



Note: LEGEND is shown in Figure 3.2 (2/2)

Conventional Symbols

- P32 --- Physiographic Unit
- 28 --- Test Pit Site

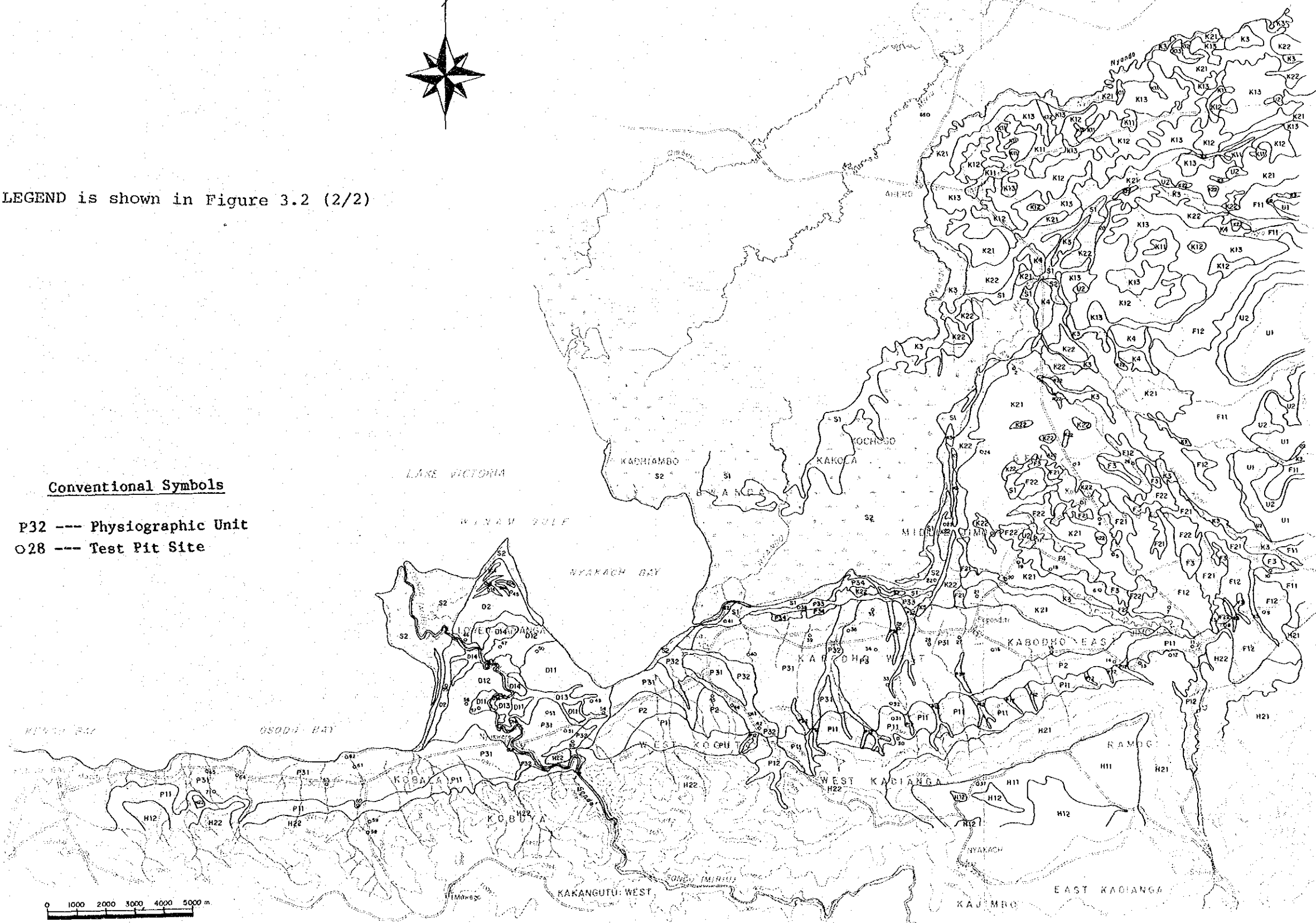


図-3.2(1/2) 土壤図

REPUBLIC OF KENYA  
 SONDU RIVER  
 MULTIPURPOSE DEVELOPMENT PROJECT  
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LAND FORM	SUBDIVISION	MAPPING SYMBOL	MAPPING UNIT	SLOPE %	DRAINAGE CONDITION	COLOUR	TEXTURE	DEPTH	SOIL UNIT	EXTENT (ha)
HILLS intermediate igneous rocks H	Plateau mainly phonolite H1	H11	higher parts with irregular microrelief	0-3	well	dark reddish brown to dark red	friable clay, Ironstones	deep	Ironstone Soils Nito-rhodic Ferral soils	0
		H12	lower bottom lands	0-1	well	dark red	friable clay over petro-plinthite	mod. deep to deep	Chromic Cambisols Rhodic Ferral soils	0
	Escarpment H2	H21	phonolite, highly resistant to erosion	25<	excessively well to well	dark red	friable sandy clay loam to clay, rocky	shallow	Lithosols Ironstone Soils	0
		H22	granodiorite, granite	25<	excessively well to well	dark red to brown	friable sandy clay loam to clay, rocky	shallow	Lithosols Ironstone Soils	0
PIEDMONT PLAIN coalescing alluvial and colluvial fans P	Transpositional colluvial footslopes P1	P11	convex slopes	1-4	excessively well to well	dark reddish brown to yellowish brown	gravelly loam	mod. deep to shallow	Ferralic Arenosols Ironstone Soils	120
		P12	valley bottoms	0-2	moderately well	dark red to brown	clay loam to loam	very deep to deep	Chromic Cambisols Ferrals-chromic/orthic Luvisols	0
	Wideslopes P2	P2	transitional unit between P1 and P3	0-2	well	reddish brown to yellowish brown	clay loam	deep	Ferralic Arenosols Chromic Cambisols	420
		P31	almost flat terrain	0-1	moderately well to well	reddish brown (black to dark grey subsoil)	clay loam to clay	deep	Eutric Regosols Chromic Cambisols	4,770
CUSPATE DELTA fluvium, partly lacustrine deposits D	Alluvial toeslopes overlying old lacustrine deposits P3	P32	streams (gullies) bank	0-1	moderately well	yellowish brown	clay loam	very deep	Chromic Cambisols	650
		P33	old stream courses	1-4	poorly	very dark brown grey to dark grey brown	sandy clay loam	deep	Eutric Regosols Chromic Cambisols	180
	Deltaic deposits widely extending terrain formed in the river mouth of Sondu D1	P34	raised lake beach	0-2	well to poorly to grey	very dark brown to grey	silty clay to sandy clay loam	mod. deep	Eutric Regosols	120
		D11	terrace-like higher land	0	well	brown to dark grey	silty clay loam	deep	Calcic Fluvisols, sodic phase	570
UPLANDS lowflow hill of kericho phonolite U	recent flood plain former river courses and point bar complex depression seasonally submerged D2	D12	recent flood plain	0	poorly to mod. well	brownish grey to brownish black	silty loam	deep	Calcic Fluvisols, sodic phase Eutric Fluvisols	660
		D13	former river courses and point bar complex depression seasonally submerged	0	poorly to mod. well	brownish black	sandy clay clay to silty clay	deep to very deep	Eutric Fluvisols, sodic phase	180
	Sand ridges D2	D14	depression seasonally submerged	0	poorly	dark grey to black	clay	deep	Eutric Fluvisols, sodic phase	280
		D2	higher lands (1-2m) on unit D1	0-1	well to excessively well	dark brown to yellowish brown	sandy clay to loamy sand	mod. deep to deep	Eutric Regosols Chromic Cambisols	430
FAN BASE colluvial apron and fan base F	Platform U1	U1	footslopes of phonolite hills and plateau	2-8	excessively well	reddish brown to greyish	gravelly to stony clay	very shallow	Chromic Cambisols Ironstone Soils	0
		U2	edge and flank of U1	0-2	well to poorly	dark grey brown to reddish brown	gravelly clay to sandy clay	shallow	Ironstone Soils	30
	Fan base F1	F11	extending fan base (phonolite) U	1-2	poorly	very dark grey	sandy clay to clay	deep	Chromic Vertisols Pellic Vertisols	0
		F12	lower alluvial fan base hills granodiorite	0-4	poorly	black to very dark grey to brown	clay	deep	Chromic Vertisols Pellic Vertisols	670
Higher sites of colluvial aprons and fan base F	Old streames F2	F21	old stream courses, eroded sites	1-4	poorly	very dark brown grey to dark grey brown	sandy clay loam	deep	Gleyic Luvisols, sodic phase	460
		F22	old stream courses, below colluvial apron	0-2	poorly	dark grey brown	clay	deep	Pellic Vertisols	620
	Micro-ridges F4	F3	Higher sites of colluvial aprons	1-4	moderately well to poorly	dark brown, dark greyish brown	sandy clay to sandy loam	deep	Eutric Regosols	240
		F4	Micro-ridges	1-3	moderately well to impeded	dark brown, reddish brown	coarse clay loam to sandy loam, gravel	mod. deep	Eutric Fluvisols Eutric Regosols	190
LACUSTRINE PLAIN lacustrine deposit and mudstone material K	Slightly higher lands, mainly alkaline and calcareous mudstone K1	K11	flatish summit of minor ridge	0-2	impeded	dark brown to greyish brown	gravelly sandy clay to clay loam	very shallow	Vertic Cambisols	0
		K12	gently sloping land	1-3	poorly	very dark brown to grey	clay	shallow	Pellic Vertisols, paralitric	0
	Lowlying extensive terrain, lacustrine deposits K2	K13	depression	0-2	poorly	very dark grey to brown	clay	moderately deep	Pellic Vertisols	0
		K21	base level	0	poorly	very dark grey	clay	very deep	Pellic Vertisols Chromic Vertisols	2,790
Active stream banks K3	Receiving drainage K2	K22	receiving drainage	0	very poorly	very dark grey to black	clay	very deep	Pellic Vertisols Eutric Gleysols	630
		K3	irregular micro-relief	0-2	well to poorly	very dark brown to grey	clay to silty clay	moderately deep	Eutric Fluvisols	220
	Old levee K4	K4	slopy mound, uneven	0	moderately well to poorly	very dark brown to dark greyish brown	sandy clay loam	deep to very deep	Dystric Regosols, saline phase	0
		K5	Raised lake beach	0-2	well to poorly	very dark brown to grey	silty clay to sandy clay loam	moderately deep	Eutric Regosols, saline-sodic phase	50
Seasonal swamp covered by papyrus and reeds S	Permanent swamp S2	S1	Seasonal swamp	1-2	very poorly	very dark grey to black	clay	very deep	Pellic Vertisols	0
		S2	Permanent swamp	0	very poorly	very dark grey to black	peaty	very deep	Eutric Gleysols	0

□ indicating area extent of each mapping with in the Project area with 13,980ha

□ - 3.2 (2/2) 土壤 □

LEGEND

Mapping Symbol	Suitability Class	Physiography	Cropping Pattern	Subarea (ha)			
				I	II	III	Total
	S2sd/S1	K21	A	0	290	1,700	1,990
	S3d/S1	K22	B	0	70	430	500
	N2d/S3td	S1					
	S2t/S3t	P31 P32	C	950	3,720	1,380	6,050
	S3t/N2st	P2					
	S3d/S3t	F11 F12 F22					
	S3sd/S3st	K13					
	S3d/N2t	F3					
	S3std/N2st	F4					
	S3sd/N2t	K12					
Total				950	4,080	3,510	8,540

- Note; 1. Land suitability classes are indicated by the following symbols;  
S1 - highly suitable, S2 - moderately suitable, S3 - marginally suitable and N2 - unsuitable
2. Limitations are indicated by the following letter suffixes;  
s - soil (effective depth, texture, alkalinity and salinity), t - topography (slope and microrelief) and d - drainage conditions. (see Tables 5.1 and 5.2)
3. Suitability classes for upland crops and for wetland rice are shown in the symbol " upland crops / rice ".
4. Proposed cropping patterns A, B and C are summarized below.  
A - a single cropping of rice and upland crops (maize, beans and greengram).  
B - a double cropping of rice and upland crops (maize, beans and greengram).  
C - upland crops only (cotton, maize, beans and groundnuts).

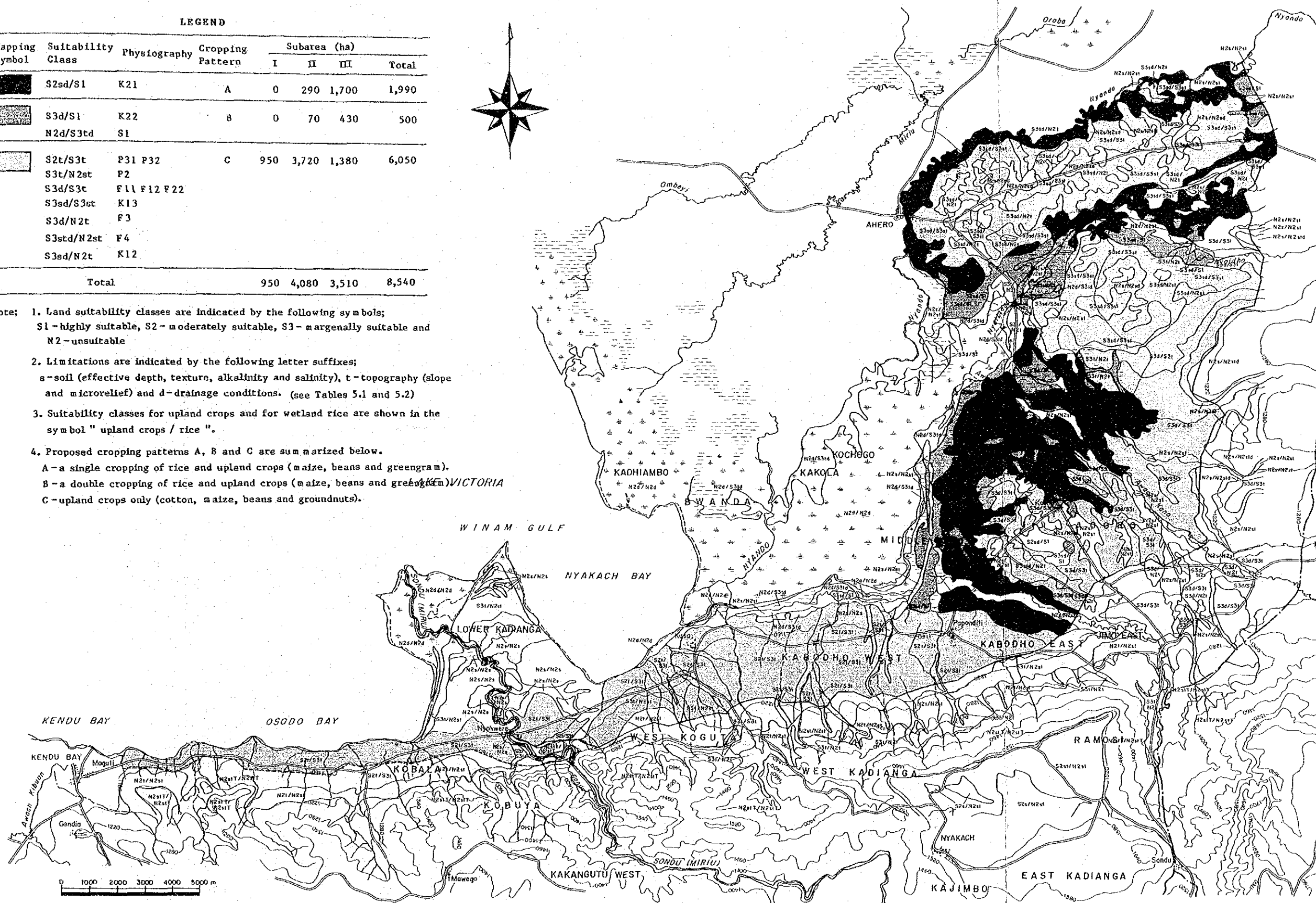
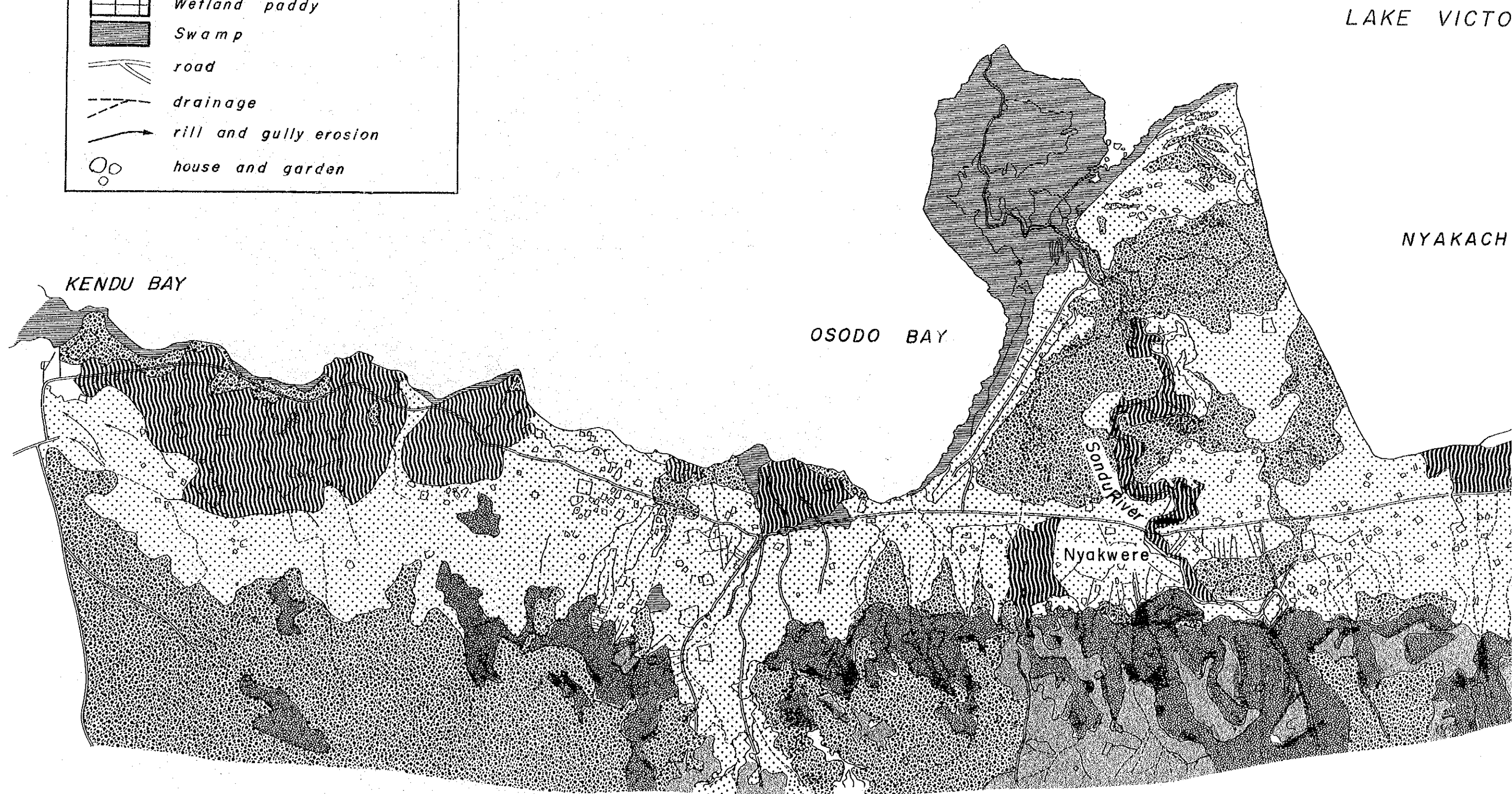


图-3.3 土地分級图

REPUBLIC OF KENYA  
SONDU RIVER  
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# LEGEND

	Forest
	Scrub Woodland
	Grassland
	Upland Crops, densely planted
	Upland Crops, sparsely planted
	Wetland paddy
	Swamp
	road
	drainage
	rill and gully erosion
	house and garden



LAKE VICTORIA

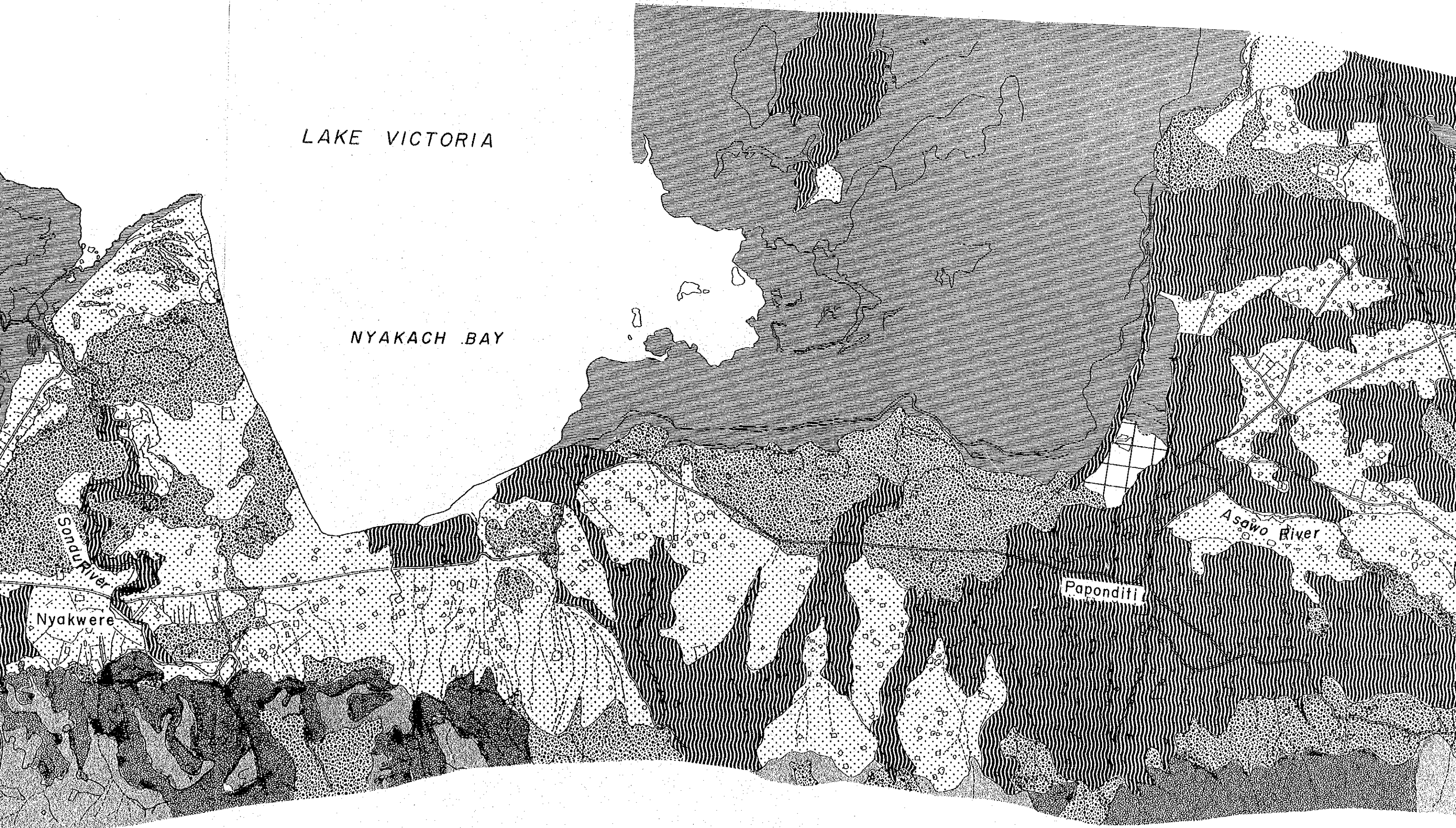
NYAKACH BAY

Soudou River

Nyakwere

Paponditi

Asowo River



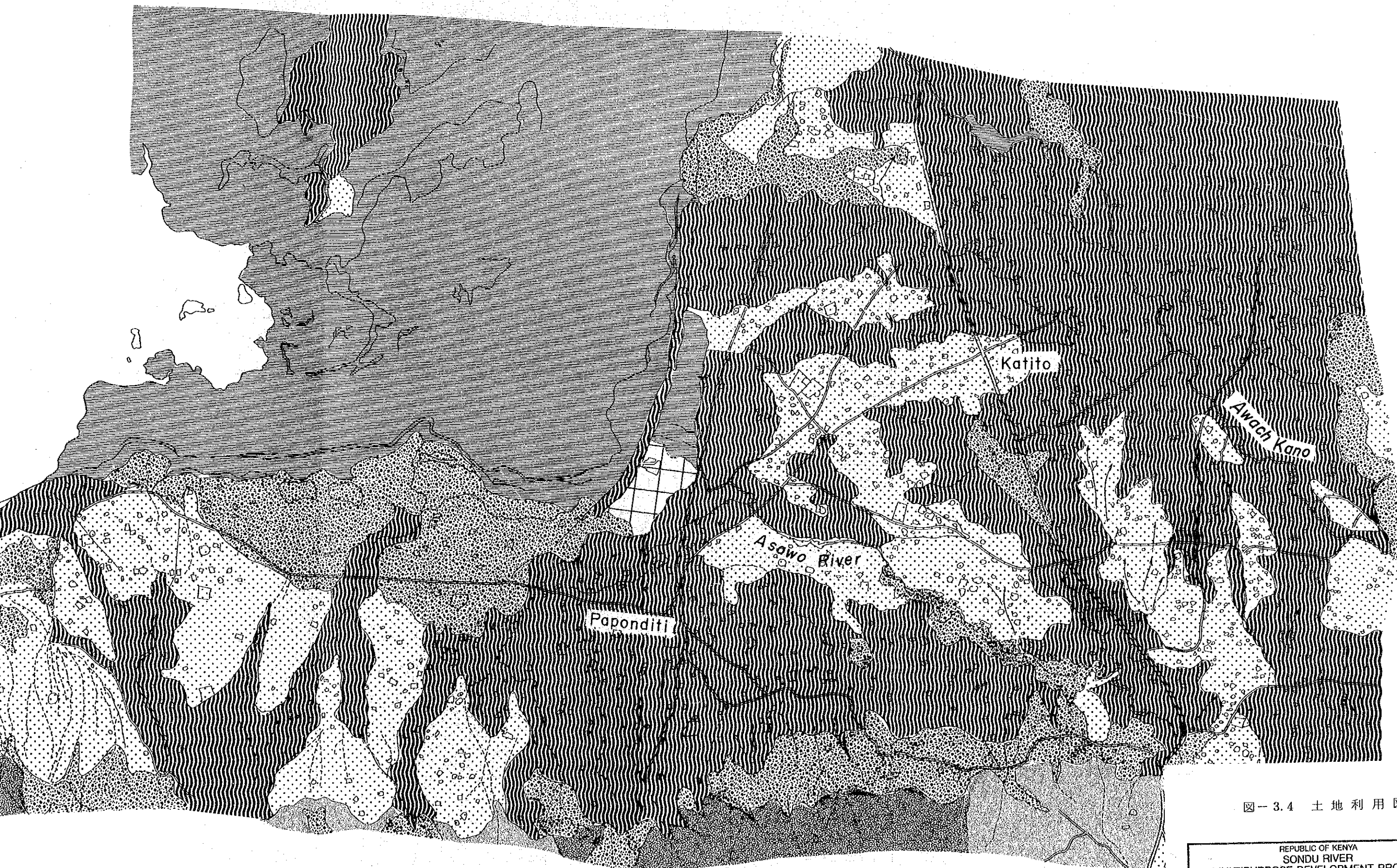


图-3.4 土地利用图

REPUBLIC OF KENYA  
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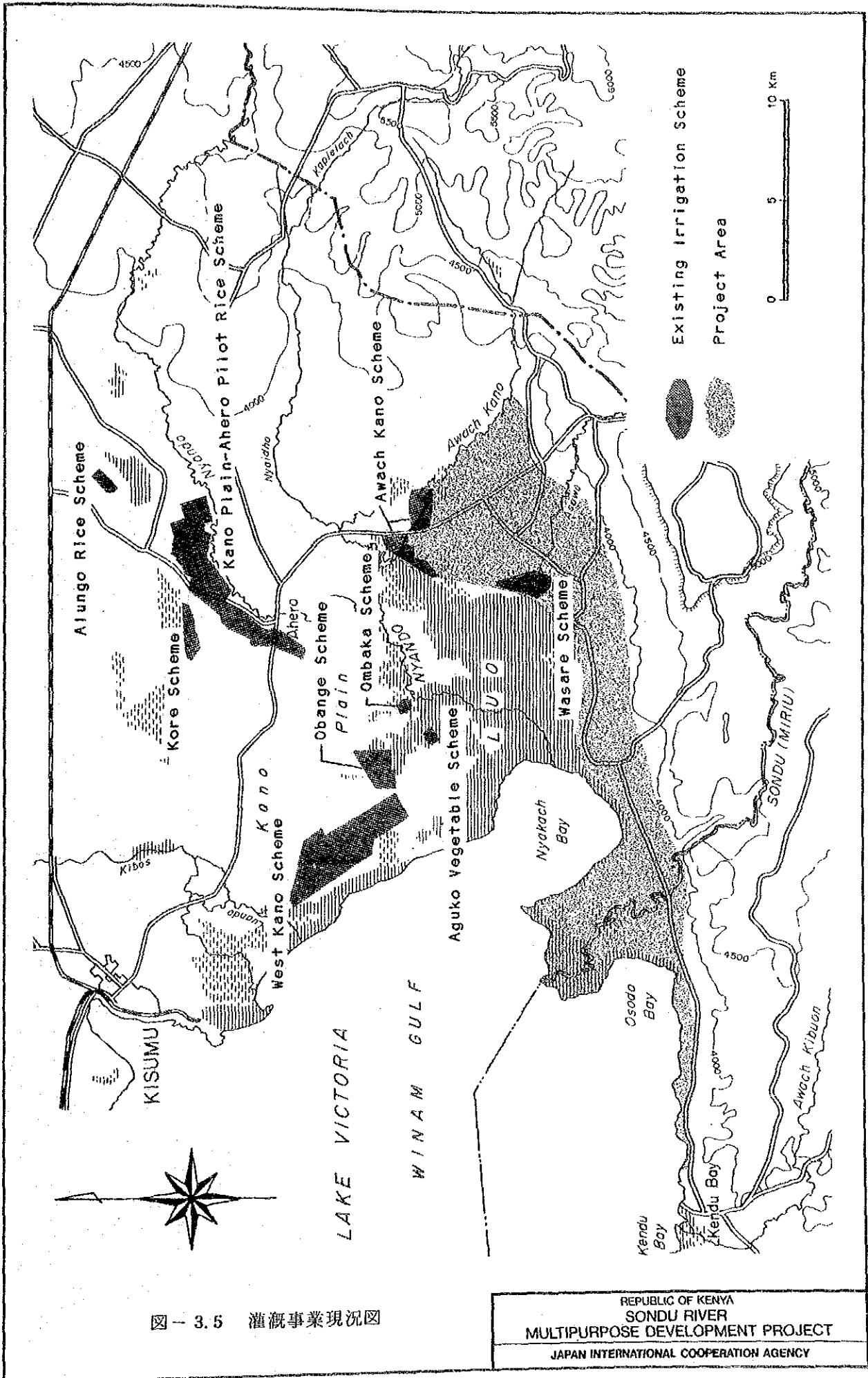
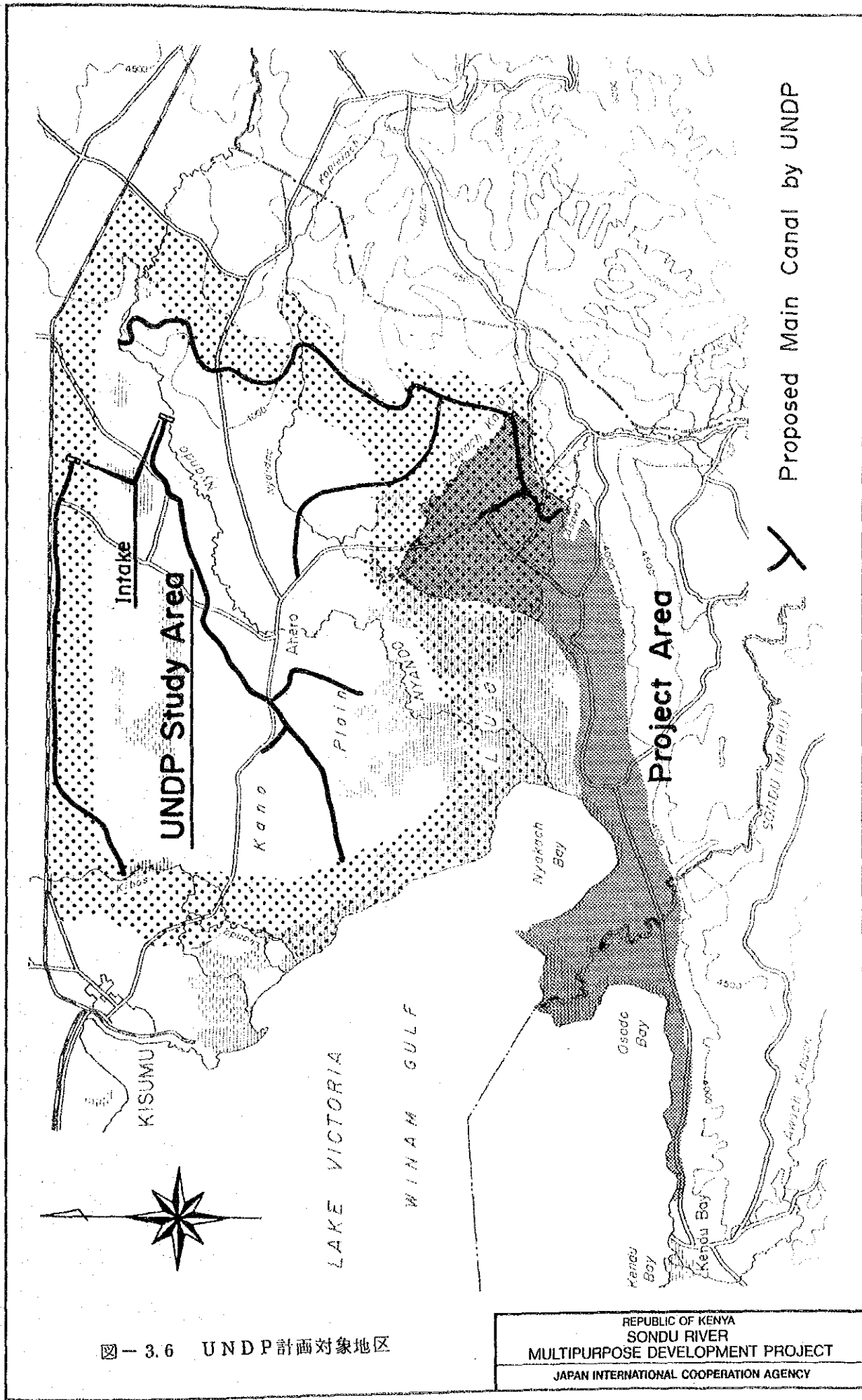


図 - 3.5 灌溉事業現況図

REPUBLIC OF KENYA  
 SONDU RIVER  
 MULTIPURPOSE DEVELOPMENT PROJECT  
 JAPAN INTERNATIONAL COOPERATION AGENCY





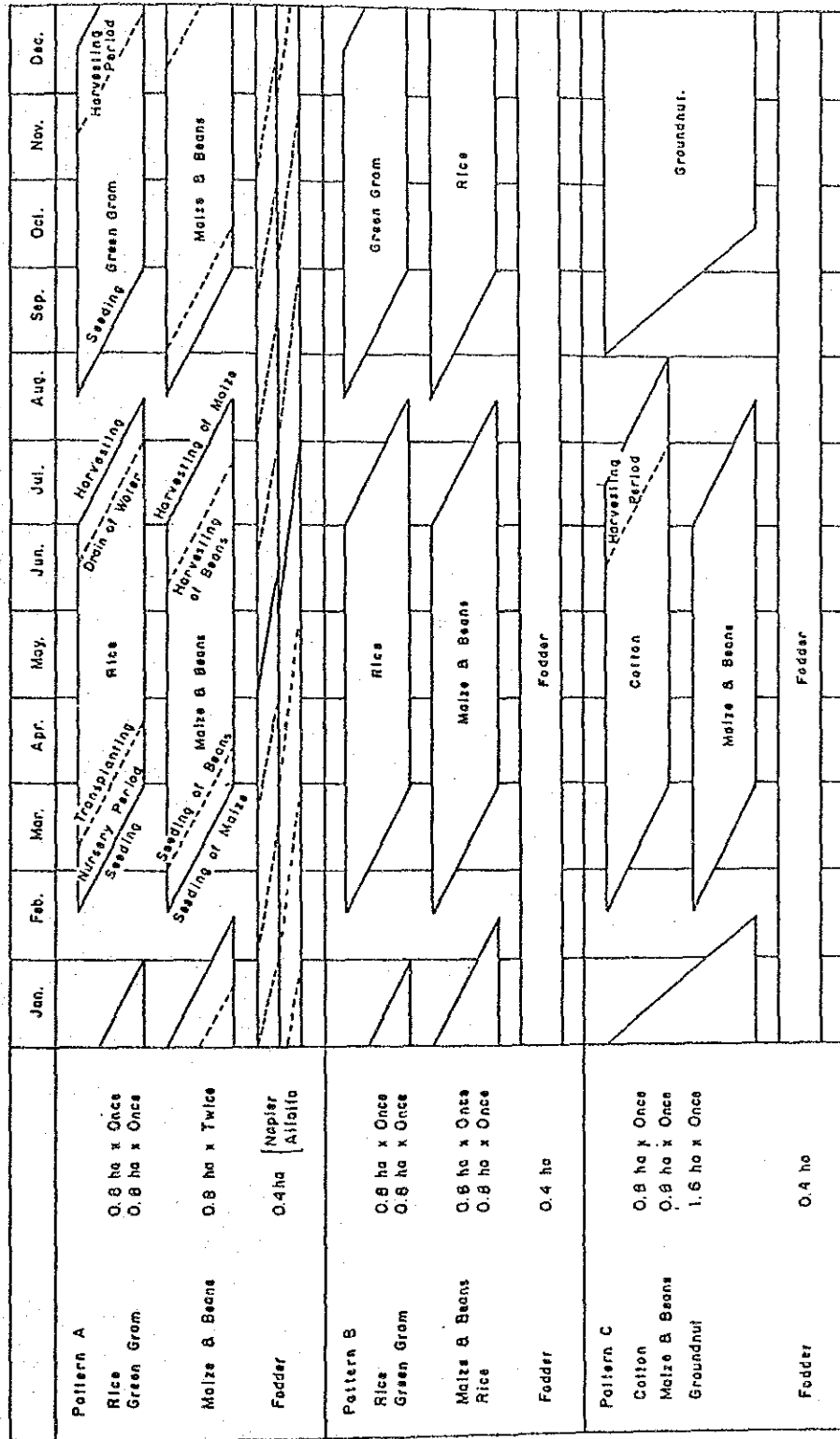


Proposed Main Canal by UNDP

図-3.6 UNDP計画対象地区

REPUBLIC OF KENYA  
 SONDU RIVER  
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







Notes: Rice, growth period, 135 days, nursery stage for about 3 weeks, water in the field will be drained 2 weeks before harvesting.  
 Green Gram, growth period, 120 days, harvesting period lasts for about 1 month.  
 Maize, growth period, 135 days.  
 Beans, growth period, 105 days, planted 2 weeks later than sowing of maize, intercropped with maize.  
 Cotton, growth period, 150 days, harvesting lasts for about 1 month.  
 Groundnut growth period, 120 days.  
 Fodder crops, Napier and Alfalfa, Napier is cut at every 45 days interval, and alfalfa is cut at every 60 days, respectively, both are planted every 4 years.

図-4.1 計画作付体系



**LEGEND**

-  Main Irrigation Canal
-  Secondary Irrigation Canal
-  Turnout
-  Existing Road
-  Natural Drainage
-  Project Area
-  Boundary of SUBAREA

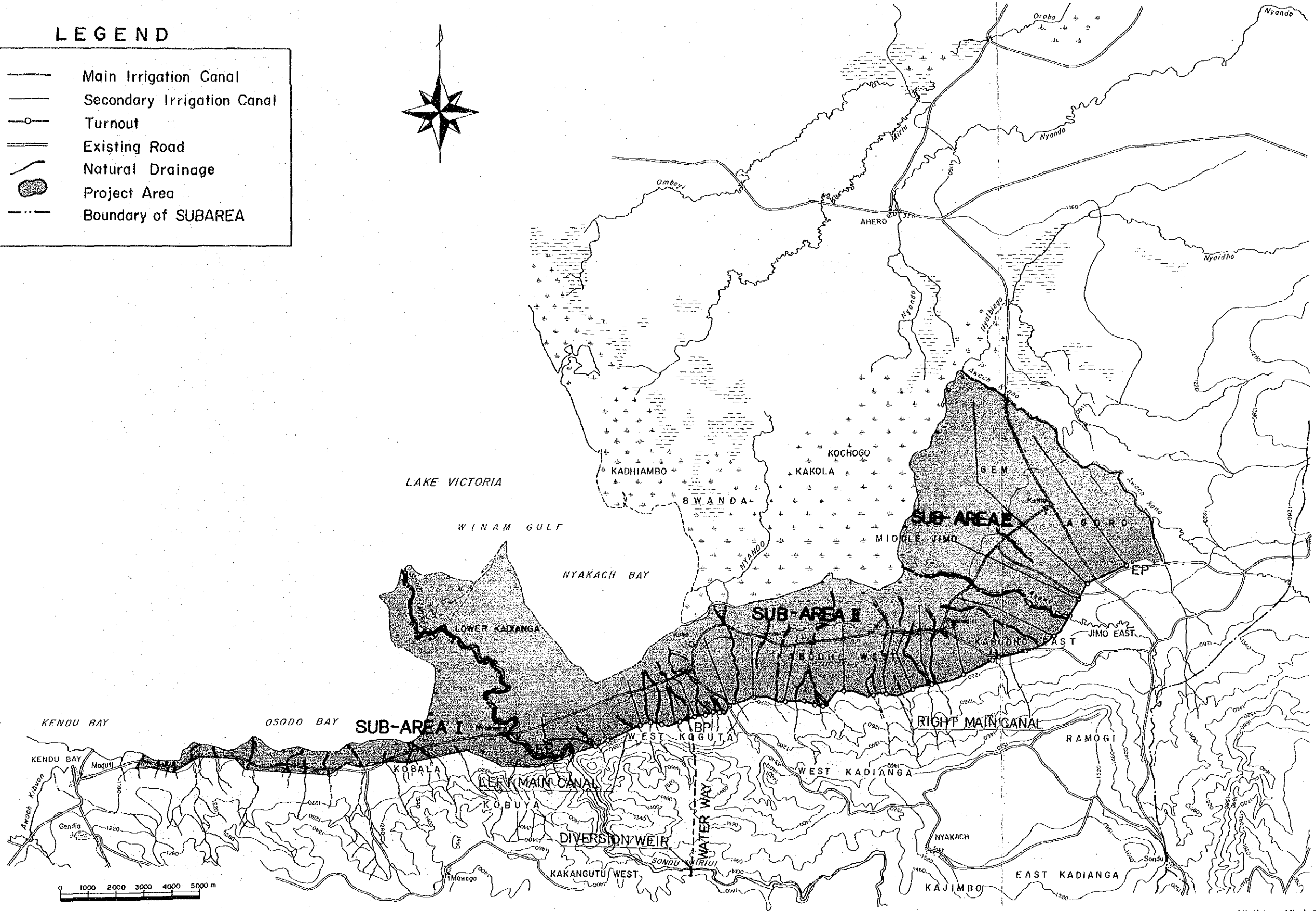
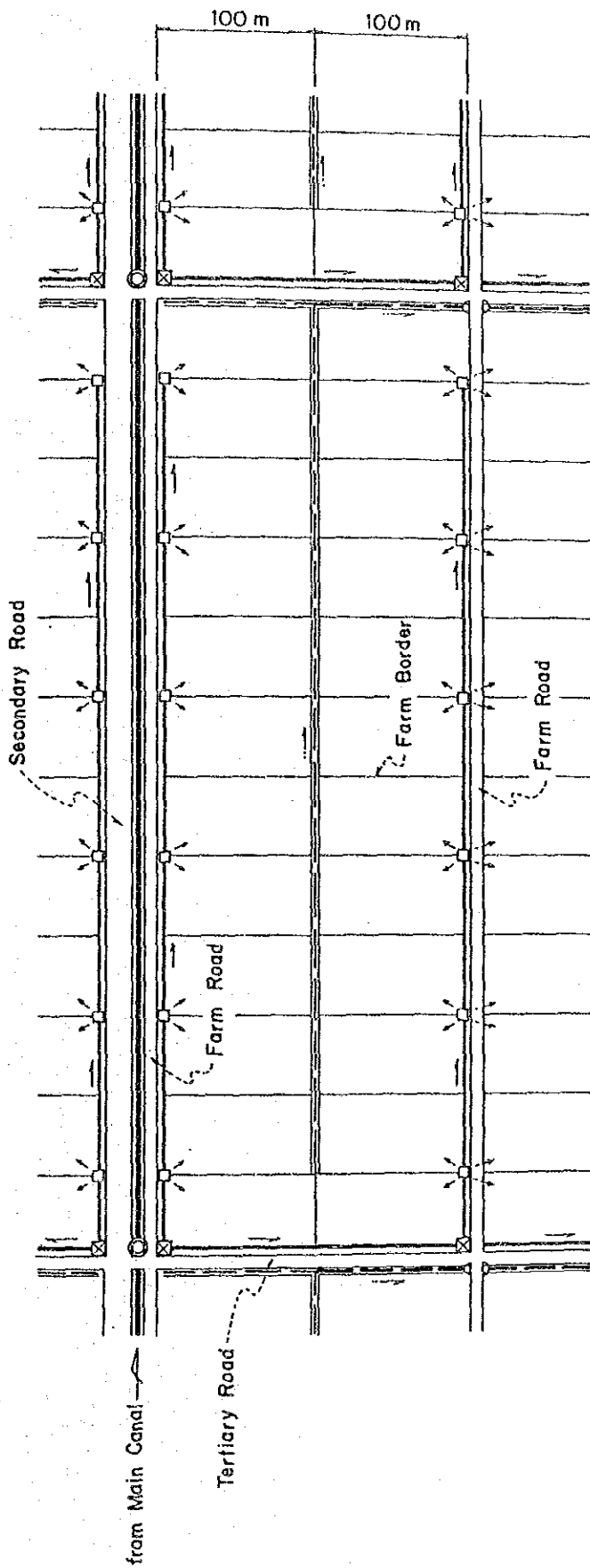


図-5.1 灌溉用排水路計画図

REPUBLIC OF KENYA  
 SONDU RIVER  
 MULTIPURPOSE DEVELOPMENT PROJECT  
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L E G E N D

- |  |                    |  |                                    |
|--|--------------------|--|------------------------------------|
|  | Secondary Canal    |  | Turnout on Secondary Canal         |
|  | Tertiary Canal     |  | Division Box on Tertiary Canal     |
|  | Distribution Canal |  | Division Box on Distribution Canal |
|  | Tertiary Drain     |  | Drainage Cutvert                   |
|  | Field Drain        |  |                                    |

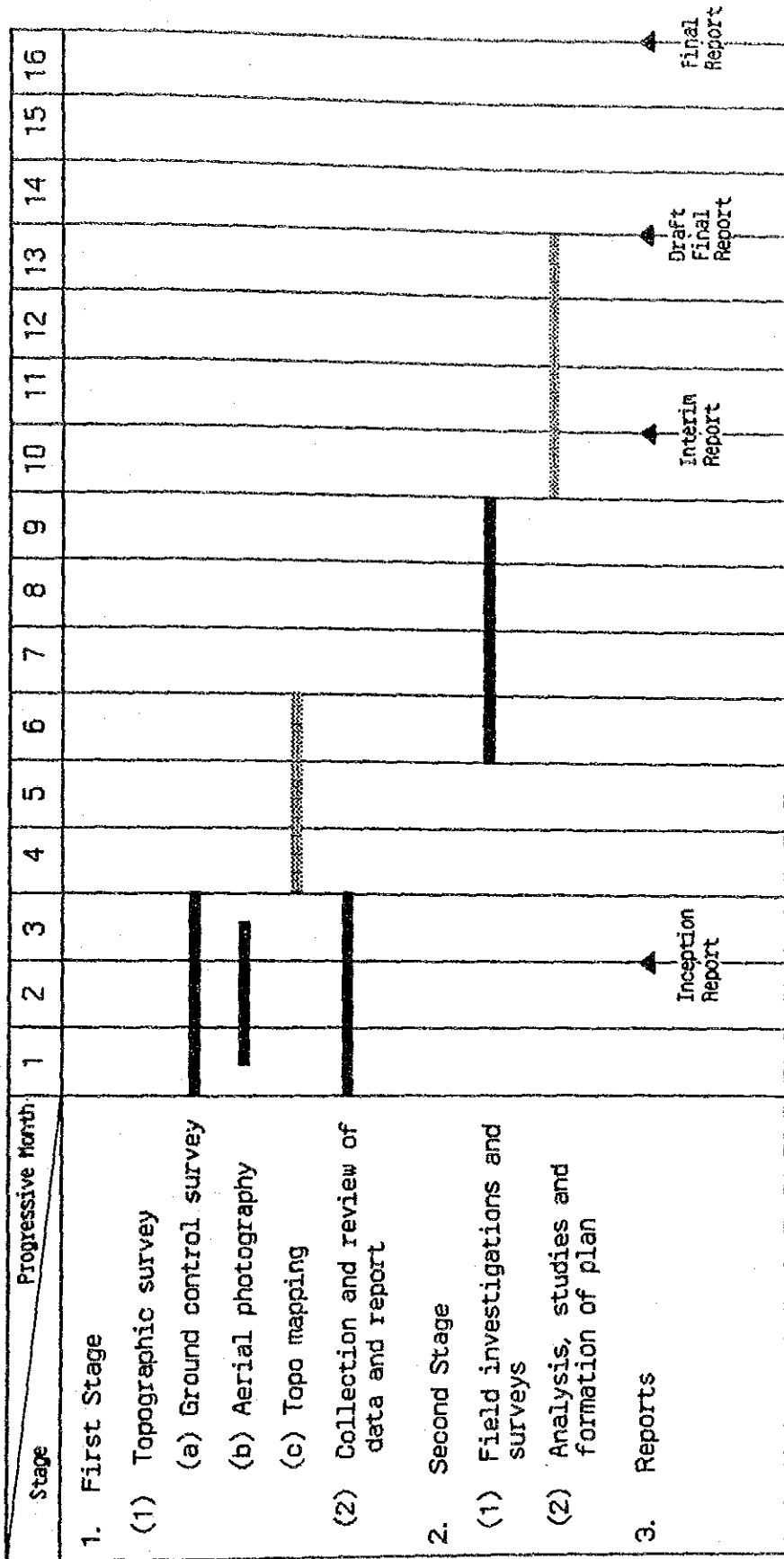
图 - 5.2 标准圃场图











Field  
Home

图-7.1 调查实施工程表





