

THE UNITED REPUBLIC OF TANZANIA

**FEASIBILITY REPORT**

**ON**

**LOWER-MOSHI AGRICULTURAL**

**DEVELOPMENT PROJECT**

国際協力事業団	
受入 月日 '84. 4. 17	416
登録No. 03381	80.7
	AFT

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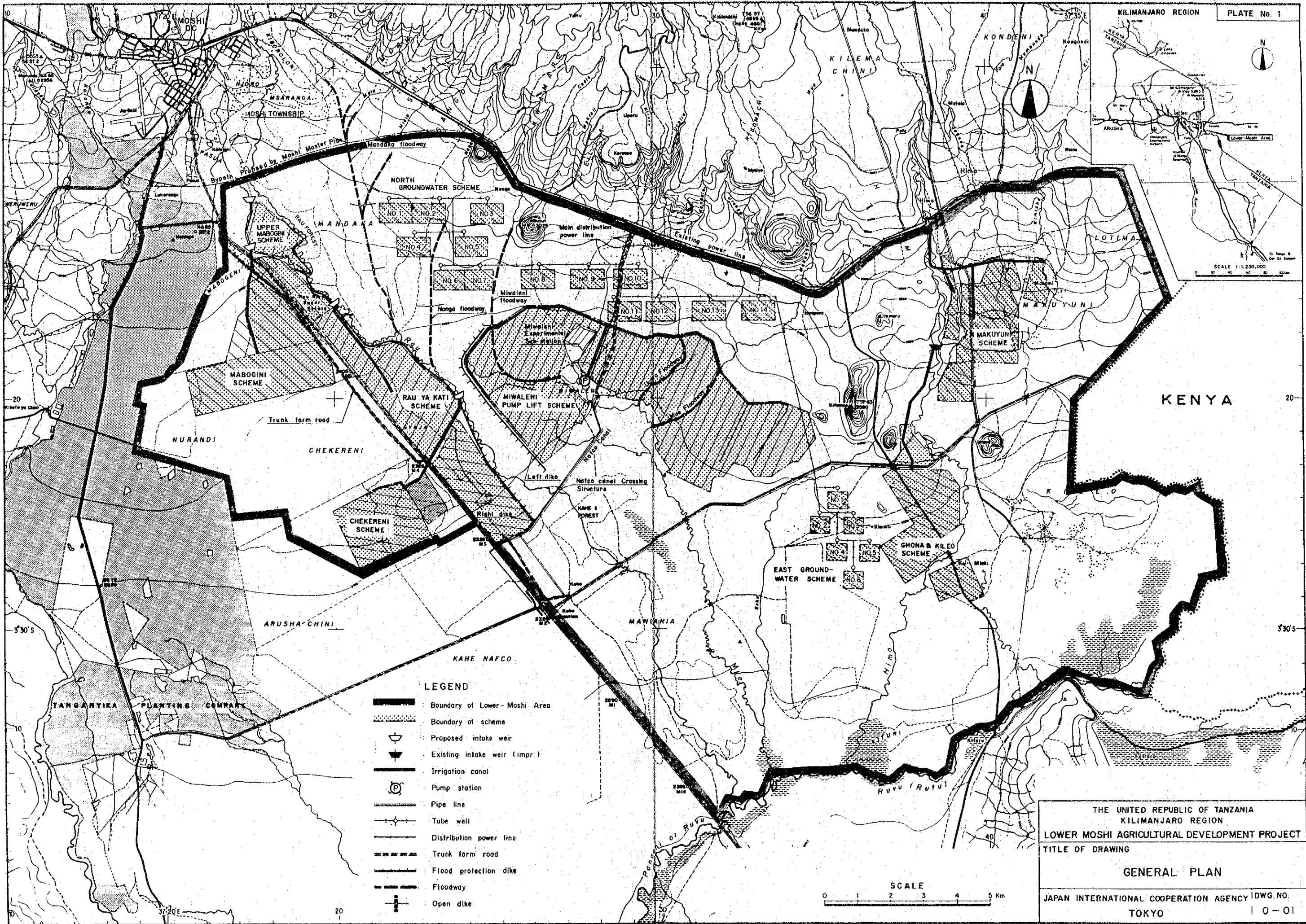


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# LOWER - MOSHI AGRICULTURAL DEVELOPMENT PROJECT

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28	3 - 03	MANDAKA & NANGA FLOODWAYS
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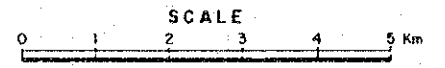


KILIMANJARO REGION **PLATE No. 1**

ARUSHA

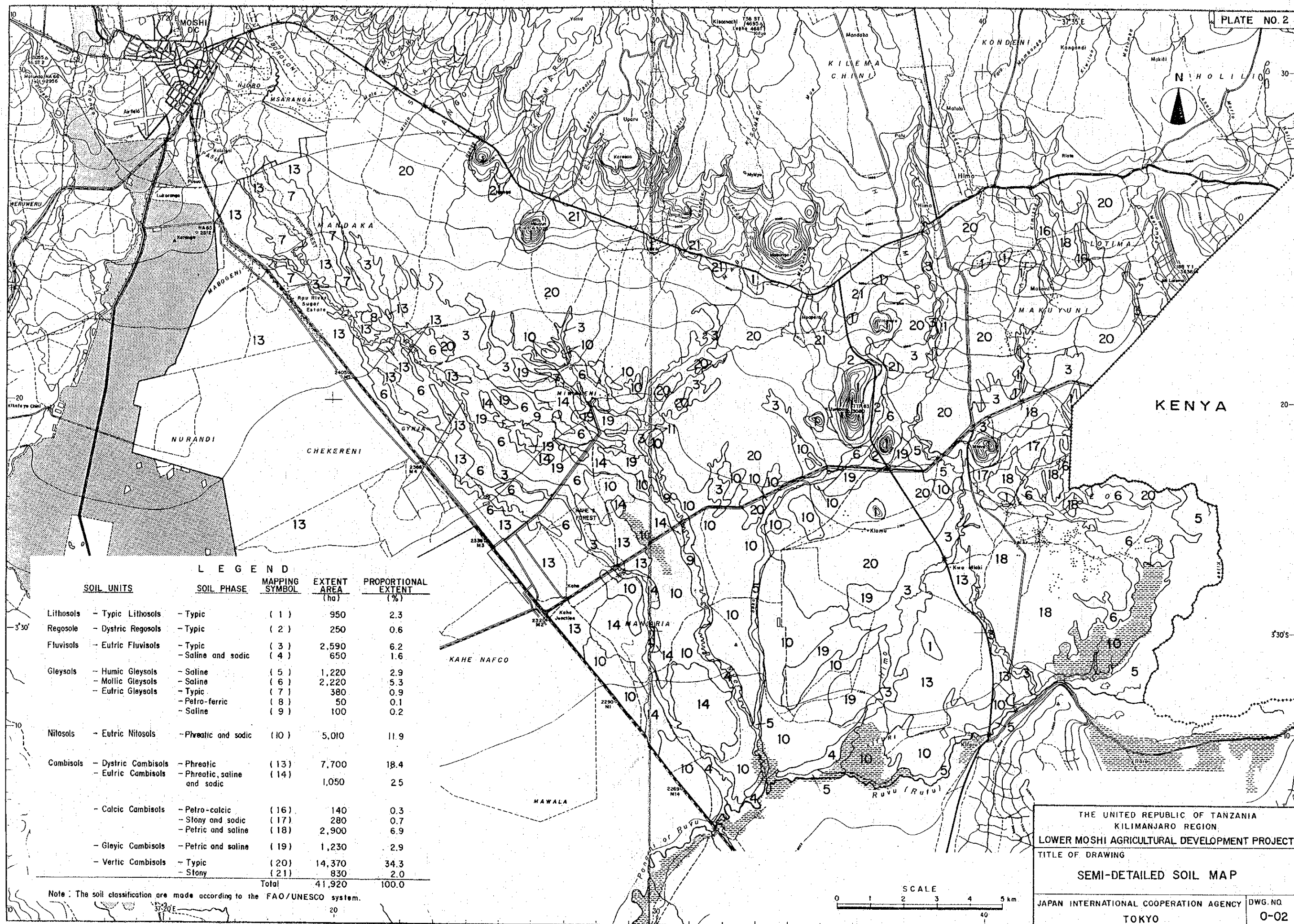
SCALE 1:1,250,000

- LEGEND**
- Boundary of Lower-Moshi Area
  - Boundary of scheme
  - Proposed intake weir
  - Existing intake weir (impr.)
  - Irrigation canal
  - Pump station
  - Pipe line
  - Tube well
  - Distribution power line
  - Trunk farm road
  - Flood protection dike
  - Floodway
  - Open dike



THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
**GENERAL PLAN**  
 JAPAN INTERNATIONAL COOPERATION AGENCY | DWG. NO.  
 TOKYO | 0-01





**LEGEND**

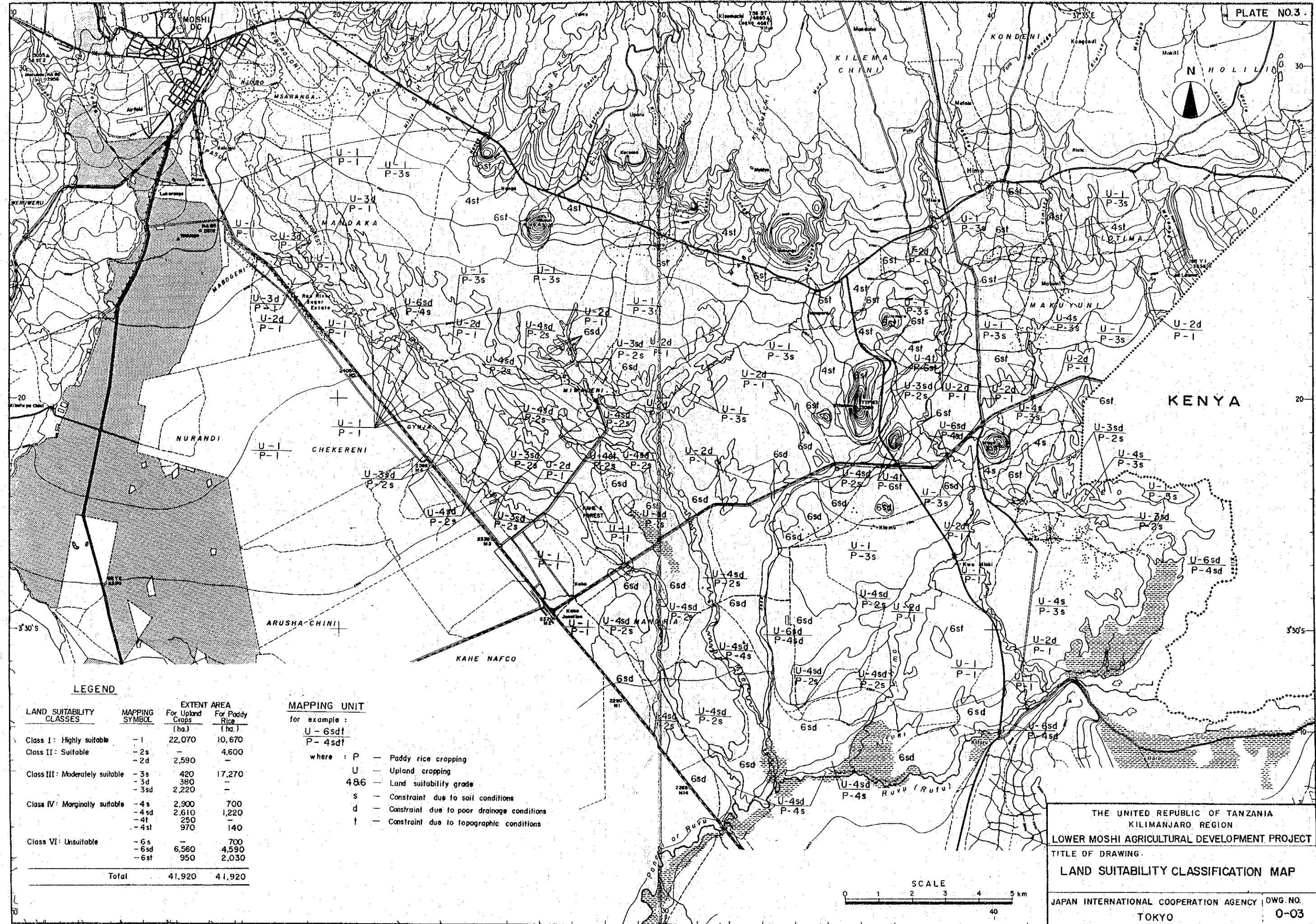
SOIL UNITS	SOIL PHASE	MAPPING SYMBOL	EXTENT AREA (ha)	PROPORTIONAL EXTENT (%)	
Lithosols - Typic Lithosols	- Typic	( 1 )	950	2.3	
Regosols - Dystric Regosols	- Typic	( 2 )	250	0.6	
Fluvisols - Eutric Fluvisols	- Typic	( 3 )	2,590	6.2	
	- Saline and sodic	( 4 )	650	1.6	
Gleysols	- Humic Gleysols	- Saline	( 5 )	1,220	2.9
	- Mollic Gleysols	- Saline	( 6 )	2,220	5.3
	- Eutric Gleysols	- Typic	( 7 )	380	0.9
		- Petro-ferric	( 8 )	50	0.1
		- Saline	( 9 )	100	0.2
Nitosols - Eutric Nitosols	- Phreatic and sodic	( 10 )	5,010	11.9	
Cambisols - Dystric Cambisols	- Phreatic	( 13 )	7,700	18.4	
	- Eutric Cambisols	- Phreatic, saline and sodic	( 14 )	1,050	2.5
- Calcic Cambisols	- Petro-calcic	( 16 )	140	0.3	
	- Stony and sodic	( 17 )	280	0.7	
	- Petro-calcic and saline	( 18 )	2,900	6.9	
- Gleyic Cambisols	- Petro-calcic and saline	( 19 )	1,230	2.9	
- Vertic Cambisols	- Typic	( 20 )	14,370	34.3	
	- Stony	( 21 )	830	2.0	
Total			41,920	100.0	

Note: The soil classification are made according to the FAO/UNESCO system.

THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
**SEMI-DETAILED SOIL MAP**  
 JAPAN INTERNATIONAL COOPERATION AGENCY  
 TOKYO

SCALE  
 0 1 2 3 4 5 km

DWG. NO  
 0-02



**LEGEND**

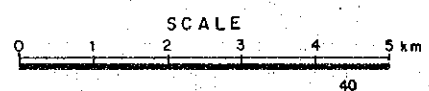
LAND SUITABILITY CLASSES	MAPPING SYMBOL	EXTENT AREA	
		For Upland Crops (ha.)	For Paddy Rice (ha.)
Class I: Highly suitable	- 1	22,070	10,670
Class II: Suitable	- 2s	-	4,600
	- 2d	2,590	-
Class III: Moderately suitable	- 3s	420	17,270
	- 3d	380	-
	- 3sd	2,220	-
Class IV: Marginally suitable	- 4s	2,900	700
	- 4sd	2,610	1,220
	- 4t	250	-
	- 4st	970	140
	- 4sd	-	-
Class VI: Unsuitable	- 6s	-	700
	- 6sd	6,560	4,590
	- 6st	950	2,030
<b>Total</b>		<b>41,920</b>	<b>41,920</b>

**MAPPING UNIT**

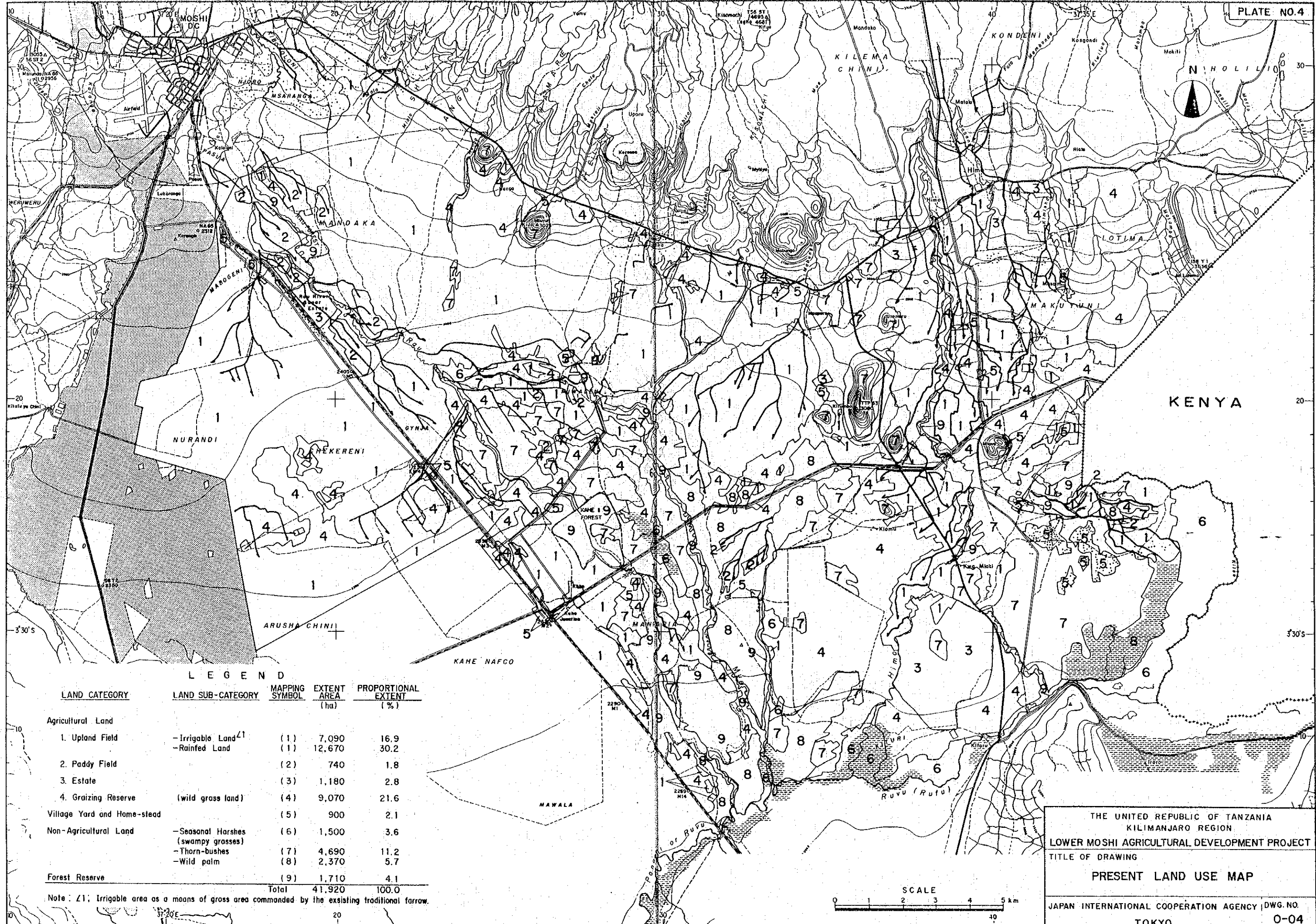
for example :  
 U - 6sdt  
 P - 4sdt

where : P - Paddy rice cropping  
 U - Upland cropping  
 486 - Land suitability grade  
 s - Constraint due to soil conditions  
 d - Constraint due to poor drainage conditions  
 t - Constraint due to topographic conditions

THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
**LAND SUITABILITY CLASSIFICATION MAP**  
 JAPAN INTERNATIONAL COOPERATION AGENCY DWG. NO.  
 TOKYO 0-03





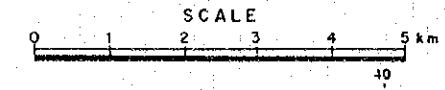


LEGEND

LAND CATEGORY	LAND SUB-CATEGORY	MAPPING SYMBOL	EXTENT AREA (ha)	PROPORTIONAL EXTENT (%)
Agricultural Land	1. Upland Field - Irrigable Land <sup>1</sup>	(1)	7,090	16.9
	- Rainfed Land	(1)	12,670	30.2
2. Paddy Field		(2)	740	1.8
3. Estate		(3)	1,180	2.8
4. Grazing Reserve	(wild grass land)	(4)	9,070	21.6
Village Yard and Home-stead		(5)	900	2.1
Non-Agricultural Land	- Seasonal Harshes (swampy grasses)	(6)	1,500	3.6
	- Thorn-bushes	(7)	4,690	11.2
	- Wild palm	(8)	2,370	5.7
Forest Reserve		(9)	1,710	4.1
Total			41,920	100.0

Note : 1; Irrigable area as a means of gross area commanded by the existing traditional farrow.

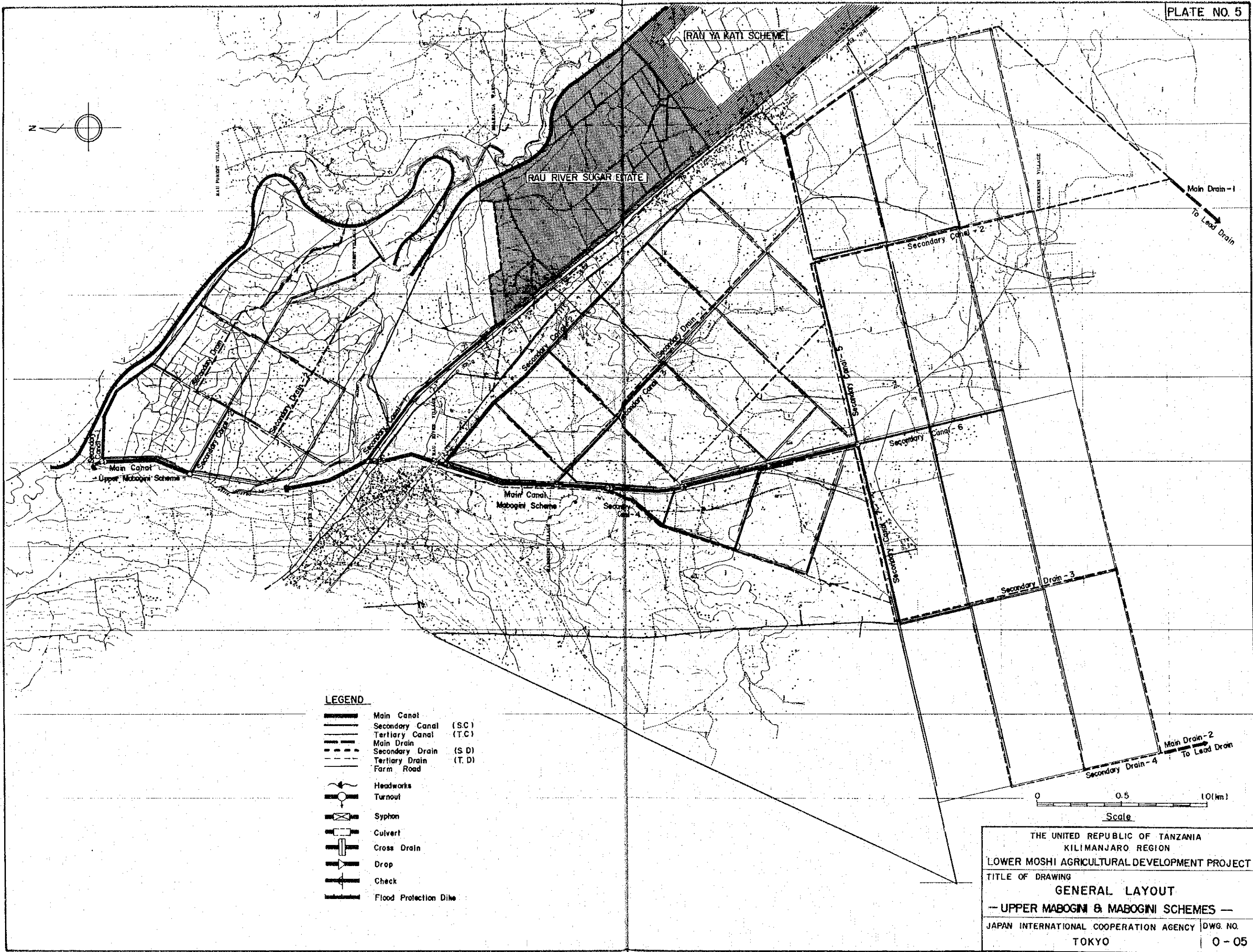
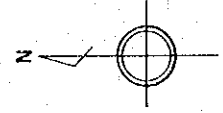
THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
**PRESENT LAND USE MAP**  
 JAPAN INTERNATIONAL COOPERATION AGENCY | DWG. NO.  
 TOKYO | 0-04





RAU YA KATI SCHEME

RAU RIVER SUGAR ESTATE



**LEGEND**

- Main Canal
- Secondary Canal (S.C)
- Tertiary Canal (T.C)
- Main Drain
- Secondary Drain (S.D)
- Tertiary Drain (T.D)
- Farm Road
- Headworks
- Turnout
- Syphon
- Culvert
- Cross Drain
- Drop
- Check
- Flood Protection Dike

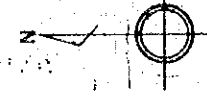
0      0.5      1.0(km)

Scale

THE UNITED REPUBLIC OF TANZANIA KILIMANJARO REGION	
LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT	
TITLE OF DRAWING <b>GENERAL LAYOUT</b>	
— UPPER MABOGINI & MABOGINI SCHEMES —	
JAPAN INTERNATIONAL COOPERATION AGENCY	DWG. NO.
TOKYO	0-05

CHEKERENI SCHEME

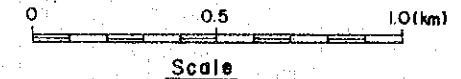
RAU RIVER SUGAR ESTATE



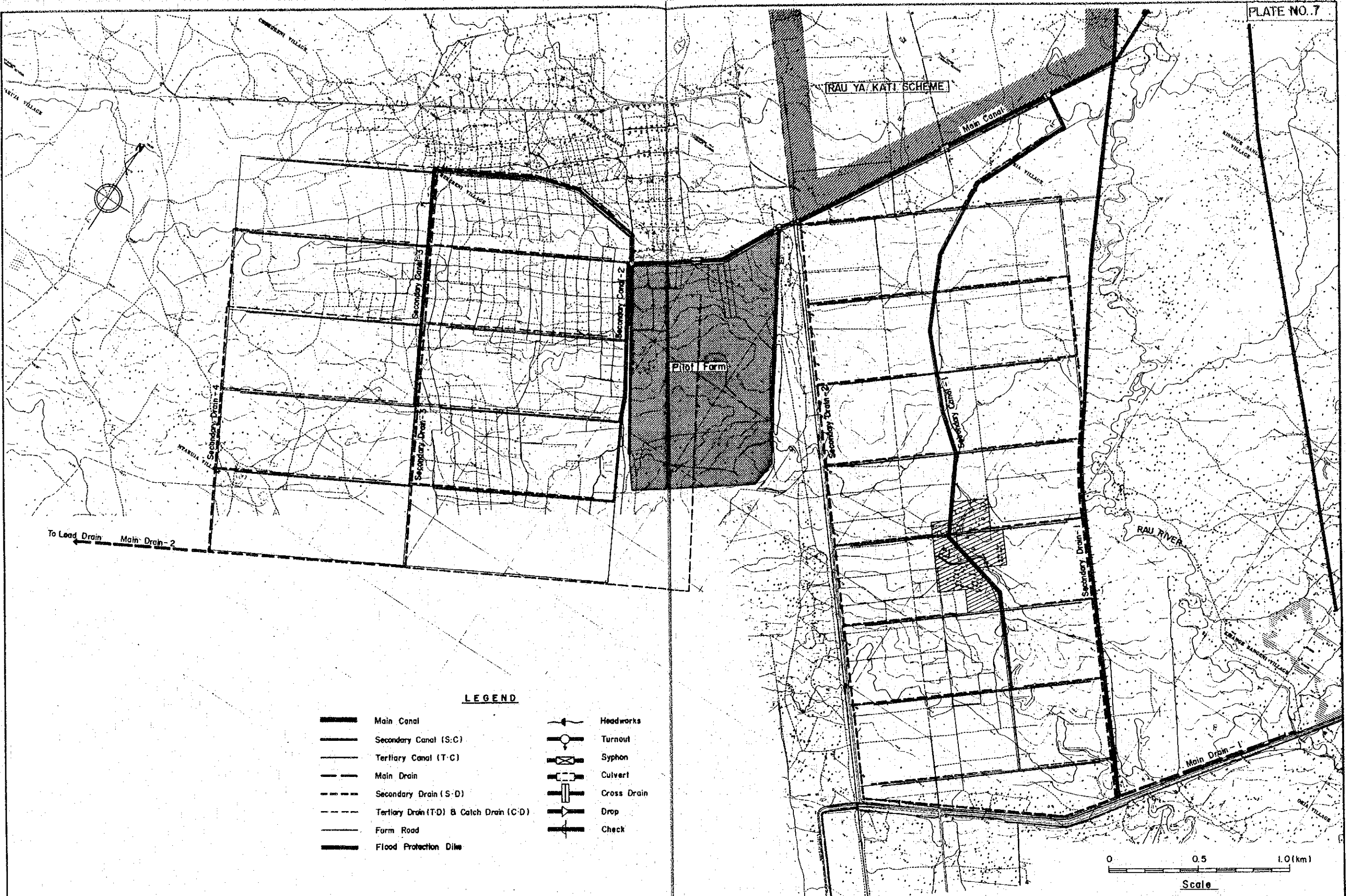
LEGEND

- Main Canal
- Secondary Canal (S.C)
- Tertiary Canal (T.C)
- Main Drain
- Secondary Drain (S.D)
- Tertiary Drain (T.D)
- Farm Road

- Headworks
- Turnout
- Syphon
- Culvert
- Cross Drain
- Drop
- Check
- Flood Way
- Flood Protection Dike

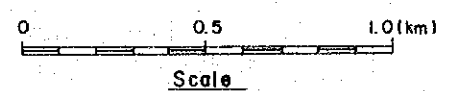


THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
**GENERAL LAYOUT**  
 - RAU YA KATI SCHEME -  
 JAPAN INTERNATIONAL COOPERATION AGENCY DWG. NO.  
 TOKYO 0-06



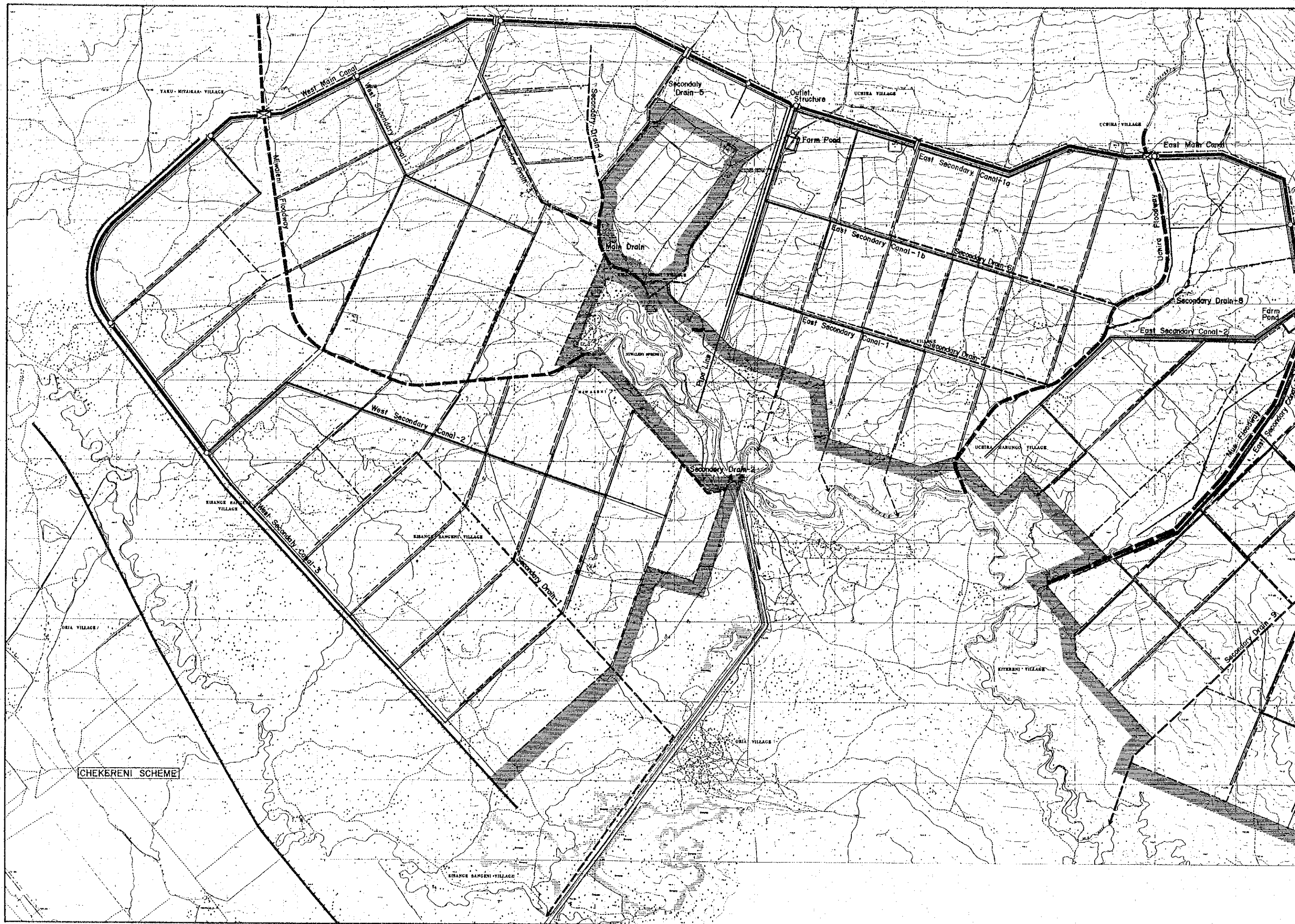
**LEGEND**

- |  |  |  |             |
|--|--|--|-------------|
|  | Main Canal                               |  | Headworks   |
|  | Secondary Canal (S.C)                    |  | Turnout     |
|  | Tertiary Canal (T.C)                     |  | Syphon      |
|  | Main Drain                               |  | Culvert     |
|  | Secondary Drain (S-D)                    |  | Cross Drain |
|  | Tertiary Drain (T-D) & Catch Drain (C-D) |  | Drop        |
|  | Farm Road                                |  | Check       |
|  | Flood Protection Dike                    |  |             |



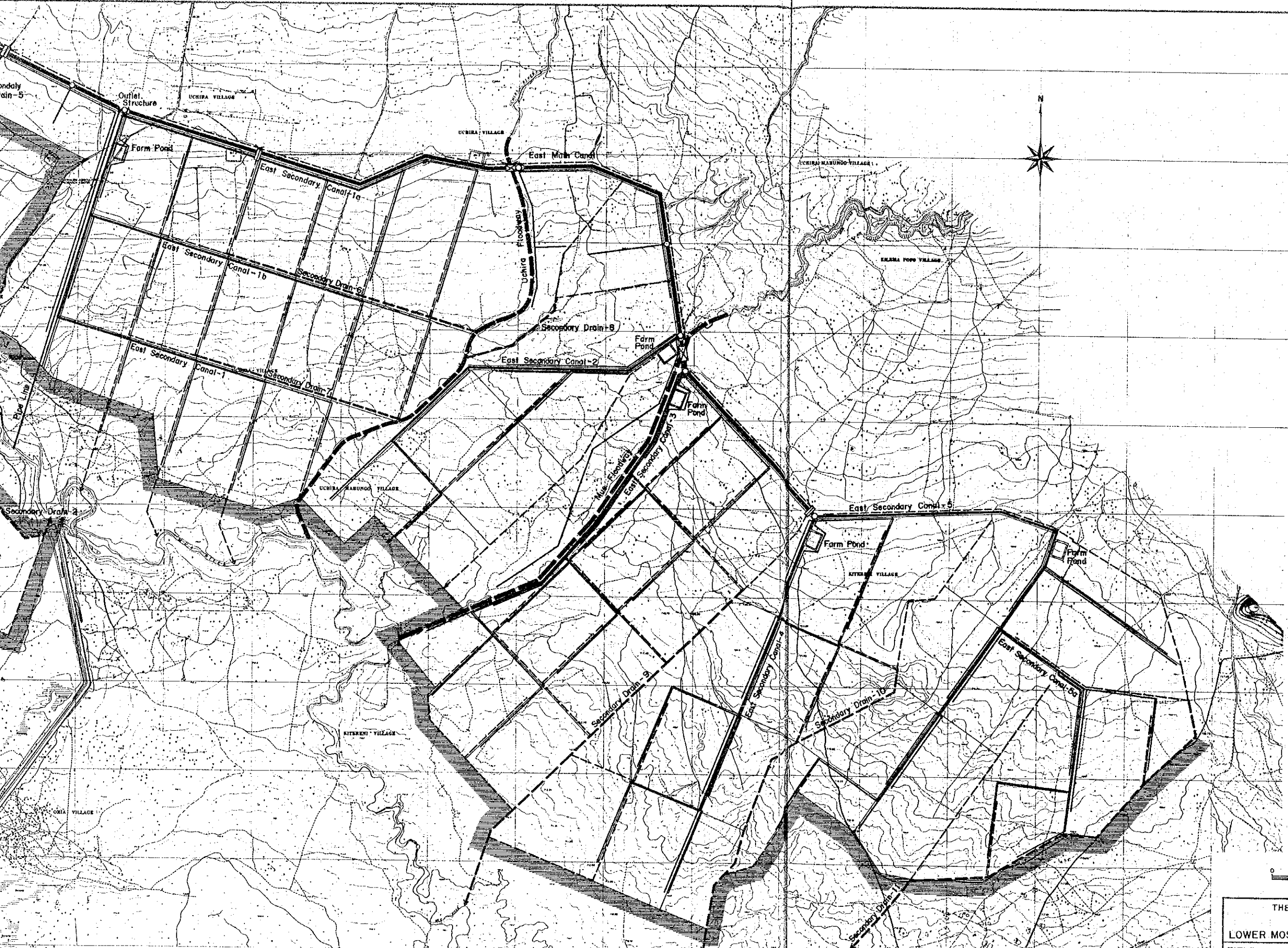
THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
**GENERAL LAYOUT**  
**- CHEKERENI SCHEME -**  
 JAPAN INTERNATIONAL COOPERATION AGENCY TOKYO DWG NO.  
 0-07





CHEKERENI SCHEME

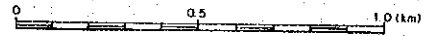




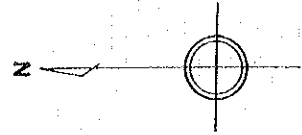
LEGEND

- Main Canal
- Secondary Canal (S.C)
- Tertiary Canal (T.C)
- Main Drain
- Secondary Drain (SD)
- Tertiary Drain (TD)
- Flood way
- Head works
- Turnout
- Syphon
- Culvert
- Cross Drain
- Drop
- Check
- Flood Protection Dike
- Farm Road


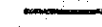
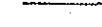
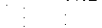
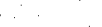
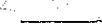








SCALE

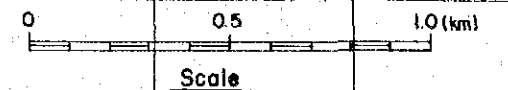
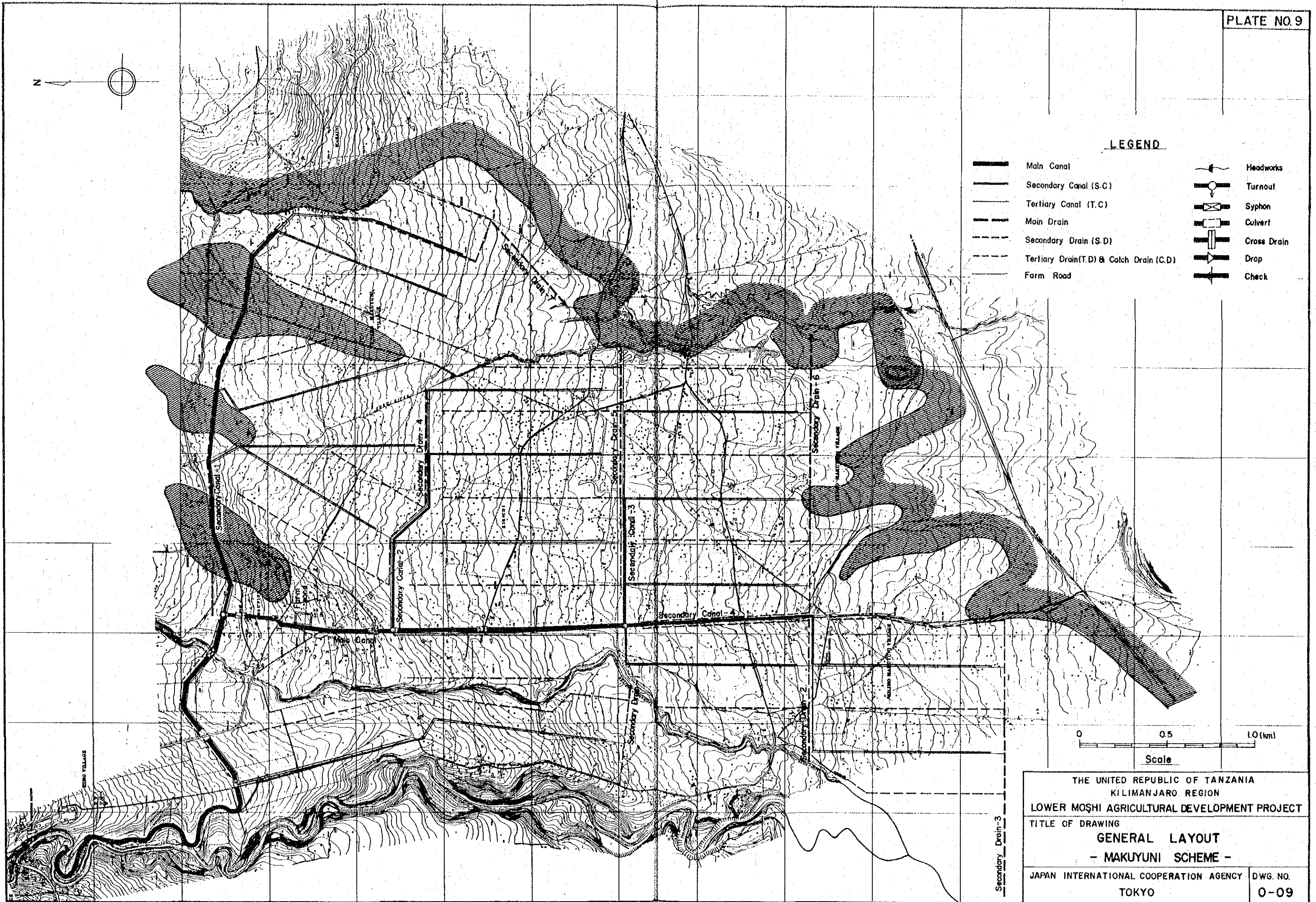


THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
 GENERAL LAYOUT  
 -MIWALENI PUMP LIFT SCHEME -  
 JAPAN INTERNATIONAL COOPERATION AGENCY DWG. NO.  
 TOKYO O-08



LEGEND

-  Main Canal
-  Secondary Canal (S.C)
-  Tertiary Canal (T.C)
-  Main Drain
-  Secondary Drain (S.D)
-  Tertiary Drain (T.D) & Catch Drain (C.D)
-  Farm Road
-  Headworks
-  Turnout
-  Syphon
-  Culvert
-  Cross Drain
-  Drop
-  Check



THE UNITED REPUBLIC OF TANZANIA  
 KILIMANJARO REGION  
 LOWER MOSHI AGRICULTURAL DEVELOPMENT PROJECT  
 TITLE OF DRAWING  
**GENERAL LAYOUT**  
**- MAKUYUNI SCHEME -**  
 JAPAN INTERNATIONAL COOPERATION AGENCY DWG. NO.  
 TOKYO 0-09