

Land Use Classification	
Forest	
Natural Forest	[Horizontal lines]
Peat Swamp Forest	[Vertical lines]
Tidal Forest	[Diagonal lines (top-left to bottom-right)]
Logged Primary Forest	[Diagonal lines (bottom-left to top-right)]
Bush & Grassland	[Cross-hatch]
Bush	[Stippled]
Bush + Alang-alang	[Diagonal lines (top-left to bottom-right) + Stippled]
Alang-alang	[Diagonal lines (top-left to bottom-right)]
Savannah	[Diagonal lines (bottom-left to top-right)]
Savannah + Bush	[Diagonal lines (bottom-left to top-right) + Stippled]
Others	[Diagonal lines (bottom-left to top-right) + Horizontal lines]
Shifting Cultivation	[Diagonal lines (bottom-left to top-right) + Vertical lines]
Shifting Cultivation	[Diagonal lines (bottom-left to top-right) + Horizontal lines]
Upland Permanent Cultivation	[Diagonal lines (bottom-left to top-right) + Cross-hatch]
Upland Crop	[Diagonal lines (bottom-left to top-right) + Stippled]
Upland Crop + Tree Crops	[Diagonal lines (bottom-left to top-right) + Stippled + Cross-hatch]
Wetland	
Wetland Rice	[Diagonal lines (bottom-left to top-right) + Horizontal lines]
Tidal Wetland Rice	[Diagonal lines (bottom-left to top-right) + Vertical lines]
Tree Crops/Estate	[Diagonal lines (bottom-left to top-right) + Cross-hatch]
Rubber Tree Crops	[Diagonal lines (bottom-left to top-right) + Stippled]
Coconut Tree Crops	[Diagonal lines (bottom-left to top-right) + Horizontal lines]
Oilpalm Tree Crops	[Diagonal lines (bottom-left to top-right) + Vertical lines]
Other Tree Crops	[Diagonal lines (bottom-left to top-right) + Cross-hatch]
Settlement	[Diagonal lines (bottom-left to top-right) + Stippled]
Settlement	[Diagonal lines (bottom-left to top-right) + Horizontal lines]

REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
 FEASIBILITY STUDY ON LOWER ROKAN KIRI
 IRRIGATION PROJECT
**PRESENT LAND USE MAP
 (OBJECTIVE AREA)**
 JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
 TOKYO, JAPAN

Fig. 3.5 Present Land Use Map in the Objective Area

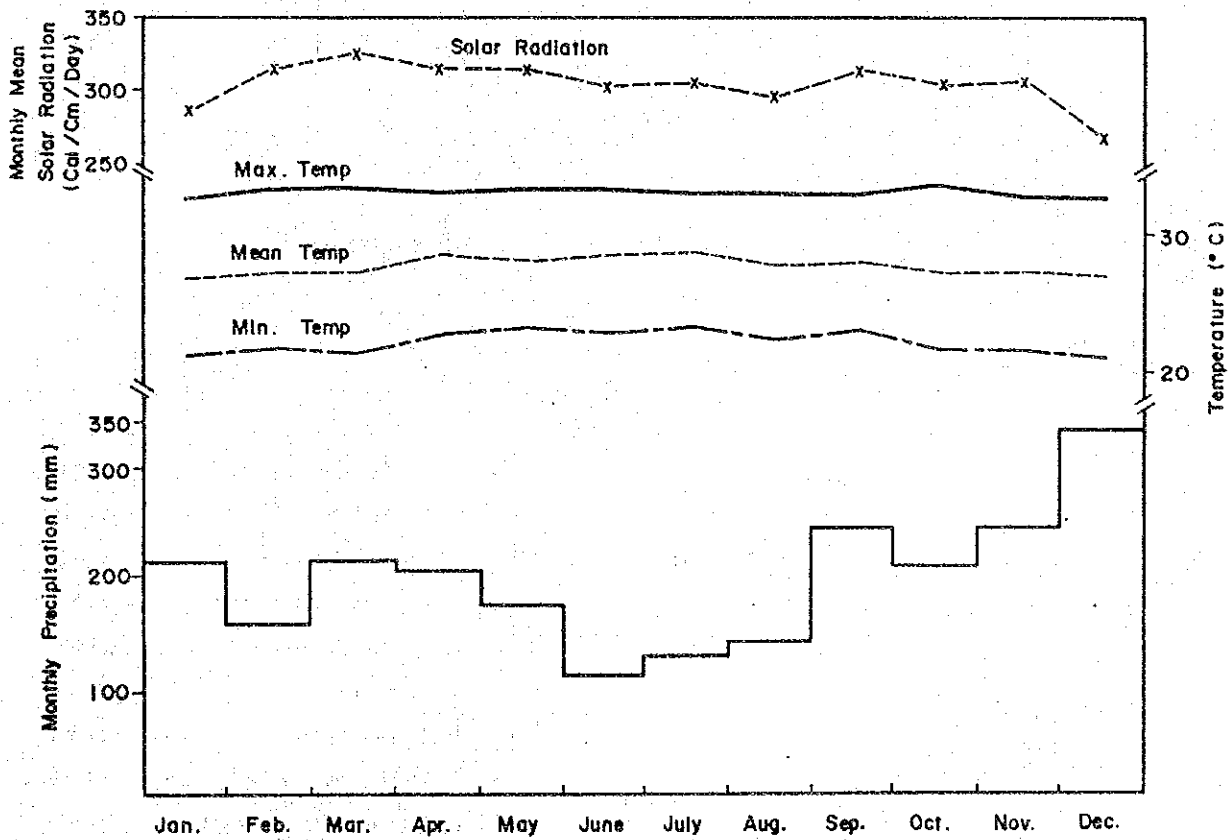
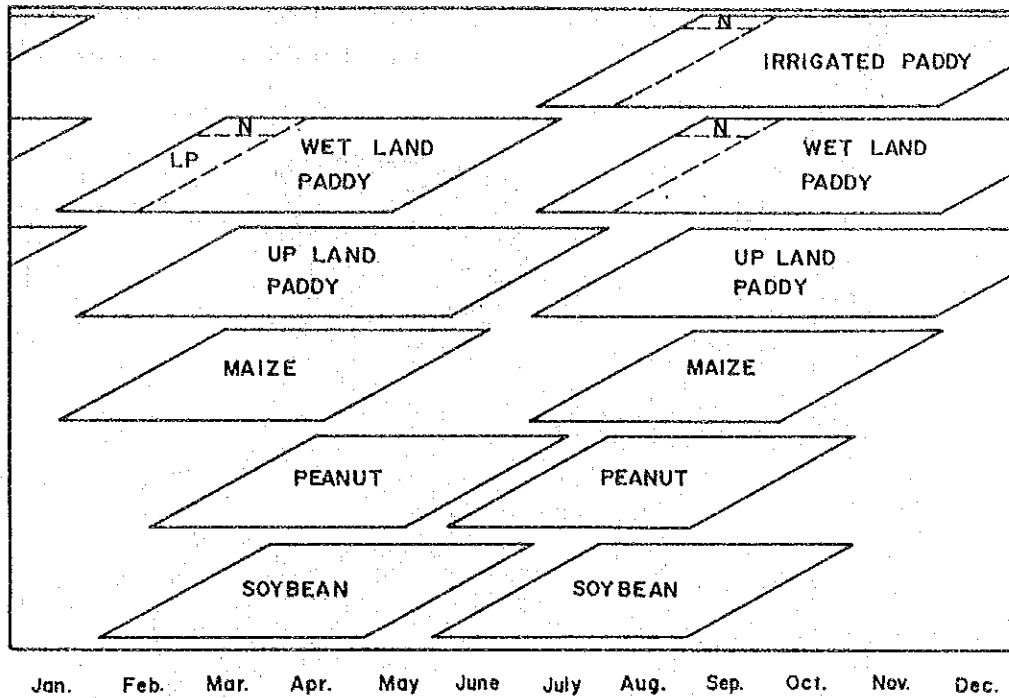
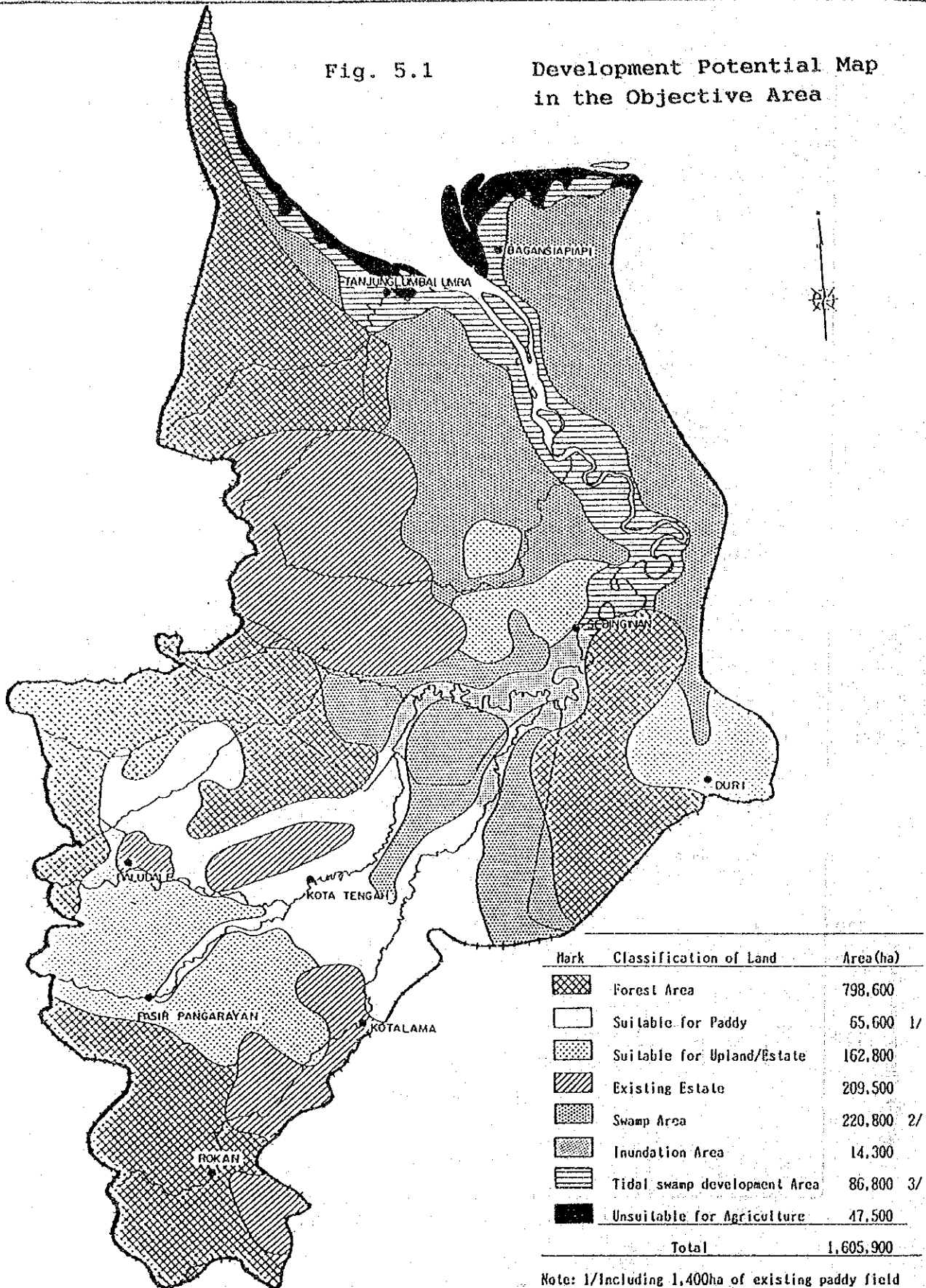


Fig. 3.6 Present Cropping Pattern in the Objective Area

Fig. 5.1

Development Potential Map
in the Objective Area



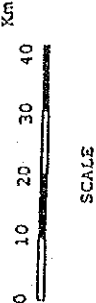
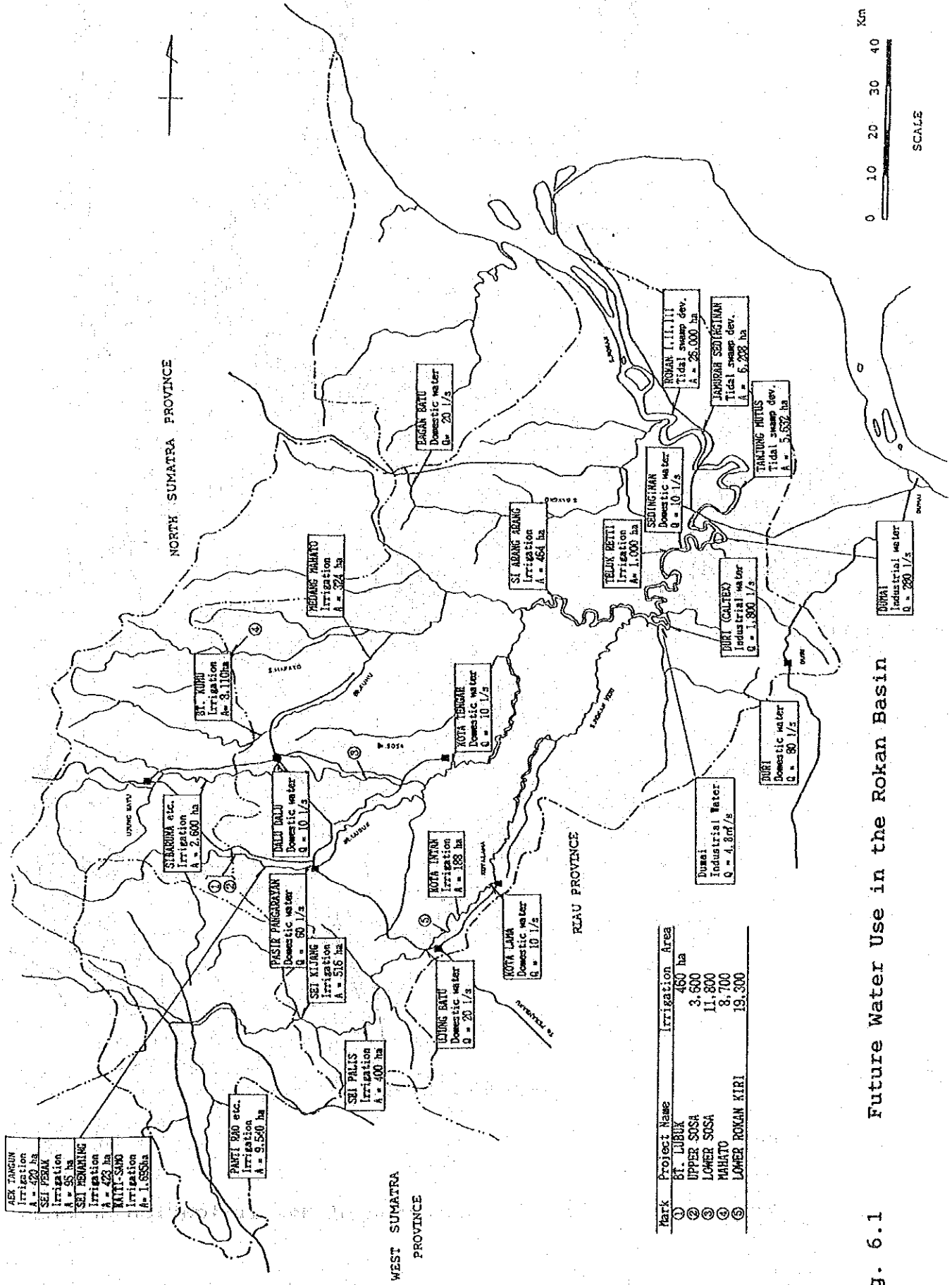
Note: 1/Including 1,400ha of existing paddy field

2/Including 39,900ha of land with potential
for Agricultural development

3/Including existing Tidal swamp development
area of 39,800ha

0 10 20 30 KM

SCALE



SCALE

Fig. 6.1 Future Water Use in the Rokan Basin



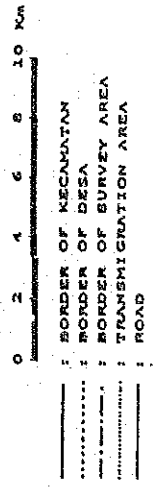
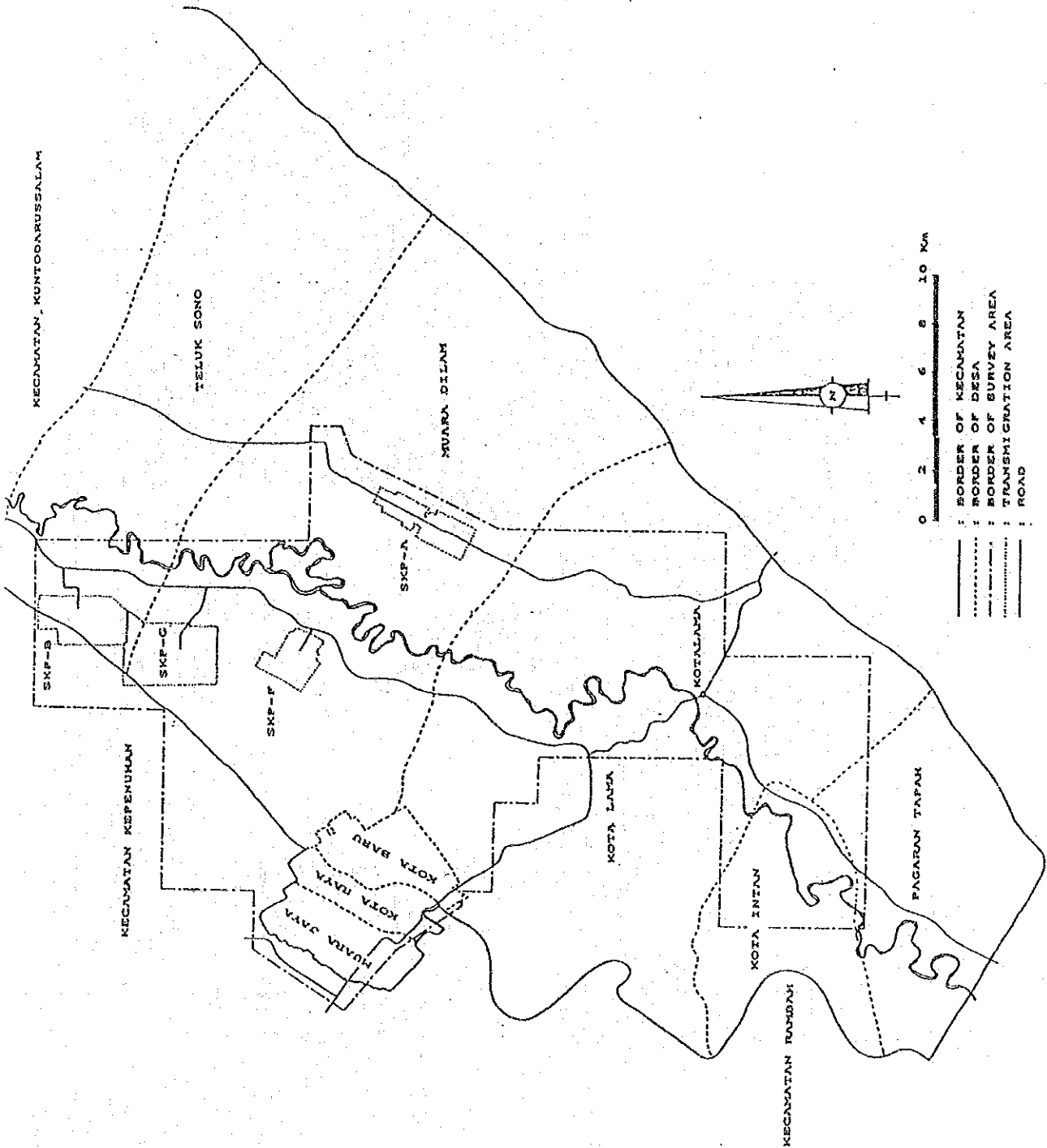
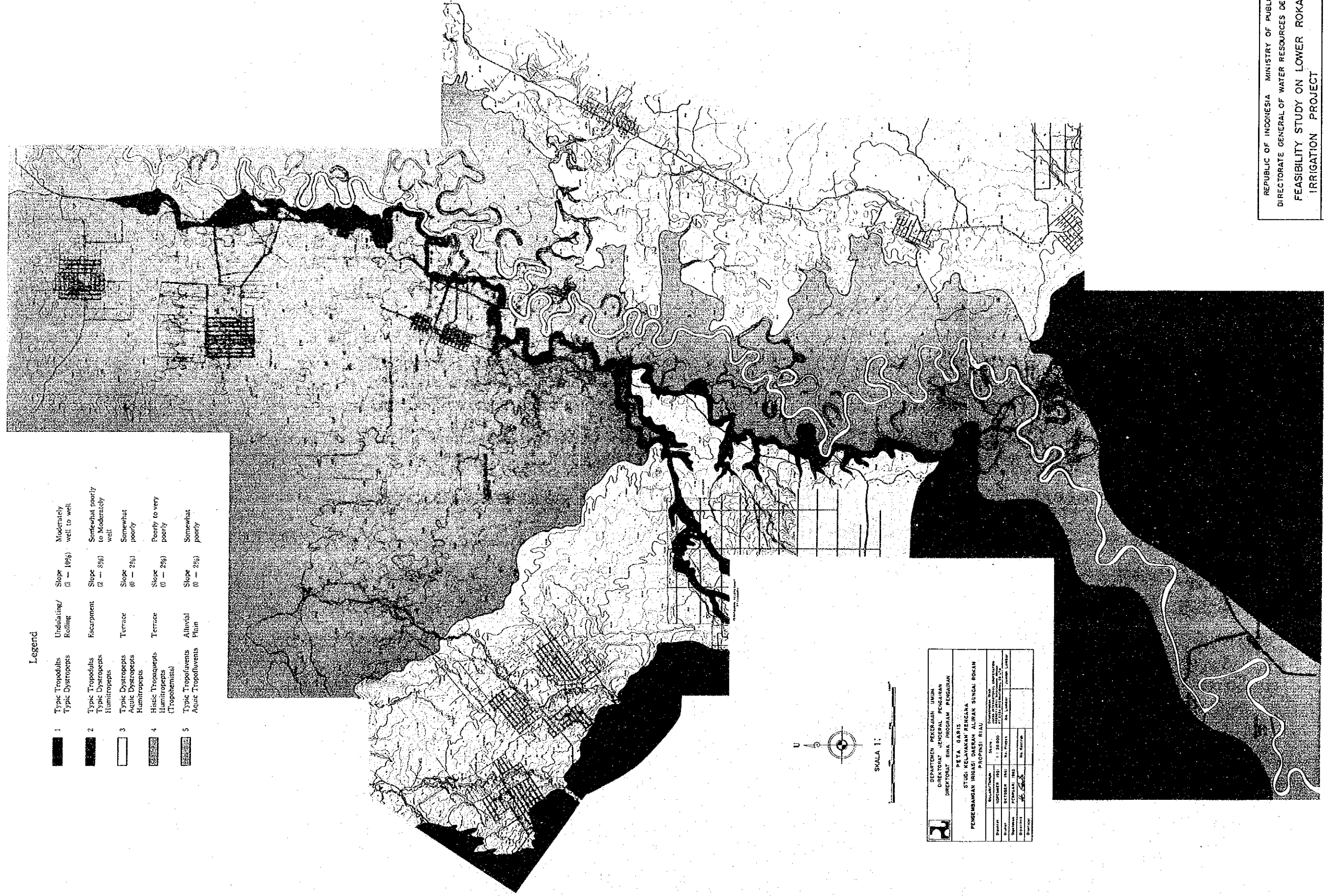


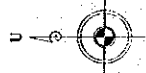
Fig. 7.1.1 Project Area and Survey Area



Legend

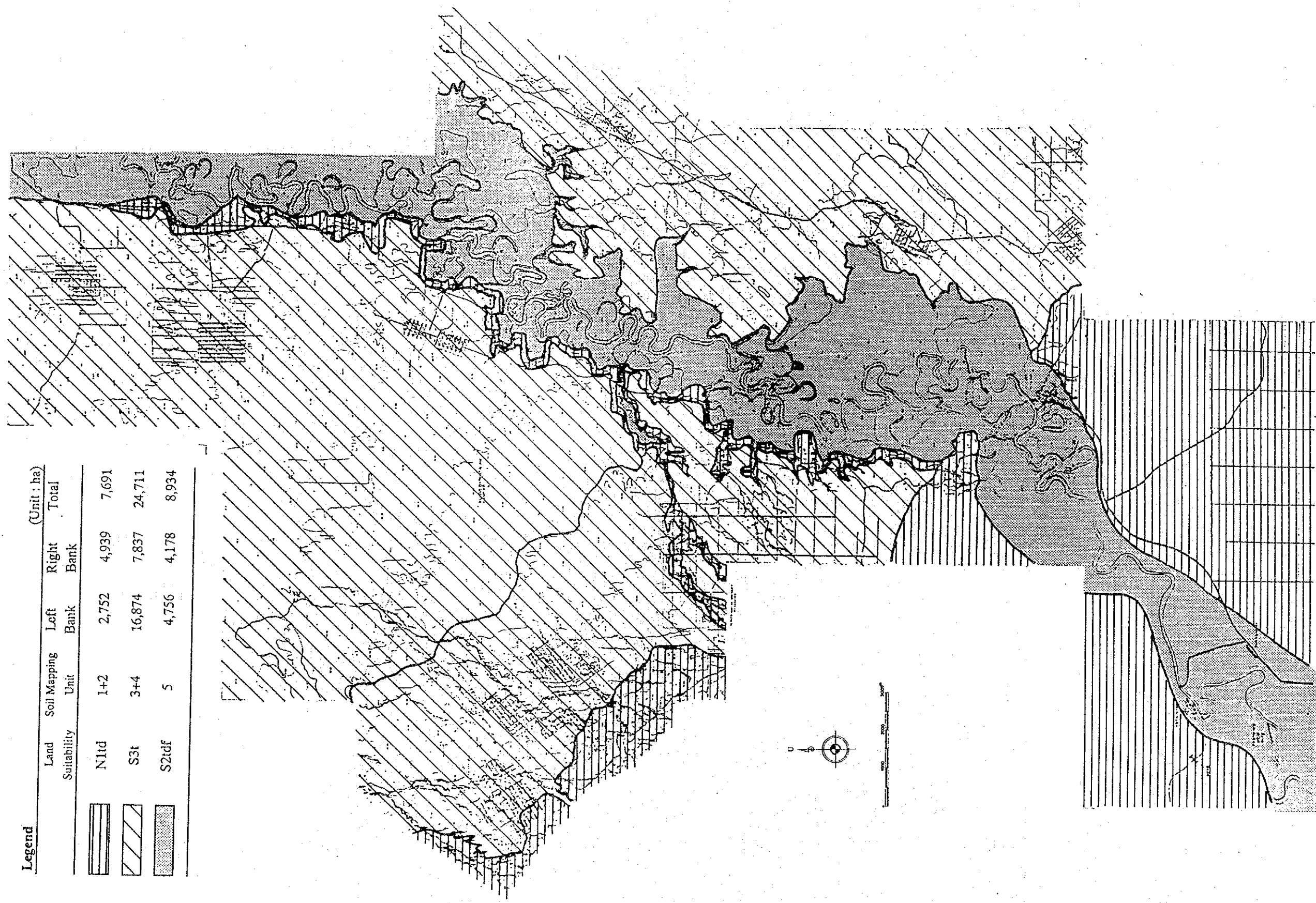
- | | | | | |
|---|---|------------------------|--------------------|--|
| 1 | Typic Tropodulis
Typic Dyastropeps | Undulating/
Rolling | Slope
(2 - 10%) | Modernately
well to well |
| 2 | Typic Tropodulis
Humitropeps | Escarpment | Slope
(2 - 8%) | Somewhat poorly
to Moderately
well |
| 3 | Typic Dyastropeps
Aquic Dyastropeps
Humitropeps | Terrace | Slope
(0 - 2%) | Somewhat
poorly |
| 4 | Basic Tropoquaps
Humitropeps
(Tropohemial) | Terrace | Slope
(0 - 2%) | Poorly to very
poorly |
| 5 | Typic Tropojuvems
Aquic Tropojuvems | Alluvial
Plain | Slope
(0 - 2%) | Somewhat
poorly |

DEPARTEMEN PEKERJAAN UMUM DIREKTORAT JENDERAL PENGIRAN DIREKTORAT BINA PROSODIA PERUMAHAN	
PETA GABUNG STATUS DAN KAWAN PENGKAWAN PENGELOMPOKAN BUNDAH DAN BUNDAH SINGKAL ROKAN PADANGSI RIAU	
Skala/Scale	1 : 25000
Disusun/Compiled	1982
Disetujui/Approved	1982
Disahkan/Issued	1982
Diserahkan/Delivered	1982



SKALA 1:

Fig. 7.1.2 Soil Distribution Map



Legend

Land Suitability	Soil Mapping Unit	(Unit : ha)		
		Left Bank	Right Bank	Total
N1td	1+2	2,752	4,939	7,691
S3t	3+4	16,874	7,837	24,711
S2tdf	5	4,756	4,178	8,934

Fig. 7.1.3 Land Suitability Map for Paddy

Legend

Land Suitability	Soil Mapping Unit	Left Bank		Right Bank		Total
		Unit	Area (ha)	Unit	Area (ha)	
	S3ntc	1+2	2,752	4,939	7,691	
	S3n	3	5,484	7,837	13,321	
	S3nd	4	11,390	0	11,390	
	S2nedf	5	4,756	4,178	8,934	

(Unit : ha)

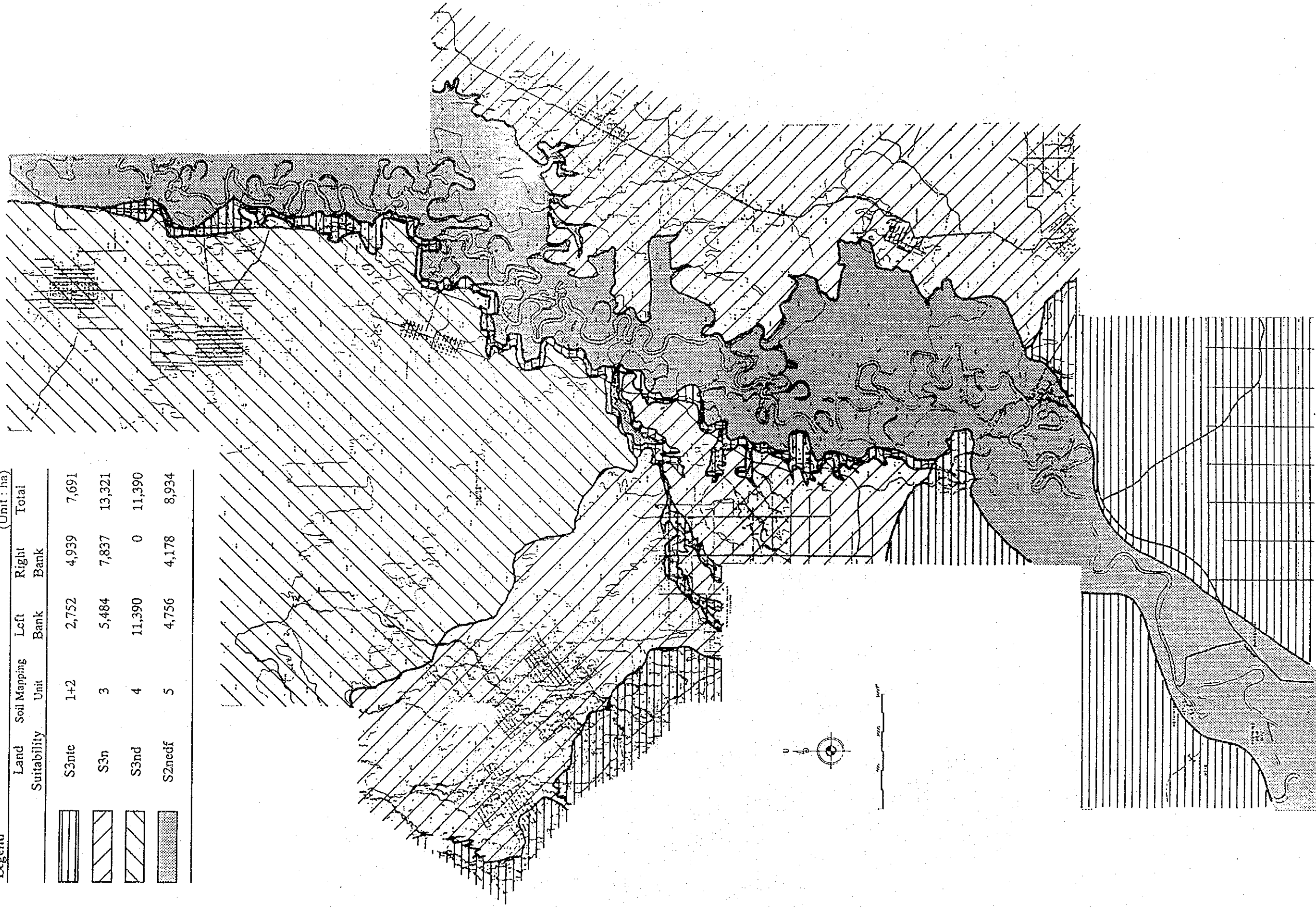


Fig. 7.1.4 Land Suitability Map for Upland Crops

Legend	Land Suitability	Soil Mapping Unit	(Unit : ha)	
			Left Bank	Right Bank
	S3nc	1+2	2,752	4,939
	S3n	3	5,484	7,837
	S3nd	4	11,390	0
	S2ncd	5	4,756	4,178
				Total
				7,691
				13,321
				11,390
				8,934

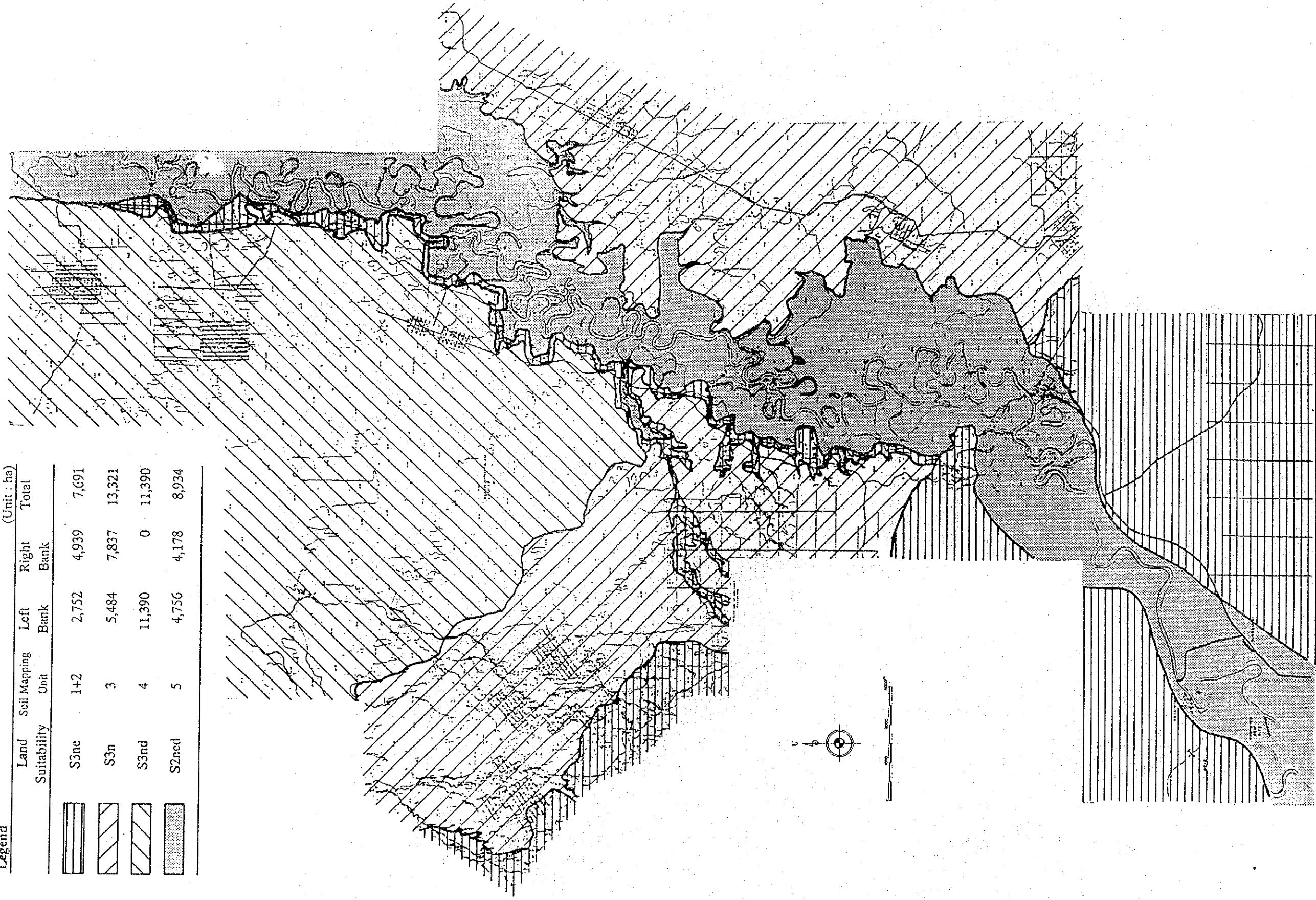










Fig. 7.1.5 Land Suitability Map for Perennial Crops



Legend

-  Primary Forest
-  Secondary Forest
-  Bush/Grass Lands
-  Along Along Lands
-  Paddy
-  Upland Crops
-  Plantation Area
-  Residential Area

DEPARTEMEN PERKERAJAAN UMUM DIREKTORAT JENDERAL PENGASIHAN DIREKTORAT BINA PROGRAM / PISUMIBIN	
PETA GARIS STUDI KELAYAKAN BERGAMA PENDEMBANGAN RUMAH USU DAERAH ALIRAN SUNGAI ROKAN PASIRPUSI RIVU	
Tanggal	1980
Skala	1:500
Daerah	KABUPATEN TANJUNGPINANG
Distrik	Distrik 10, PAKAN
Dibuat oleh	Dr. H. L. LAMBA
Diteliti oleh	No. Laporan

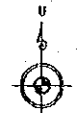
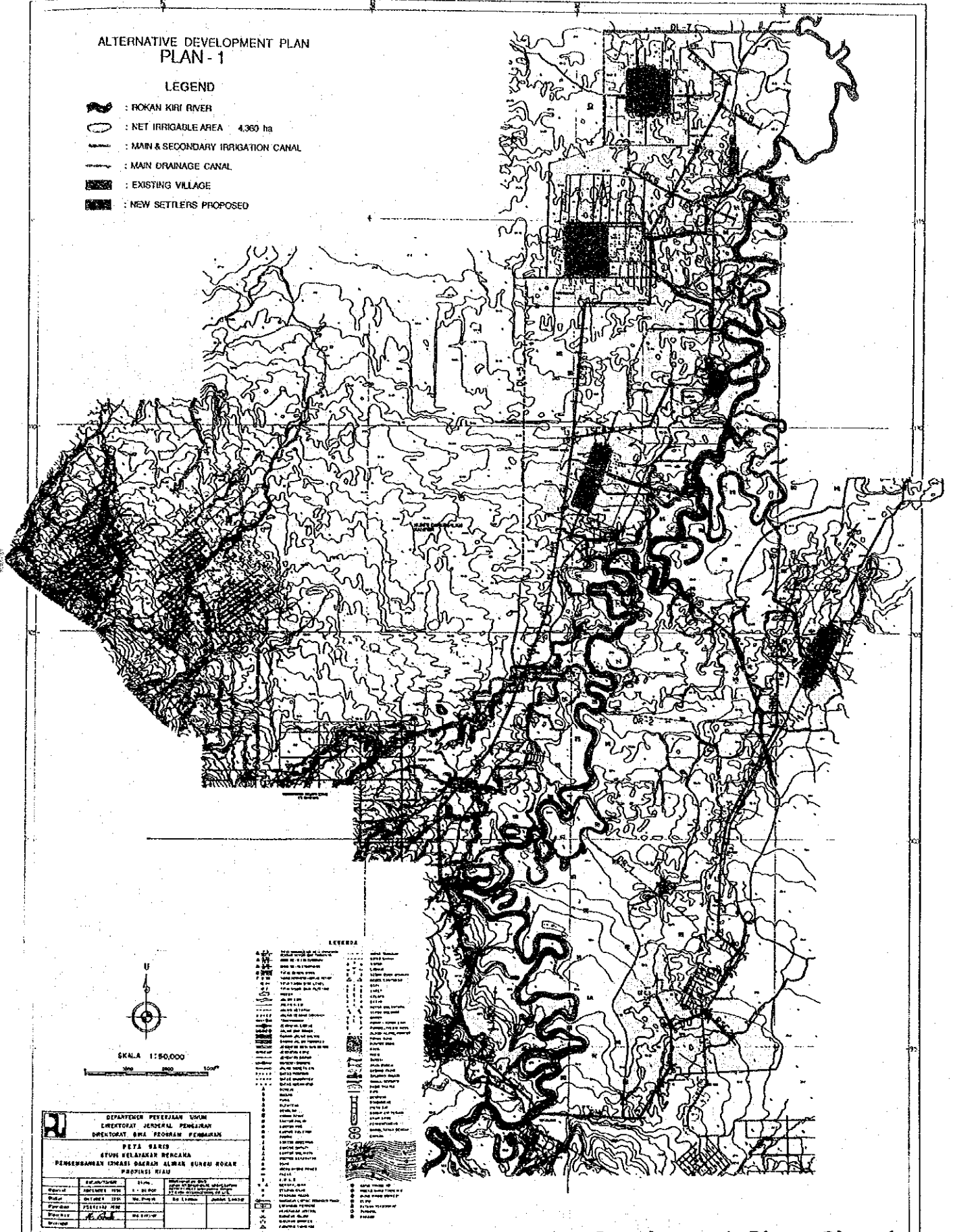
REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
 FEASIBILITY STUDY ON LOWER ROKAN KIRI
 IRRIGATION PROJECT
**PRESENT LAND USE / VEGETATION
 MAP (PROJECT AREA)**
 JAPAN INTERNATIONAL COOPERATION AGENCY
 TOKYO (JICA)

Fig. 7.1.6 Present Land Use Map/Vegetation Map

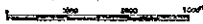
ALTERNATIVE DEVELOPMENT PLAN
PLAN - 1

LEGEND

- : ROKAN KIRI RIVER
- : NET IRRIGABLE AREA 4,360 ha
- : MAIN & SECONDARY IRRIGATION CANAL
- : MAIN DRAINAGE CANAL
- : EXISTING VILLAGE
- : NEW SETTLERS PROPOSED



SKALA 1:50,000



DEPARTEMEN PERUSAHAAN USAHAWA DIREKTORAT JENDERAL PERUSAHAAN DIREKTORAT SMA PROGRAM PEMBANGUNAN			
PETA SARIS STUWI MELAYAN BERGAMA PENYUSUNAN CEMAS BAKERY KLUWEN BUREU ROKAN PROVINSI RIJAU			
NO. PETA	SKALA	PROJEKSI	WAKTU
01/001	1:50.000	UTM	1970
NO. PETA	NO. PROJEKSI	NO. LEMBAR	JUMLAH LEMBAR
01/001	01	01	01
NO. PETA	NO. PROJEKSI	NO. LEMBAR	JUMLAH LEMBAR
01/001	01	01	01







LEGENDA

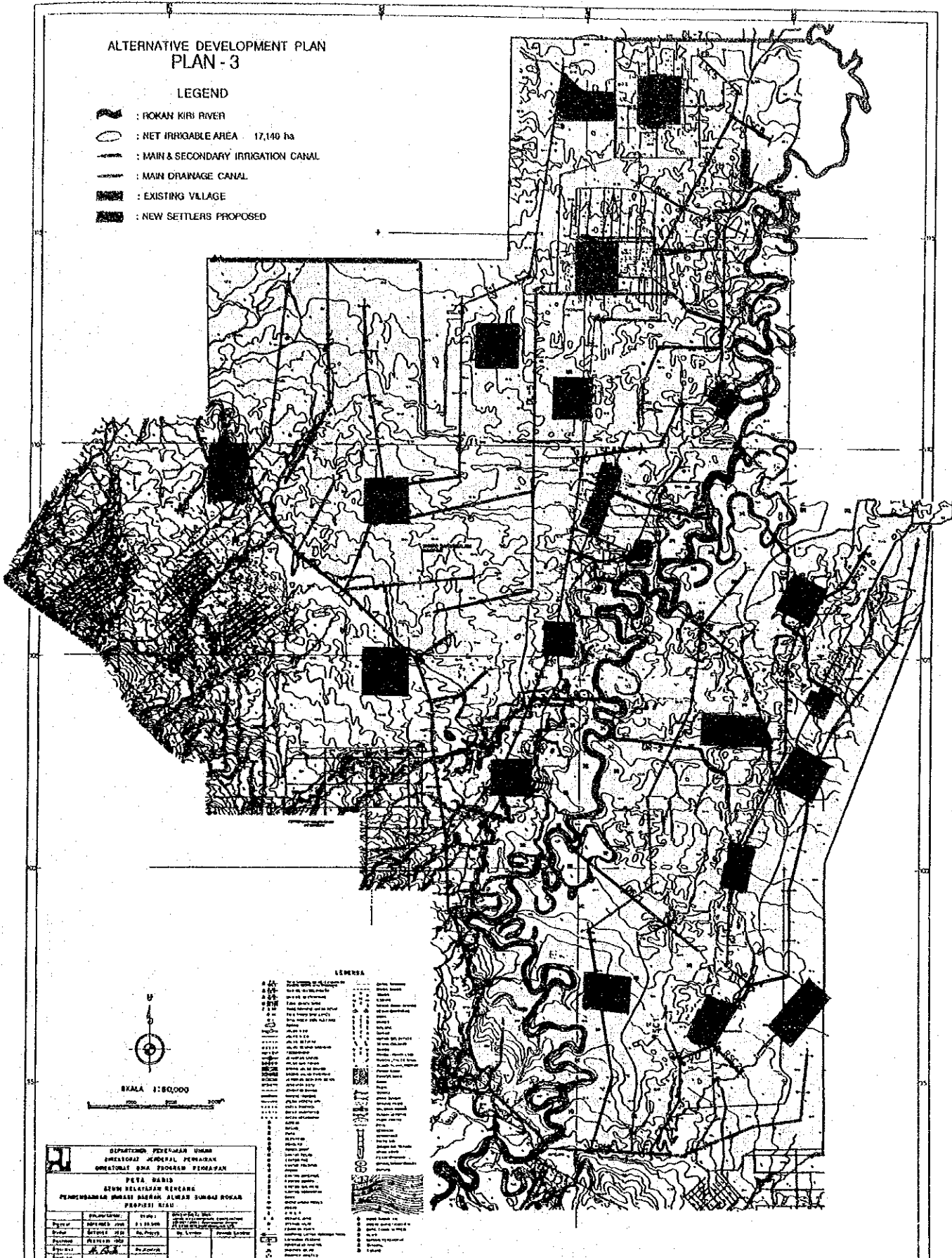
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-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-------

Fig. 7.2.1 Alternative Development Plan, Plan-1

ALTERNATIVE DEVELOPMENT PLAN
PLAN - 3

LEGEND

-  : ROKAN KIRI RIVER
-  : NET IRRIGABLE AREA 17,140 ha
-  : MAIN & SECONDARY IRRIGATION CANAL
-  : MAIN DRAINAGE CANAL
-  : EXISTING VILLAGE
-  : NEW SETTLERS PROPOSED



DIPTERIMA PERUSAHAAN UMUM
SUKSESORAT JENDERAL PEMERAN
DIREKTORAT DANA PROGRAM PIRAMIDAN

PETA DASAR
RUMAH KELAYAKAN RENCANA
PENGEMBANGAN UMUM BERSAMA ALIRAN SUNGAI ROKAN
PANGKAL BUN

Disusun oleh	DR. H. H. H. H.	Disetujui oleh	DR. H. H. H. H.
Revisi	01/01/01	Disetujui oleh	DR. H. H. H. H.
Revisi	02/02/02	Disetujui oleh	DR. H. H. H. H.
Revisi	03/03/03	Disetujui oleh	DR. H. H. H. H.
Revisi	04/04/04	Disetujui oleh	DR. H. H. H. H.

Fig. 7.2.3 Alternative Development Plan, Plan-3

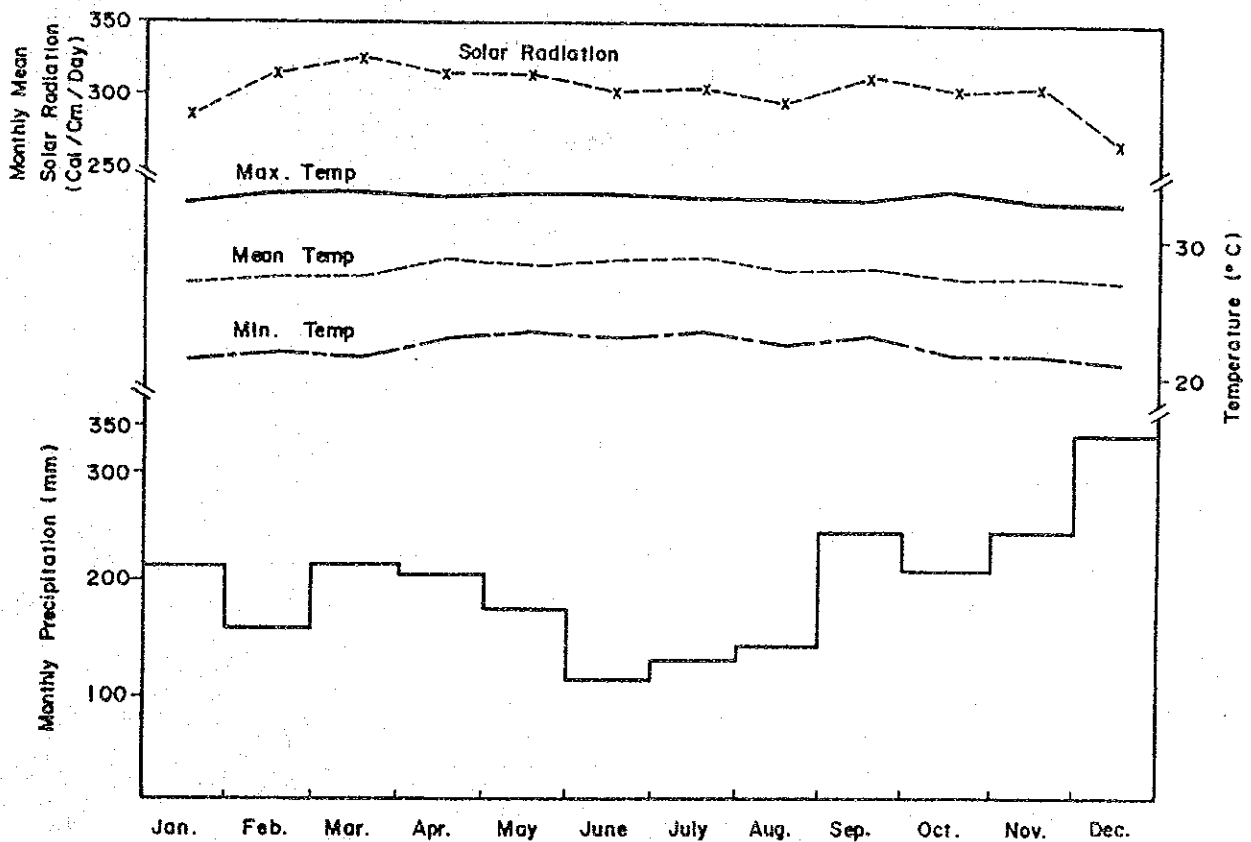
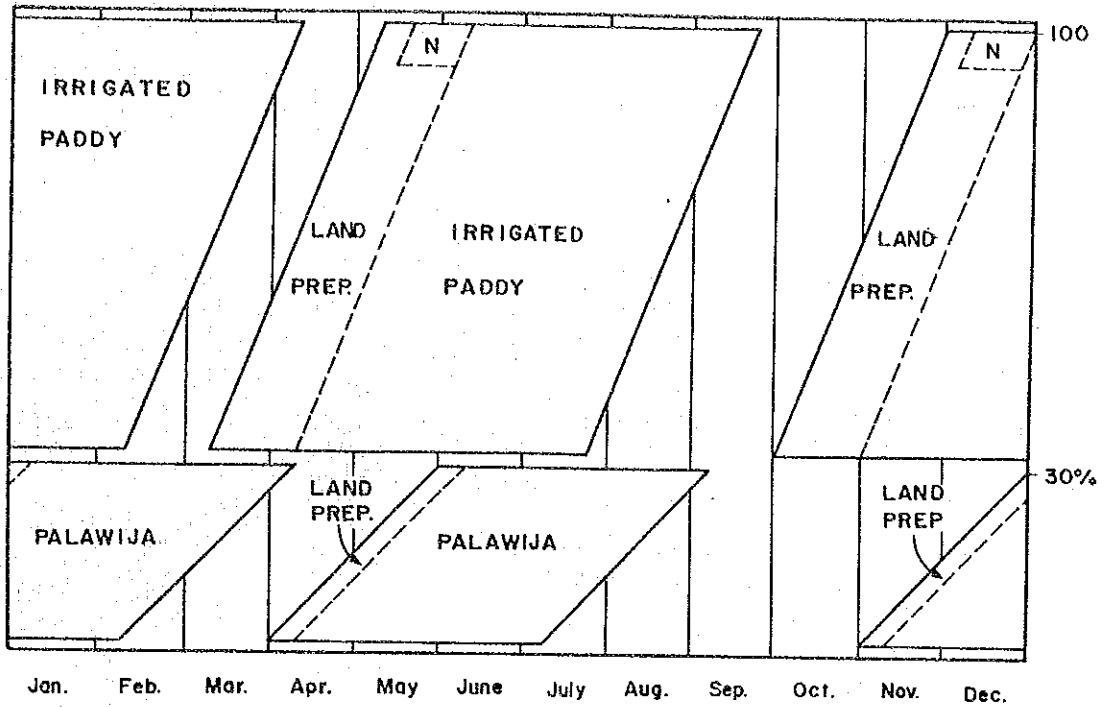
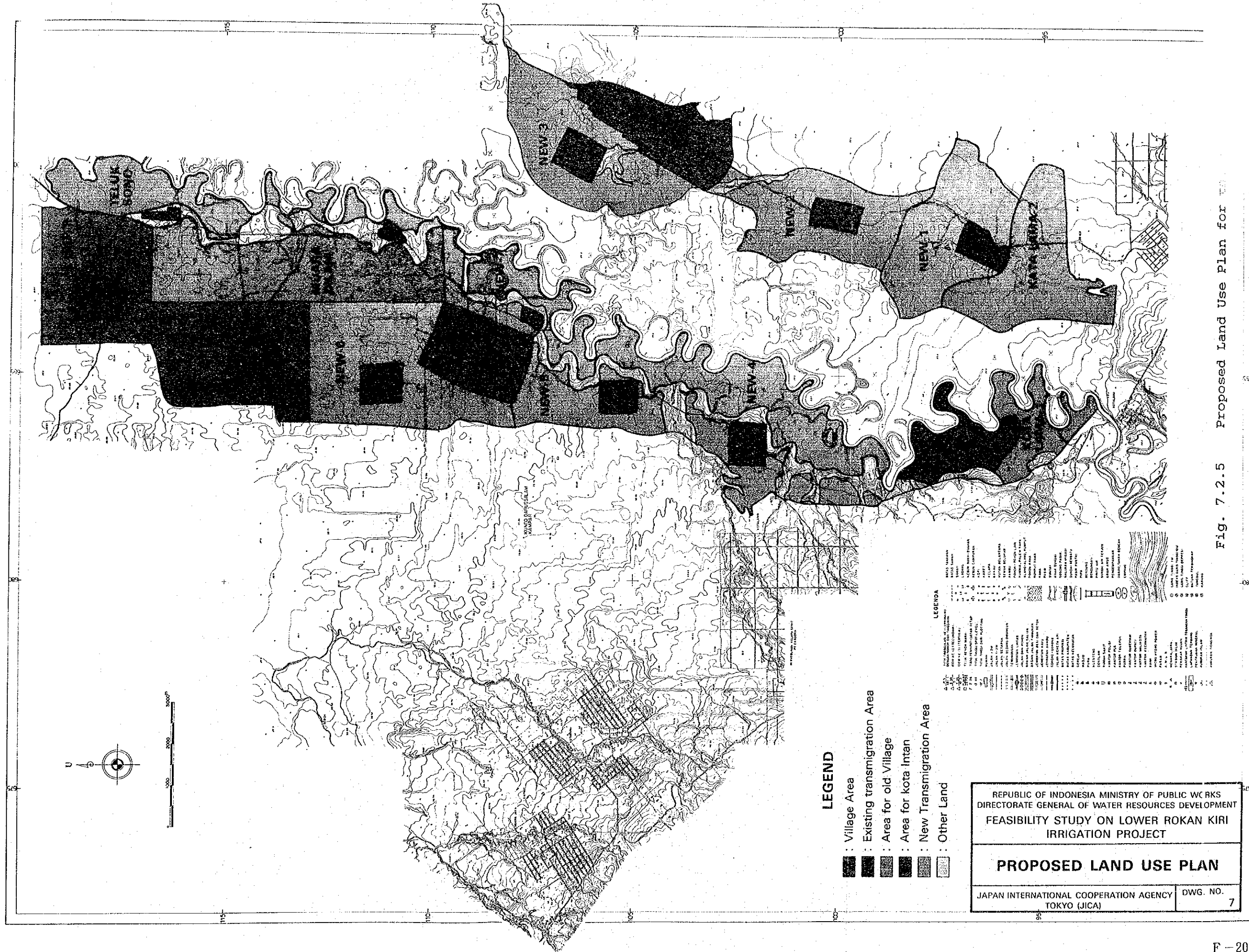


Fig. 7.2.4 Proposed Cropping Pattern in the Project Area

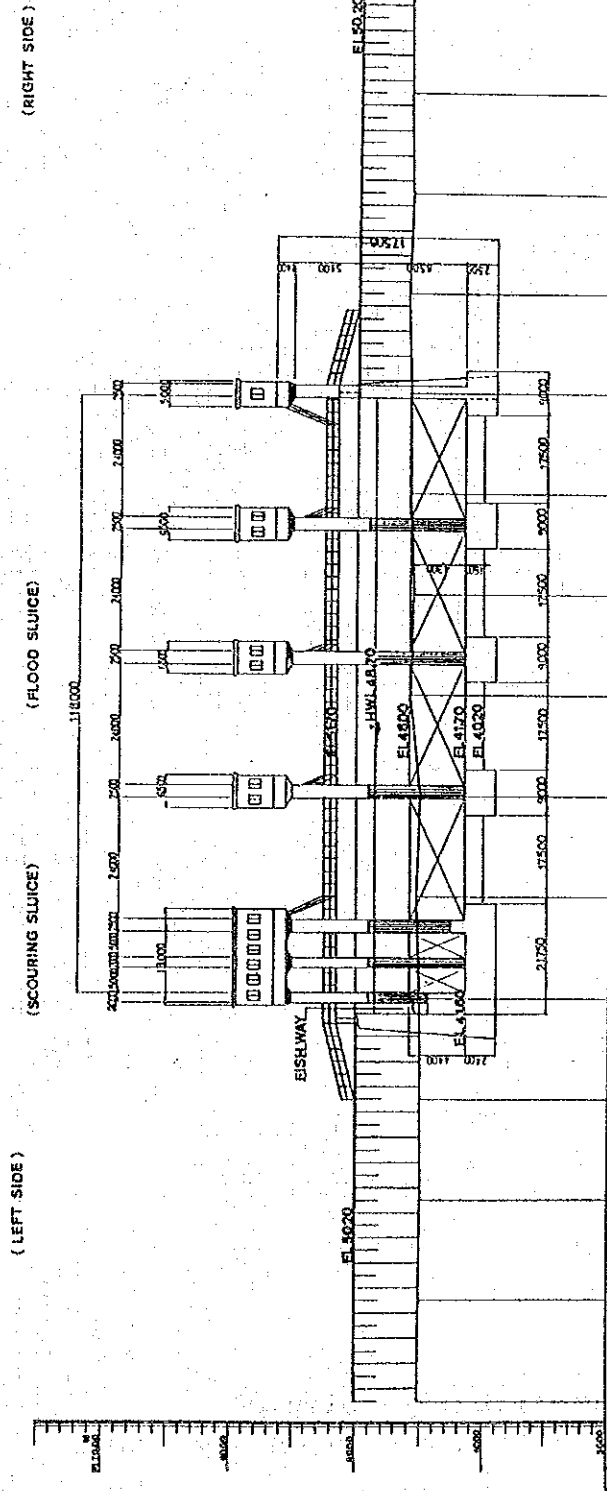


- LEGENDA**
- : Village Area
 - : Existing transmigration Area
 - : Area for old Village
 - : Area for kota Intan
 - : New Transmigration Area
 - : Other Land

REPUBLIC OF INDONESIA MINISTRY OF PUBLIC WORKS DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT FEASIBILITY STUDY ON LOWER ROKAN KIRI IRRIGATION PROJECT	
PROPOSED LAND USE PLAN	
JAPAN INTERNATIONAL COOPERATION AGENCY TOKYO (JICA)	DWG. NO. 7

Fig. 7.2.5 Proposed Land Use Plan for

PROFILE OF WEIR AXIS



STATION	EXISTING DISTANCE	EXISTING WEIGHT	DESIGN DISTANCE	DESIGN WEIGHT
1+7	145.00	88.18	145.00	88.18
1+8	300.00	83.18	300.00	83.18
1+9	100.00	43.18	100.00	43.18
1+10	200.00	43.20	200.00	43.20
1+11	400.00	43.10	400.00	43.10
1+12	400.00	43.30	400.00	43.30
1+13	0.00	0.00	0.00	0.00
1+14	100.00	43.80	100.00	43.80
1+15	200.00	43.90	200.00	43.90
1+16	400.00	43.90	400.00	43.90
1+17	200.00	43.10	200.00	43.10
1+18	1000.00	43.00	1000.00	43.00
1+19	1000.00	43.00	1000.00	43.00
1+20	1000.00	43.00	1000.00	43.00
1+21	1000.00	43.00	1000.00	43.00
1+22	1000.00	43.00	1000.00	43.00
1+23	1000.00	43.00	1000.00	43.00
1+24	1000.00	43.00	1000.00	43.00
1+25	1000.00	43.00	1000.00	43.00
1+26	1000.00	43.00	1000.00	43.00
1+27	1000.00	43.00	1000.00	43.00
1+28	1000.00	43.00	1000.00	43.00
1+29	1000.00	43.00	1000.00	43.00
1+30	1000.00	43.00	1000.00	43.00
1+31	1000.00	43.00	1000.00	43.00
1+32	1000.00	43.00	1000.00	43.00
1+33	1000.00	43.00	1000.00	43.00
1+34	1000.00	43.00	1000.00	43.00
1+35	1000.00	43.00	1000.00	43.00
1+36	1000.00	43.00	1000.00	43.00
1+37	1000.00	43.00	1000.00	43.00
1+38	1000.00	43.00	1000.00	43.00
1+39	1000.00	43.00	1000.00	43.00
1+40	1000.00	43.00	1000.00	43.00
1+41	1000.00	43.00	1000.00	43.00
1+42	1000.00	43.00	1000.00	43.00
1+43	1000.00	43.00	1000.00	43.00
1+44	1000.00	43.00	1000.00	43.00
1+45	1000.00	43.00	1000.00	43.00
1+46	1000.00	43.00	1000.00	43.00
1+47	1000.00	43.00	1000.00	43.00
1+48	1000.00	43.00	1000.00	43.00
1+49	1000.00	43.00	1000.00	43.00
1+50	1000.00	43.00	1000.00	43.00

SCALE
 HORIZONTAL 1:500
 VERTICAL 1:100

Fig. 7.2.6 Profile of Weir

REPUBLIC OF INDONESIA - MINISTRY OF PUBLIC WORKS
 DIRECTORATE GENERAL OF WATER RESOURCES DEVELOPMENT
 FEASIBILITY STUDY ON
 LOWER POKAN KIRI IRRIGATION PROJECT
 PROFILE OF WEIR AXIS
 JAPAN INTERNATIONAL COOPERATION AGENCY (DWE. No. 14)
 TOKYO (JICA)

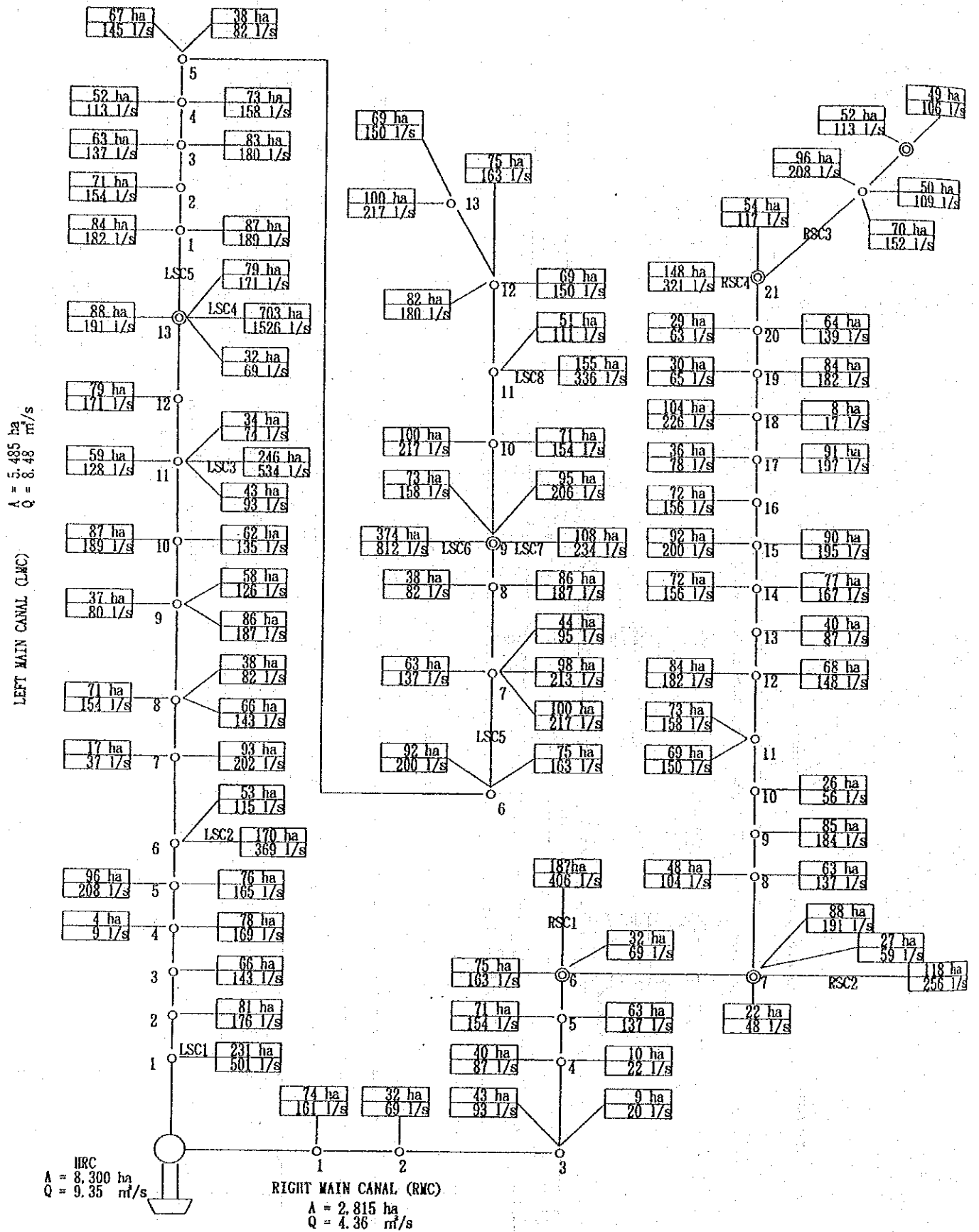


Fig. 7.2.7 Distribution Diagram for Main and Secondary System

WORK	ITEM(Quantity)	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	8th year	9th year
		JFMKJIASONDJFMKJIASONDJFMKJIASONDJFMKJIASONDJFMKJIASONDJFMKJIASONDJFMKJIASONDJFMKJIASONDJFMKJIASONDJFMKJIASOND								
I. LOAN AGREEMENT										
1. Loan agreement										
2. Selection of consultant										
3. Detailed Design										
4. Construction supervision										
II. PREPARATORY WORK										
1. Tendering										
2. Office & quarters										
3. Land acquisition										
4. Connecting road										
III. CONSTRUCTION										
1. Work Division-I	1. Access road (2.5 Km) 2. Weir (H=4.3m, W=106m)									
2. Work Division-II	1. Head Reach C (13.0 Km)									
3. Work Division-III (Left bank-1)	1. Main canal (16.1 Km) 2. Secondary C (4.9 Km) 3. Tertiary S (2.130 ha)									
4. Work Division-IV (Left bank-2)	1. Secondary C (19.4 Km) 2. Tertiary S (3.355 ha)									
5. Work Division-V (Right bank)	1. Main canal (19.1 Km) 2. Secondary C (5.2 Km) 3. Tertiary S (2.815 ha)									
6. Work Division-VI	1. Drainage C (56.2 Km)									
IV. PILOT FARM										

Fig. 7.3.1 Implementation Schedule

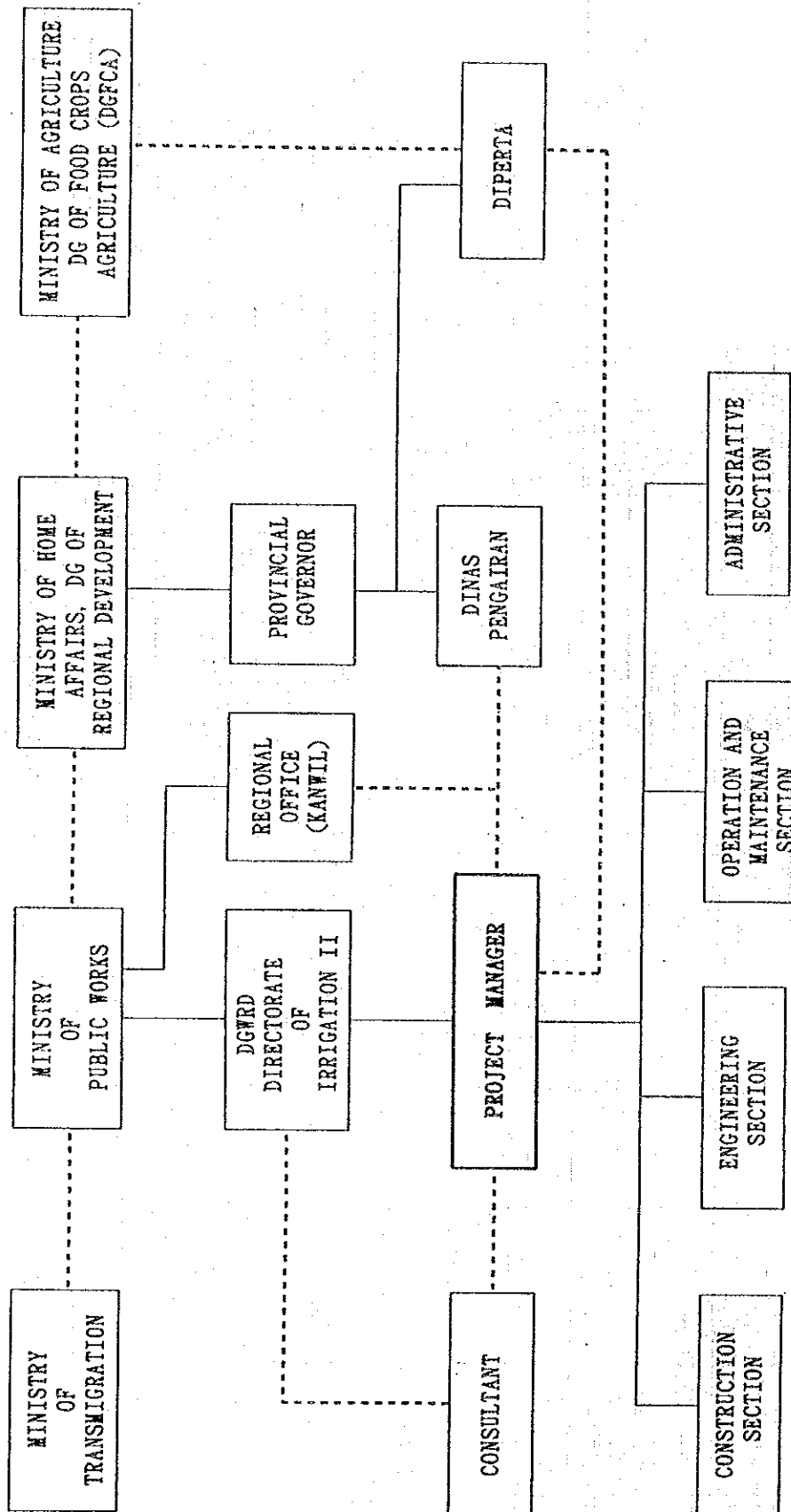


Fig. 7.3.2 Proposed Organization of Project executing Office

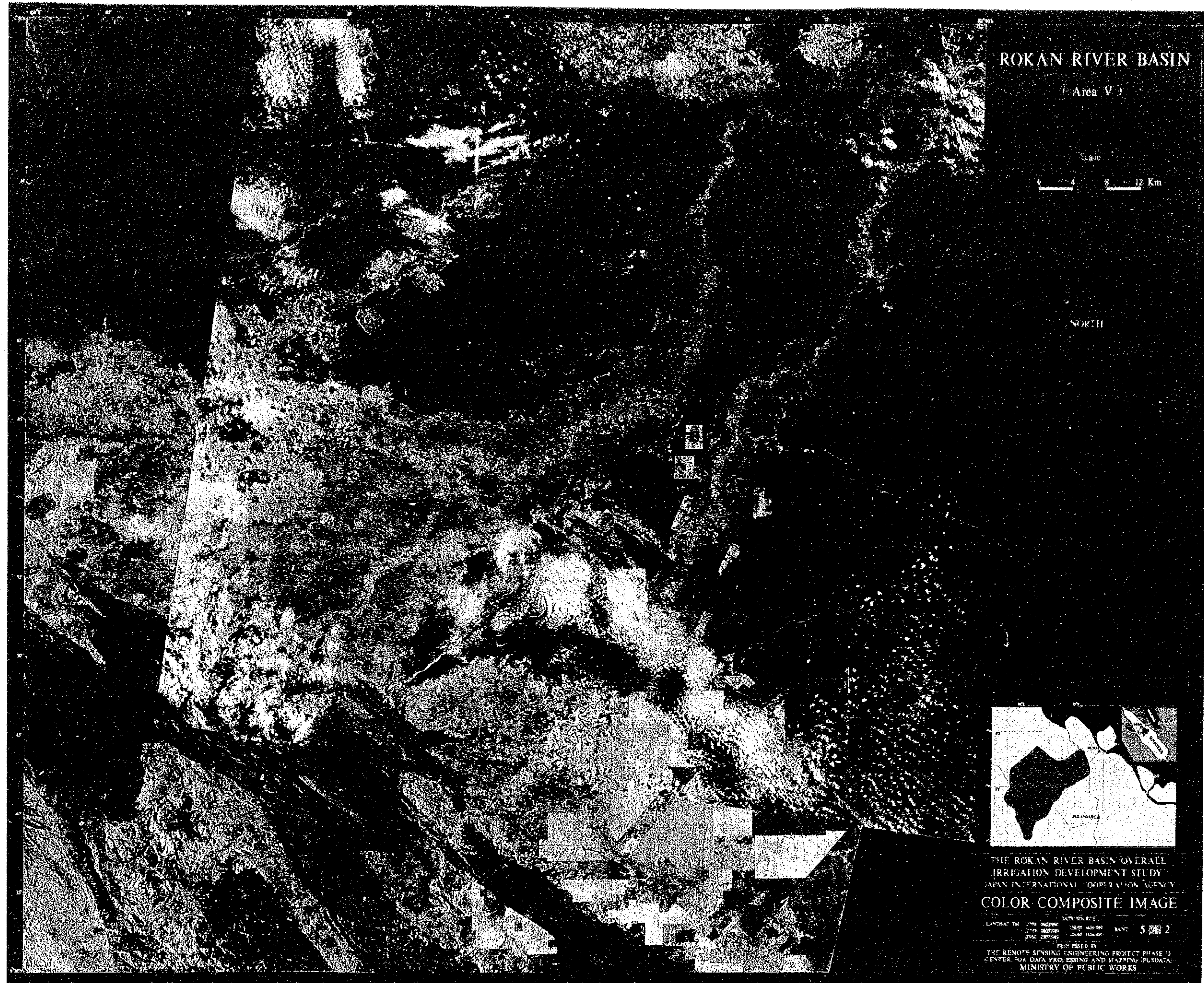


Photo. 1 Color Composite Image by Remote Sensing (1989/90)

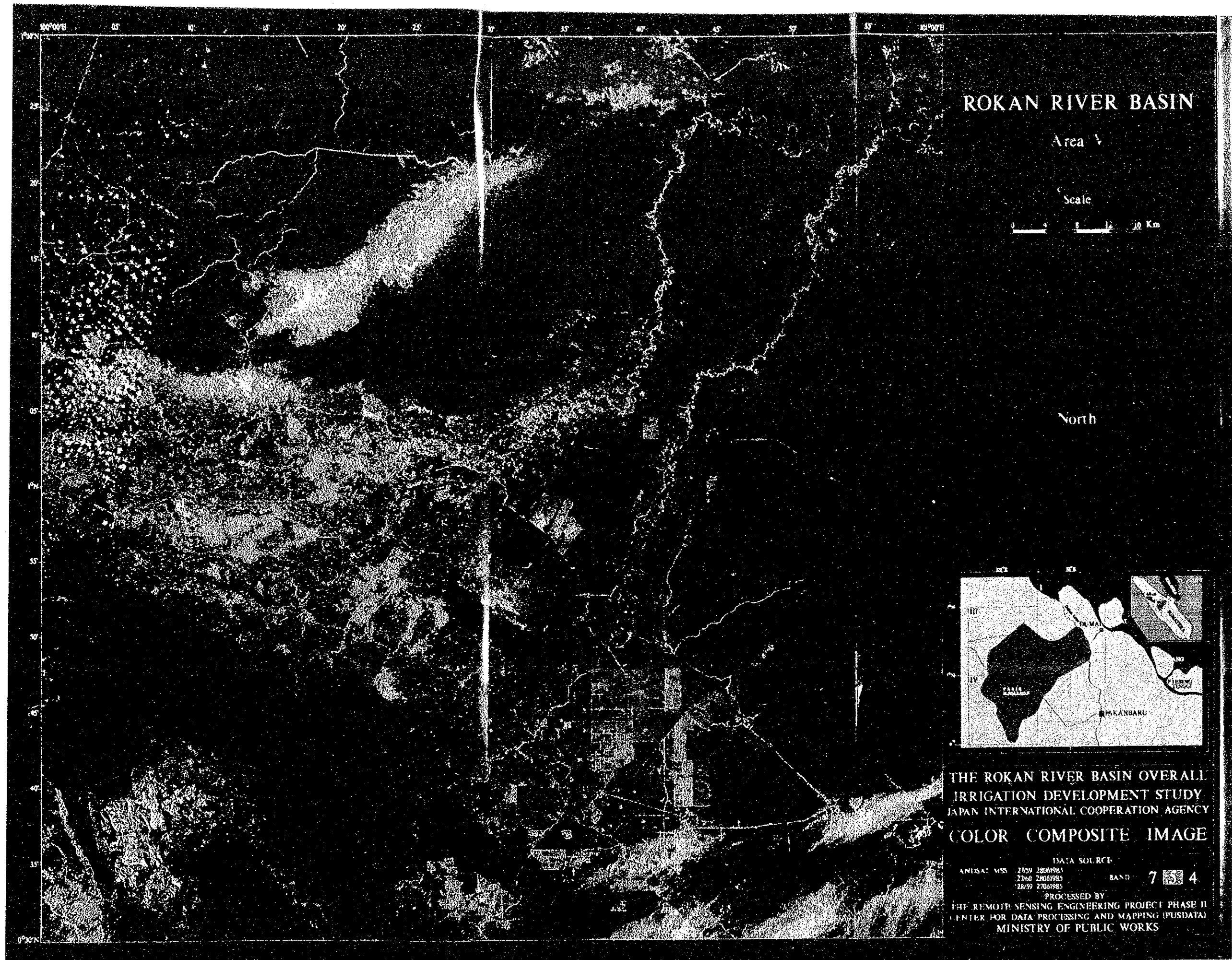


Photo. 2 Color Composite Image by Remote Sensing (1985)