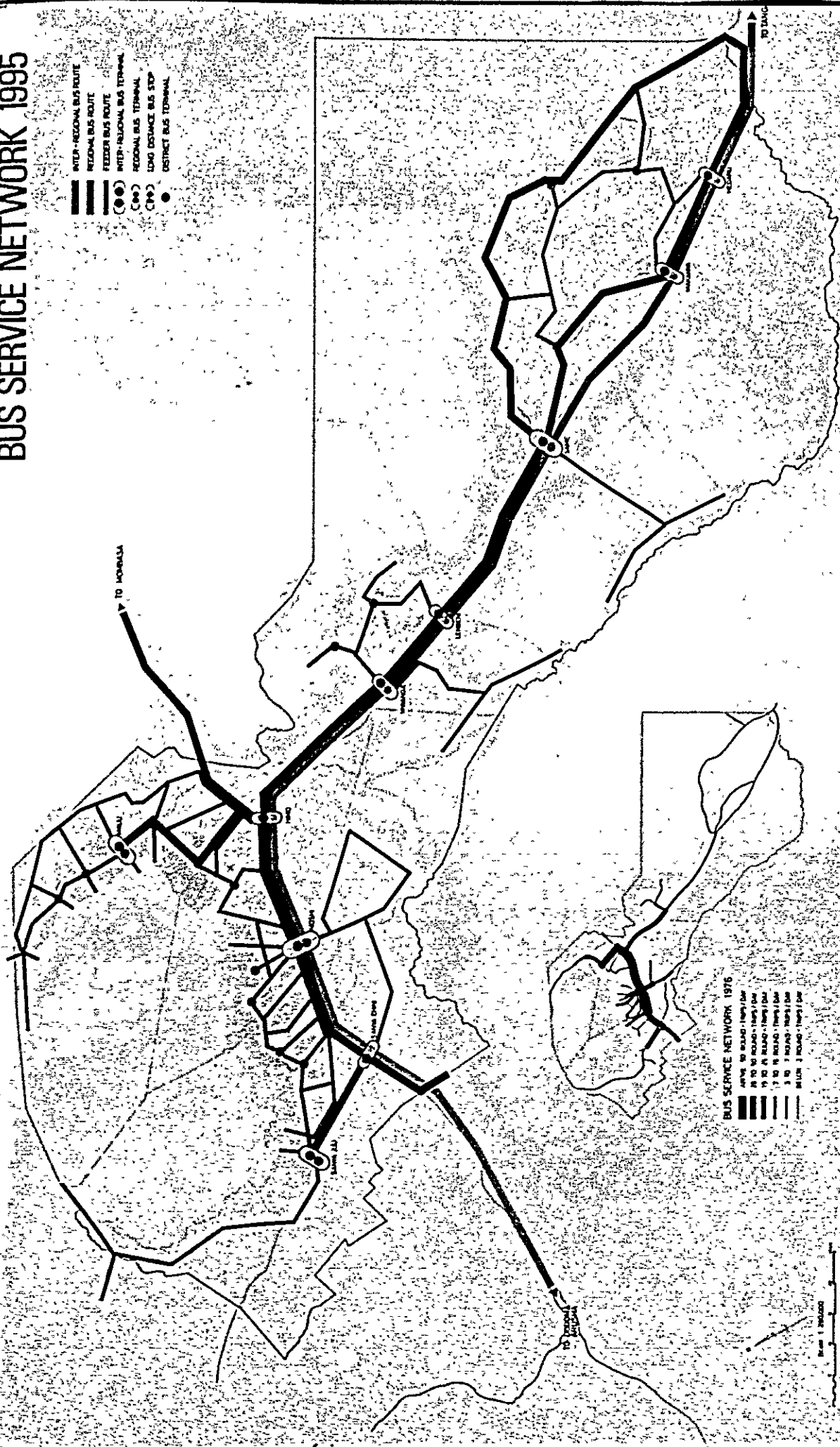
OFFICIAL CLASSIFICATION AND CLASSIFICATION IN PLANNING

OFFICIAL	PLANNING
NATIONAL HIGHWAY	NATIONAL HIGHWAY
REGIONAL MAIN ROAD	REGIONAL MAIN ROAD
MAJOR DISTRIBUTION ROAD	MAJOR DISTRIBUTION ROAD
DISTRICT ROAD (R1)	DISTRICT ROAD (R1)
DISTRICT ROAD (R2)	DISTRICT ROAD (R2)
OTHER ROAD	OTHER ROAD

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THE DRAWING SHEET IS ATTACHED TO REGIONAL REPORT, JAN. 1977

BUS SERVICE NETWORK 1995

- INTER-REGIONAL BUS ROUTE
- REGIONAL BUS ROUTE
- FEDERAL BUS ROUTE
- INTER-REGIONAL BUS TERMINAL
- REGIONAL BUS TERMINAL
- LOAD DISTANCE BUS STOP
- DISTRICT BUS TERMINAL



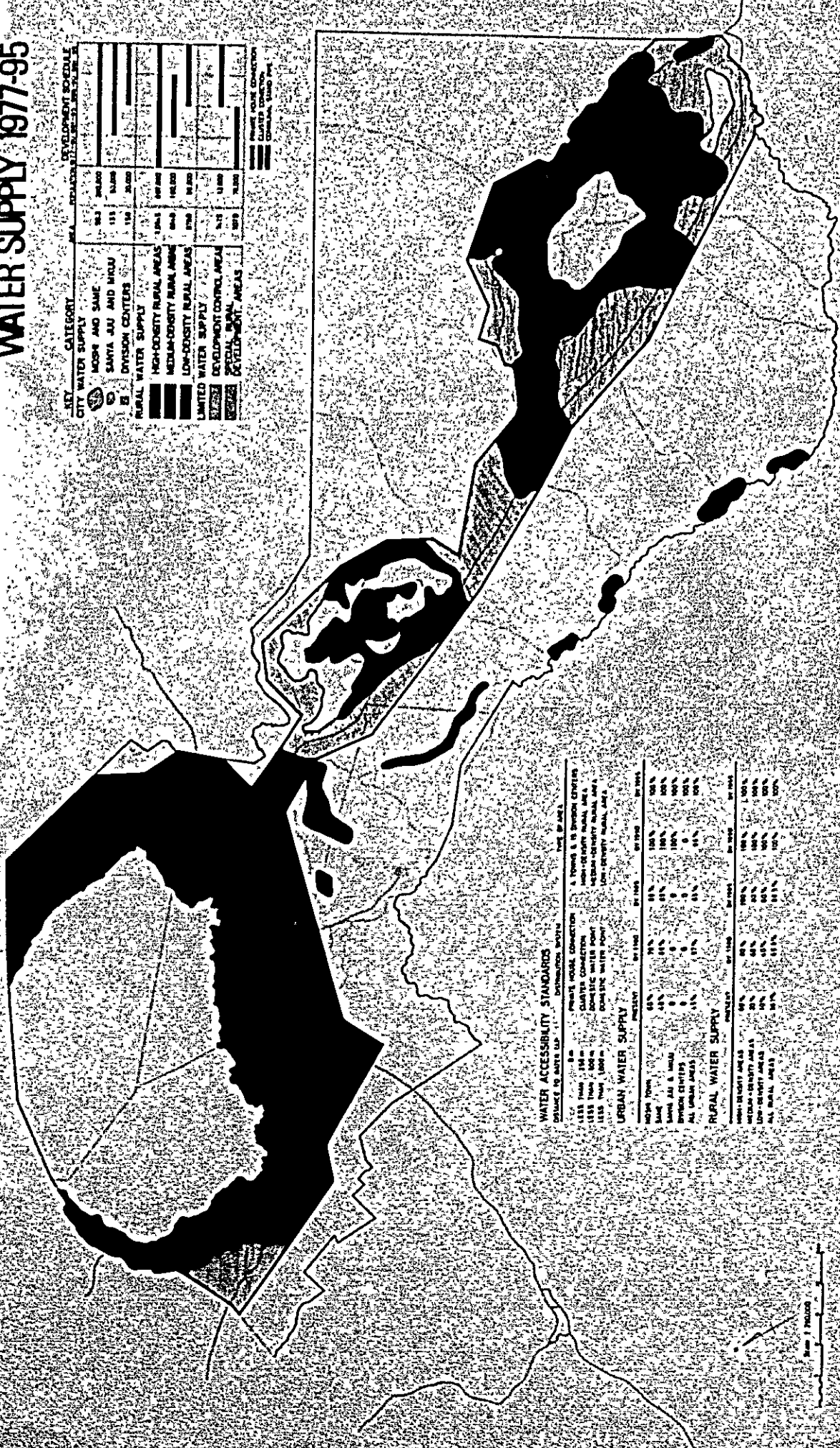
- ### BUS SERVICE NETWORK 1976
- ROUTE TO MOMBASA (1976)
 - ROUTE TO DAR ES SAALA (1976)
 - ROUTE TO MOMBASA (1976)
 - ROUTE TO DAR ES SAALA (1976)
 - ROUTE TO MOMBASA (1976)
 - ROUTE TO DAR ES SAALA (1976)

Scale 1:250,000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THE PLAN WAS PREPARED BY THE KILIMANJARO REGIONAL DEVELOPMENT AUTHORITY, MOSHI, 1977

WATER SUPPLY 1977-95

CATEGORY	AREA	DEVELOPMENT SCHEDULE	
		1977-80	1981-95
CITY WATER SUPPLY	MOSHI AND SAME	100%	100%
	SANTA JULIA AND MROU	100%	100%
	DIVISION CENTERS	100%	100%
RURAL WATER SUPPLY	HIGH-DENSITY RURAL AREAS	100%	100%
	MEDIA-DENSITY RURAL AREAS	100%	100%
	LOW-DENSITY RURAL AREAS	100%	100%
LIMITED WATER SUPPLY	DEVELOPMENT CONTROL AREAS	100%	100%
	SPECIAL RURAL DEVELOPMENT AREAS	100%	100%
	RESERVE	100%	100%



WATER ACCESSIBILITY STANDARDS

Distance to water tap - Distribution system

Distance to water tap	Present	By 1985	By 1990	By 1995
0 m	0%	0%	0%	0%
100 m	0%	0%	0%	0%
150 m	0%	0%	0%	0%
200 m	0%	0%	0%	0%
300 m	0%	0%	0%	0%
400 m	0%	0%	0%	0%
500 m	0%	0%	0%	0%
600 m	0%	0%	0%	0%
700 m	0%	0%	0%	0%
800 m	0%	0%	0%	0%
900 m	0%	0%	0%	0%
1000 m	0%	0%	0%	0%

URBAN WATER SUPPLY

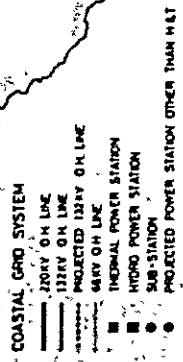
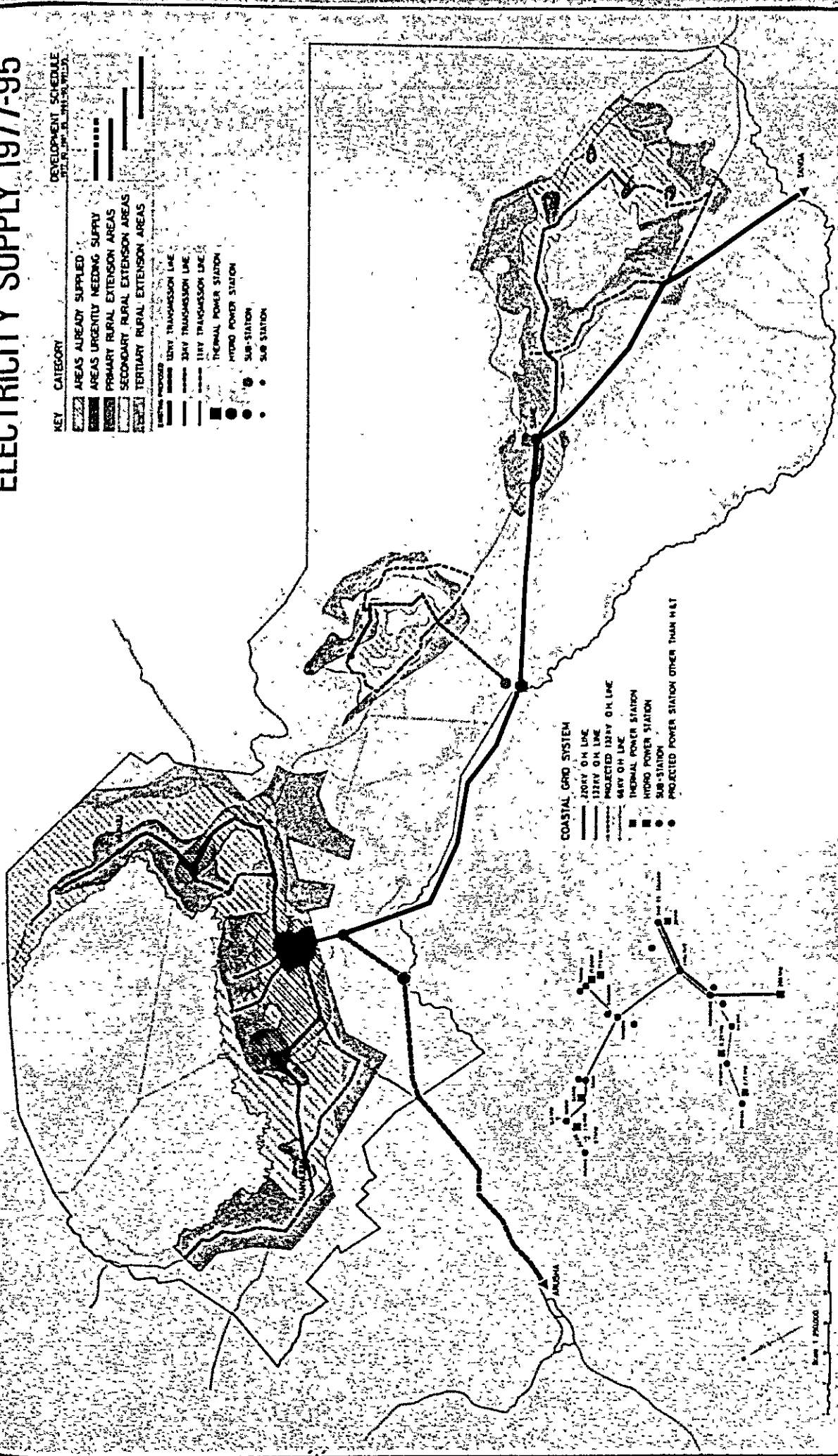
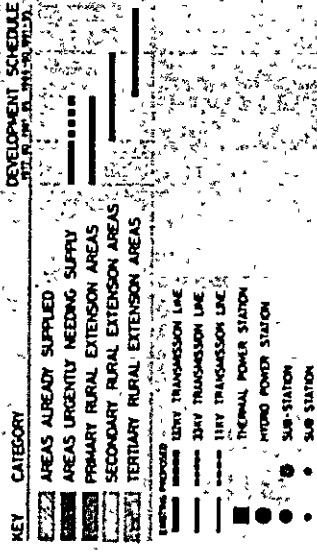
Category	Present	By 1985	By 1990	By 1995
Moshi Town	85%	95%	100%	100%
Same	45%	65%	100%	100%
Santa Jul & Mrou	0%	0%	100%	100%
Division centers	0%	0%	100%	100%
All urban areas	45%	65%	100%	100%

RURAL WATER SUPPLY

Category	Present	By 1985	By 1990	By 1995
High-density areas	65%	85%	100%	100%
Media-density areas	25%	45%	100%	100%
Low-density areas	15%	35%	100%	100%
All rural areas	35%	55%	100%	100%

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THE DISTRICTS SHOWN ON THIS MAP ARE SUBJECT TO FUTURE REVISIONS AND 1977

ELECTRICITY SUPPLY 1977-95

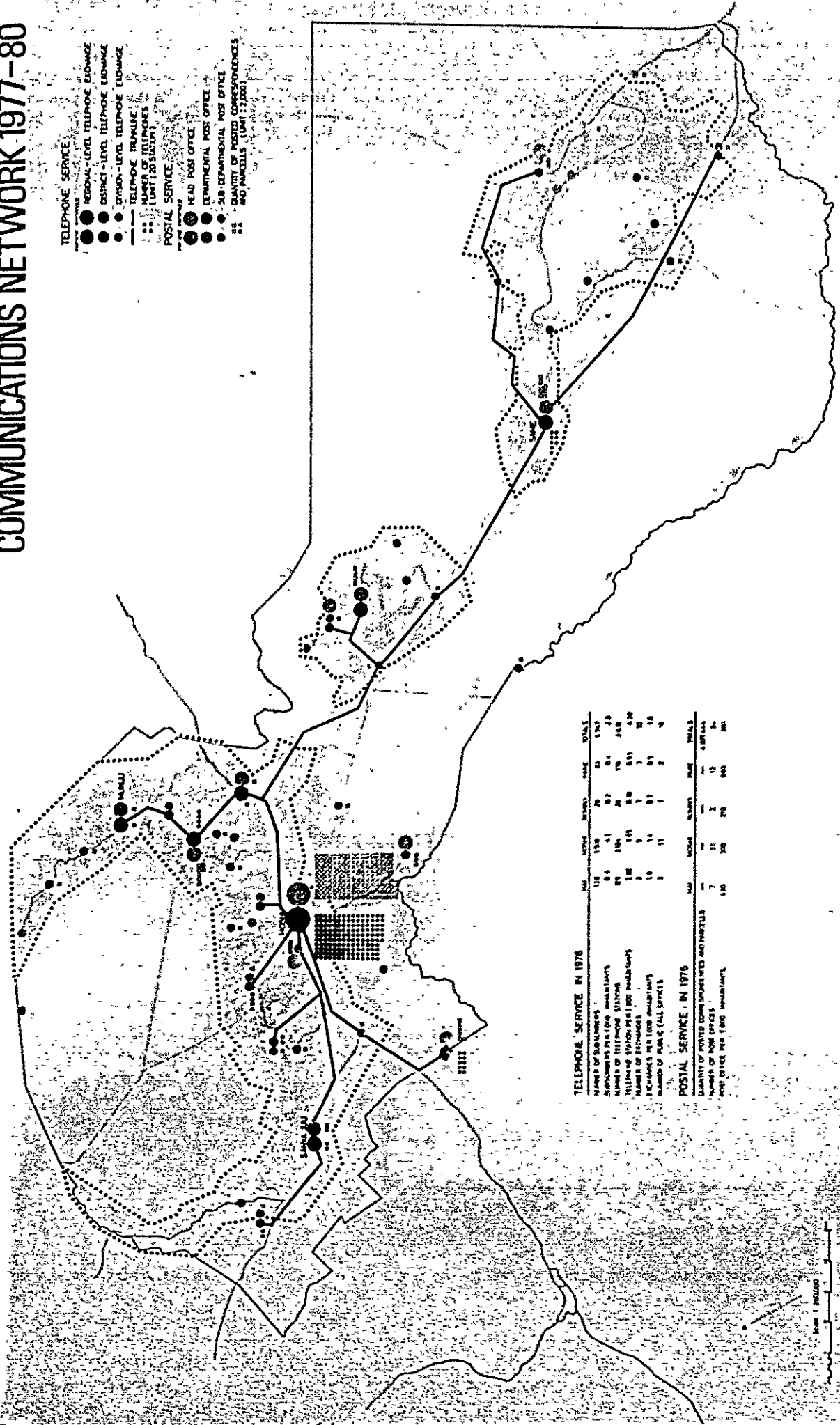


Scale 1:50000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THE DRAWING SHEET IS SUBJECT TO INTERNAL REVIEW, MAY 1977

COMMUNICATIONS NETWORK 1977-80

- TELEPHONE SERVICE**
- REGIONAL-LEVEL TELEPHONE EXCHANGE
 - DISTRICT-LEVEL TELEPHONE EXCHANGE
 - DIVISION-LEVEL TELEPHONE EXCHANGE
 - TELEPHONE TRUNKLINE
 - TELEPHONE BRANCHLINE
 - TELEPHONE FEEDERLINE
 - TELEPHONE FEEDERLINE (LIMIT 20 STATIONS)
- POSTAL SERVICE**
- HEAD POST OFFICE
 - DEPARTMENTAL POST OFFICE
 - SUB-DEPARTMENTAL POST OFFICE
 - QUANTITY OF POSTAL CORRESPONDENCES
 - 400 MAILBAGS PER YEAR



TELEPHONE SERVICE IN 1976

	1976	1974	1970	1966	TOTALS
NUMBER OF EXCHANGES	12	12	12	12	12
NUMBER OF EXCHANGES PER 1000 INHABITANTS	0.6	0.6	0.6	0.6	0.6
NUMBER OF TELEPHONE STATIONS	100	100	100	100	100
TELEPHONE STATIONS PER 1000 INHABITANTS	5.0	5.0	5.0	5.0	5.0
NUMBER OF EXCHANGES PER 1000 INHABITANTS	0.6	0.6	0.6	0.6	0.6
NUMBER OF PUBLIC CALL OFFICES	1	1	1	1	1

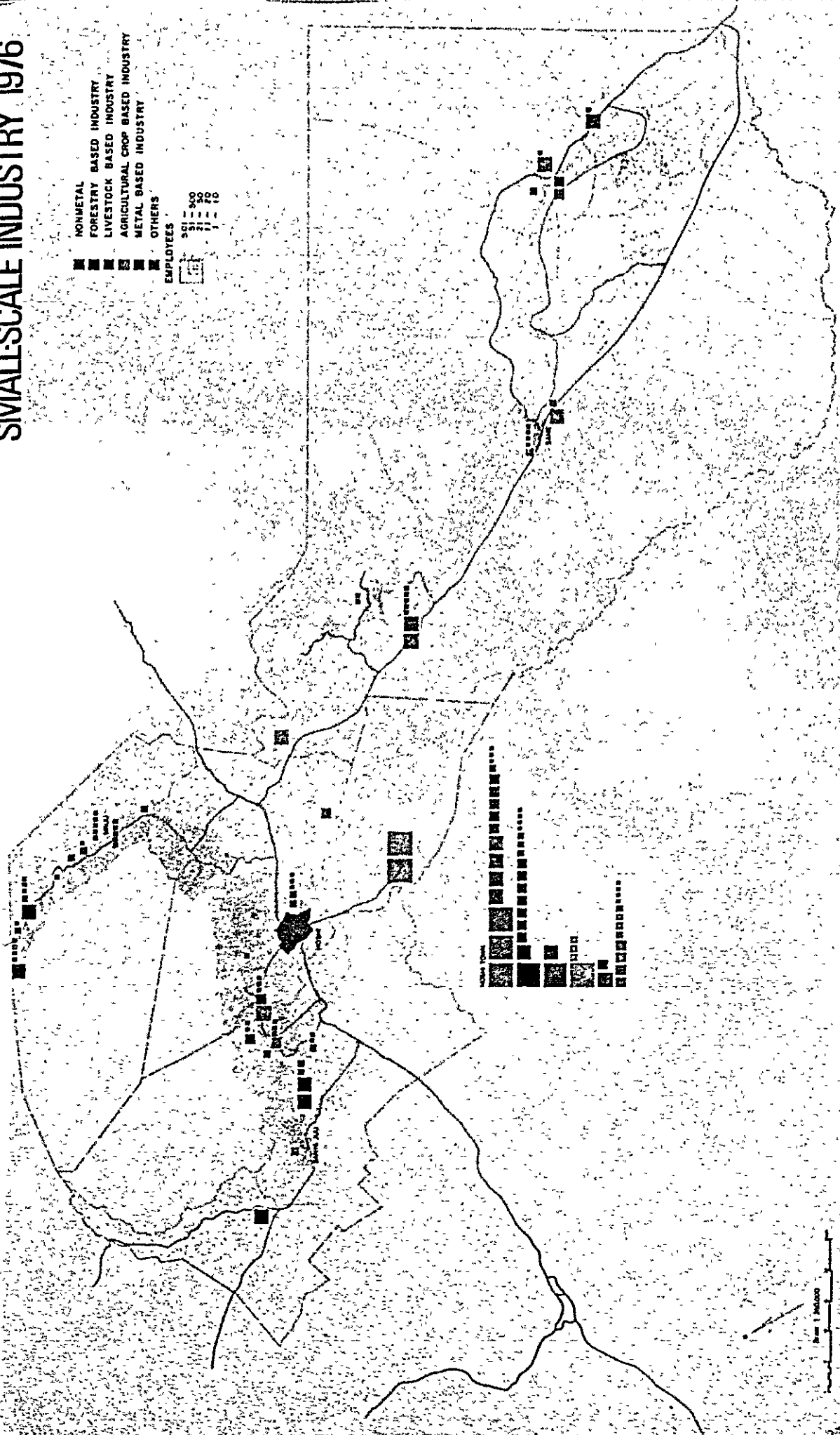
POSTAL SERVICE IN 1976

	1976	1974	1970	1966	TOTALS
NUMBER OF POST OFFICES	7	7	7	7	7
NUMBER OF POST OFFICES PER 1000 INHABITANTS	0.35	0.35	0.35	0.35	0.35

Scale 1:100,000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA / JAPAN INTERNATIONAL COOPERATION AGENCY
THE DRAWING SHEET IS ATTACHED TO INTIMATED REPORT, NOV 1977

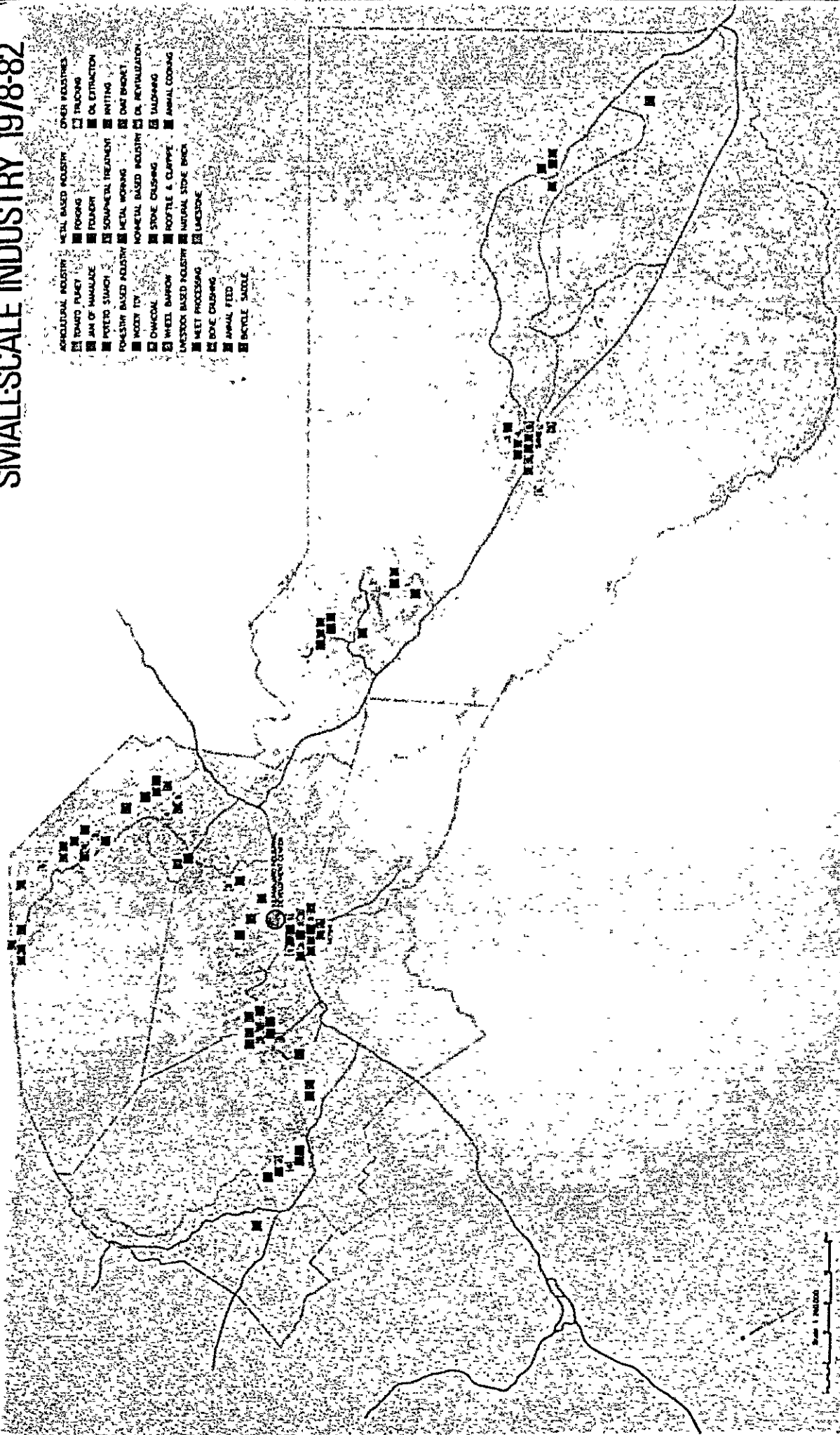
SMALL-SCALE INDUSTRY 1976



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE PLAN WAS PREPARED BY THE AGENCY IN 1977

SMALL-SCALE INDUSTRY 1978-82

- AGRICULTURAL INDUSTRY
- TONING FLUKE
- JAN OF MANUALE
- POTATO STARCH
- FRESHLY BASED INDUSTRY
- WOOLLY IVY
- DUMBOAL
- LANCEWOOD BASED INDUSTRY
- MEET PROCESSING
- ANIMAL FEED
- BICYCLE SADDLE
- METAL BASED INDUSTRY
- FORGING
- FOUNDRY
- SOUP-METAL TREATMENT
- METAL WORKING
- NON-METAL BASED INDUSTRY
- STONE CRUSHING
- WHEEL BARROW
- LANCEWOOD BASED INDUSTRY
- MEET PROCESSING
- ANIMAL FEED
- BICYCLE SADDLE
- OTHER INDUSTRIES
- TRADING
- OIL EXTRACTION
- KNITTING
- OAT BASKET
- OIL REVOLVATION
- TAILORING
- ANIMAL COOKING
- ROOF TILE & CLAY PIPE
- NATURAL STONE BRICK
- LAKESIDE



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
THIS DOCUMENT IS PART OF A SERIES OF REPORTS ON DEVELOPMENT PLANS, 1977

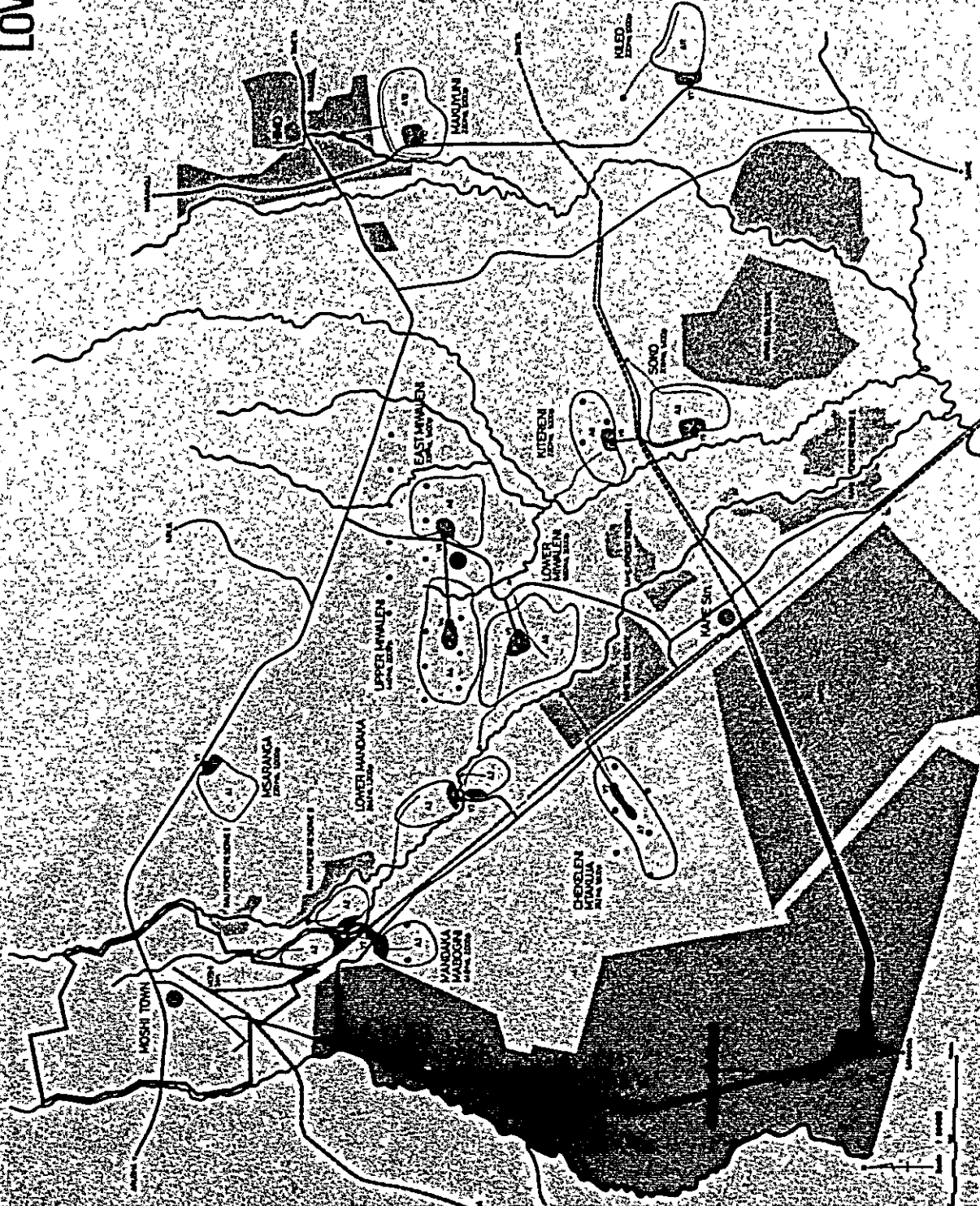
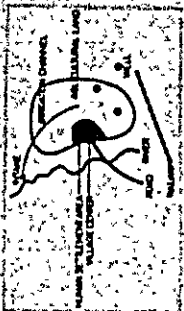
LOWER MOSHI PROJECT

AGRICULTURE DEVELOPMENT PROGRAM

VILLAGE CODE	VILLAGE NAME	CROPPING SEASONS	
		WET	DRY
A1	MOSHI	•	•
A2	MOSHI	•	•
A3	MOSHI	•	•
A4	MOSHI	•	•
A5	MOSHI	•	•
A6	MOSHI	•	•
A7	MOSHI	•	•
A8	MOSHI	•	•
A9	MOSHI	•	•
A10	MOSHI	•	•
A11	MOSHI	•	•
A12	MOSHI	•	•
A13	MOSHI	•	•
A14	MOSHI	•	•
A15	MOSHI	•	•
A16	MOSHI	•	•
A17	MOSHI	•	•
A18	MOSHI	•	•
A19	MOSHI	•	•
A20	MOSHI	•	•
A21	MOSHI	•	•
A22	MOSHI	•	•
A23	MOSHI	•	•
A24	MOSHI	•	•
A25	MOSHI	•	•
A26	MOSHI	•	•
A27	MOSHI	•	•
A28	MOSHI	•	•
A29	MOSHI	•	•
A30	MOSHI	•	•
A31	MOSHI	•	•
A32	MOSHI	•	•
A33	MOSHI	•	•
A34	MOSHI	•	•
A35	MOSHI	•	•
A36	MOSHI	•	•
A37	MOSHI	•	•
A38	MOSHI	•	•
A39	MOSHI	•	•
A40	MOSHI	•	•
A41	MOSHI	•	•
A42	MOSHI	•	•
A43	MOSHI	•	•
A44	MOSHI	•	•
A45	MOSHI	•	•
A46	MOSHI	•	•
A47	MOSHI	•	•
A48	MOSHI	•	•
A49	MOSHI	•	•
A50	MOSHI	•	•
A51	MOSHI	•	•
A52	MOSHI	•	•
A53	MOSHI	•	•
A54	MOSHI	•	•
A55	MOSHI	•	•
A56	MOSHI	•	•
A57	MOSHI	•	•
A58	MOSHI	•	•
A59	MOSHI	•	•
A60	MOSHI	•	•
A61	MOSHI	•	•
A62	MOSHI	•	•
A63	MOSHI	•	•
A64	MOSHI	•	•
A65	MOSHI	•	•
A66	MOSHI	•	•
A67	MOSHI	•	•
A68	MOSHI	•	•
A69	MOSHI	•	•
A70	MOSHI	•	•
A71	MOSHI	•	•
A72	MOSHI	•	•
A73	MOSHI	•	•
A74	MOSHI	•	•
A75	MOSHI	•	•
A76	MOSHI	•	•
A77	MOSHI	•	•
A78	MOSHI	•	•
A79	MOSHI	•	•
A80	MOSHI	•	•
A81	MOSHI	•	•
A82	MOSHI	•	•
A83	MOSHI	•	•
A84	MOSHI	•	•
A85	MOSHI	•	•
A86	MOSHI	•	•
A87	MOSHI	•	•
A88	MOSHI	•	•
A89	MOSHI	•	•
A90	MOSHI	•	•
A91	MOSHI	•	•
A92	MOSHI	•	•
A93	MOSHI	•	•
A94	MOSHI	•	•
A95	MOSHI	•	•
A96	MOSHI	•	•
A97	MOSHI	•	•
A98	MOSHI	•	•
A99	MOSHI	•	•
A100	MOSHI	•	•

COMMUNITY DEVELOPMENT PROGRAM

VILLAGE CODE	VILLAGE NAME	CROPPING SEASONS	
		WET	DRY
B1	MOSHI	•	•
B2	MOSHI	•	•
B3	MOSHI	•	•
B4	MOSHI	•	•
B5	MOSHI	•	•
B6	MOSHI	•	•
B7	MOSHI	•	•
B8	MOSHI	•	•
B9	MOSHI	•	•
B10	MOSHI	•	•
B11	MOSHI	•	•
B12	MOSHI	•	•
B13	MOSHI	•	•
B14	MOSHI	•	•
B15	MOSHI	•	•
B16	MOSHI	•	•
B17	MOSHI	•	•
B18	MOSHI	•	•
B19	MOSHI	•	•
B20	MOSHI	•	•
B21	MOSHI	•	•
B22	MOSHI	•	•
B23	MOSHI	•	•
B24	MOSHI	•	•
B25	MOSHI	•	•
B26	MOSHI	•	•
B27	MOSHI	•	•
B28	MOSHI	•	•
B29	MOSHI	•	•
B30	MOSHI	•	•
B31	MOSHI	•	•
B32	MOSHI	•	•
B33	MOSHI	•	•
B34	MOSHI	•	•
B35	MOSHI	•	•
B36	MOSHI	•	•
B37	MOSHI	•	•
B38	MOSHI	•	•
B39	MOSHI	•	•
B40	MOSHI	•	•
B41	MOSHI	•	•
B42	MOSHI	•	•
B43	MOSHI	•	•
B44	MOSHI	•	•
B45	MOSHI	•	•
B46	MOSHI	•	•
B47	MOSHI	•	•
B48	MOSHI	•	•
B49	MOSHI	•	•
B50	MOSHI	•	•
B51	MOSHI	•	•
B52	MOSHI	•	•
B53	MOSHI	•	•
B54	MOSHI	•	•
B55	MOSHI	•	•
B56	MOSHI	•	•
B57	MOSHI	•	•
B58	MOSHI	•	•
B59	MOSHI	•	•
B60	MOSHI	•	•
B61	MOSHI	•	•
B62	MOSHI	•	•
B63	MOSHI	•	•
B64	MOSHI	•	•
B65	MOSHI	•	•
B66	MOSHI	•	•
B67	MOSHI	•	•
B68	MOSHI	•	•
B69	MOSHI	•	•
B70	MOSHI	•	•
B71	MOSHI	•	•
B72	MOSHI	•	•
B73	MOSHI	•	•
B74	MOSHI	•	•
B75	MOSHI	•	•
B76	MOSHI	•	•
B77	MOSHI	•	•
B78	MOSHI	•	•
B79	MOSHI	•	•
B80	MOSHI	•	•
B81	MOSHI	•	•
B82	MOSHI	•	•
B83	MOSHI	•	•
B84	MOSHI	•	•
B85	MOSHI	•	•
B86	MOSHI	•	•
B87	MOSHI	•	•
B88	MOSHI	•	•
B89	MOSHI	•	•
B90	MOSHI	•	•
B91	MOSHI	•	•
B92	MOSHI	•	•
B93	MOSHI	•	•
B94	MOSHI	•	•
B95	MOSHI	•	•
B96	MOSHI	•	•
B97	MOSHI	•	•
B98	MOSHI	•	•
B99	MOSHI	•	•
B100	MOSHI	•	•

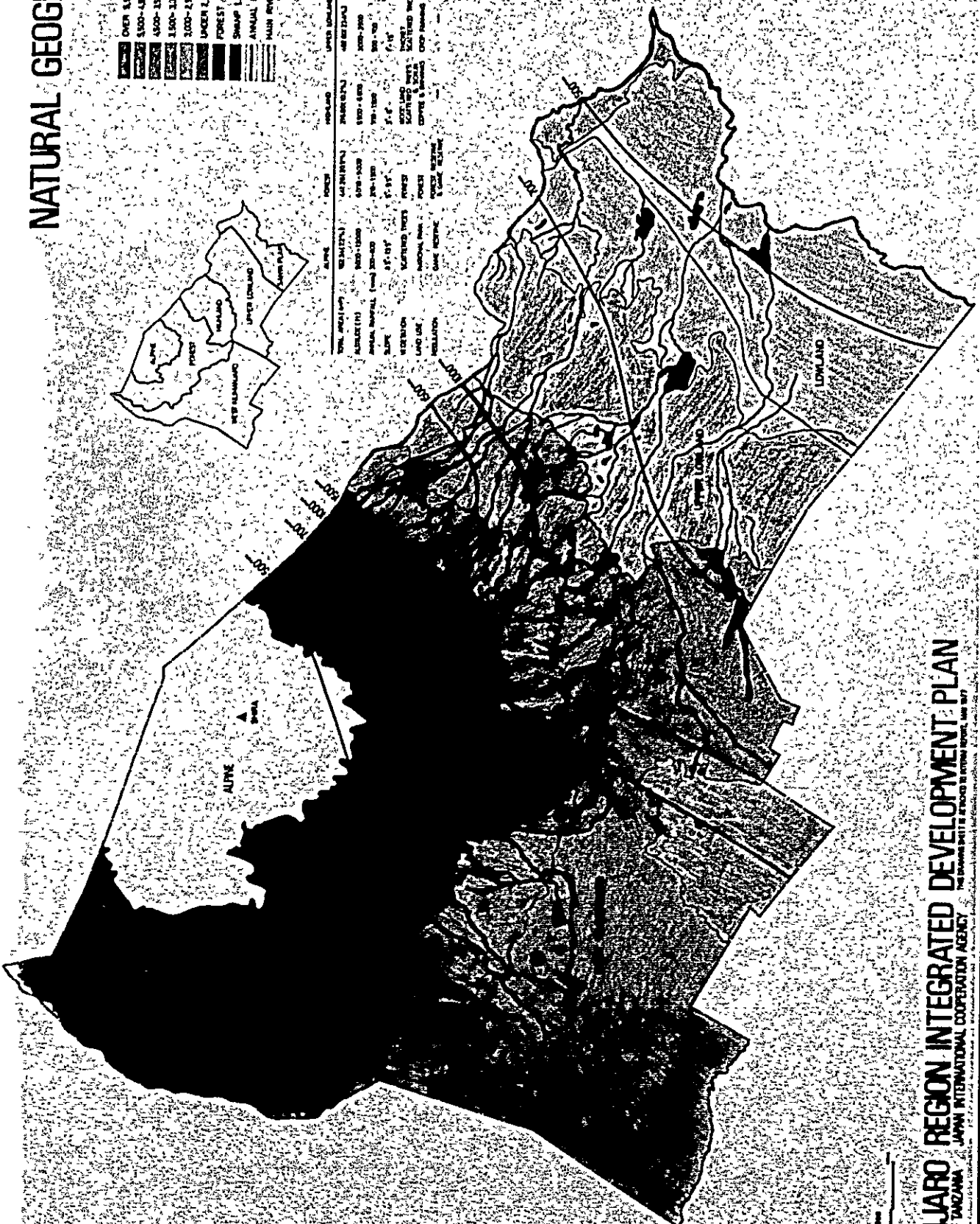


KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
FOR TECHNICAL ASSISTANCE TO THE GOVERNMENT OF TANZANIA, 1977

NATURAL GEOGRAPHY HAI DISTRICT

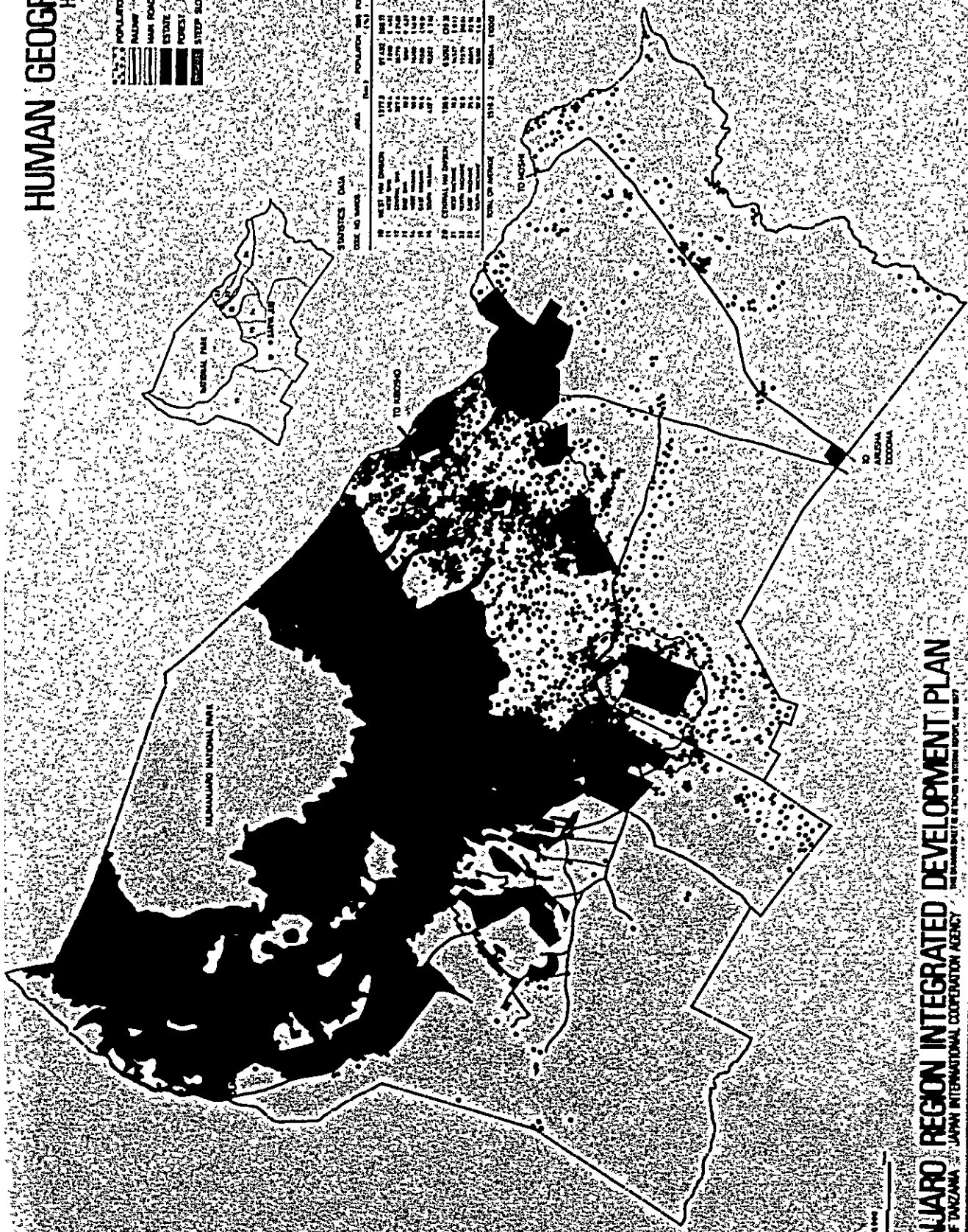


AREA	POPULATION	AREA (SQ. KM)	POP. DENSITY	POP. GROWTH RATE	POP. PROJECTIONS	POP. PROJECTIONS	POP. PROJECTIONS
HA I DISTRICT	100,000	1,000	100	2.5%	110,000	120,000	130,000
LOWLAND	50,000	500	100	2.5%	55,000	60,000	65,000
HIGHLAND	50,000	500	100	2.5%	55,000	60,000	65,000



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 PREPARED BY THE KILIMANJARO REGIONAL DEVELOPMENT AUTHORITY
 1977

HUMAN GEOGRAPHY HAI DISTRICT



STATISTICS / DATA

SEX	NO. MALES	NO. FEMALES	TOTAL	POPULATION DENSITY	PER 1000
MALES	1472	1647	3119	14.8	14.8
FEMALES	1647	1822	3469	16.2	16.2
TOTAL	3119	3469	6588	31.0	31.0
POPULATION	1472	1647	3119	14.8	14.8
ESTATE	100	100	200	0.9	0.9
FOREST	1000	1000	2000	9.3	9.3
STEEP SLOPE	1000	1000	2000	9.3	9.3
AREA OF NEW SETTLEMENT	1000	1000	2000	9.3	9.3
CENTRAL AND DISTRICT	1000	1000	2000	9.3	9.3
POPULATION	1472	1647	3119	14.8	14.8
TOTAL	3119	3469	6588	31.0	31.0

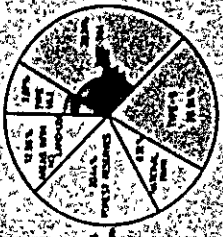
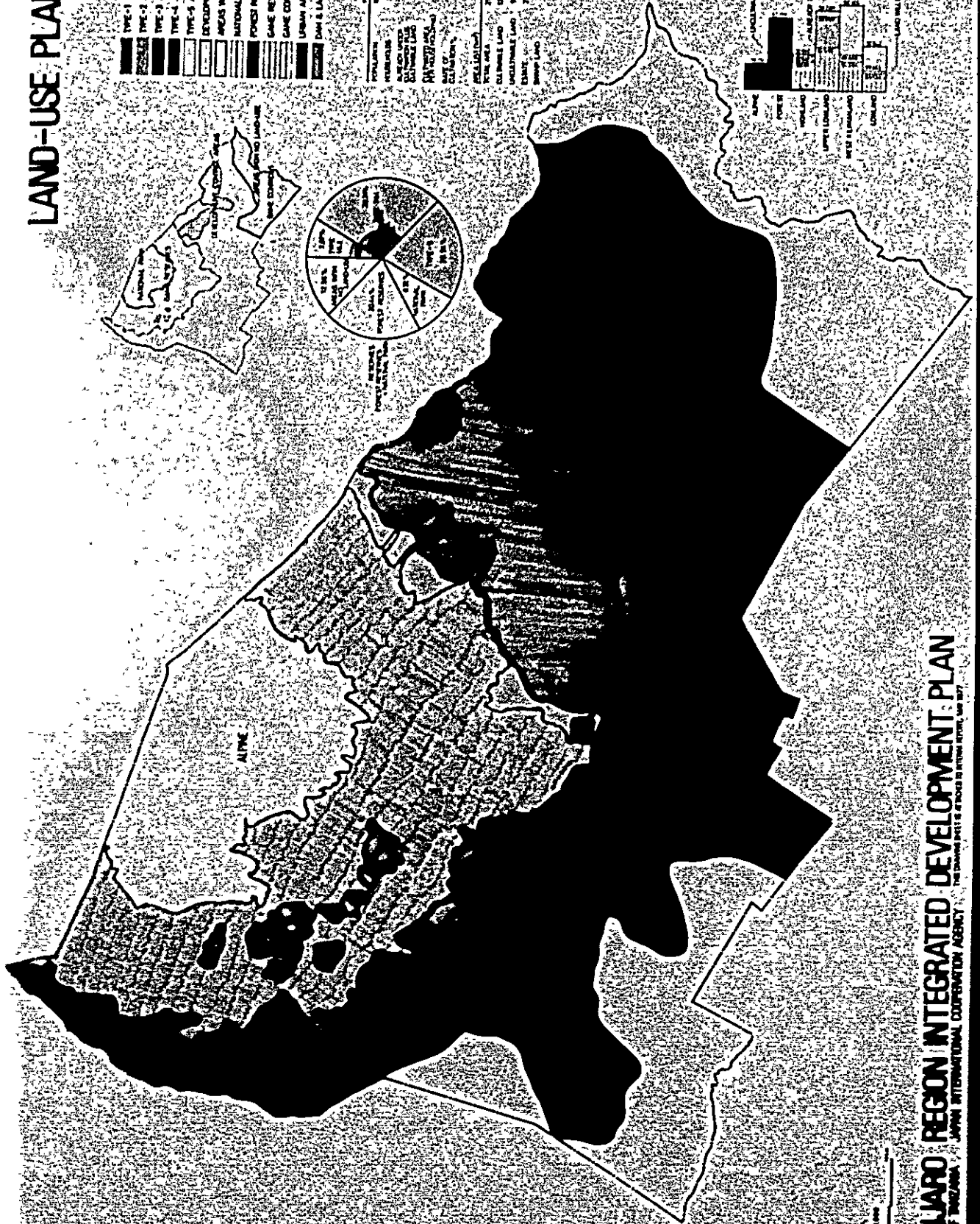
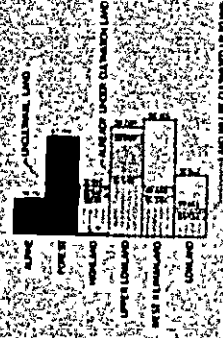
KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

LAND-USE PLAN 1995 HAI DISTRICT

- TYPE-1 AGRICULTURAL ZONES
- TYPE-2 AGRICULTURAL ZONES
- TYPE-3 AGRICULTURAL ZONES
- TYPE-4 AGRICULTURAL ZONES
- TYPE-5 AGRICULTURAL ZONES
- DEVELOPMENT CONTROL AREA
- AREAS HIGH POTENTIAL
- NATIONAL PARK BOUNDARY
- FOREST RESERVE AREAS
- GAME RESERVE BOUNDARY
- GAME CONTROL BOUNDARY
- URBAN AREAS
- DAM & LAKE

POPULATION	AREA	PERCENTAGE
100,000	100	100
200,000	200	200
300,000	300	300
400,000	400	400
500,000	500	500
600,000	600	600
700,000	700	700
800,000	800	800
900,000	900	900
1,000,000	1,000	1,000

POPULATION	AREA	PERCENTAGE
100,000	100	100
200,000	200	200
300,000	300	300
400,000	400	400
500,000	500	500
600,000	600	600
700,000	700	700
800,000	800	800
900,000	900	900
1,000,000	1,000	1,000



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA / JAPAN INTERNATIONAL COOPERATION AGENCY
 THE DISTRICT OFFICE OF HAI DISTRICT, HAI DISTRICT

HUMAN SETTLEMENT PLAN 1995 HAI DISTRICT

ADMINISTRATIVE BOUNDARIES

- DISTRICT BOUNDARY
- WAO BOUNDARY
- WAO BOUNDARY

CENTERS ON DIFFERENT LEVELS

- DISTRICT CENTER
- DIVISION CENTER
- WAO CENTER

VILLAGES

- ADMINISTRATIVE VILLAGE
- PLOT VILLAGE-HIGHLAND
- PLOT VILLAGE-LOWLAND
- VILLAGIZATION

POPULATION DENSITY (POP./km²)

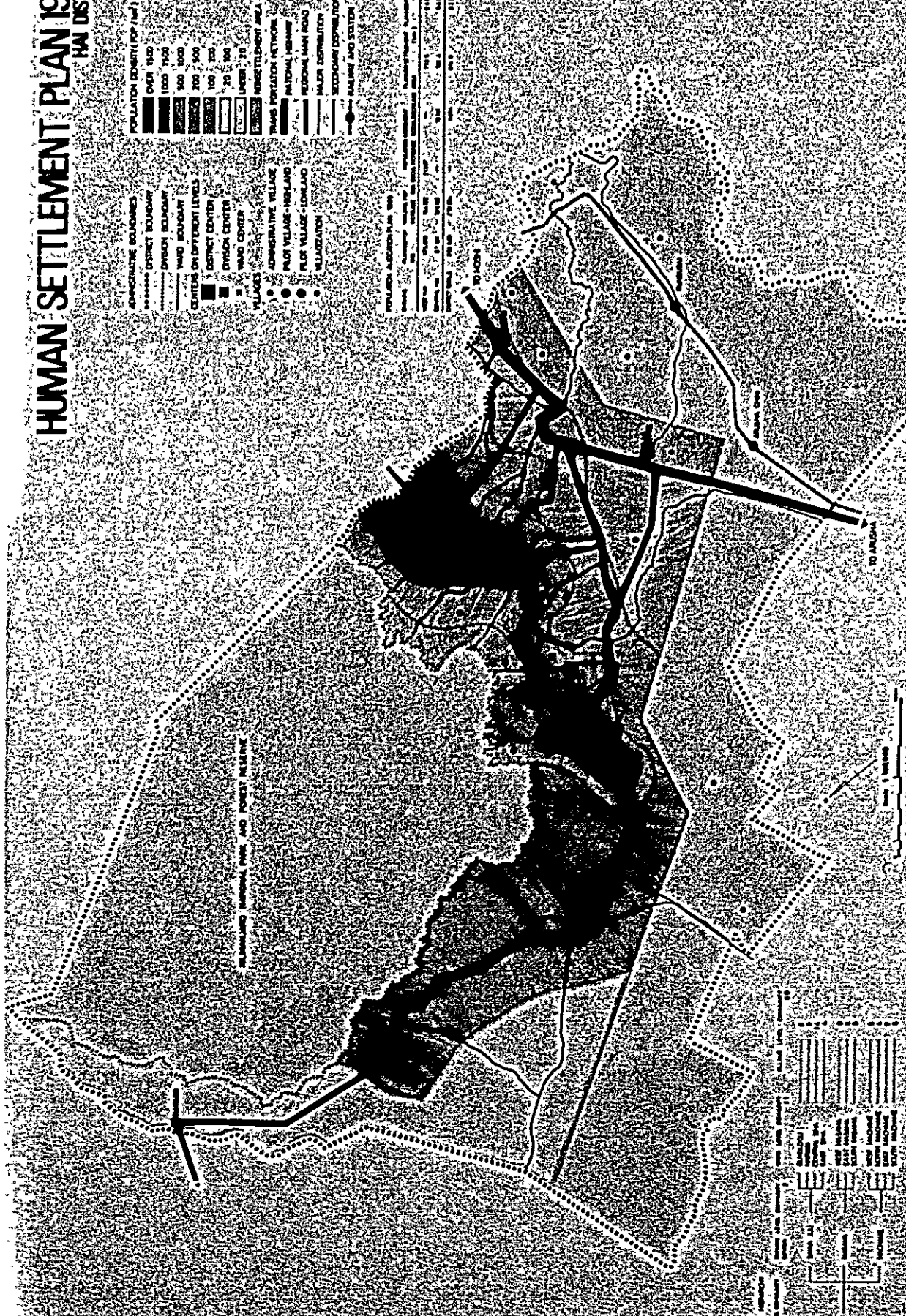
- OVER 1000
- 1000-1500
- 500-1000
- 200-500
- 100-200
- 50-100
- UNDER 50

SETTLEMENT AREA

- ▨ TRANS PORTATION NETWORK
- ▨ NATIONAL HIGHWAY
- ▨ REGIONAL MAIN ROAD
- ▨ VILLAGE DISTRIBUTION
- ▨ SECONDARY DISTRIBUTION ROAD
- ▨ MAINWAY AND SYSTEM

POPULATION AGGREGATION PLAN (1995)

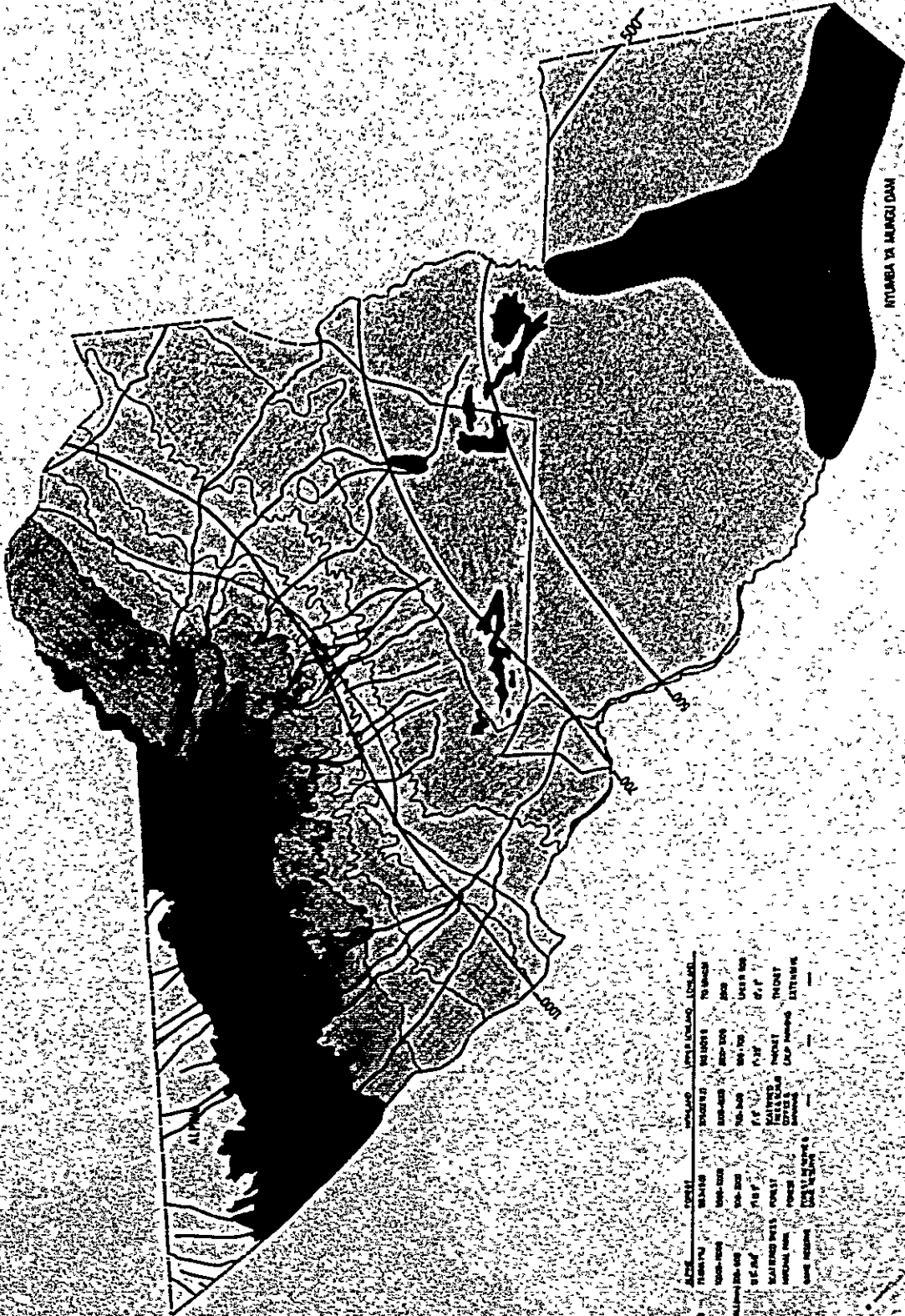
Year	Population	Area (km ²)	Density (Pop./km ²)
1995	1,200,000	1,200	1,000
2000	1,500,000	1,500	1,000
2005	1,800,000	1,800	1,000
2010	2,100,000	2,100	1,000
2015	2,400,000	2,400	1,000
2020	2,700,000	2,700	1,000
2025	3,000,000	3,000	1,000
2030	3,300,000	3,300	1,000
2035	3,600,000	3,600	1,000
2040	3,900,000	3,900	1,000
2045	4,200,000	4,200	1,000
2050	4,500,000	4,500	1,000



KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 NATIONAL COOPERATION AGENCY
 THE HUMAN SETTLEMENT PLAN FOR HAI DISTRICT, 1995

NATURAL GEOGRAPHY

MOSHI DISTRICT



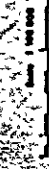
- OVER 4000
- 3000 - 4000
- 2000 - 3000
- 1000 - 2000
- 500 - 1000
- UNDER 500
- FOREST
- SWAMP LAND
- JAPANESE TERRACE
- WATER RIVER

AREA	POPULATION	POPULATION DENSITY PER SQ. KM.	POPULATION GROWTH RATE (%)	POPULATION INCREASE (%)	POPULATION DECREASE (%)	POPULATION STABILITY (%)
ALPINE	1000	1000	1000	1000	1000	1000
...

MT. KILIMANJARO

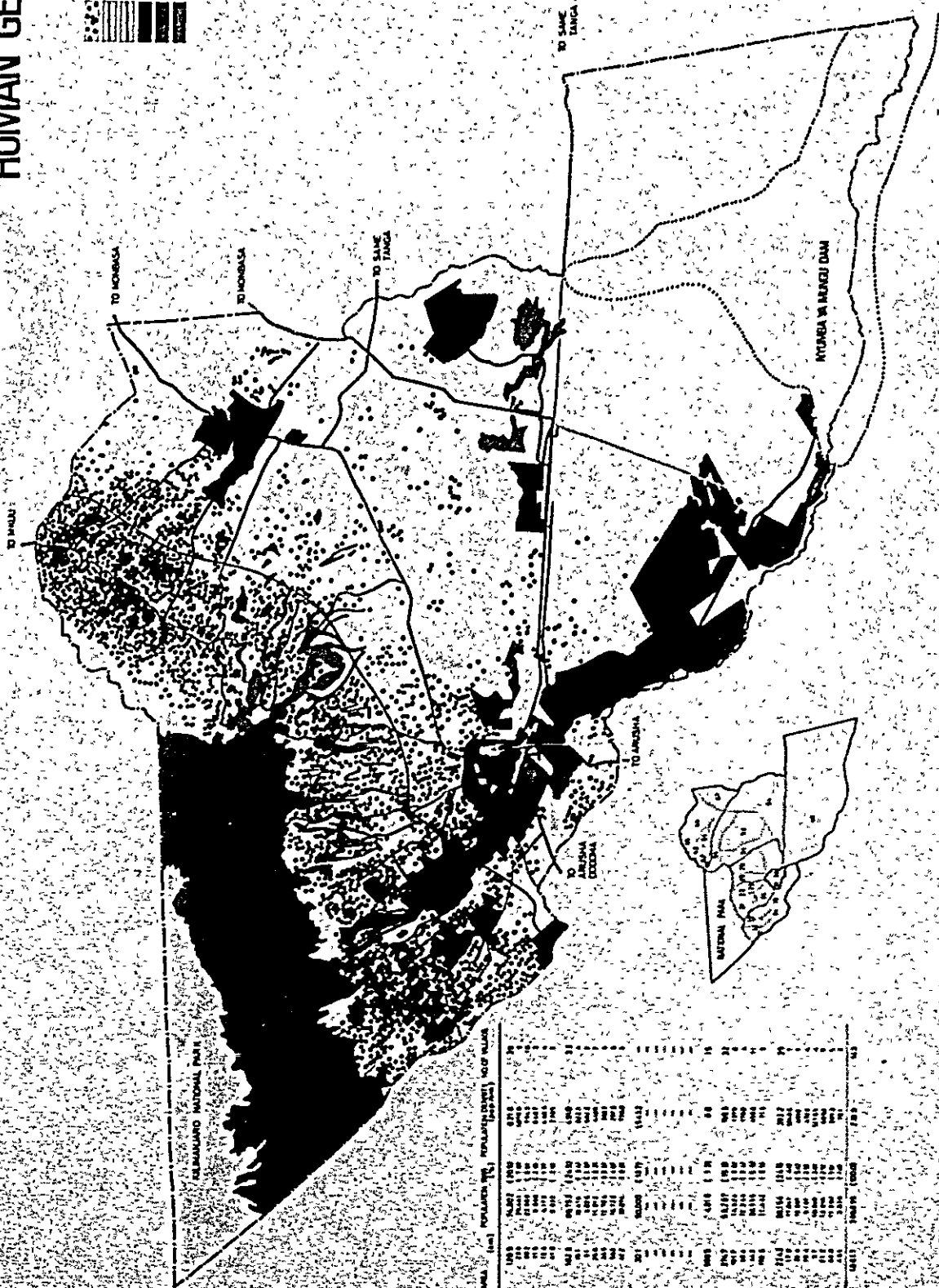
KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY

THE DISTRICT BOUNDARIES ARE APPROXIMATE AND NOT TO SCALE



HUMAN GEOGRAPHY MOSHI DISTRICT

POPULATION DISTRIBUTION
 HIGHWAY
 HIGH ROAD
 ESSET
 FOREST
 CULTIVATION
 STEP SLOPE SCALE FOR SETTLEMENTS



STATISTICS DATA

CODE	NAME	AREA (km ²)	POPULATION	POPULATION DENSITY	POP. VALUE
01	0101	1,000	10,000	10	100,000
02	0201	2,000	20,000	10	200,000
03	0301	3,000	30,000	10	300,000
04	0401	4,000	40,000	10	400,000
05	0501	5,000	50,000	10	500,000
06	0601	6,000	60,000	10	600,000
07	0701	7,000	70,000	10	700,000
08	0801	8,000	80,000	10	800,000
09	0901	9,000	90,000	10	900,000
10	1001	10,000	1,000,000	100	10,000,000
11	1101	11,000	1,100,000	100	11,000,000
12	1201	12,000	1,200,000	100	12,000,000
13	1301	13,000	1,300,000	100	13,000,000
14	1401	14,000	1,400,000	100	14,000,000
15	1501	15,000	1,500,000	100	15,000,000
16	1601	16,000	1,600,000	100	16,000,000
17	1701	17,000	1,700,000	100	17,000,000
18	1801	18,000	1,800,000	100	18,000,000
19	1901	19,000	1,900,000	100	19,000,000
20	2001	20,000	2,000,000	100	20,000,000
21	2101	21,000	2,100,000	100	21,000,000
22	2201	22,000	2,200,000	100	22,000,000
23	2301	23,000	2,300,000	100	23,000,000
24	2401	24,000	2,400,000	100	24,000,000
25	2501	25,000	2,500,000	100	25,000,000
26	2601	26,000	2,600,000	100	26,000,000
27	2701	27,000	2,700,000	100	27,000,000
28	2801	28,000	2,800,000	100	28,000,000
29	2901	29,000	2,900,000	100	29,000,000
30	3001	30,000	3,000,000	100	30,000,000
31	3101	31,000	3,100,000	100	31,000,000
32	3201	32,000	3,200,000	100	32,000,000
33	3301	33,000	3,300,000	100	33,000,000
34	3401	34,000	3,400,000	100	34,000,000
35	3501	35,000	3,500,000	100	35,000,000
36	3601	36,000	3,600,000	100	36,000,000
37	3701	37,000	3,700,000	100	37,000,000
38	3801	38,000	3,800,000	100	38,000,000
39	3901	39,000	3,900,000	100	39,000,000
40	4001	40,000	4,000,000	100	40,000,000
41	4101	41,000	4,100,000	100	41,000,000
42	4201	42,000	4,200,000	100	42,000,000
43	4301	43,000	4,300,000	100	43,000,000
44	4401	44,000	4,400,000	100	44,000,000
45	4501	45,000	4,500,000	100	45,000,000
46	4601	46,000	4,600,000	100	46,000,000
47	4701	47,000	4,700,000	100	47,000,000
48	4801	48,000	4,800,000	100	48,000,000
49	4901	49,000	4,900,000	100	49,000,000
50	5001	50,000	5,000,000	100	50,000,000
51	5101	51,000	5,100,000	100	51,000,000
52	5201	52,000	5,200,000	100	52,000,000
53	5301	53,000	5,300,000	100	53,000,000
54	5401	54,000	5,400,000	100	54,000,000
55	5501	55,000	5,500,000	100	55,000,000
56	5601	56,000	5,600,000	100	56,000,000
57	5701	57,000	5,700,000	100	57,000,000
58	5801	58,000	5,800,000	100	58,000,000
59	5901	59,000	5,900,000	100	59,000,000
60	6001	60,000	6,000,000	100	60,000,000
61	6101	61,000	6,100,000	100	61,000,000
62	6201	62,000	6,200,000	100	62,000,000
63	6301	63,000	6,300,000	100	63,000,000
64	6401	64,000	6,400,000	100	64,000,000
65	6501	65,000	6,500,000	100	65,000,000
66	6601	66,000	6,600,000	100	66,000,000
67	6701	67,000	6,700,000	100	67,000,000
68	6801	68,000	6,800,000	100	68,000,000
69	6901	69,000	6,900,000	100	69,000,000
70	7001	70,000	7,000,000	100	70,000,000
71	7101	71,000	7,100,000	100	71,000,000
72	7201	72,000	7,200,000	100	72,000,000
73	7301	73,000	7,300,000	100	73,000,000
74	7401	74,000	7,400,000	100	74,000,000
75	7501	75,000	7,500,000	100	75,000,000
76	7601	76,000	7,600,000	100	76,000,000
77	7701	77,000	7,700,000	100	77,000,000
78	7801	78,000	7,800,000	100	78,000,000
79	7901	79,000	7,900,000	100	79,000,000
80	8001	80,000	8,000,000	100	80,000,000
81	8101	81,000	8,100,000	100	81,000,000
82	8201	82,000	8,200,000	100	82,000,000
83	8301	83,000	8,300,000	100	83,000,000
84	8401	84,000	8,400,000	100	84,000,000
85	8501	85,000	8,500,000	100	85,000,000
86	8601	86,000	8,600,000	100	86,000,000
87	8701	87,000	8,700,000	100	87,000,000
88	8801	88,000	8,800,000	100	88,000,000
89	8901	89,000	8,900,000	100	89,000,000
90	9001	90,000	9,000,000	100	90,000,000
91	9101	91,000	9,100,000	100	91,000,000
92	9201	92,000	9,200,000	100	92,000,000
93	9301	93,000	9,300,000	100	93,000,000
94	9401	94,000	9,400,000	100	94,000,000
95	9501	95,000	9,500,000	100	95,000,000
96	9601	96,000	9,600,000	100	96,000,000
97	9701	97,000	9,700,000	100	97,000,000
98	9801	98,000	9,800,000	100	98,000,000
99	9901	99,000	9,900,000	100	99,000,000
100	10001	100,000	10,000,000	100	1,000,000,000

KILIMANJARO REGION INTEGRATED DEVELOPMENT PLAN
 UNITED REPUBLIC OF TANZANIA
 JAPAN INTERNATIONAL COOPERATION AGENCY
 THE PLAN WAS PREPARED BY THE JICA PROJECT TEAM IN TANZANIA, 1987