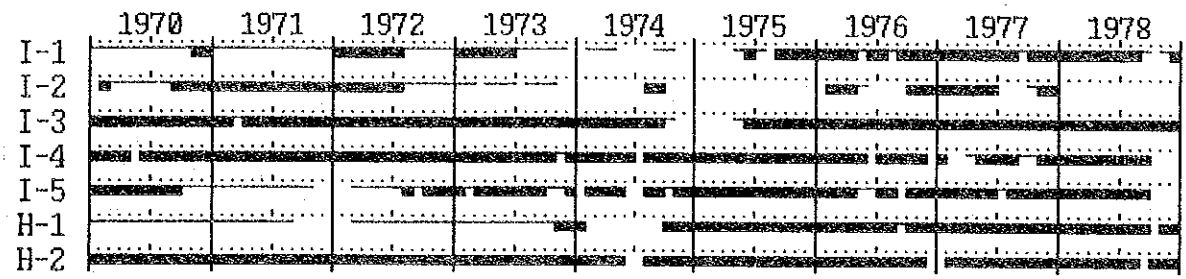
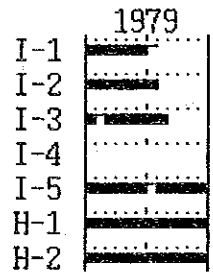
DAILY AVERAGE DISCHARGE

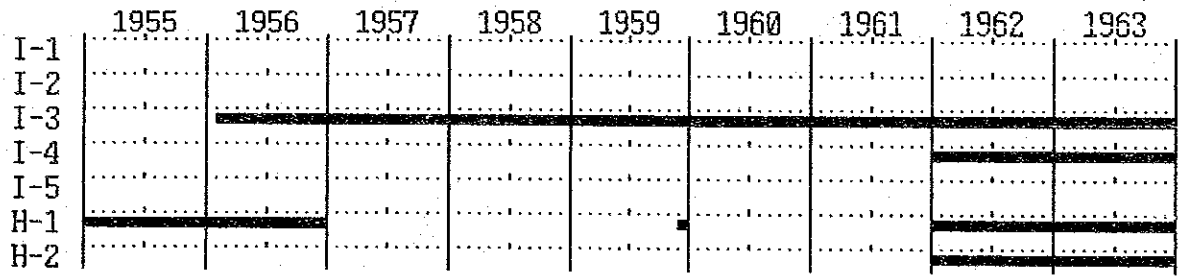


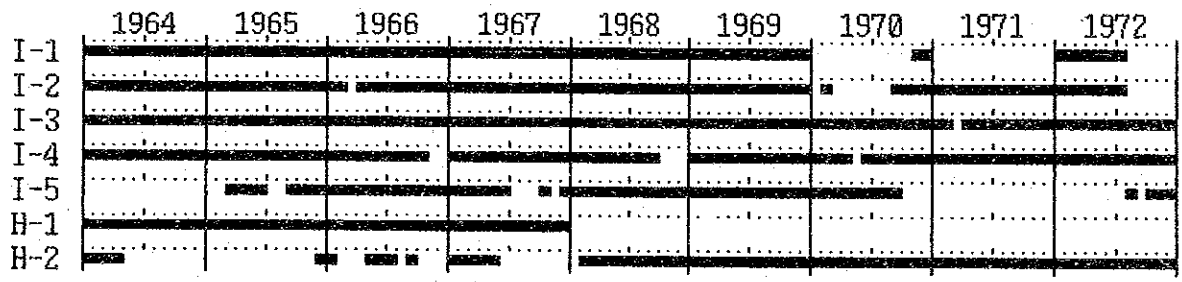


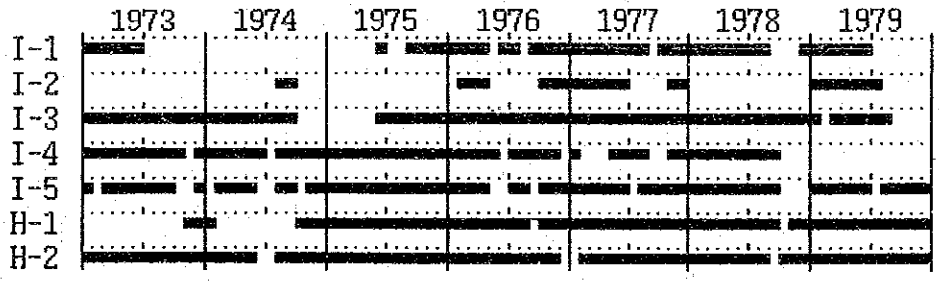
Stations

I-1 : Camugao, Ilog River (1,959km2)
I-2 : San Juan, Ilog River (1,947km2)
I-3 : Pandan, Orong, Ilog River (1,453km2)
I-3 : Dahile, Ilog River (1,390km2)
I-5 : Inapoy, Ilog River (1,245km2)
H-1 : Pangsud, Hilabangan River (431km2)
H-2 : Tagbac, Hilabangan River (392km2)

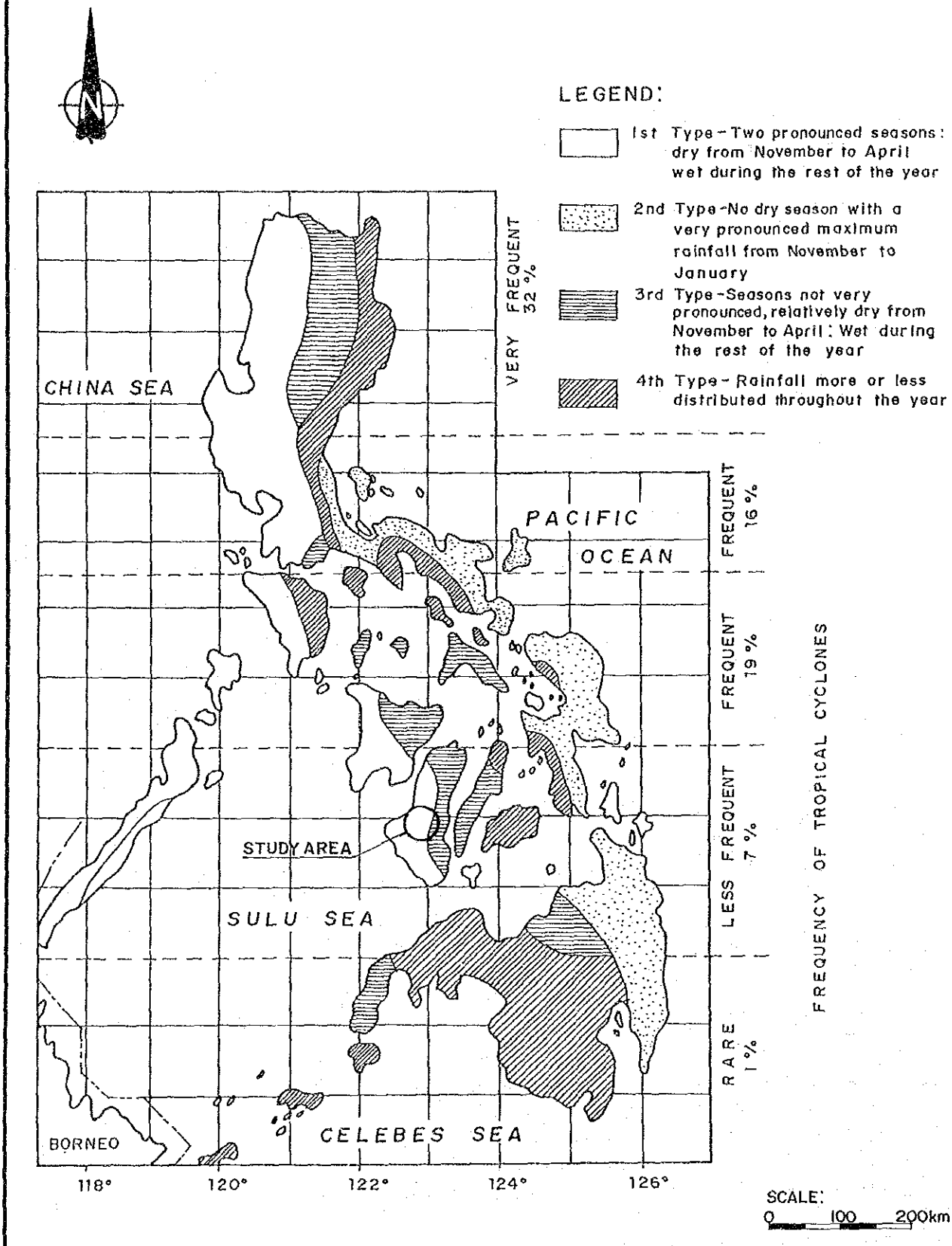
MONTHLY AVERAGE DISCHARGE







THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.2-4 AVAILABLE DATA PERIOD CHART OF RIVER DISCHARGE



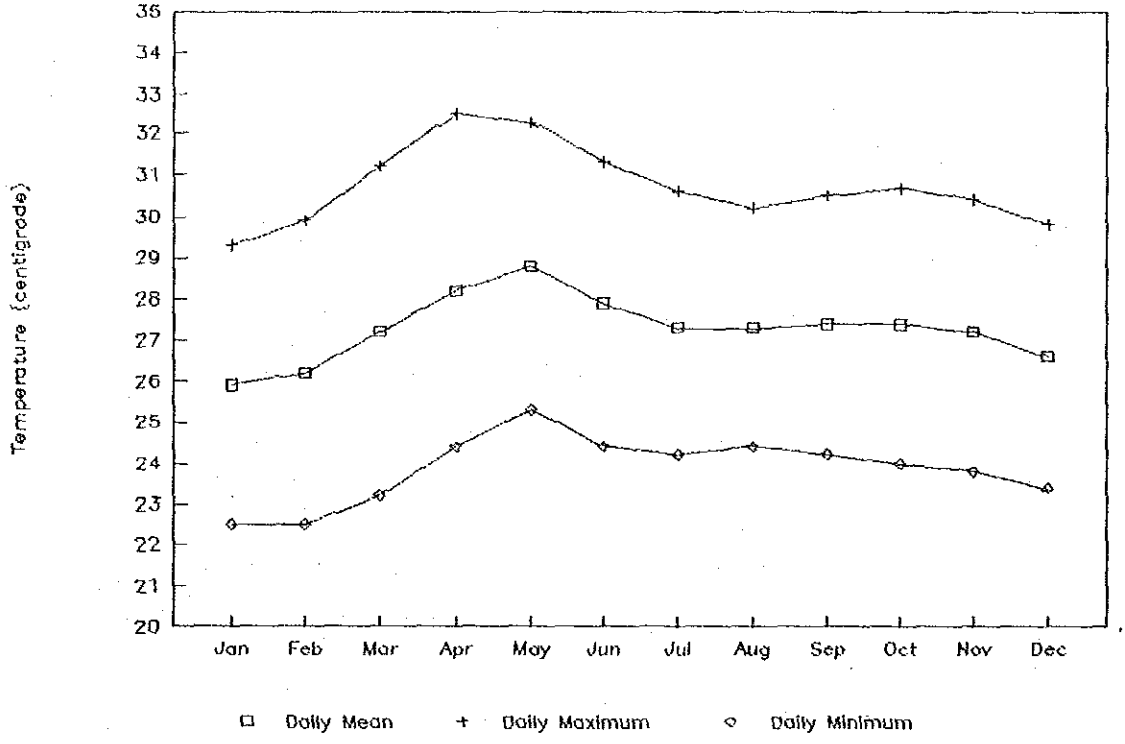
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

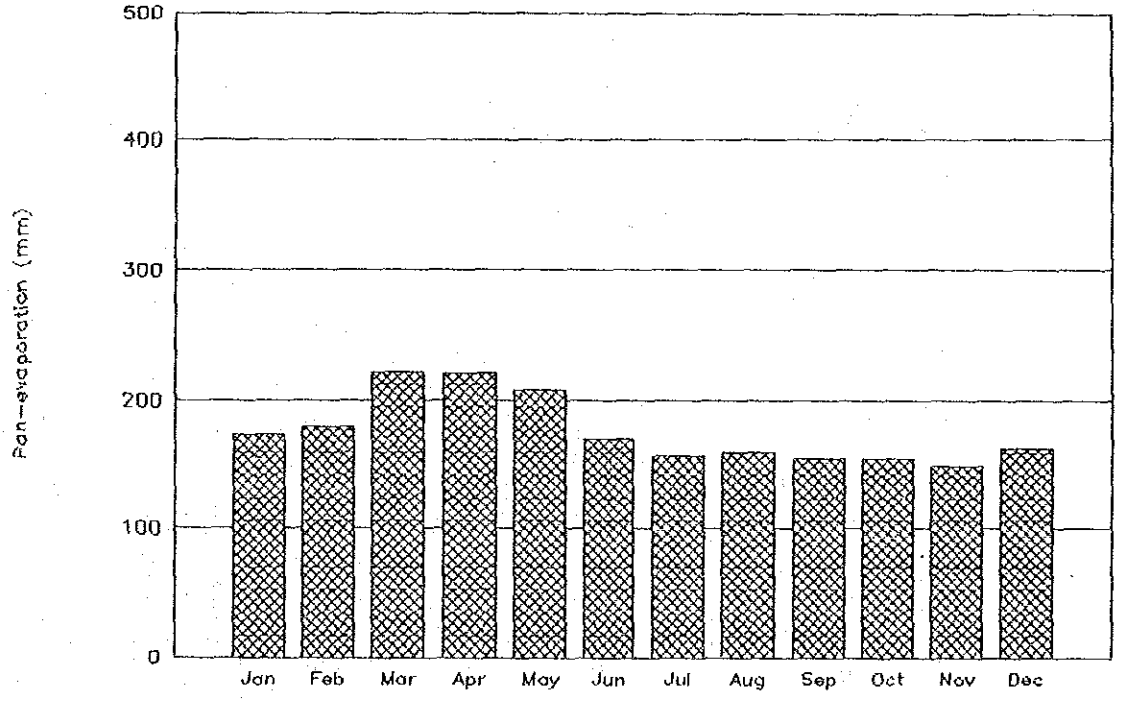
Fig. 2.2-5 MODIFIED CORONA'S CLIMATE CLASSIFICATION

SOURCE : ILOILO CITY (PAGASA)

Daily Average Temperature



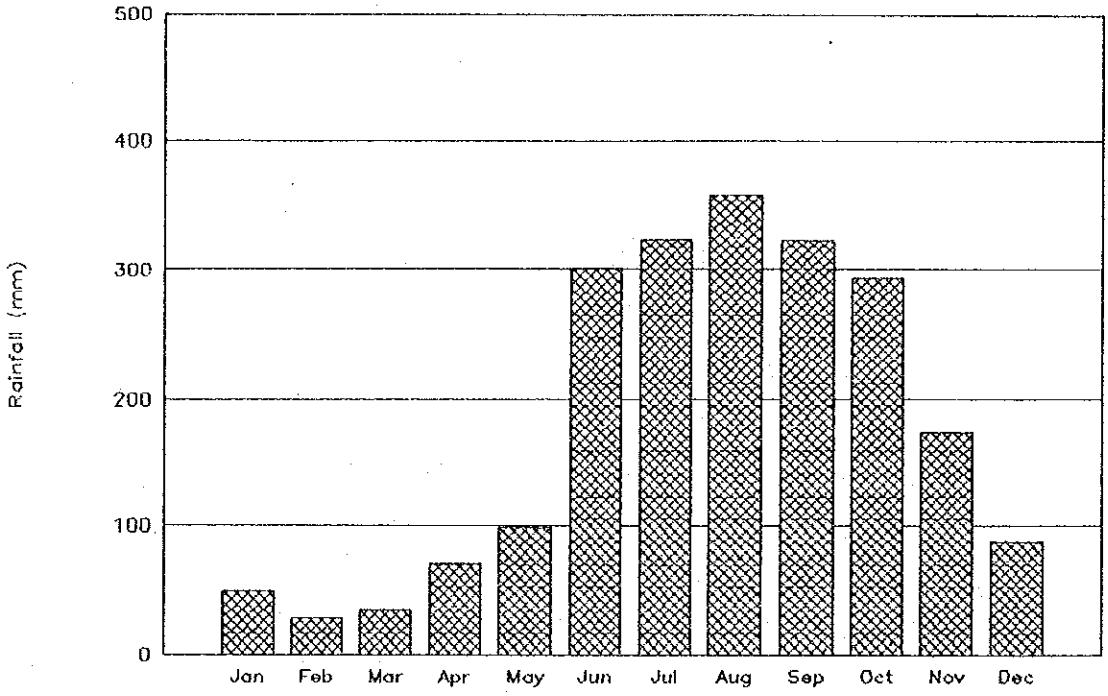
Monthly Pan-evaporation



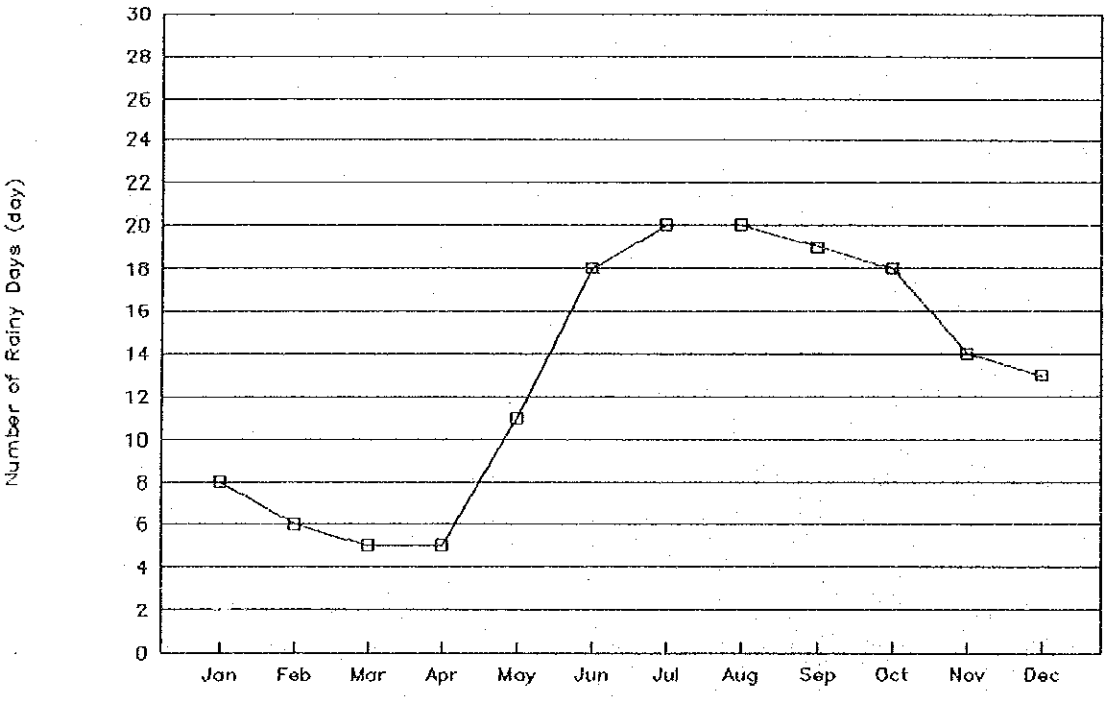
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.2-6 (1/2) MONTHLY VARIATION OF METEOROLOGICAL DATA AT ILOILO CITY

SOURCE : ILOILO CITY (PAGASA)

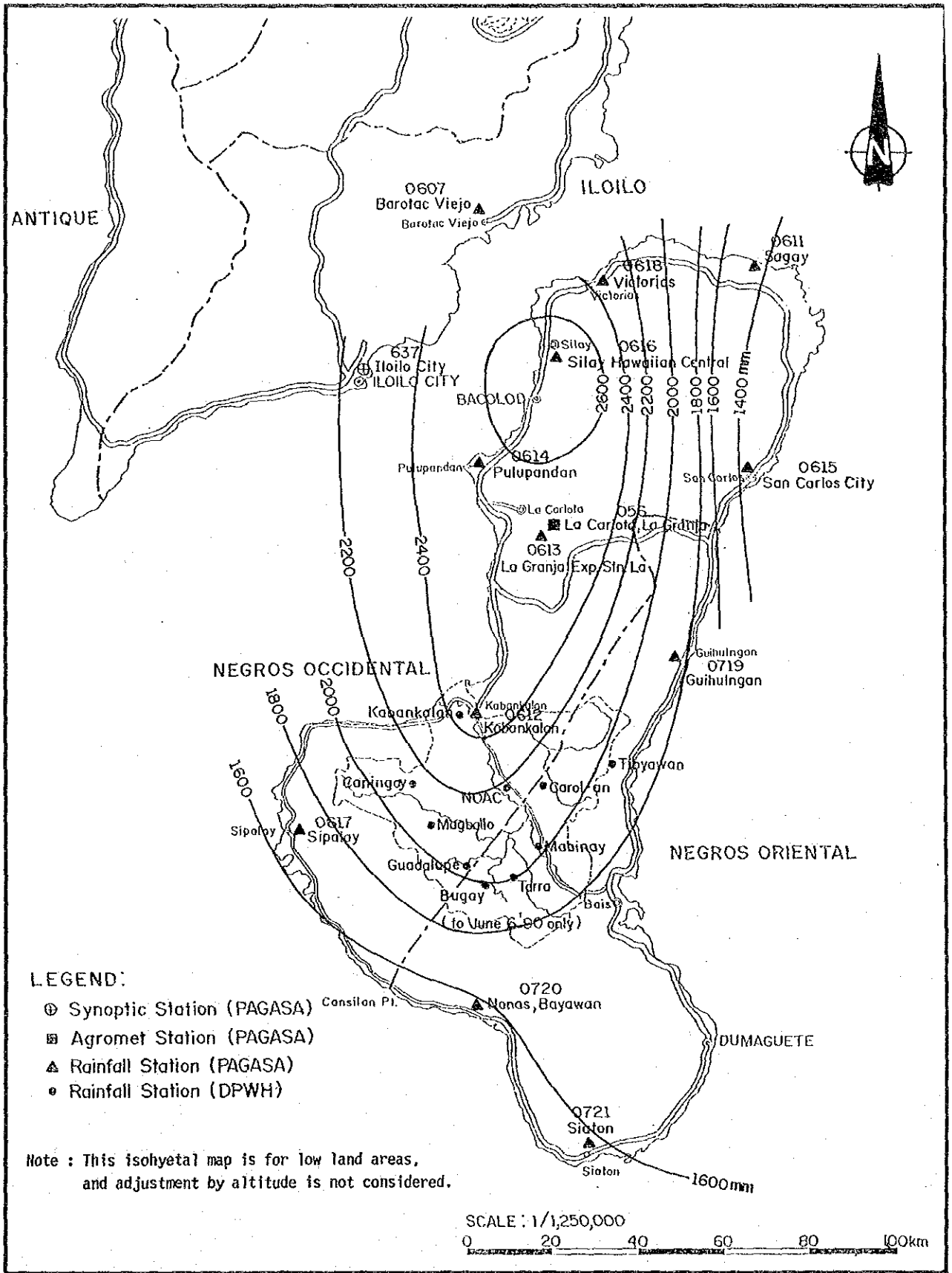
Monthly Rainfall



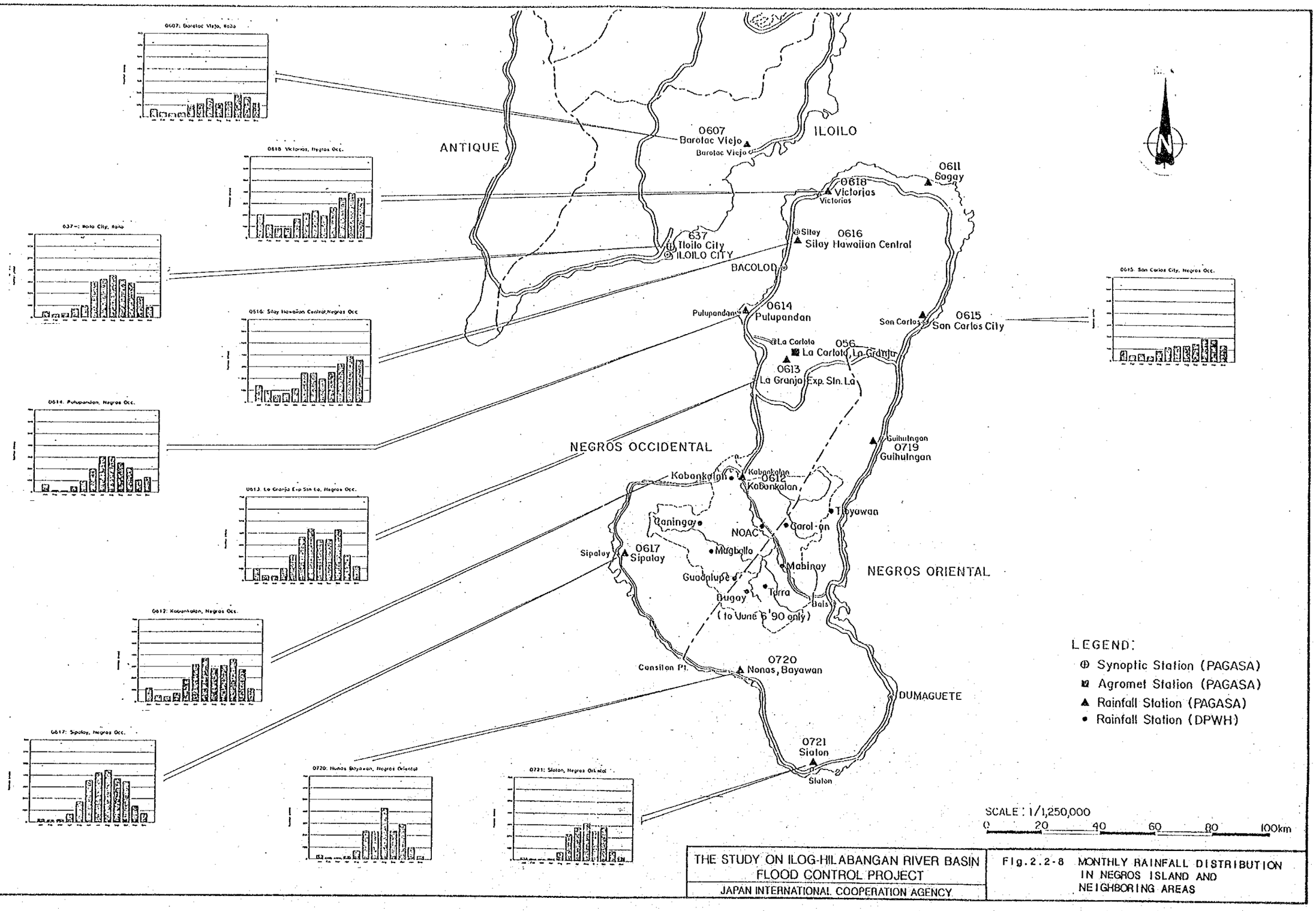
Monthly Number of Rainy Days



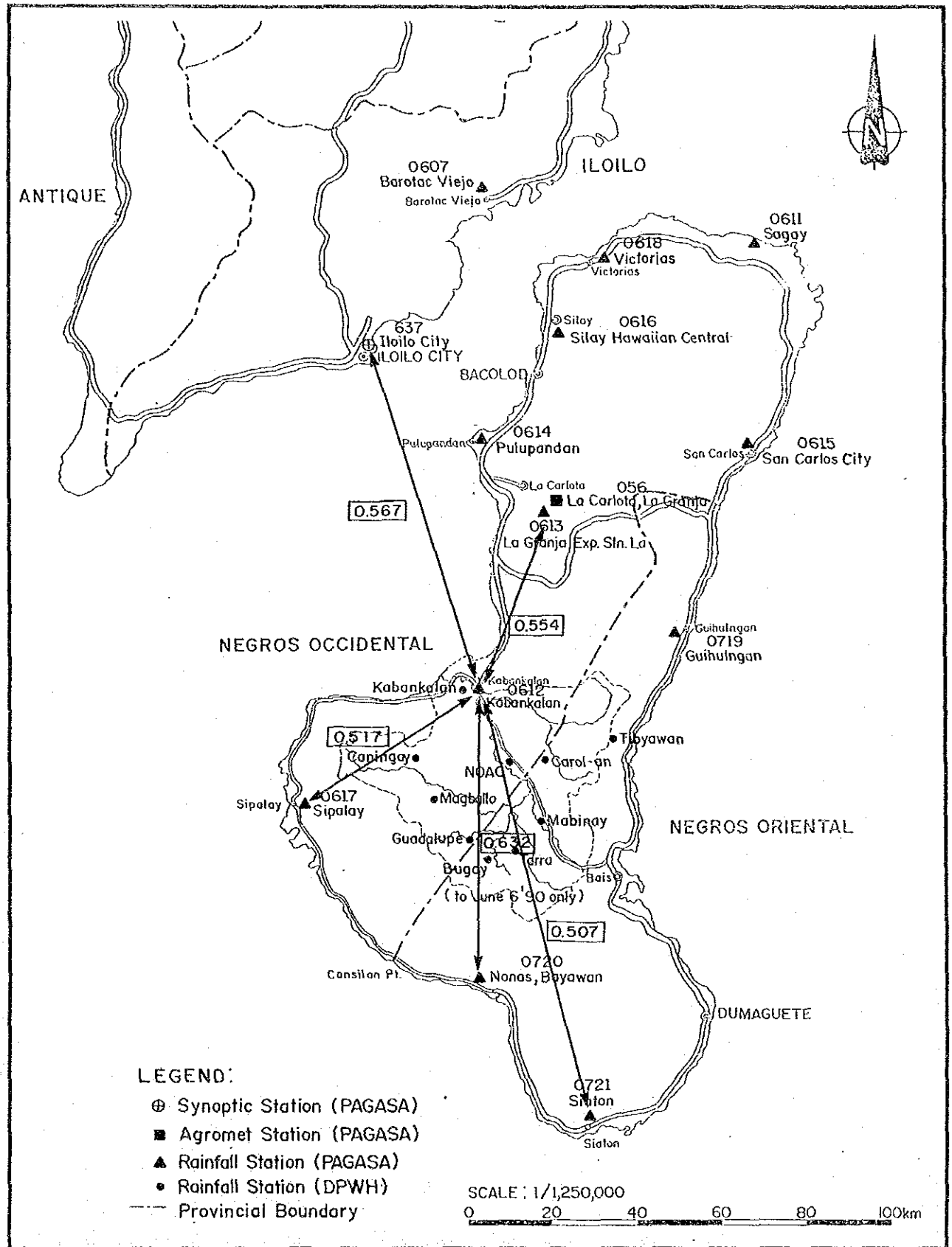
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.2-6 MONTHLY VARIATION OF (2/2) METEOROLOGICAL DATA AT ILOILO CITY



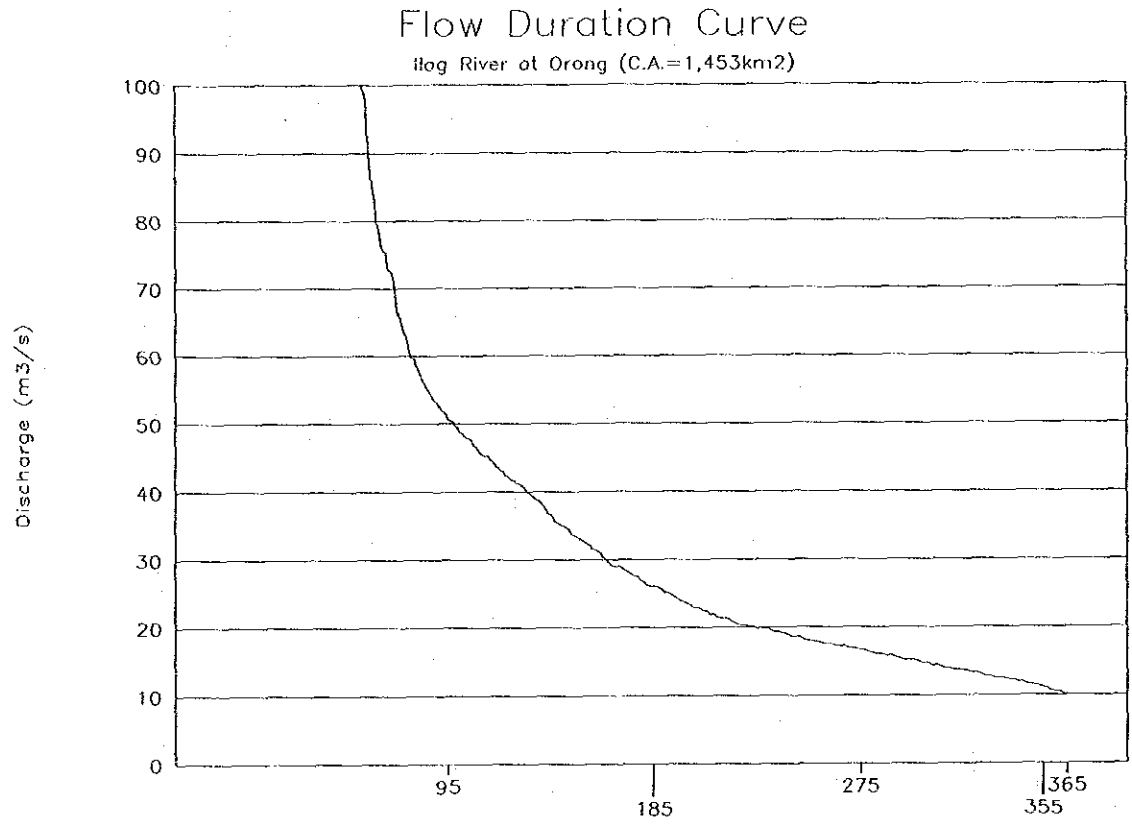
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.2-7 ISOHYETAL MAP OF AVERAGE ANNUAL RAINFALL FOR 1981-84



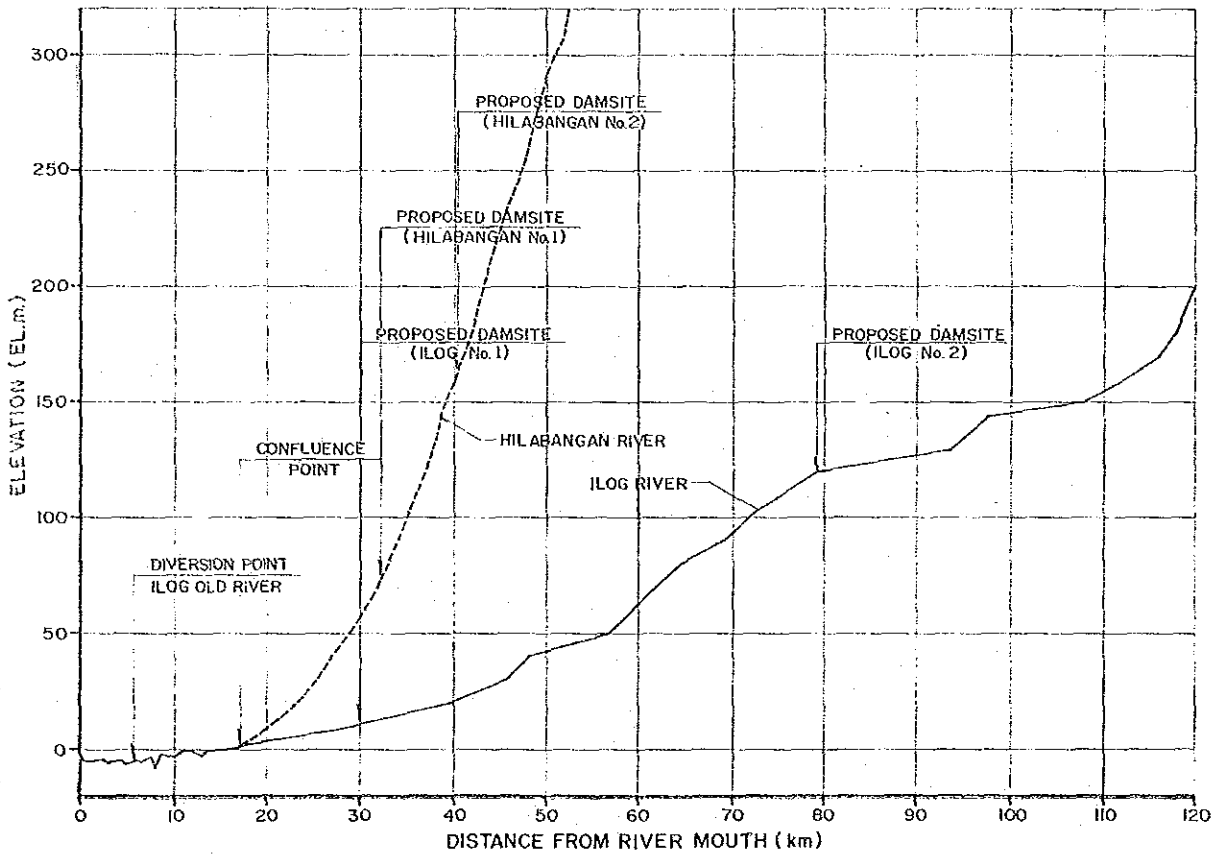
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.2-8 MONTHLY RAINFALL DISTRIBUTION IN NEGROS ISLAND AND NEIGHBORING AREAS



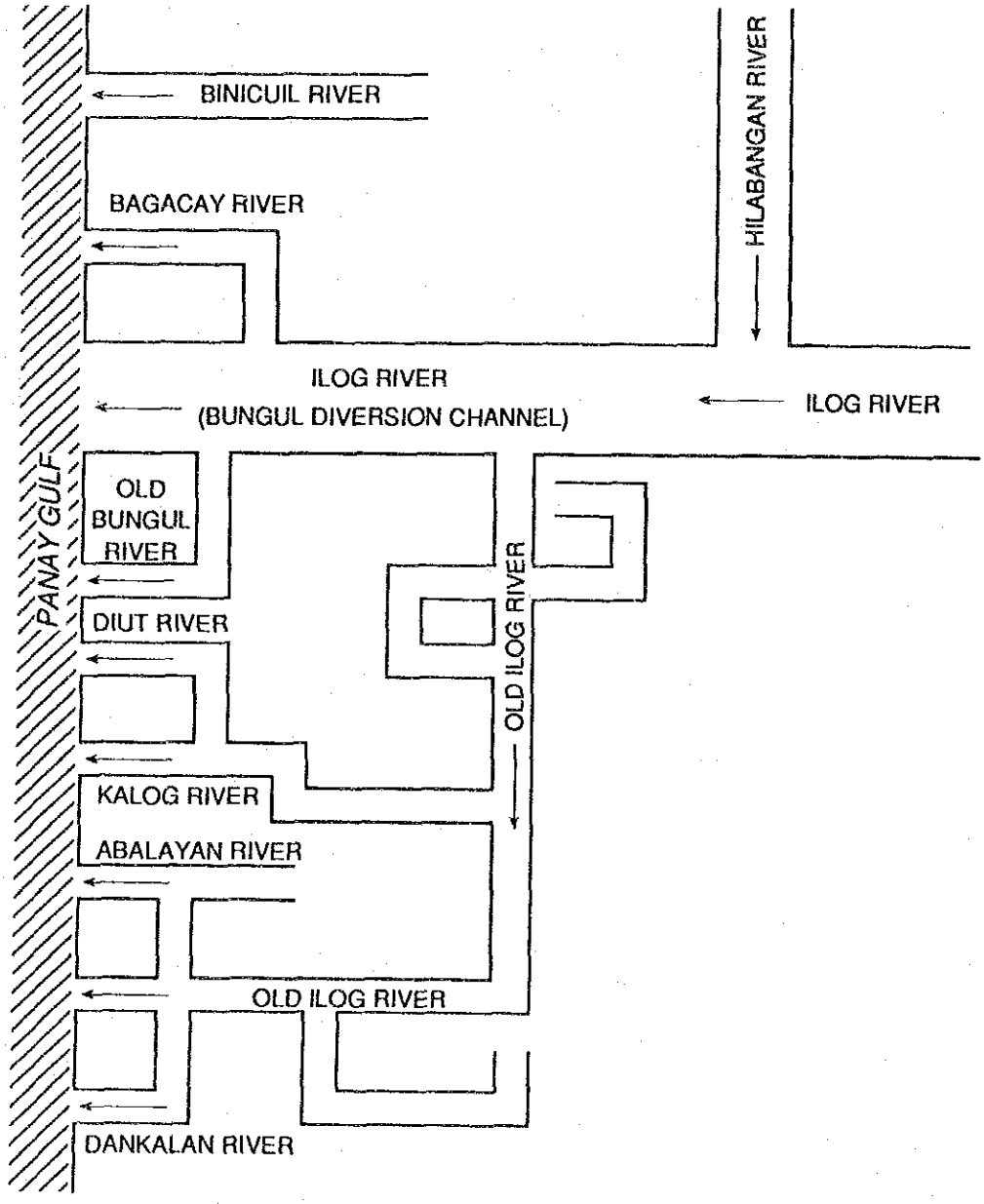
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.2-9 MONTHLY RAINFALL CORRELATION COEFFICIENT BETWEEN KABANKALAN AND OTHER STATIONS



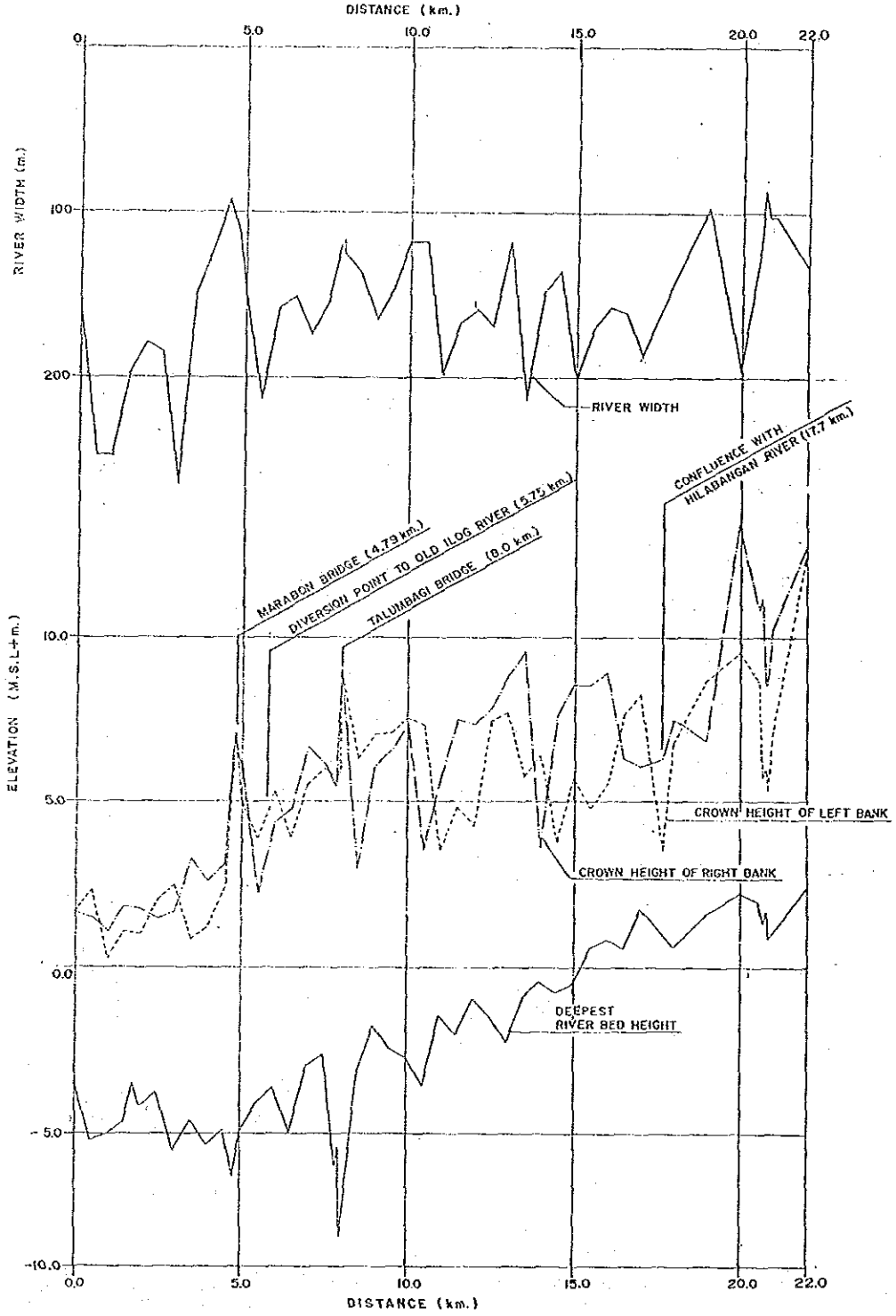
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.2-10 FLOW DURATION OF ILOG RIVER AT PANDAN, ORONG



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.3-1 LONGITUDINAL PLOFILE OF ILOG RIVER AND HILABANGAN RIVER

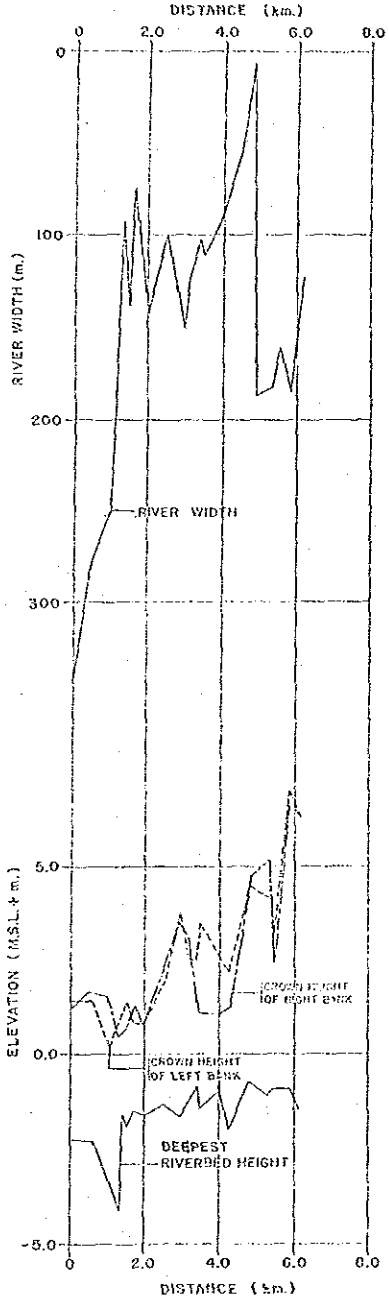


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.3-2 RIVER SYSTEM IN LOWER REACHES

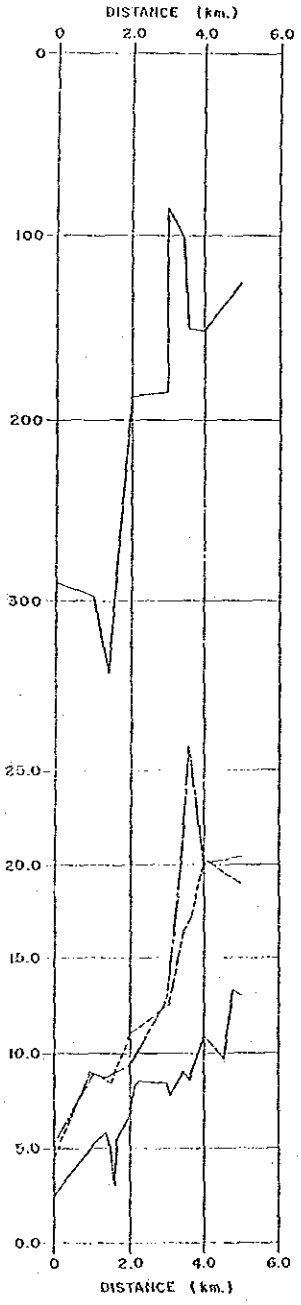


ILOG RIVER

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.3-3 FEATURES OF ILOG RIVER, (1/5) TRIBUTARY AND BRANCH RIVER

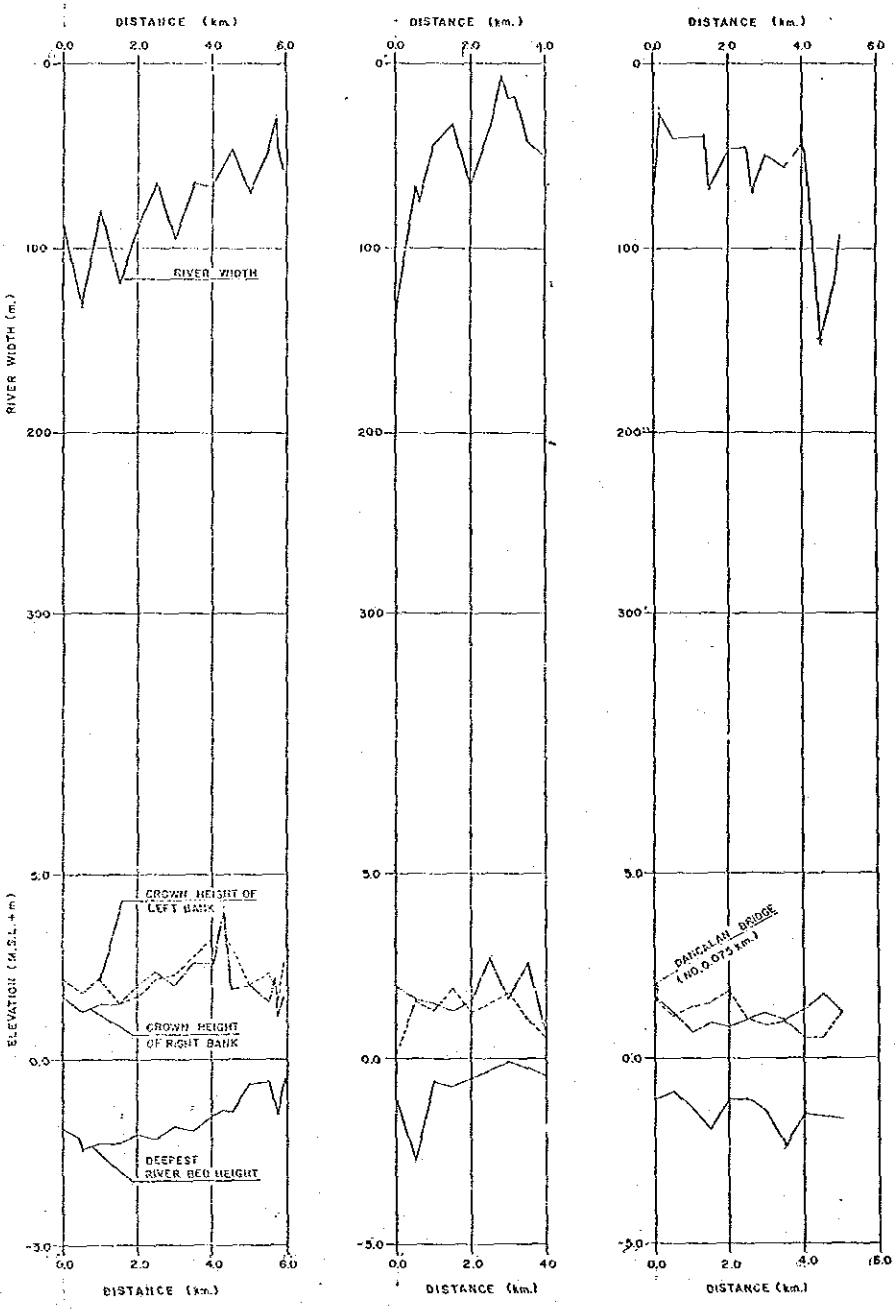


OLD ILOG RIVER

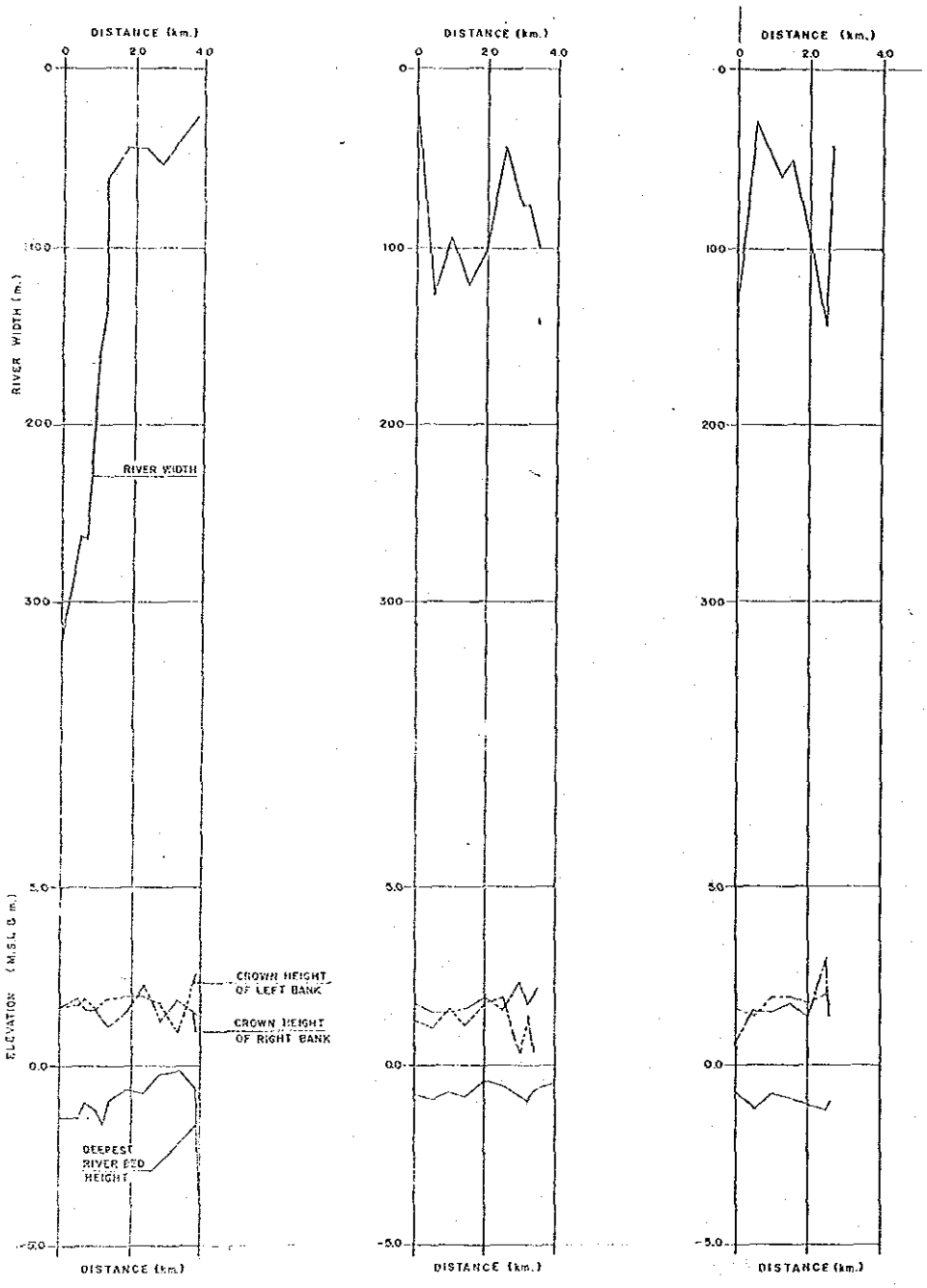


HILABANGAN RIVER

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.3-3 FEATURES OF ILOG RIVER, TRIBUTARY AND BRANCH RIVER (2/5)

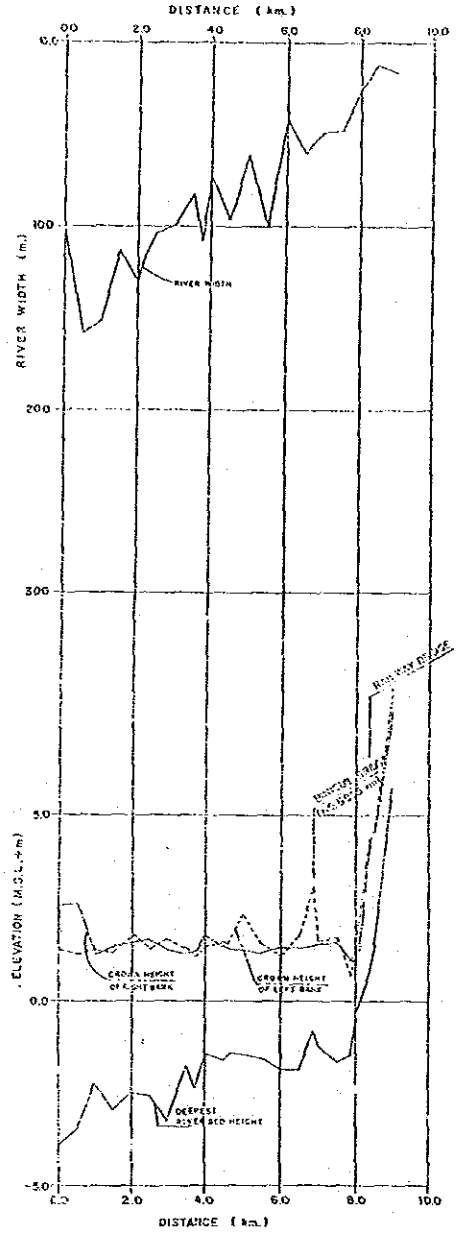


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.3-3 FEATURES OF ILOG RIVER, TRIBUTARY AND BRANCH RIVER (3/5)



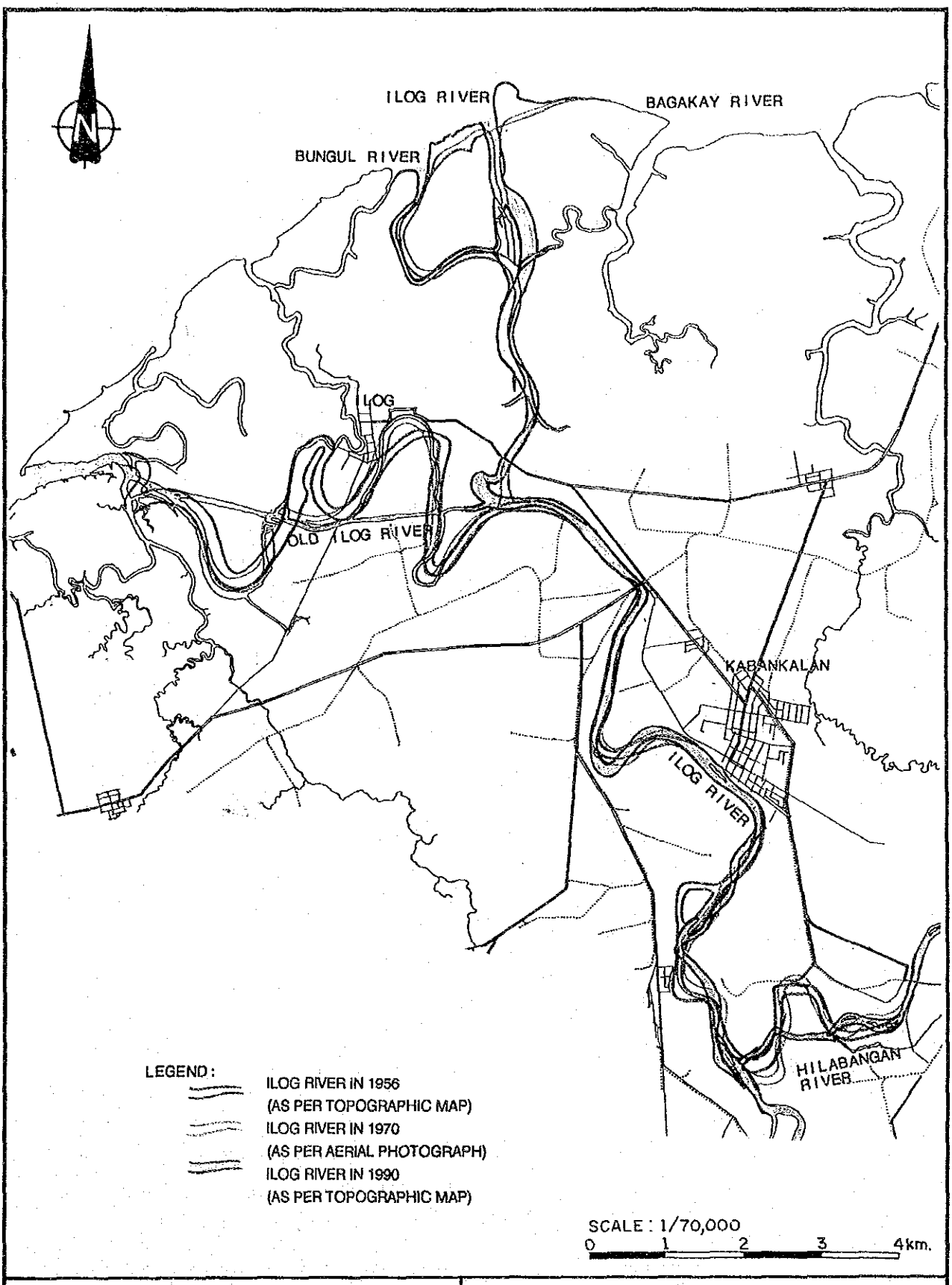
BAGACAY RIVER OLD BUNGUL RIVER DIUT RIVER

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.3-3 FEATURES OF ILOG RIVER, (4/5) TRIBUTARY AND BRANCH RIVER

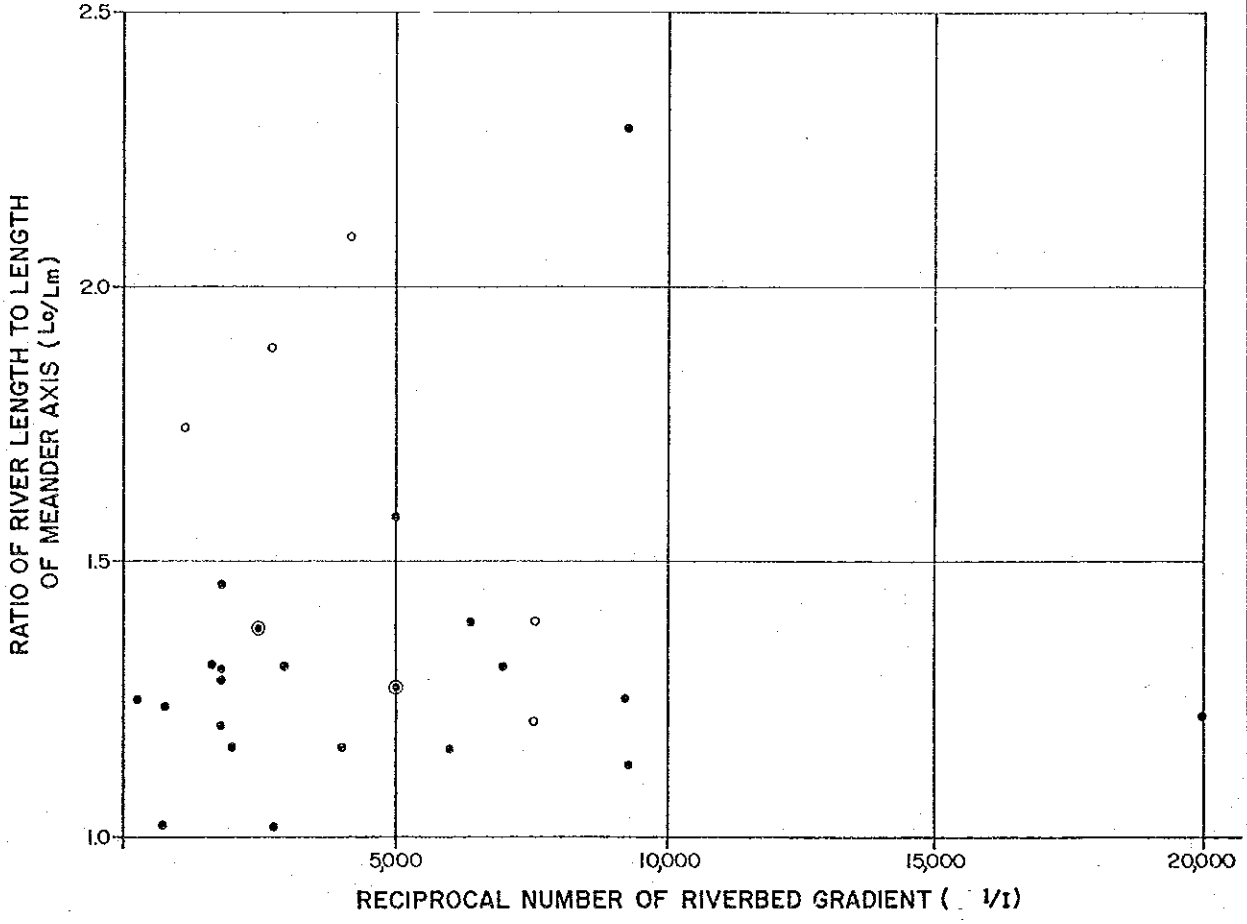


BINICUIL RIVER

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.3-3 FEATURES OF ILOG RIVER, (5/5) TRIBUTARY AND BRANCH RIVER



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.3-4 CHANGE OF RIVER COURSE

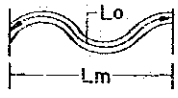


LEGEND:

- ◉ - ILOG RIVER
- o - PANAY RIVER
- • - OTHER RIVERS

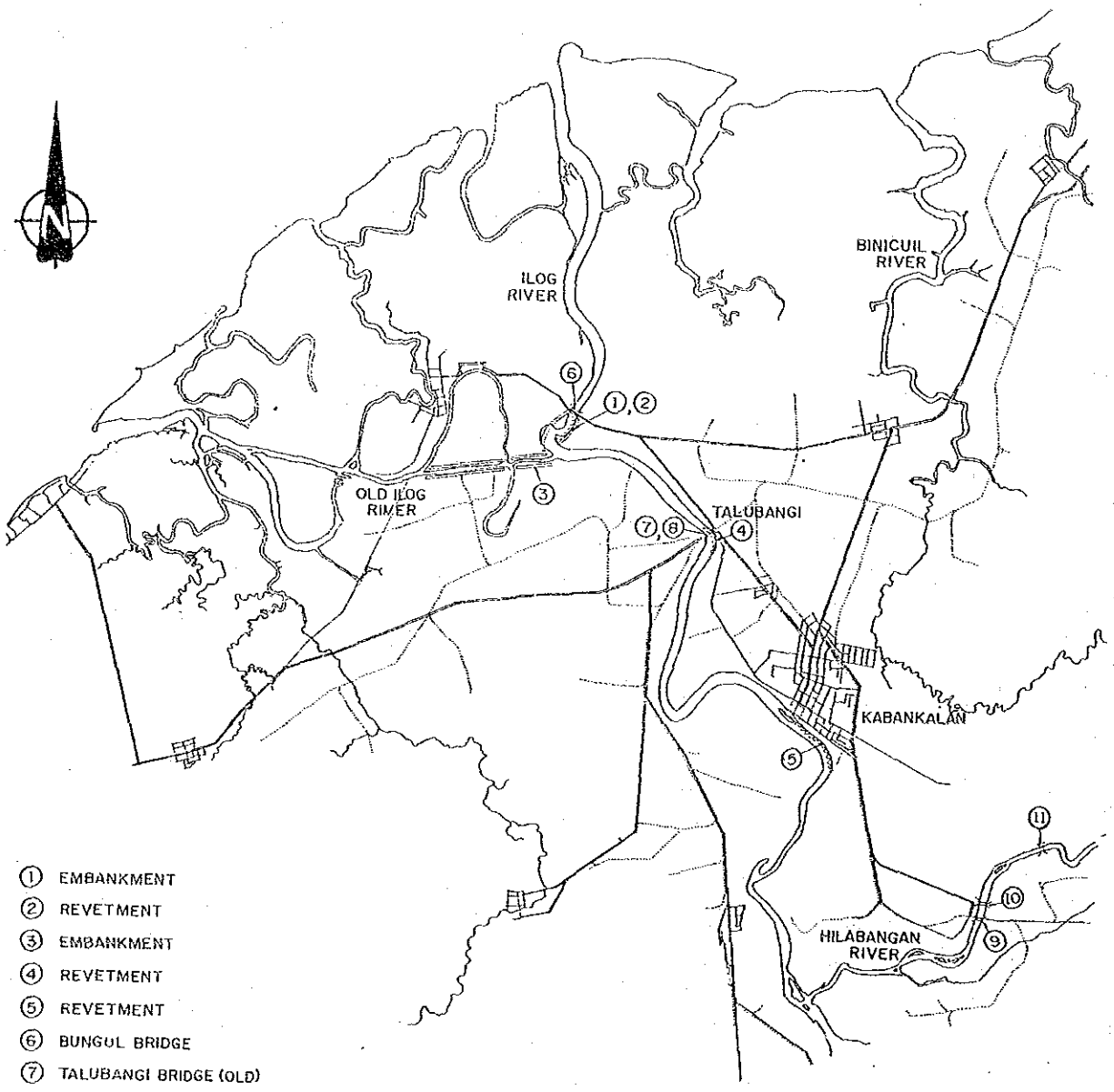
Lo - RIVER LENGTH

Lm - LENGTH OF MEANDER AXIS

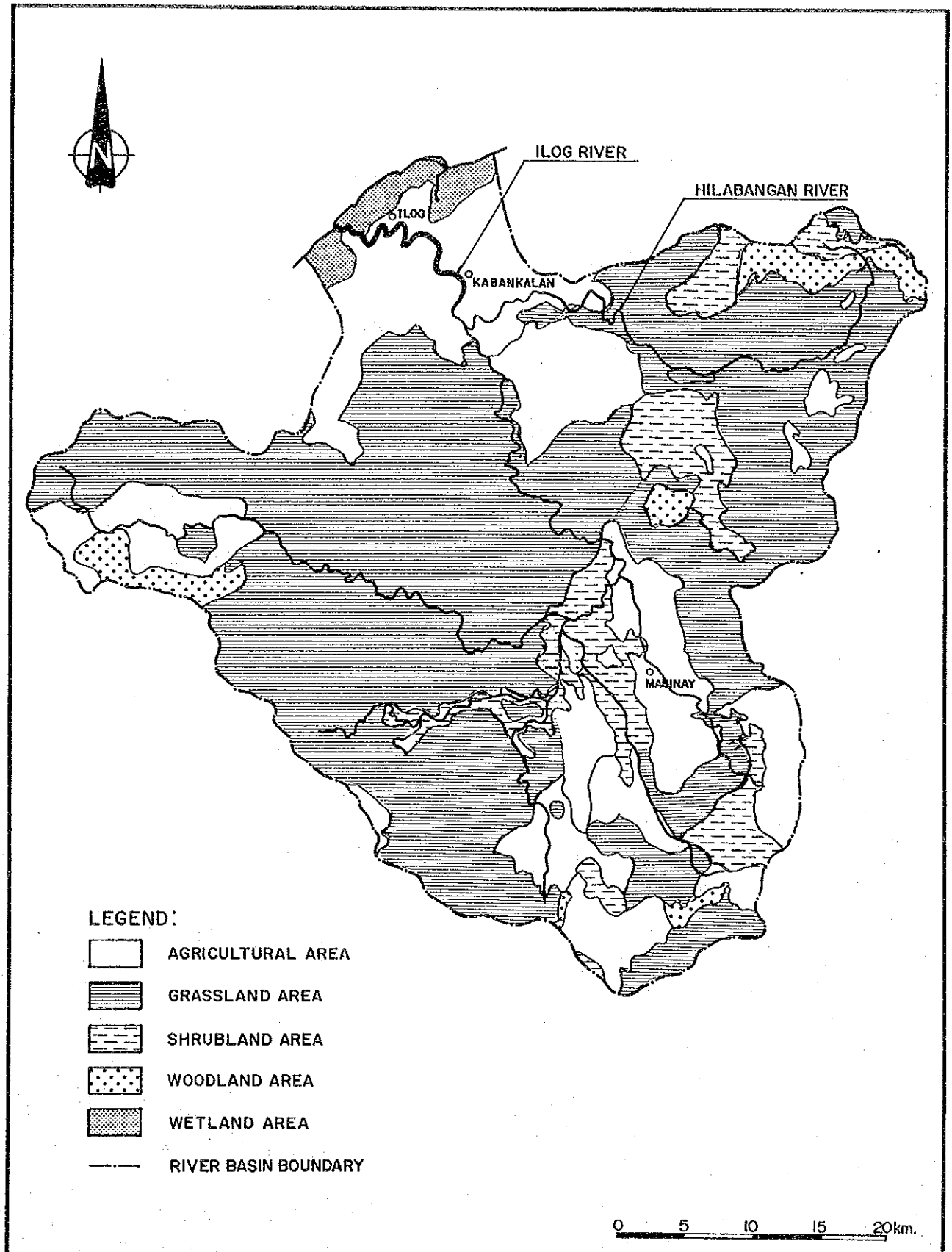


I - RIVER BED GRADIENT

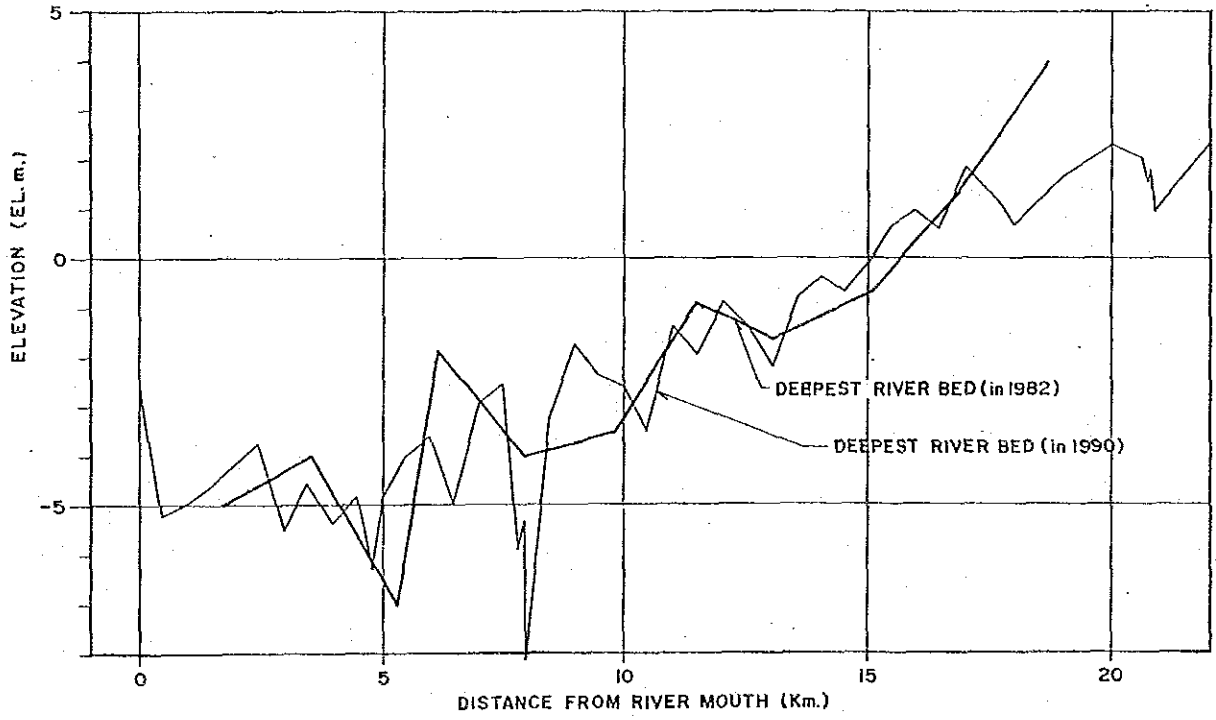
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.3-5 RATIO OF RIVER LENGTH TO LENGTH OF MEANDERS AXIS



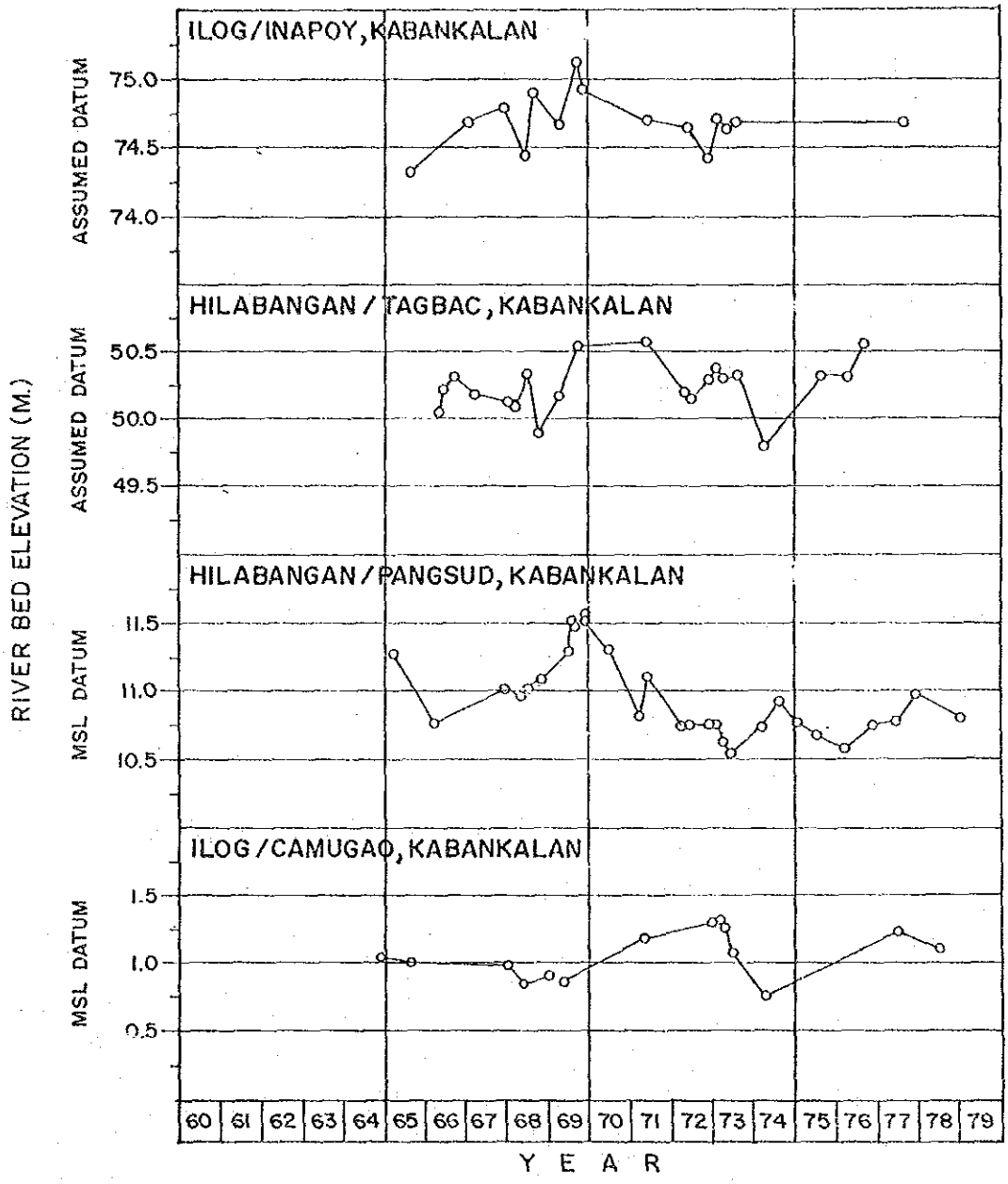
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.3-6 LOCATION OF RIVER STRUCTURES



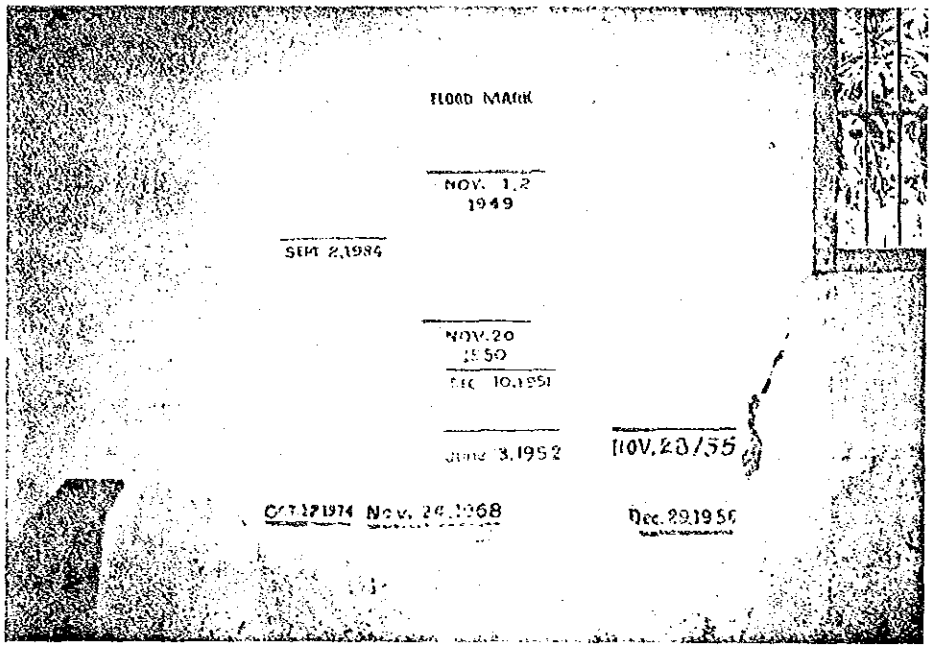
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.4-1 VEGETATION CONDITION

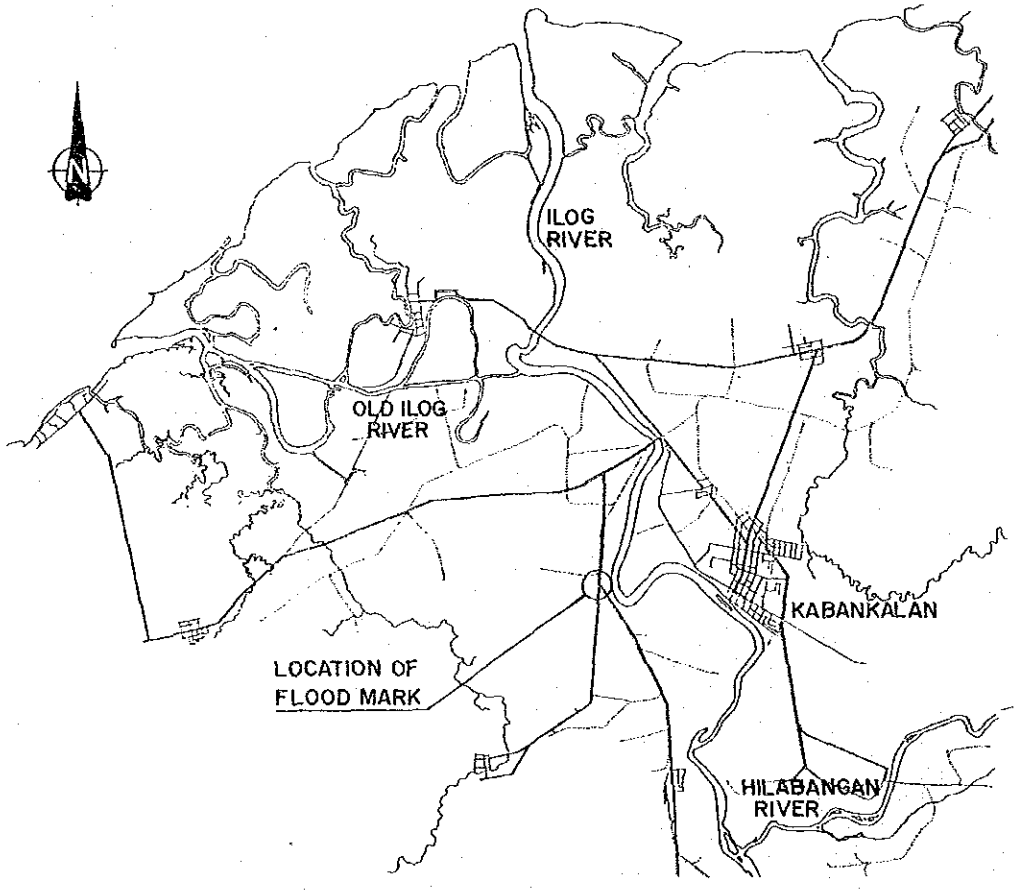


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.4-2 CHANGE OF RIVERBED ELEVATION

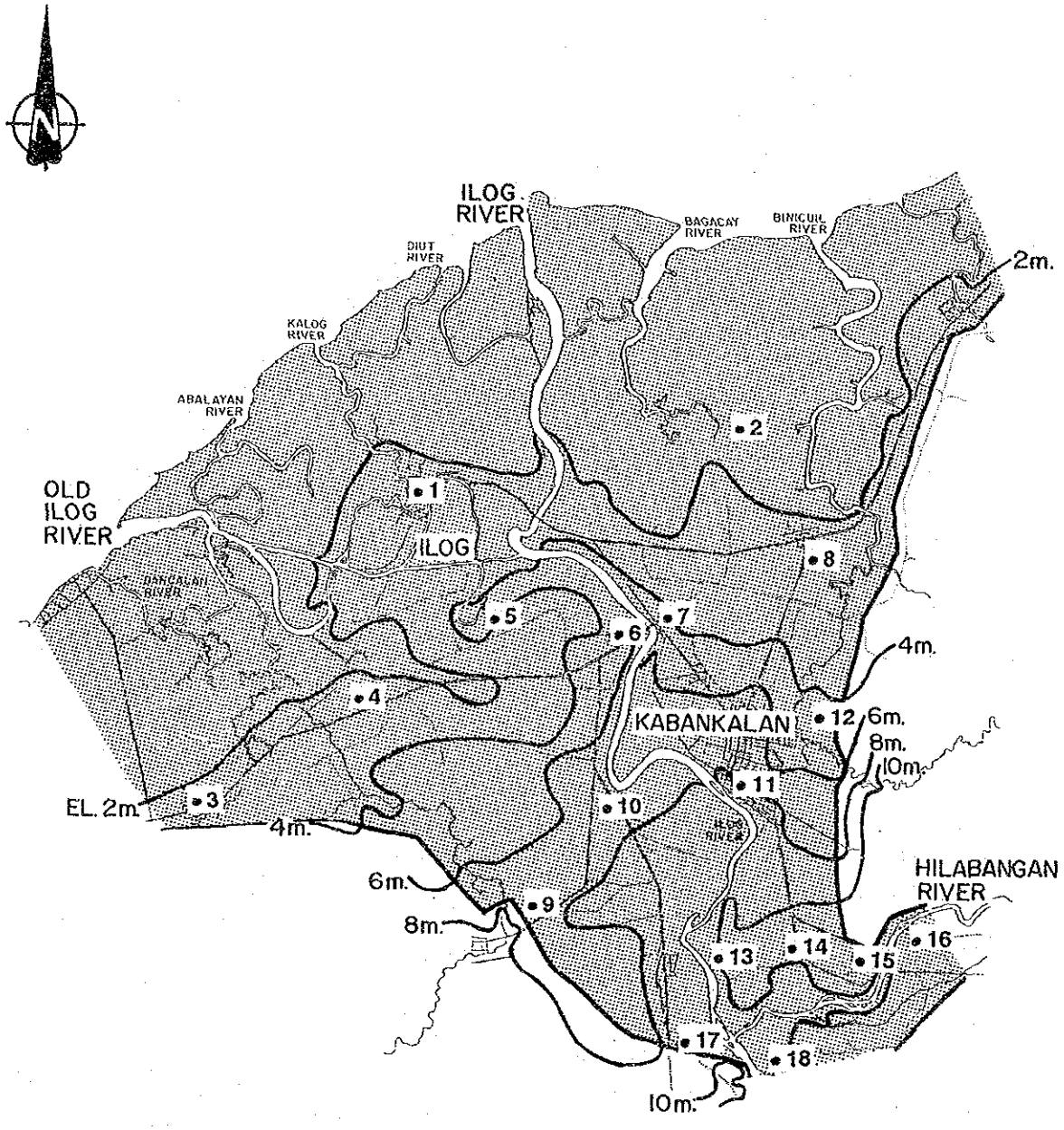


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.4-3 FLUCTUATION OF RIVERBED





THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.5-1 FLOOD MARK



LEGEND:

AREA OF FLOOD INUNDATION IN 1984

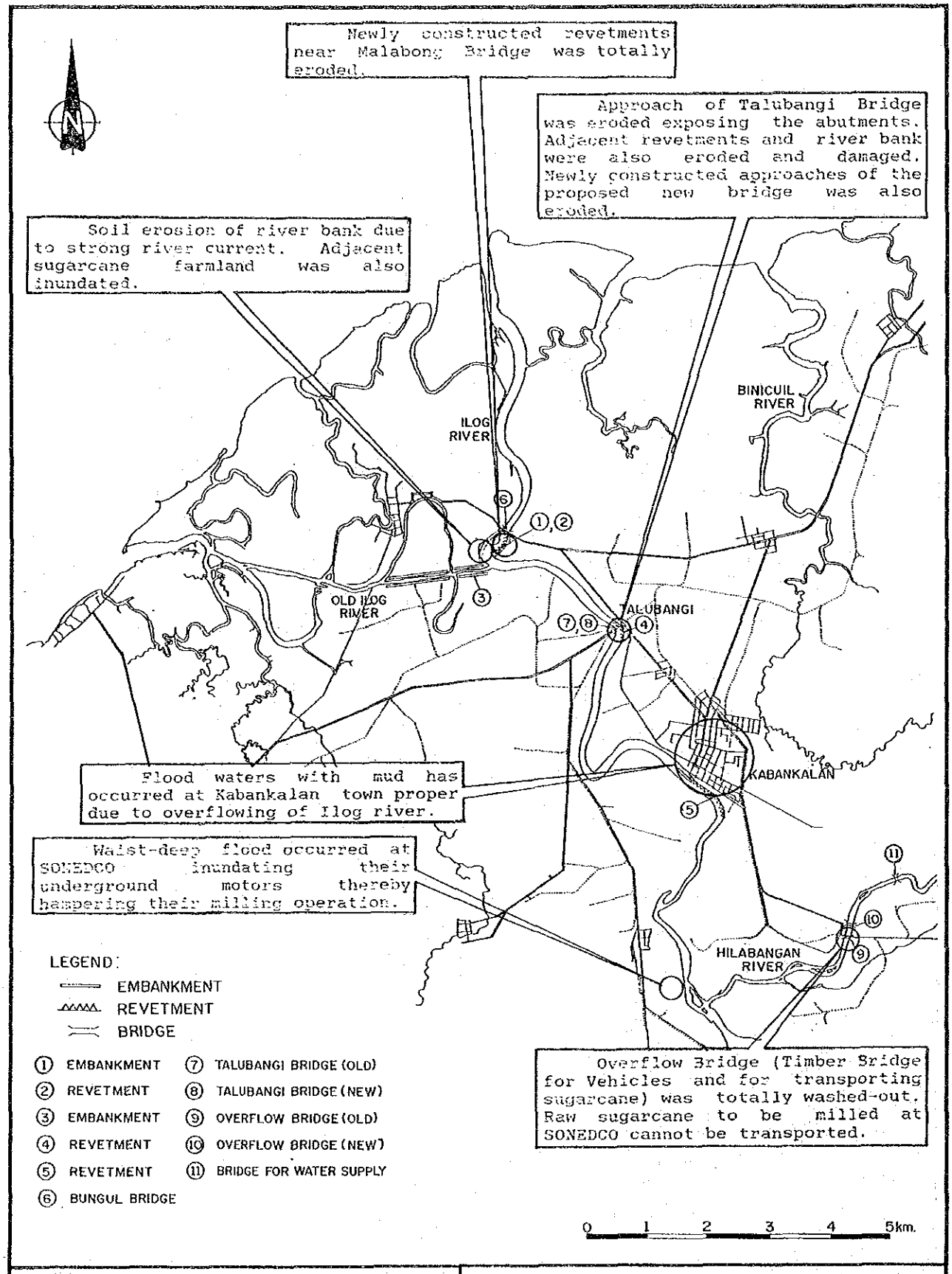
EL. 0m. — CONTOUR LINE

• INTERVIEW POINT (REFER TO TABLE 2.5-1)

SCALE : 1/100,000

0 1 2 3 4 5 6km.

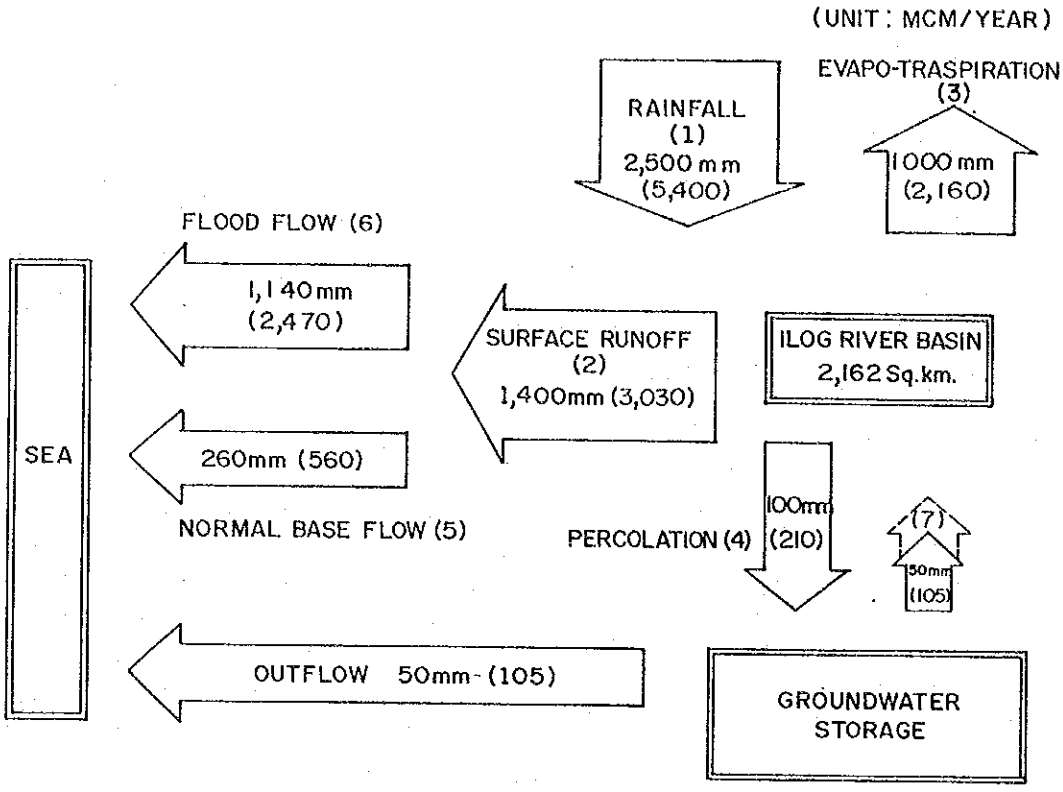
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.5-2 FLOOD INUNDATION MAP



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig.2.5-3 FLOOD DAMAGE OF TYPHOON RUPING



LEGEND:

(1) ANNUAL RAINFALL : BASED ON ISOHYETAL MAP OF ANNUAL RAINFALL

(2) SURFACE RUNOFF : (1)

(3) EVAPO-TRANSPIRATION : 1,720mm (OPEN PAN EVAPORATION IN KABANKALAN) x 60%

(4) PERCOLATION : (1)-(2)-(3)

(5) BASE FLOW : ADOPTING DROUGHT WATER DISCHARGE

(6) FLOOD FLOW : (2)-(5)

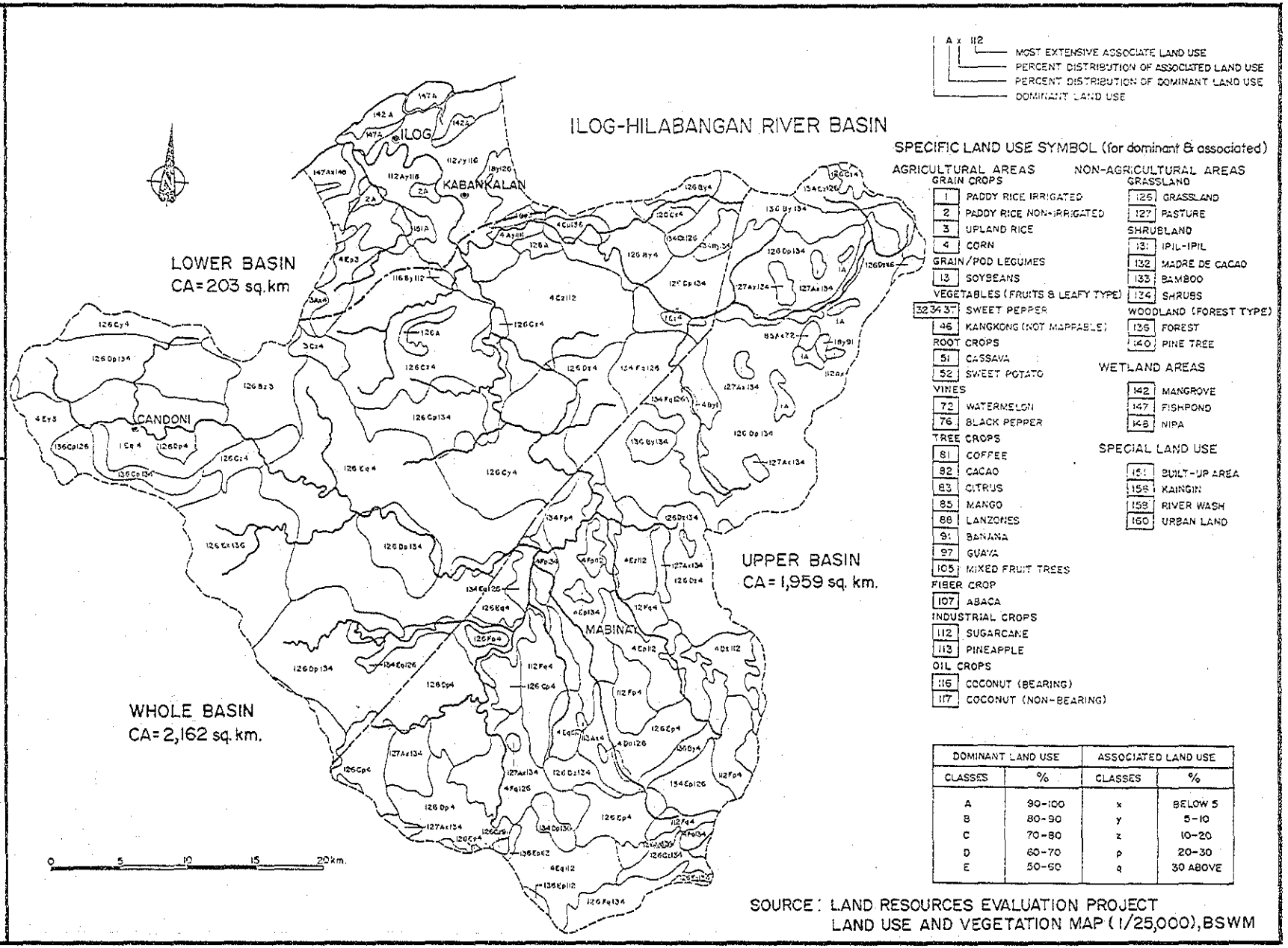
(7) AVAILABLE GROUND WATER : 100mm x 50% (ASSUMED)

(8) TOTAL AVAILABLE WATER : (2)+(7)= 1,450mm (= 3,135 MCM/YEAR)

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.6-1 BASIN WATER BALANCE

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

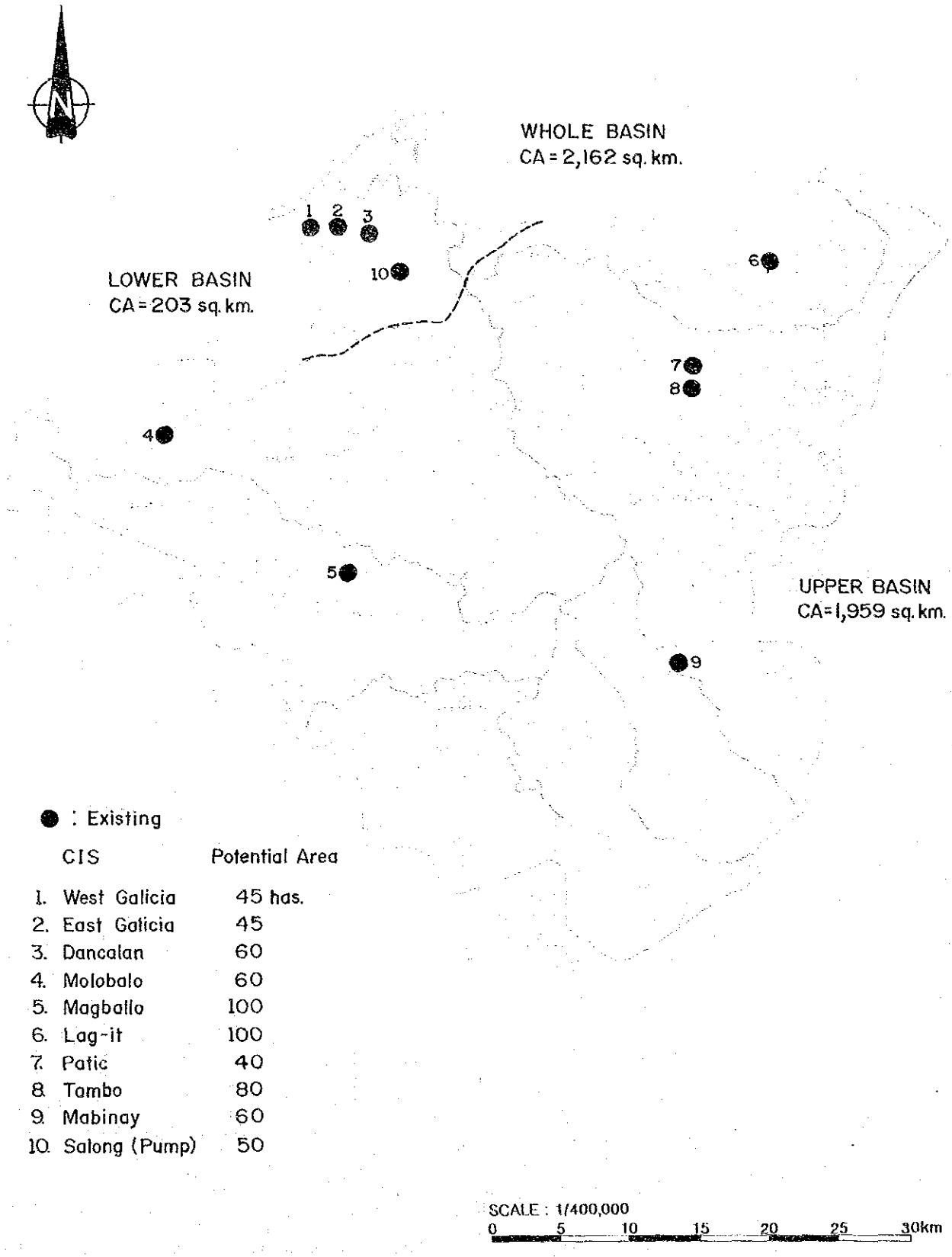
JAPAN INTERNATIONAL COOPERATION AGENCY



DOMINANT LAND USE		ASSOCIATED LAND USE	
CLASSES	%	CLASSES	%
A	90-100	x	BELOW 5
B	80-90	y	5-10
C	70-80	z	10-20
D	60-70	p	20-30
E	50-60	q	30 ABOVE

SOURCE: LAND RESOURCES EVALUATION PROJECT
LAND USE AND VEGETATION MAP (1/25,000), BSWM

Fig. 2.6-2 LAND USE AND VEGETATION MAP

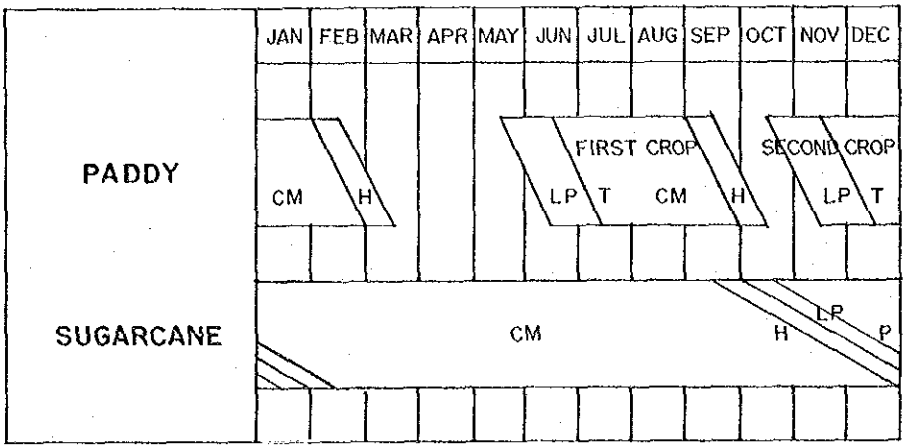


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

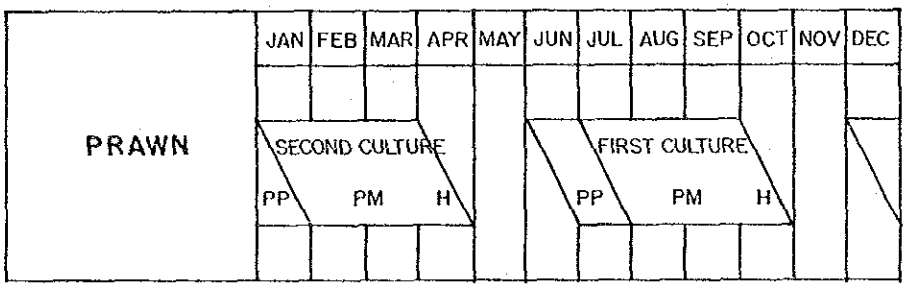
Fig. 2.6-3 EXISTING COMMUNAL IRRIGATION SYSTEM

CROPPING PATTERN



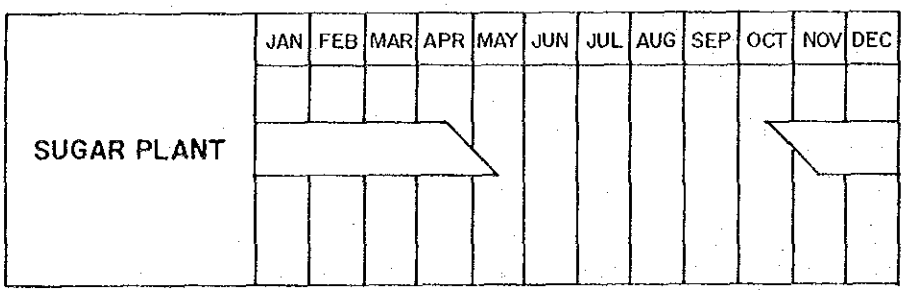
LEGEND: LP - LAND PREPARATION
T - TRANSPLANTING
CM - CROP MANAGEMENT
P - PLANTING
H - HARVESTING

BRACKISHWATER AQUACULTURE

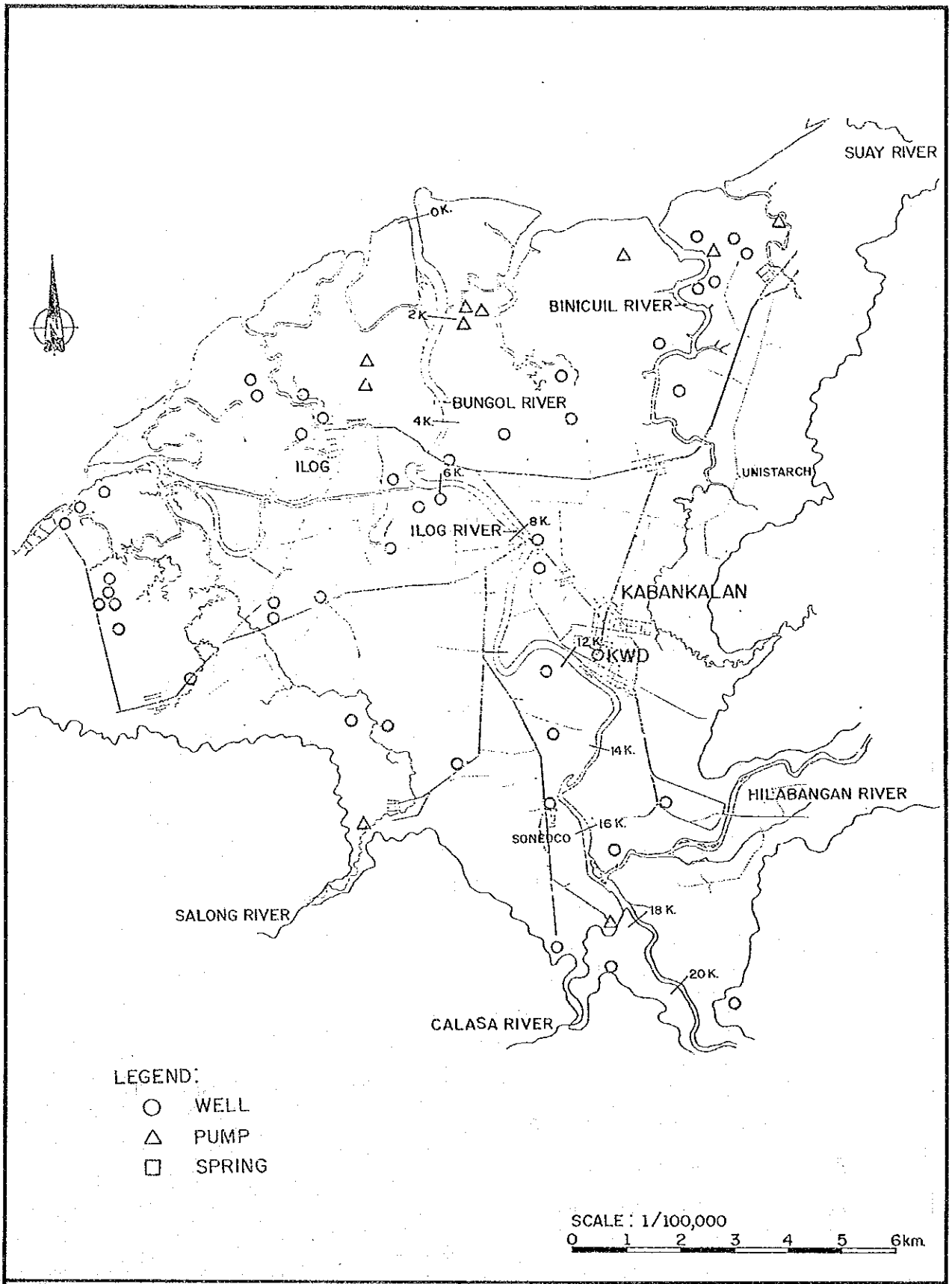


LEGEND: PP - POND PREPARATION
PM - POND MANAGEMENT
H - HARVESTING

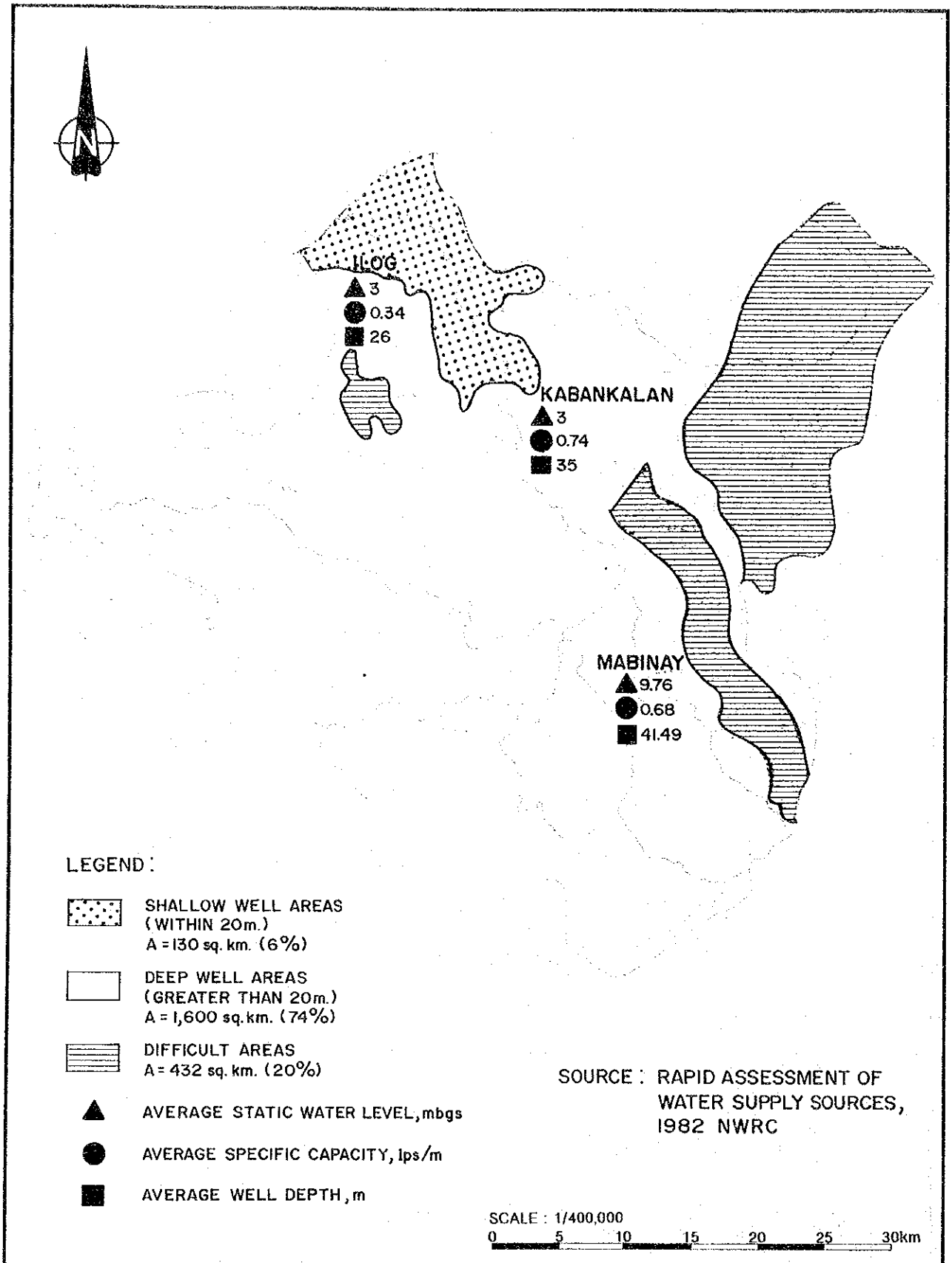
INDUSTRIAL WATER



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.6-4 WATER USE CALENDAR



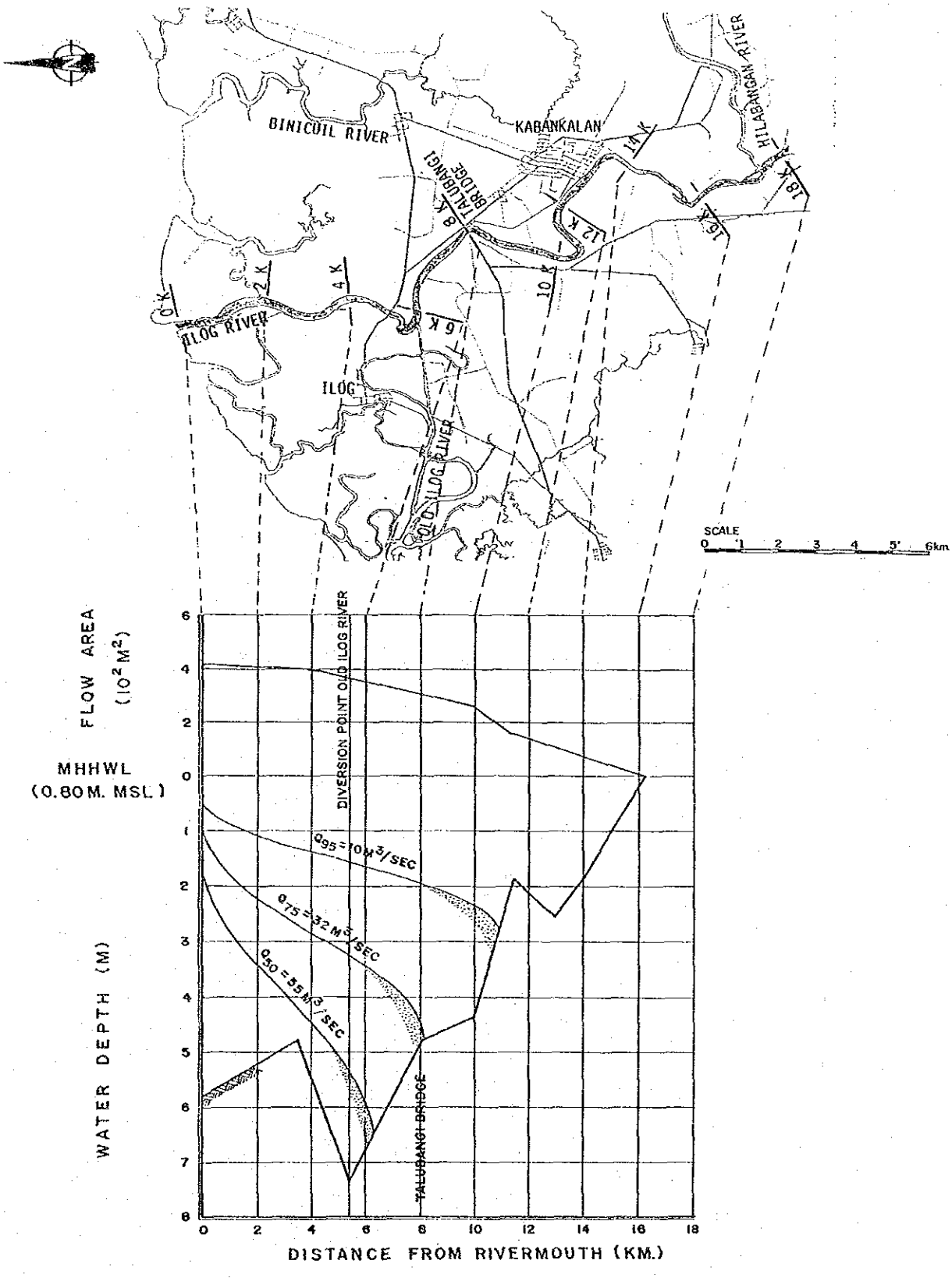
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.6-5 EXISTING WATER UTILIZATION MAP



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

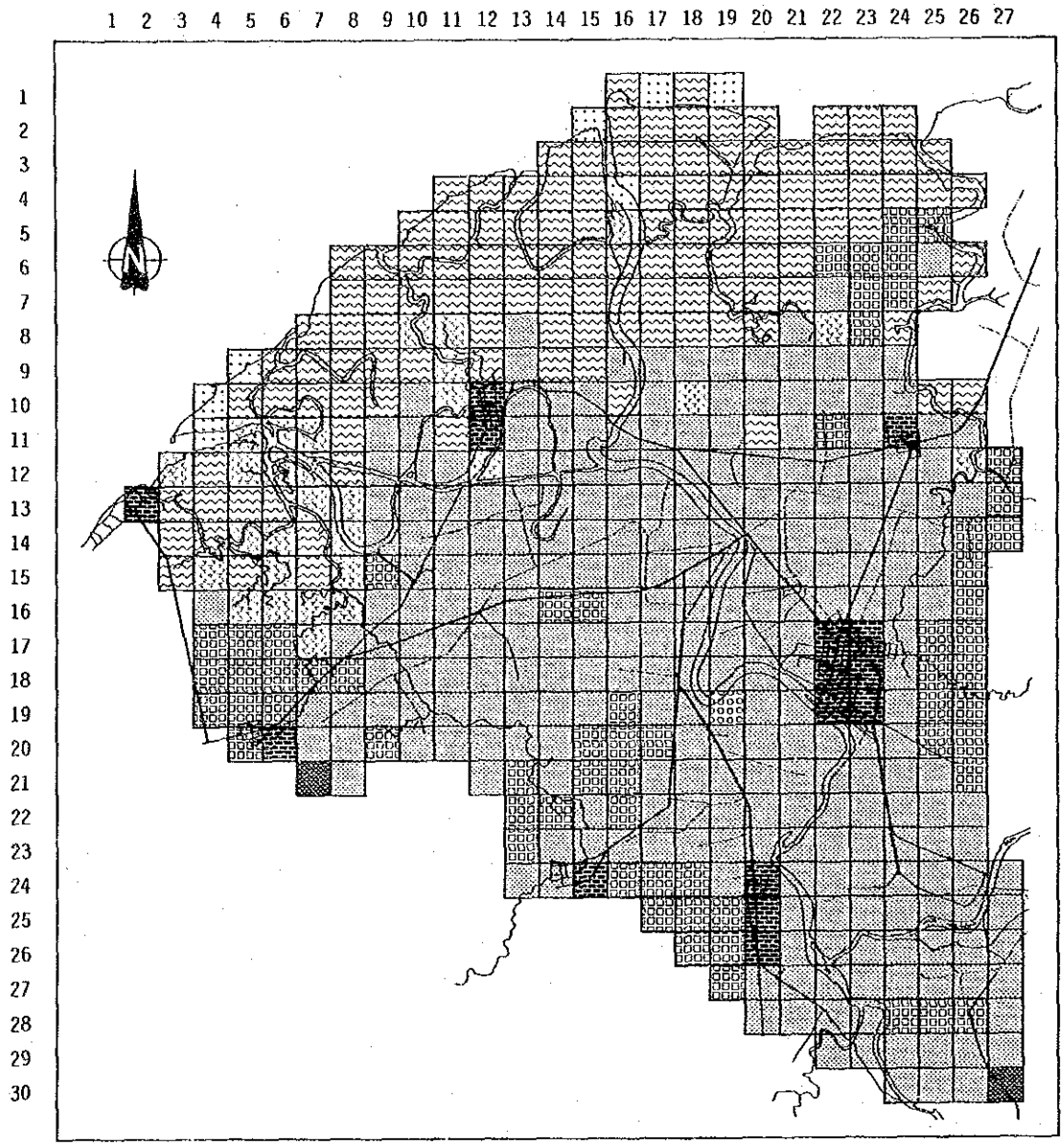
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 2.6-6 GROUNDWATER MAP



SOURCE : NATIONWIDE FLOOD CONTROL PLAN (NOV. 1982)

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig. 2.6-7 SALTWATER INTRUSION IN ILOG RIVER



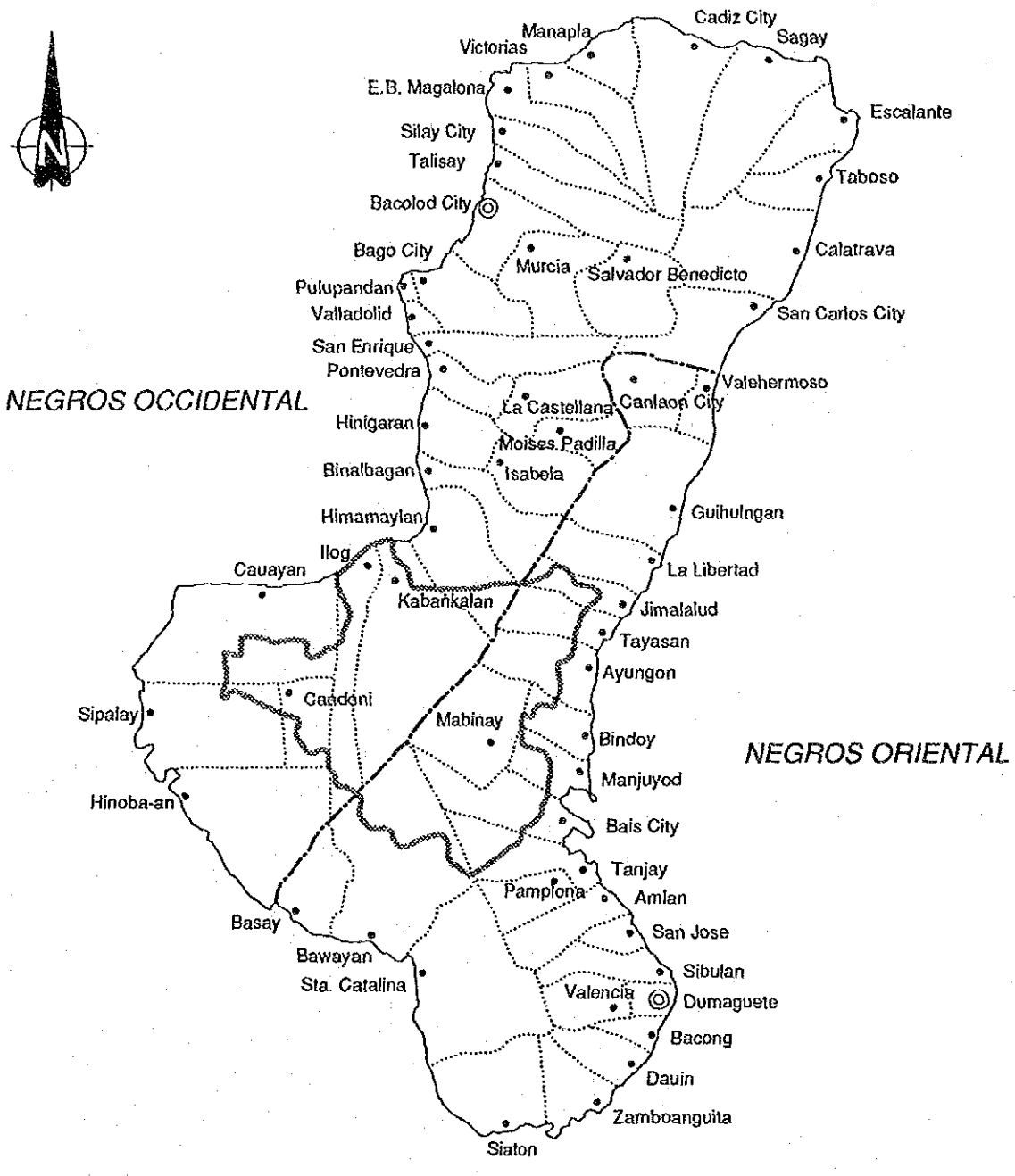
LEGEND

- : SUGARCANE
- : WET PADDY
- : COCONUT, NIPA
- : ORCHARD
- : FOREST
- : RESIDENTIAL
- : FISH POND
- : UNUSED, incl. river channel and sea

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

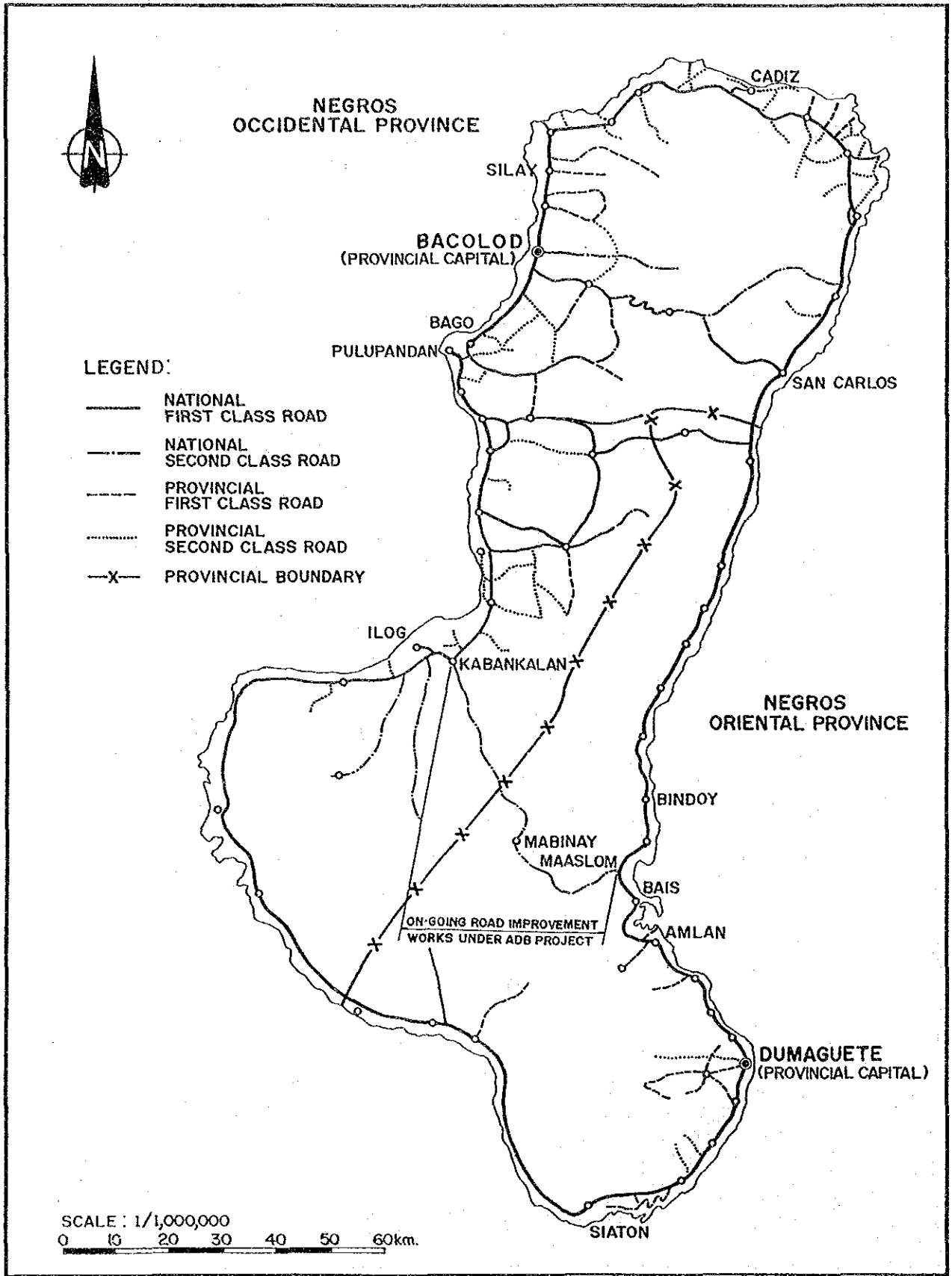
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig.2.7-1 GENERALIZED LAND USE IN THE FLOOD PRONE AREA



SOURCES: MEDIUM-TERM WESTERN VISAYAS REGIONAL DEVELOPMENT PLAN, 1987-1992, REPUBLIC OF THE PHILIPPINES;
MEDIUM-TERM CENTRAL VISAYAS REGIONAL DEVELOPMENT PLAN, 1987-1992, REPUBLIC OF THE PHILIPPINES

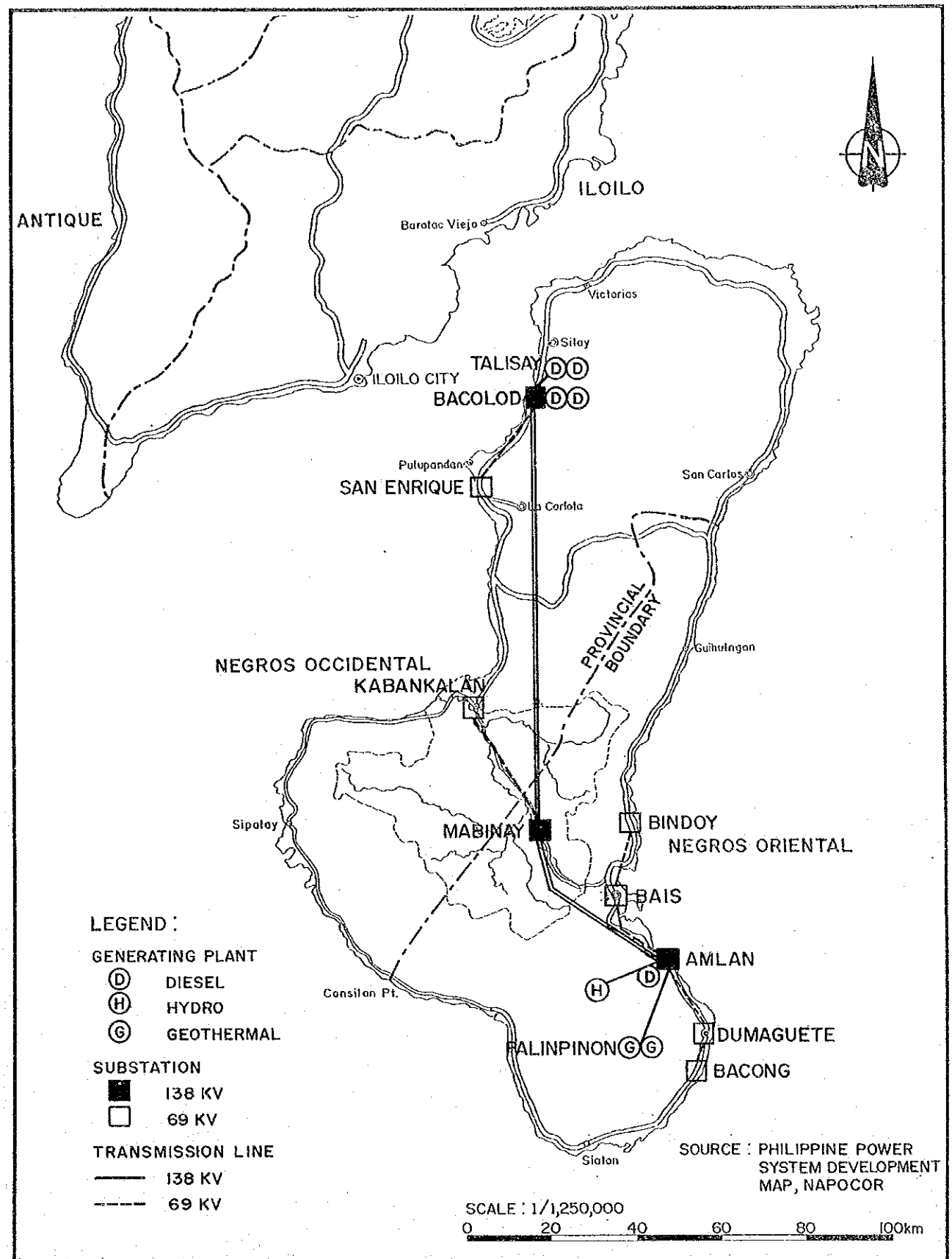
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.2.8-1 PROVINCIAL AND MUNICIPAL BOUNDARY IN NEGROS ISLAND



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

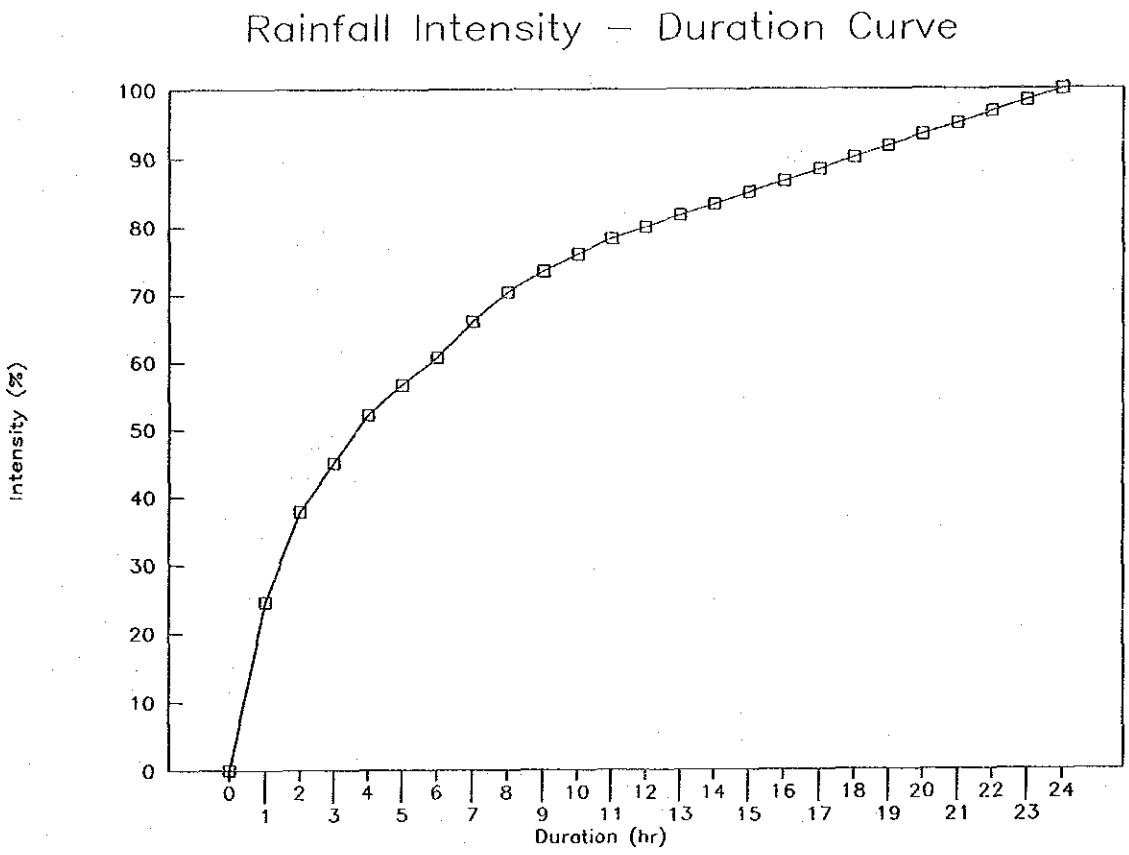
Fig.2.8-2 ROAD NETWORK IN NEGROS ISLAND



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

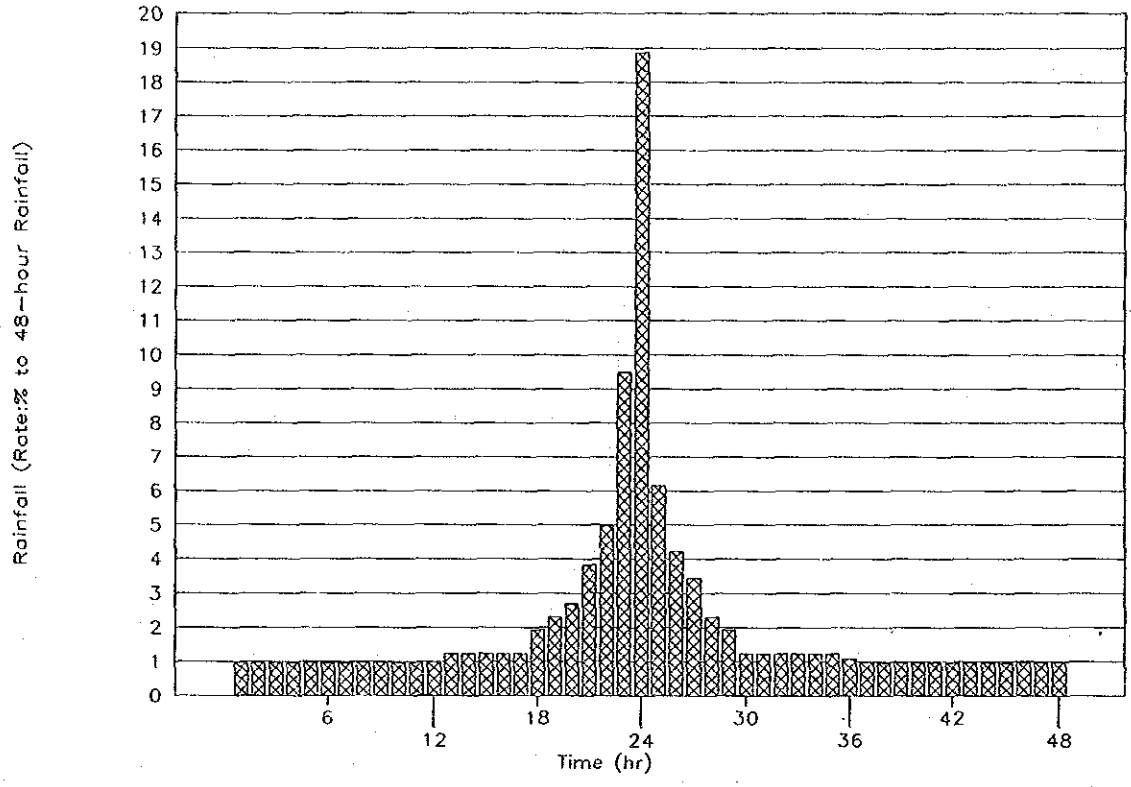
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig.2.8-3 POWER SUPPLY SYSTEM IN NEGROS ISLAND



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-1 RAINFALL INTENSITY-DURATION CURVE

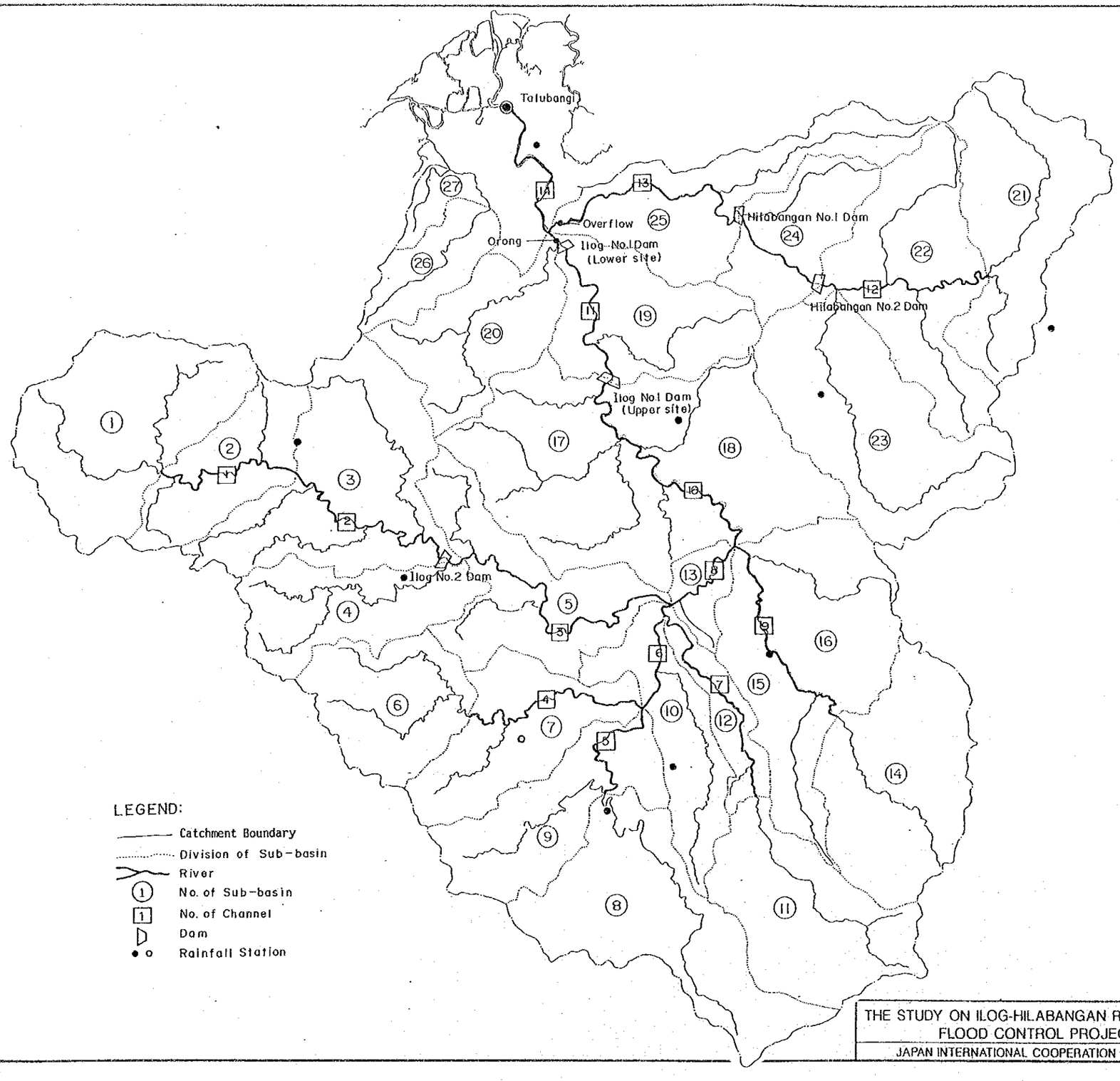
MODEL HYETOGRAPH



Hourly Rate to 48-hour Rainfall

Time (hr)	Rate (%)	Time (hr)	Rate (%)	Time (hr)	Rate (%)
1	0.97	17	1.23	18	1.23
2	0.97	18	1.92	19	1.23
3	0.97	19	2.30	20	1.23
4	0.97	20	2.68	21	1.07
5	0.97	21	3.84	22	0.98
6	0.97	22	4.99	23	0.97
7	0.97	23	9.51	24	0.97
8	0.97	24	18.87	25	0.97
9	0.97	25	6.14	26	0.97
10	0.97	26	4.22	27	0.97
11	0.97	27	3.45	28	0.97
12	0.98	28	2.30	29	0.97
13	1.23	29	1.92	30	0.97
14	1.23	30	1.23	31	0.97
15	1.23	31	1.23	32	0.97
16	1.23	32	1.23	33	0.97

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-2 MODEL HYETOGRAPH



CHARACTERISTIC FEATURES OF SUB-BASIN

Sub-Basin No.	Catchment Area (km²)	Longest Stream (km)	Max. Elevation (El.m)	Min. Elevation (El.m)	Alt. Diff.	Ave. Gradient (1/1)
1	109.7	15.6	520	156	364	42.9
2	53.5	6.6	500	143	357	18.5
3	118.3	19.6	400	112	288	68.1
4	62.2	22.8	558	114	444	51.4
5	83.8	11.6	280	101	179	64.8
6	63.1	15.6	544	150	394	42.1
7	69.8	11.3	400	134	266	42.5
8	112.0	26.3	650	102	548	49.1
9	71.8	16.8	355	102	293	57.3
10	54.2	19.8	333	57	276	71.7
11	80.0	18.5	960	197	763	24.2
12	24.2	5.2	280	160	120	30.8
13	16.2	4.0	140	40	100	40.0
14	99.7	14.5	620	95	525	27.6
15	51.4	10.8	420	67	353	30.6
16	76.7	13.9	278	25	253	18.5
17	125.6	16.1	239	12	227	70.9
18	84.6	11.3	840	15	825	13.7
19	75.1	15.6	700	10	690	22.6
20	66.8	21.2	360	10	350	60.6
21	98.1	16.7	1,260	330	930	18.0
22	100.4	13.6	1,350	240	1,110	12.3
23	118.8	28.0	885	190	695	40.3
24	50.3	11.0	1,120	87	1,033	10.6
25	84.3	15.3	1,350	60	1,290	12.6
Sub-Total	1,959.0					
26	31.1	12.8	340	10	330	38.8
27	11.4	3.6	200	10	190	40.0
Total	2,001.5	-	-	-	-	-

FEATURES OF RIVER CHANNEL

Channel No.	Upstream Elev. (El.m)	Downstream Elev. (El.m)	Channel Length (km)	Average Grad. (1/1)	Average Width (m)
1	156	140	12.6	787.5	50
2	140	110	19.7	655.7	70
3	110	38	21.7	301.4	100
4	150	75	15.8	224.0	70
5	102	35	9.7	359.3	70
6	75	38	7.6	205.4	150
7	197	40	15.2	96.5	70
8	38	25	7.0	538.5	100
9	55	25	16.4	234.3	70
10	25	10	20.7	1380.0	100
11	10	2.5	13.2	1760.0	150
12	330	150	14.2	101.4	100
13	87	2	18.6	218.8	100

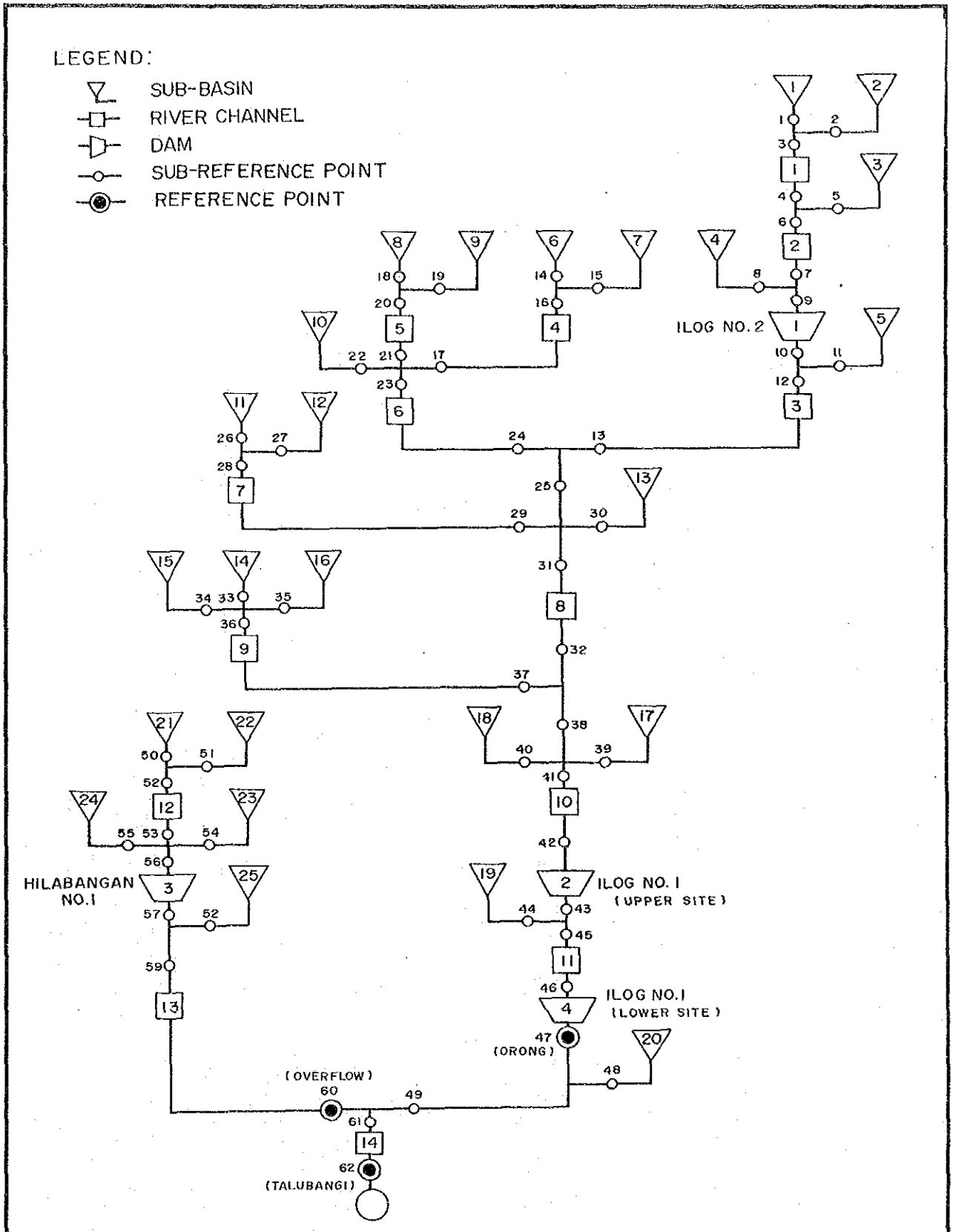
SCALE: 1/250,000

0 5 10 15km

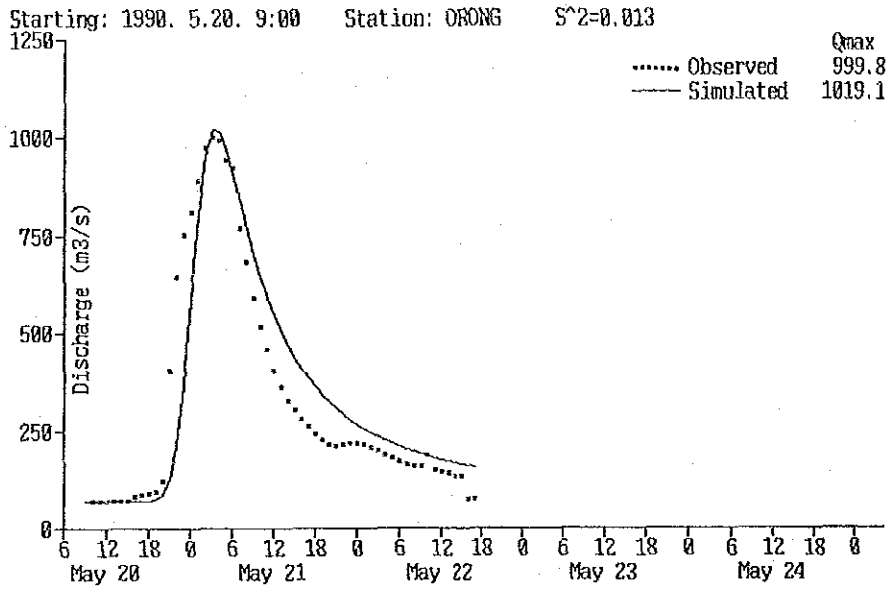
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

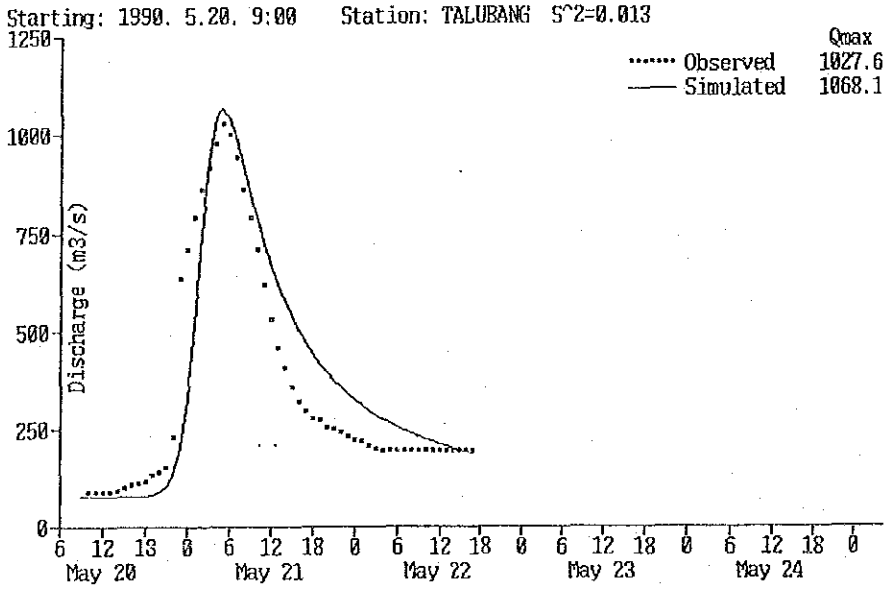
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig.3.1-3 BASIN DIVISION

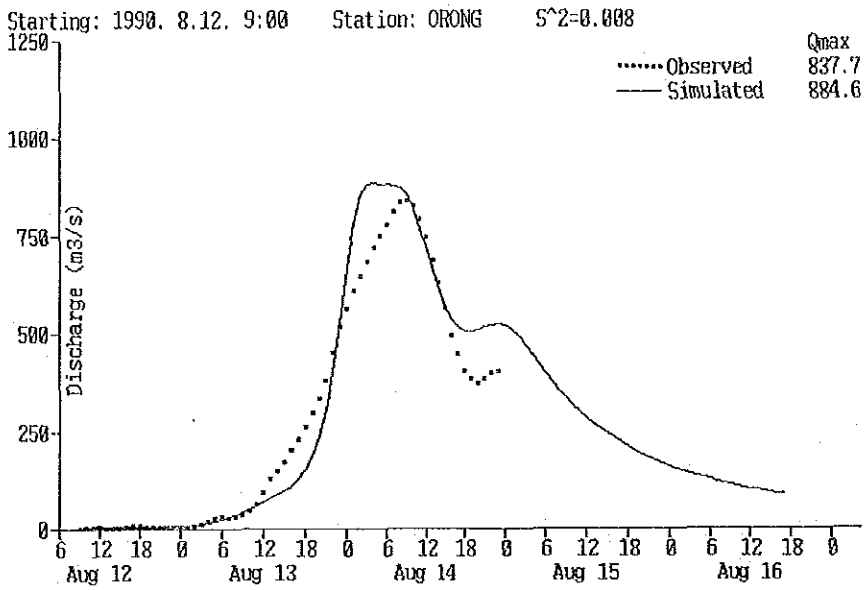


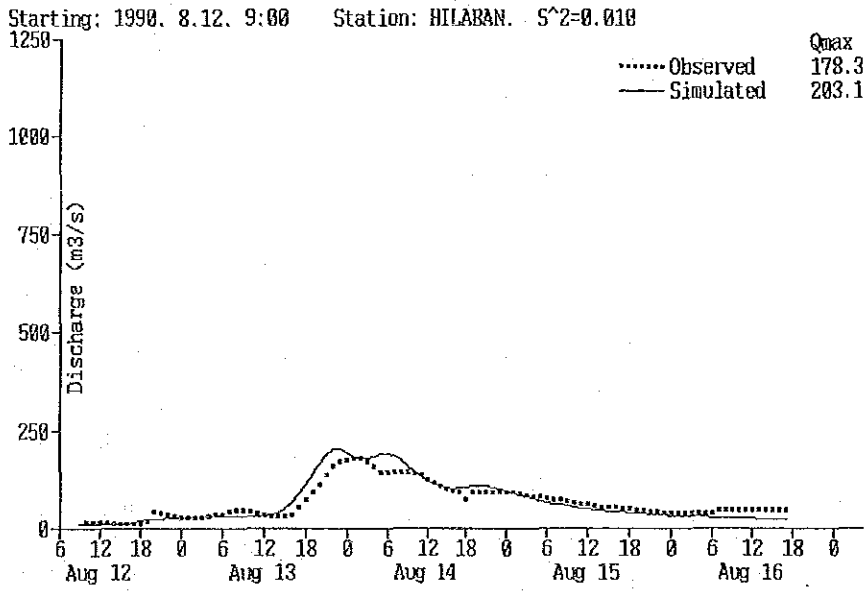
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-4 RIVER SYSTEM DIAGRAM



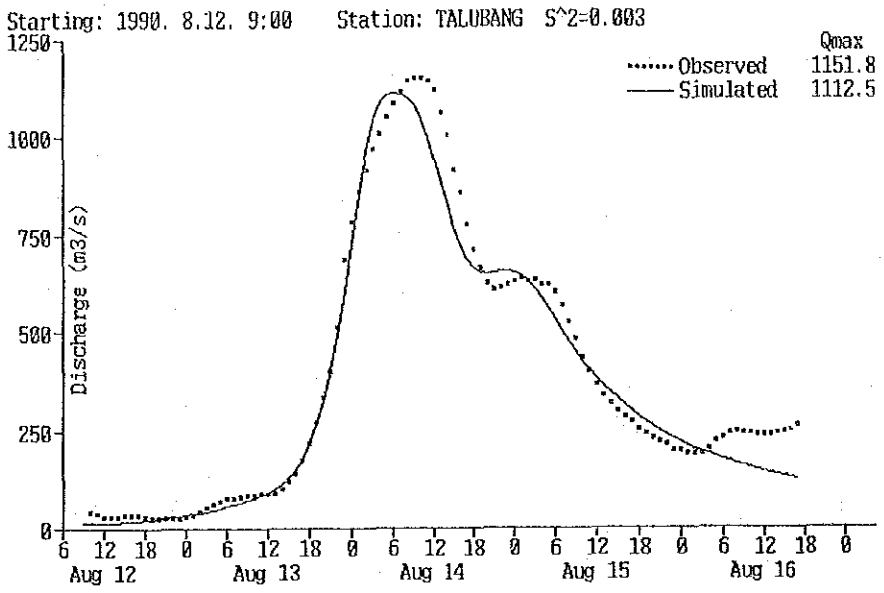


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-5 (1/5) COMPARISON OF SIMULATED AND OBSERVED FLOOD HYDROGRAPH

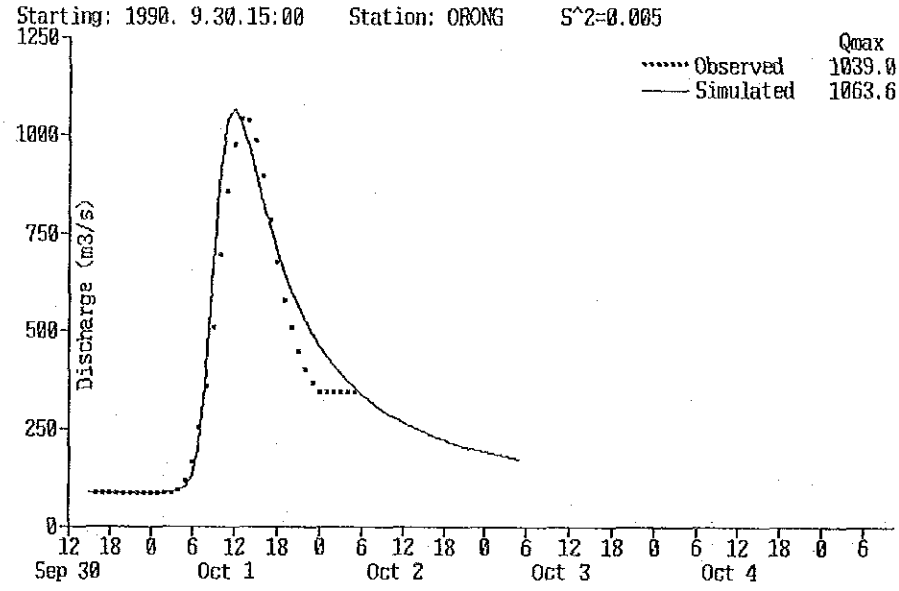


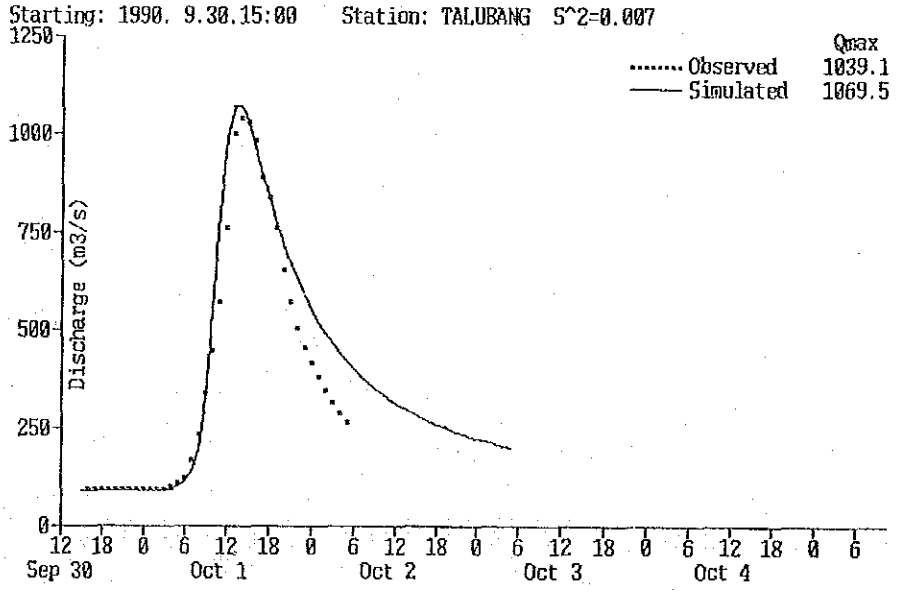


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-5 COMPARISON OF SIMULATED AND OBSERVED FLOOD HYDROGRAPH (2/5)

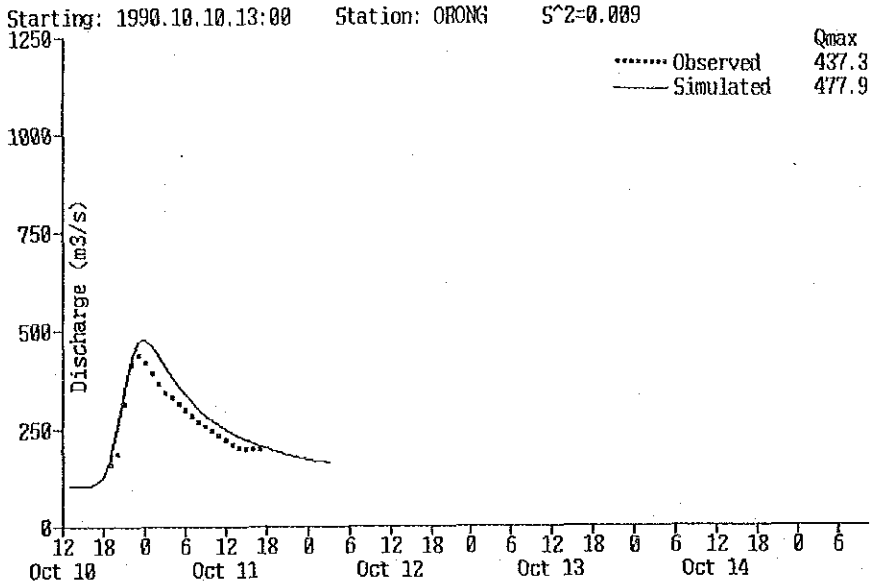


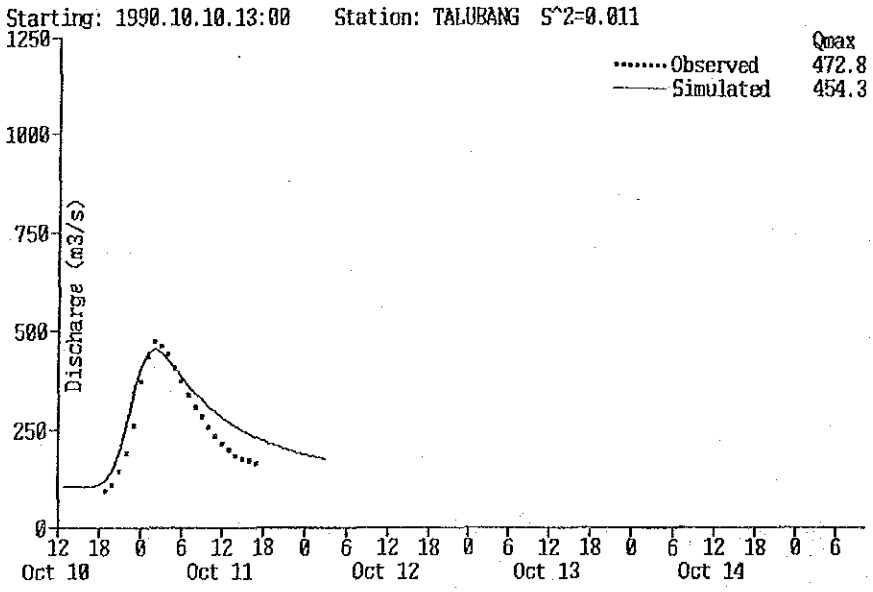
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-5 (3/5) COMPARISON OF SIMULATED AND OBSERVED FLOOD HYDROGRAPH



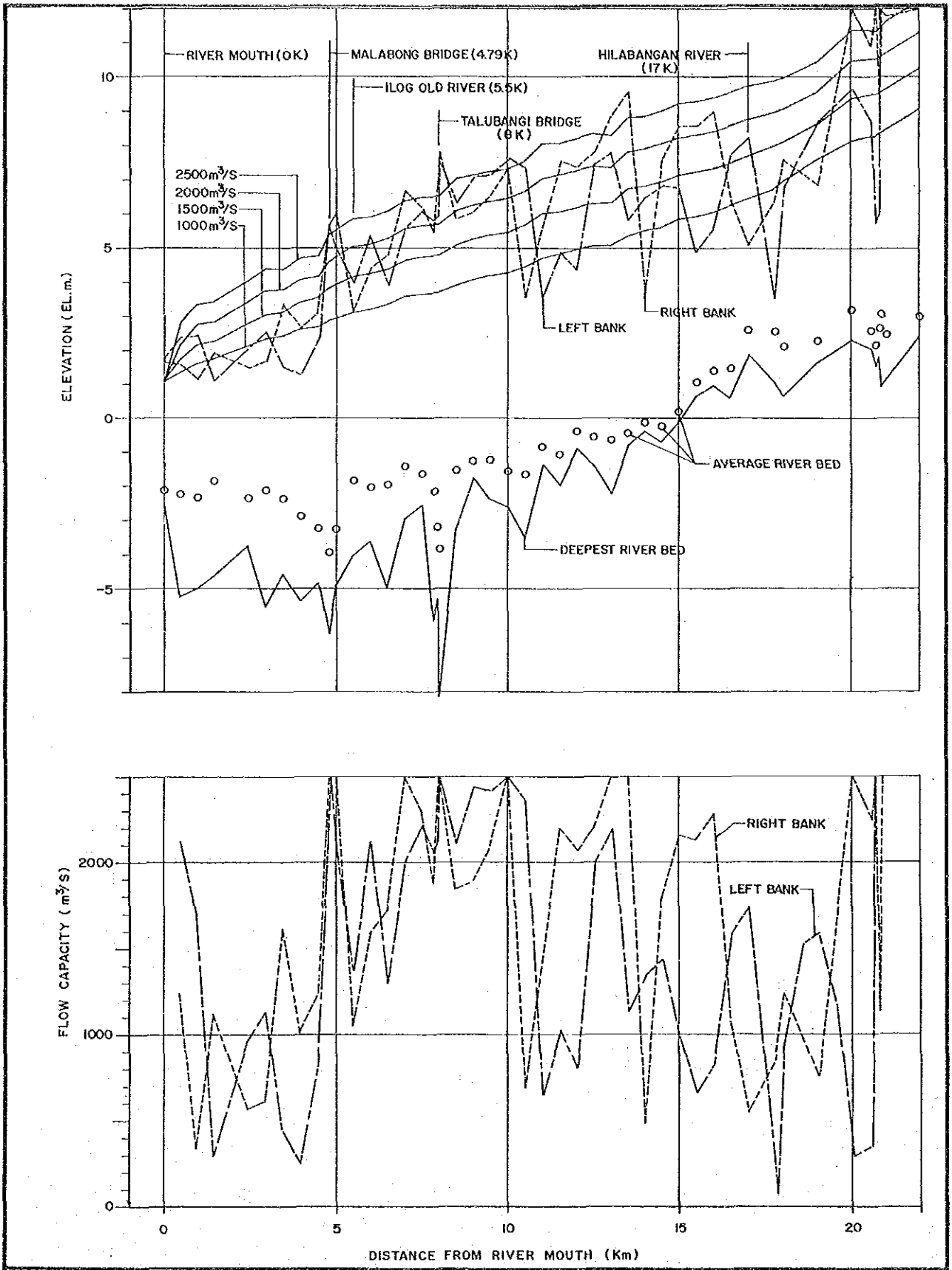


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-5 COMPARISON OF SIMULATED AND OBSERVED FLOOD HYDROGRAPH (4/5)





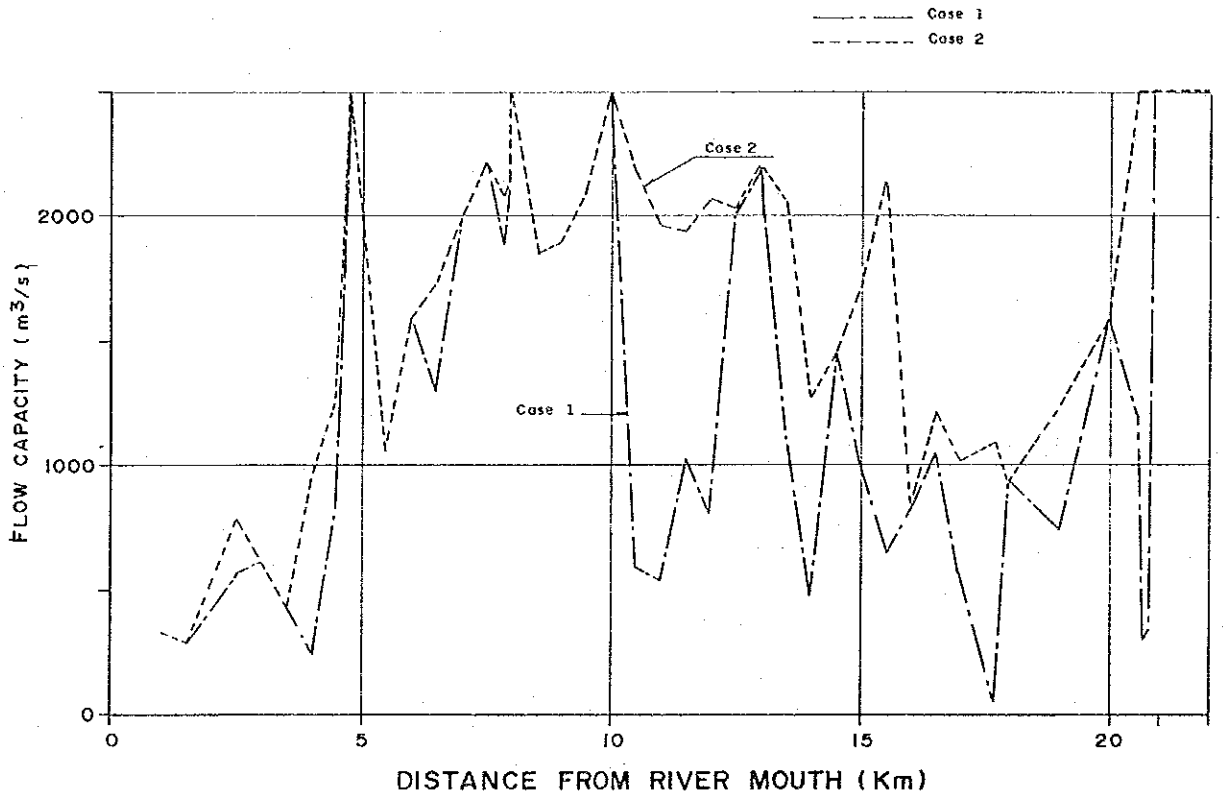
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.1-5 (5/5) COMPARISON OF SIMULATED AND OBSERVED FLOOD HYDROGRAPH



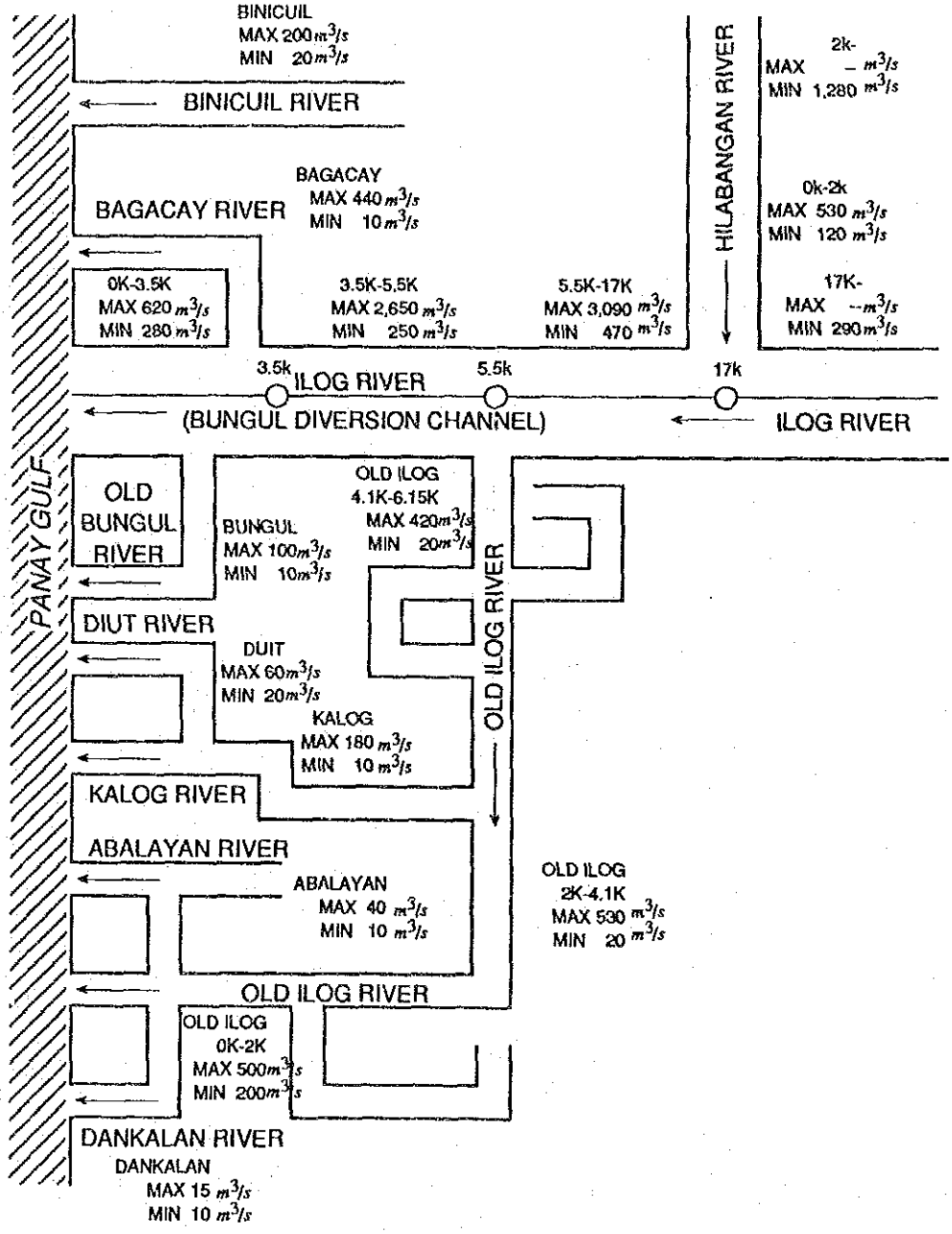
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 3.2-1 RESULTS OF NON-UNIFORM CALCULATION ALONG ILOG RIVER

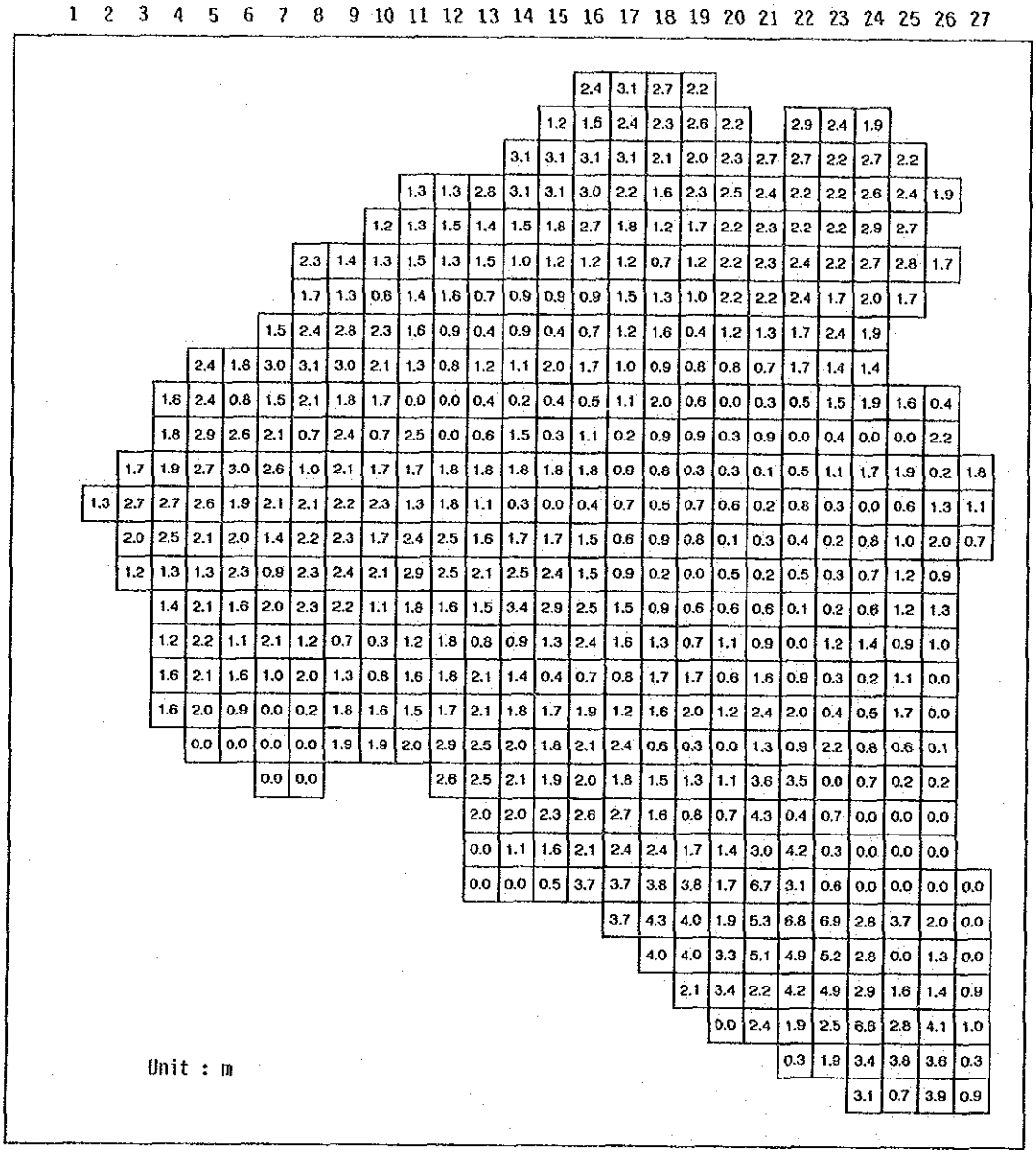


THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-2 FLOW CAPACITY ALONG ILOG RIVER



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-3 FLOW CAPACITY OF RELATED RIVERS

100-year Return Period Flood

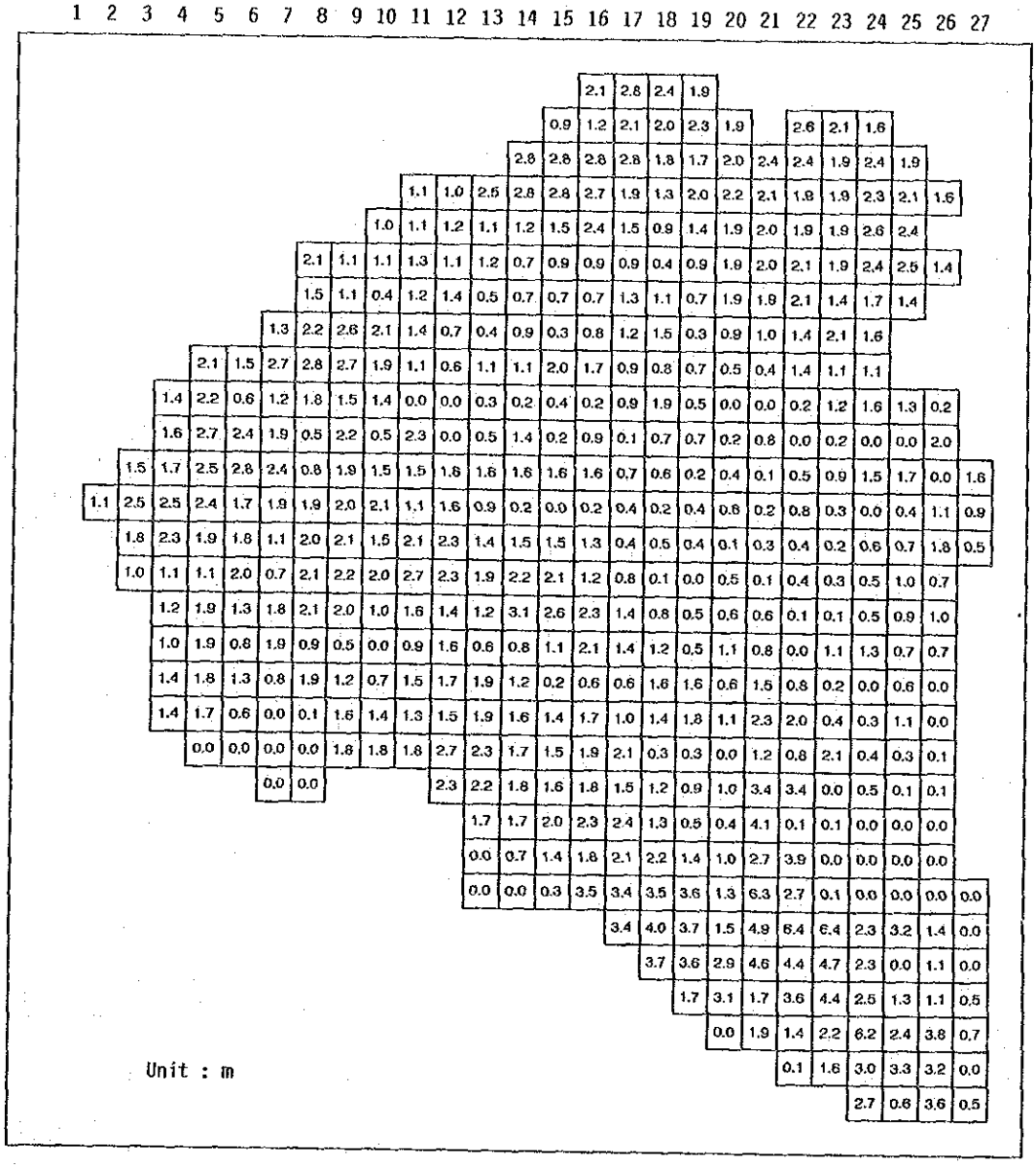


N O T E

: Mesh unit (500 m x 500 m). Figures in meshes represent inundation depths.

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-4 (1/6) MAXIMUM INUNDATION DEPTH BY RETURN PERIOD

50-year Return Period Flood

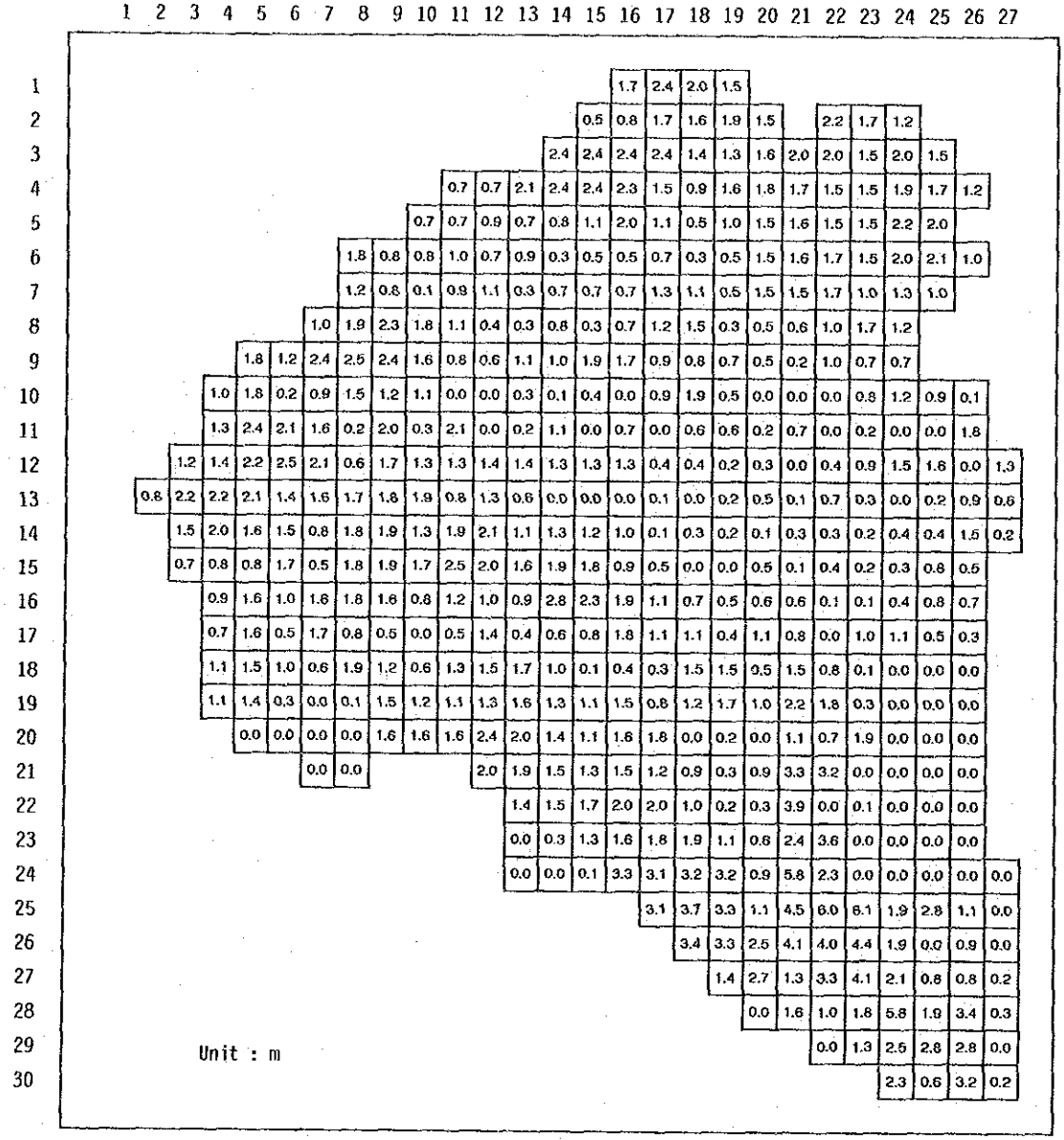


N O T E

: Mesh unit (500 m x 500 m). Figures in meshes represent inundation depths.

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-4 (2/6) MAXIMUM INUNDATION DEPTH BY RETURN PERIOD

25-year Return Period Flood

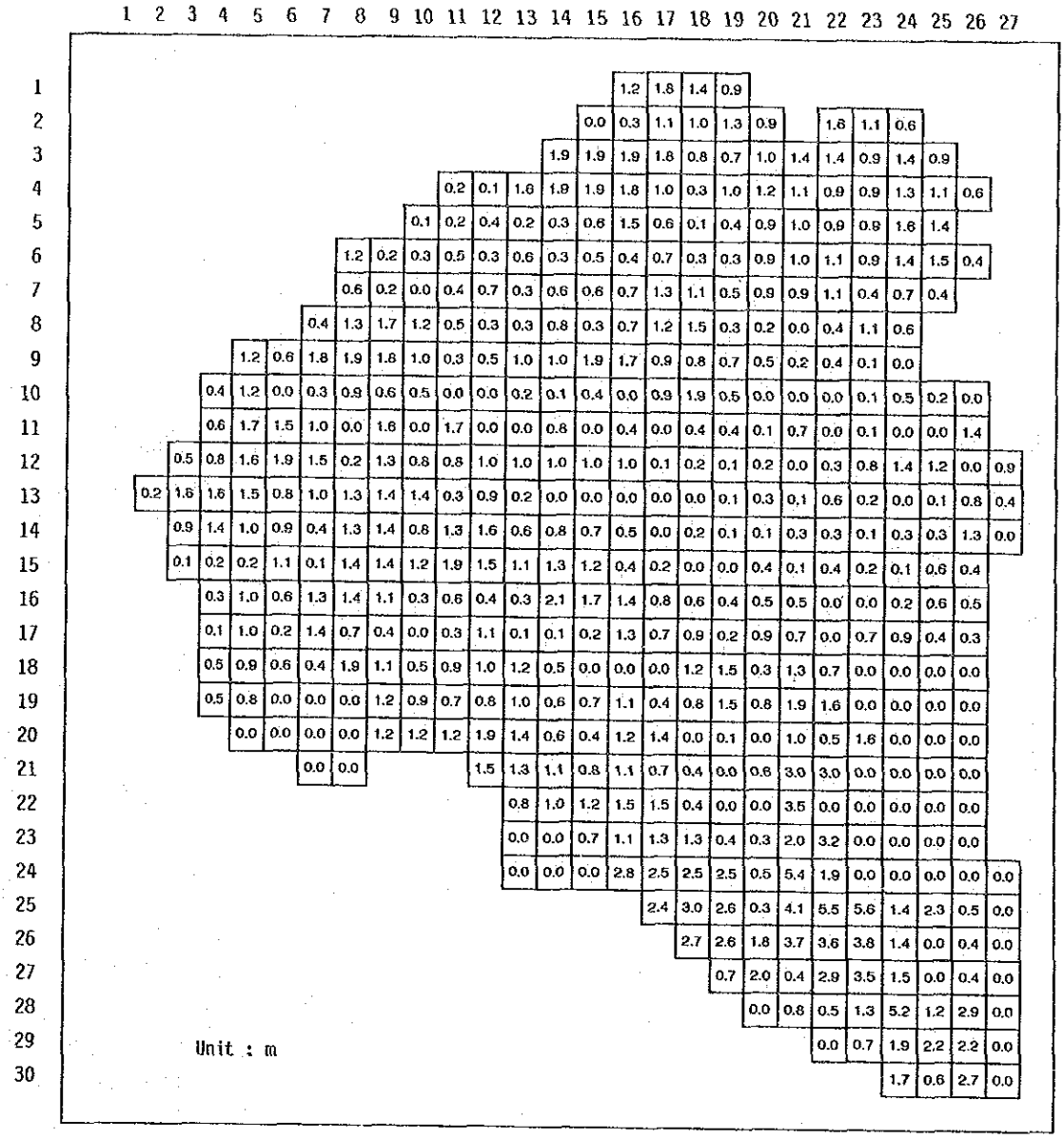


NOTE

: Mesh unit (500 m x 500 m). Figures in meshes represent inundation depths.

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-4 (3/6) MAXIMUM INUNDATION DEPTH BY FLOOD RETURN PERIOD

10-year Return Period Flood

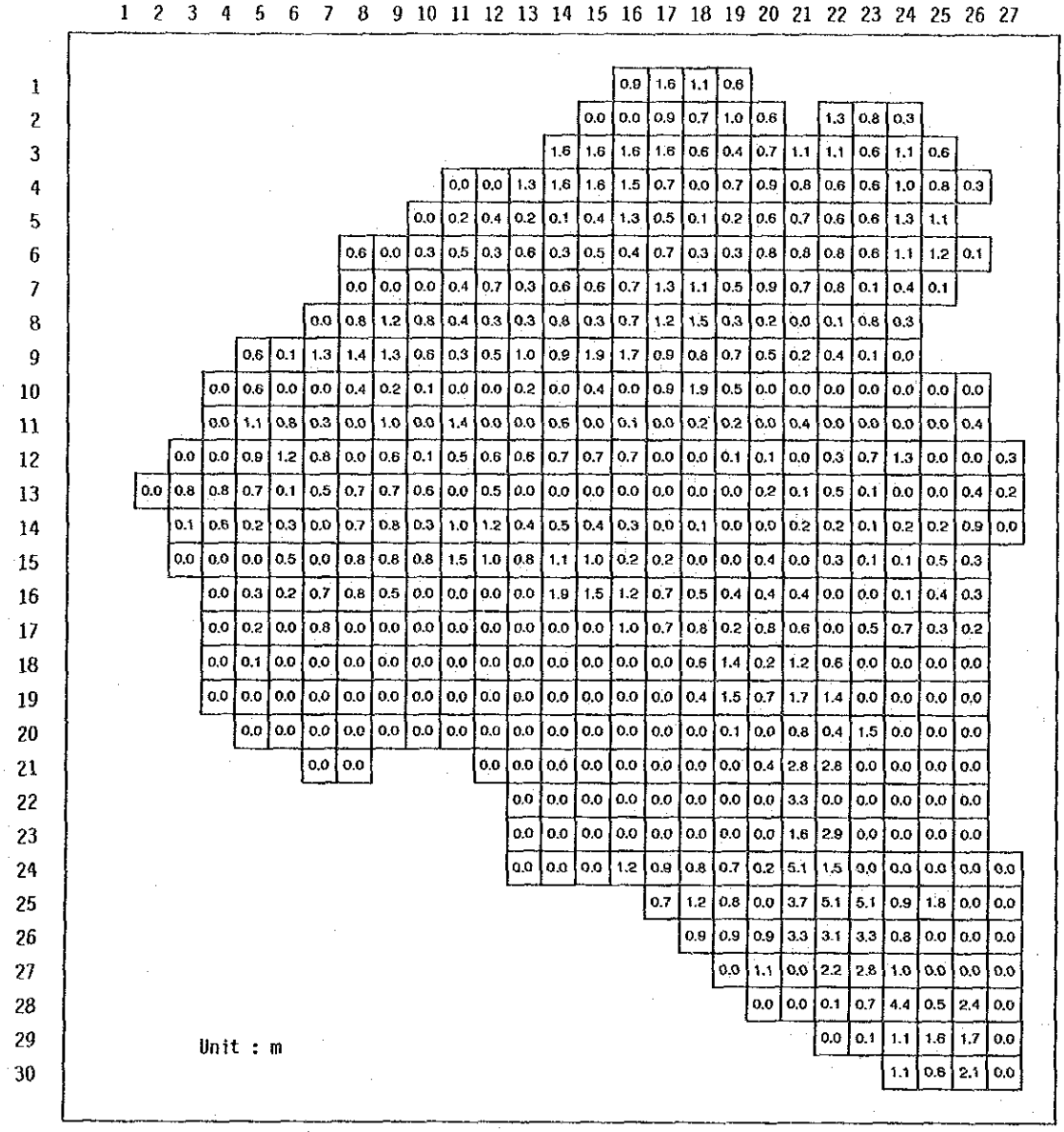


NOTE

□ : Mesh unit (500 m x 500 m). Figures in meshes represent inundation depths.

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-4 (4/6) MAXIMUM INUNDATION DEPTH BY RETURN PERIOD

5-year Return Period Flood

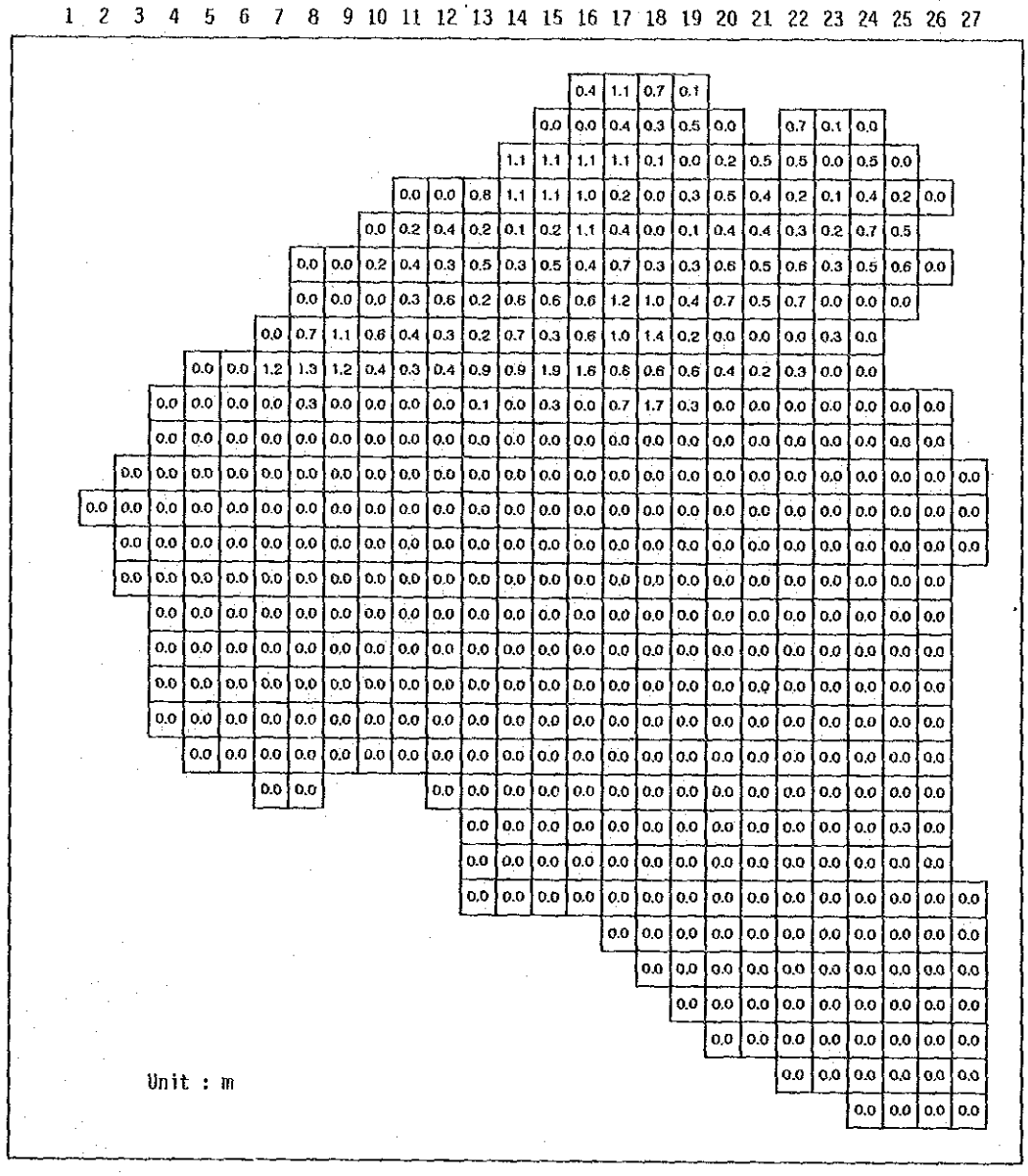


NOTE

: Mesh unit (500 m x 500 m). Figures in meshes represent inundation depths.

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-4 (5/6) MAXIMUM INUNDATION DEPTH BY RETURN PERIOD

2-year Return Period Flood

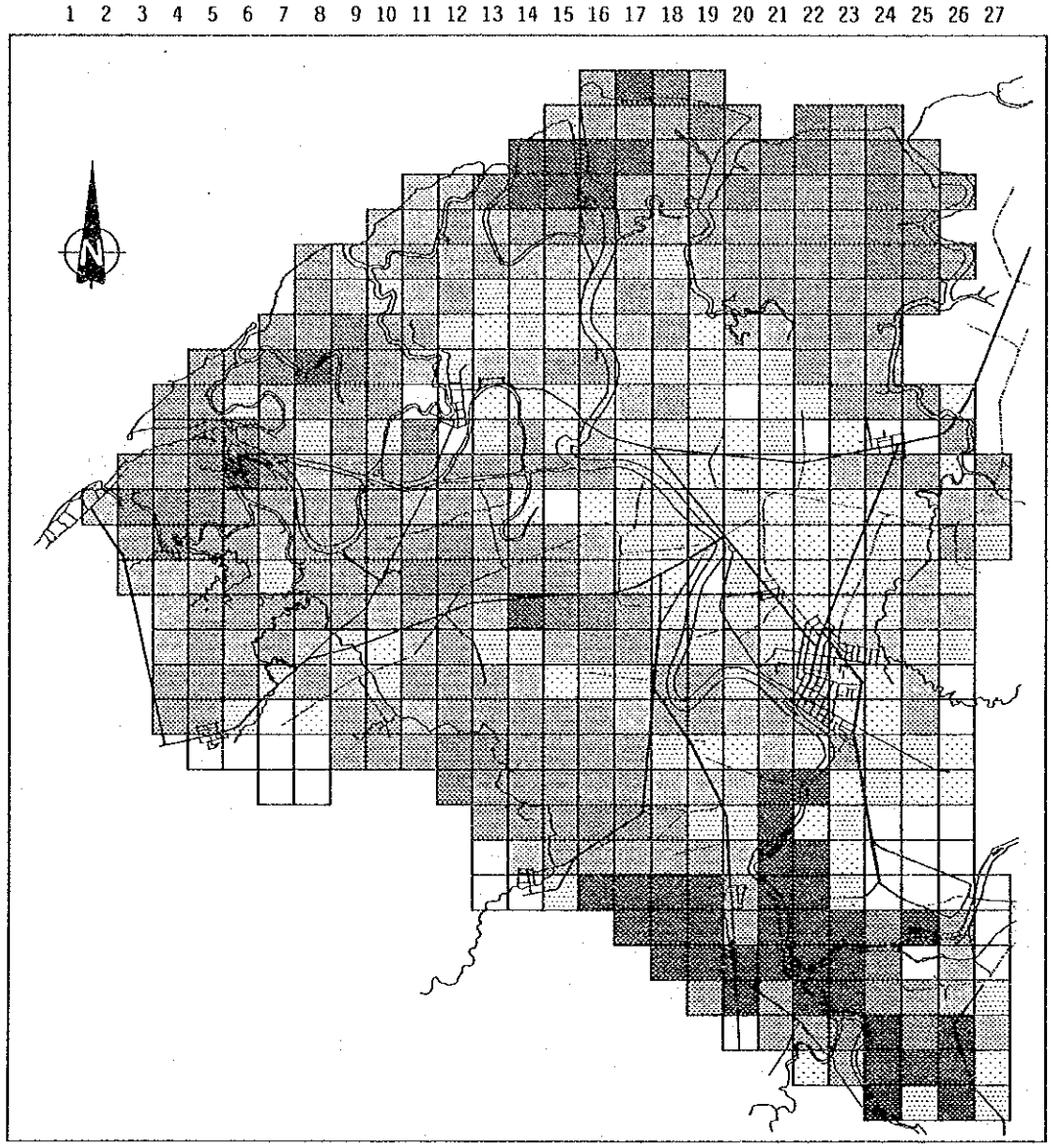


N O T E

: Mesh unit (500 m x 500 m). Figures in meshes represent inundation depths.

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-4 (6/6) MAXIMUM INUNDATION DEPTH BY RETURN PERIOD

100-year return period flood



LEGEND

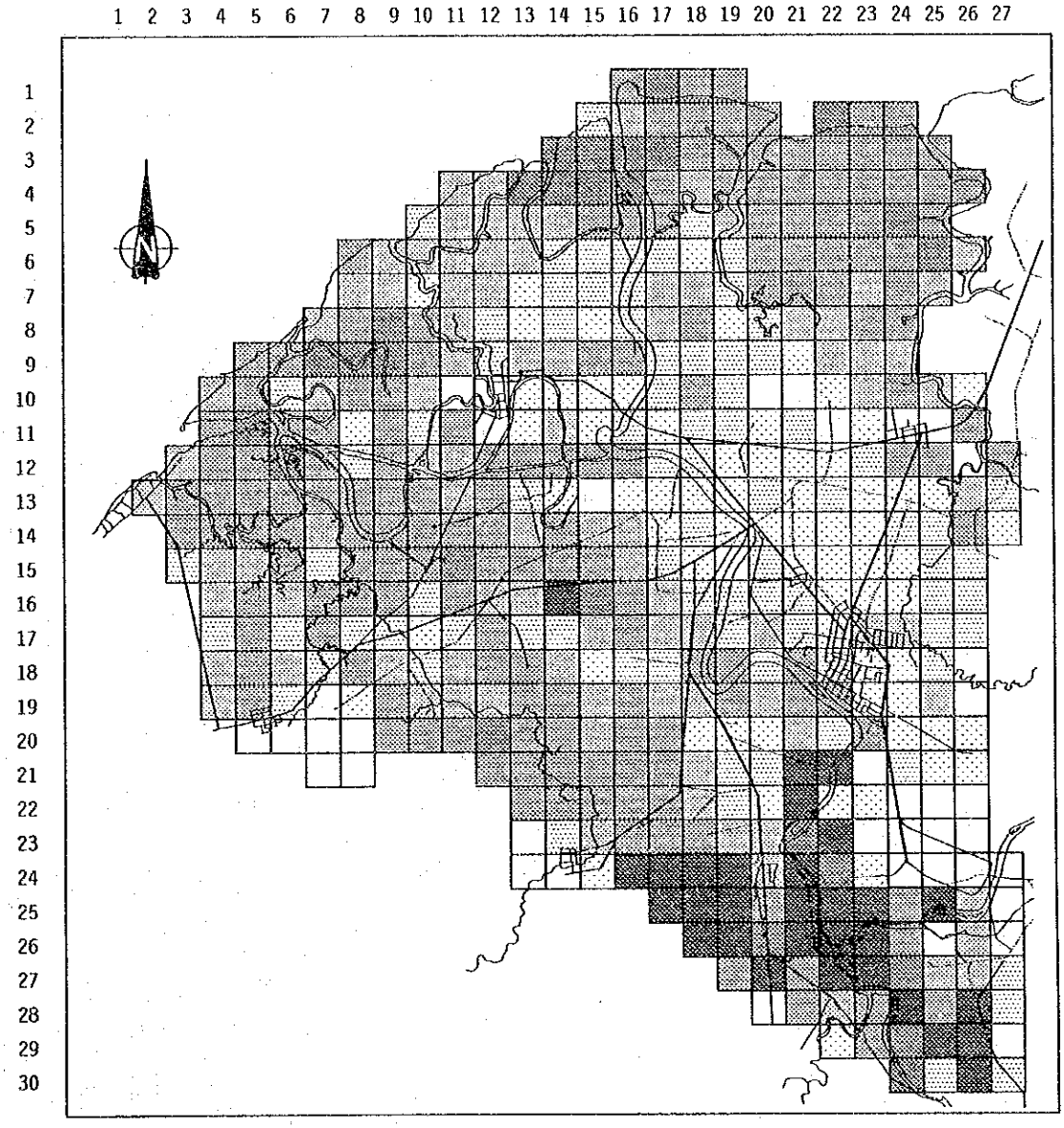
- : No inundation
- : 0.0 - 0.5 m
- : 0.5 - 1.0 m
- : 1.0 - 1.5 m
- : 1.5 - 2.0 m
- : 2.0 - 2.5 m
- : 2.5 - 3.0 m
- : > 3.0 m

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

JAPAN INTERNATIONAL COOPERATION AGENCY

Fig.3.2-5 MAXIMUM INUNDATION PATTERNS (1/6) BY FLOOD RETURN PERIOD

50-year return period flood

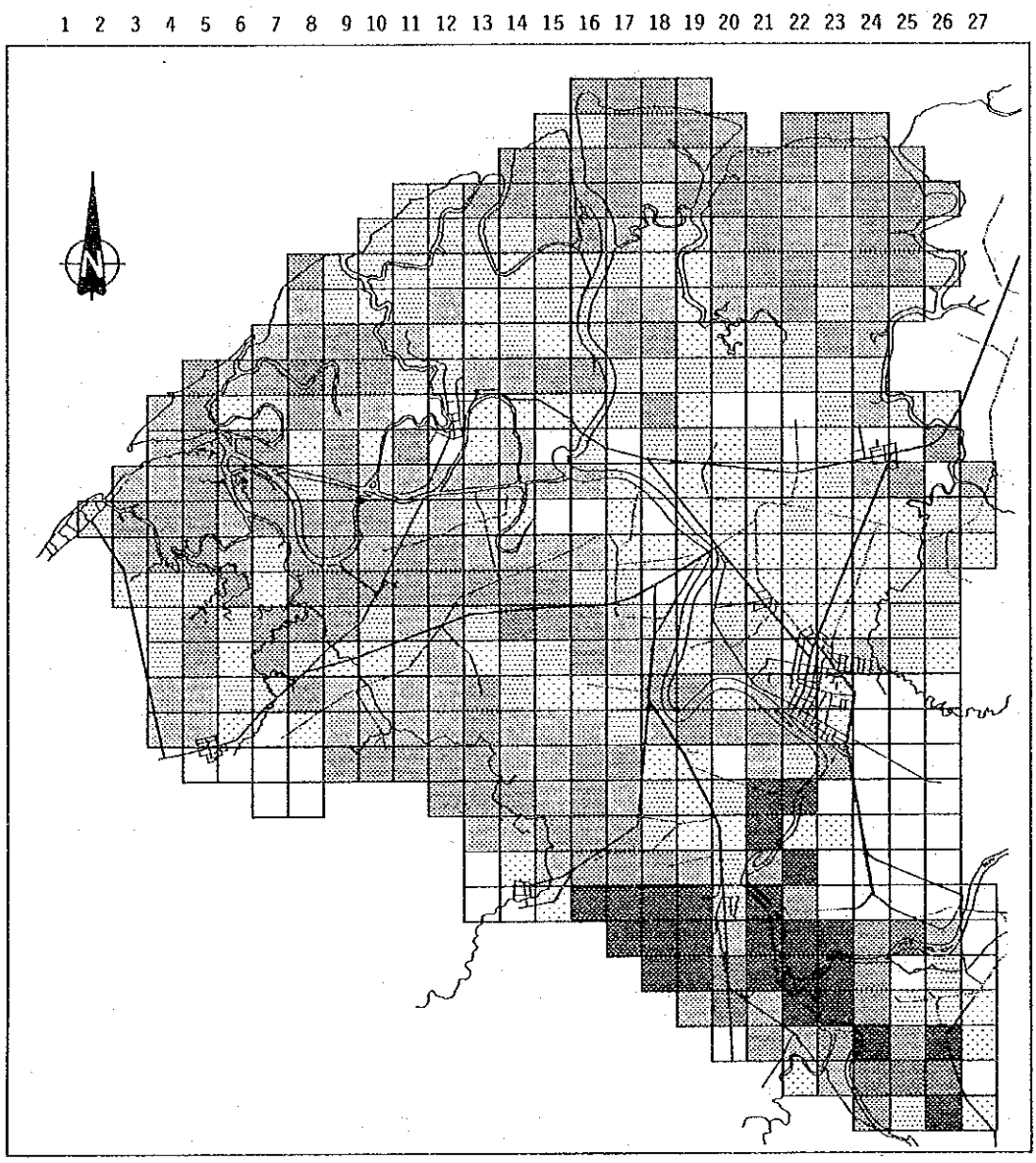


LEGEND

- : No inundation
- : 0.0 - 0.5 m
- : 0.5 - 1.0 m
- : 1.0 - 1.5 m
- : 1.5 - 2.0 m
- : 2.0 - 2.5 m
- : 2.5 - 3.0 m
- : > 3.0 m

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-5 MAXIMUM INUNDATION PATTERNS (2/6) BY FLOOD RETURN PERIOD

25-year return period flood

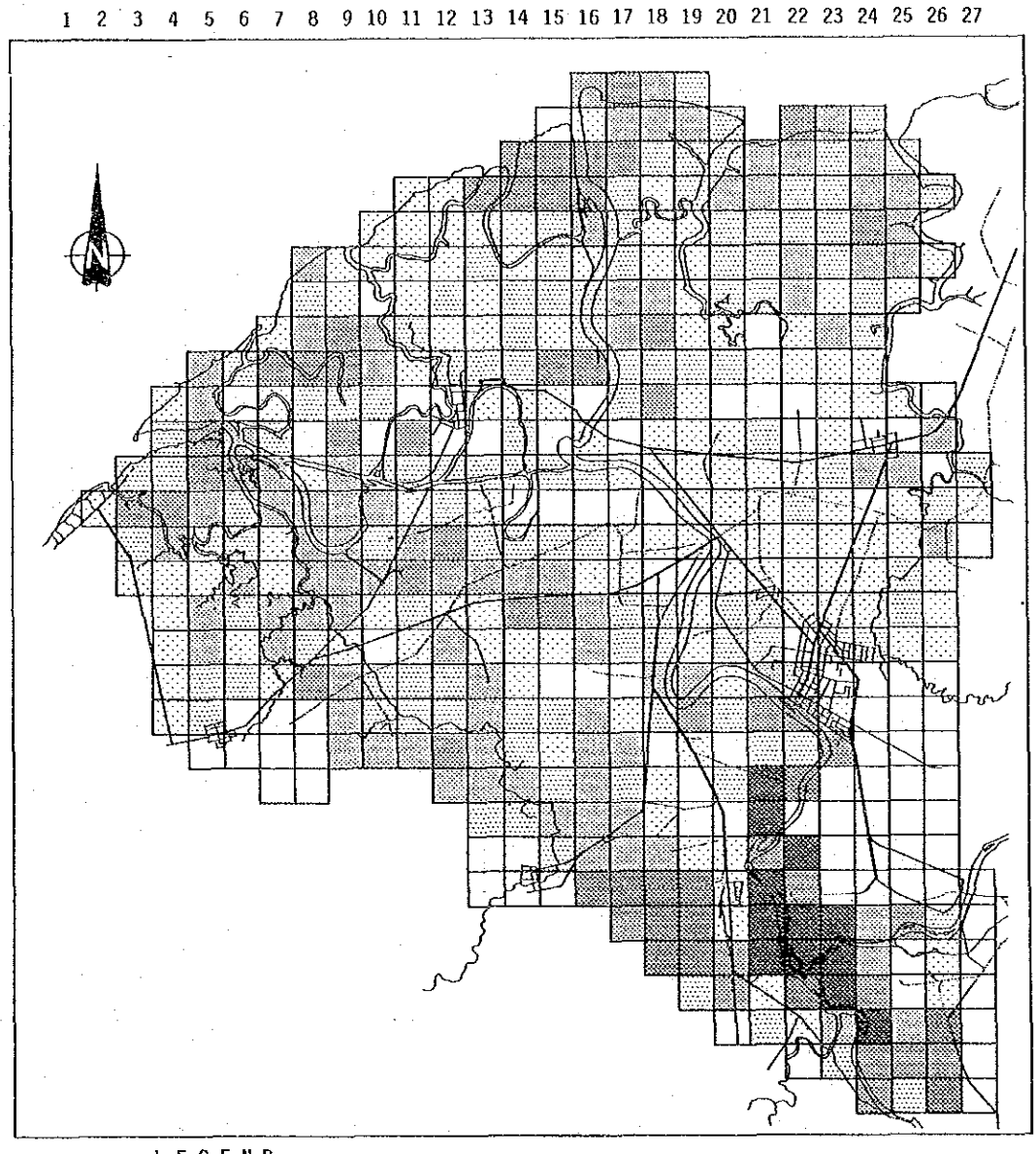


LEGEND

- : No inundation
- : 0.0 - 0.5 m
- : 0.5 - 1.0 m
- : 1.0 - 1.5 m
- : 1.5 - 2.0 m
- : 2.0 - 2.5 m
- : 2.5 - 3.0 m
- : > 3.0 m

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-5 MAXIMUM INUNDATION PATTERNS (3/6) BY FLOOD RETURN PERIOD

10-year return period flood

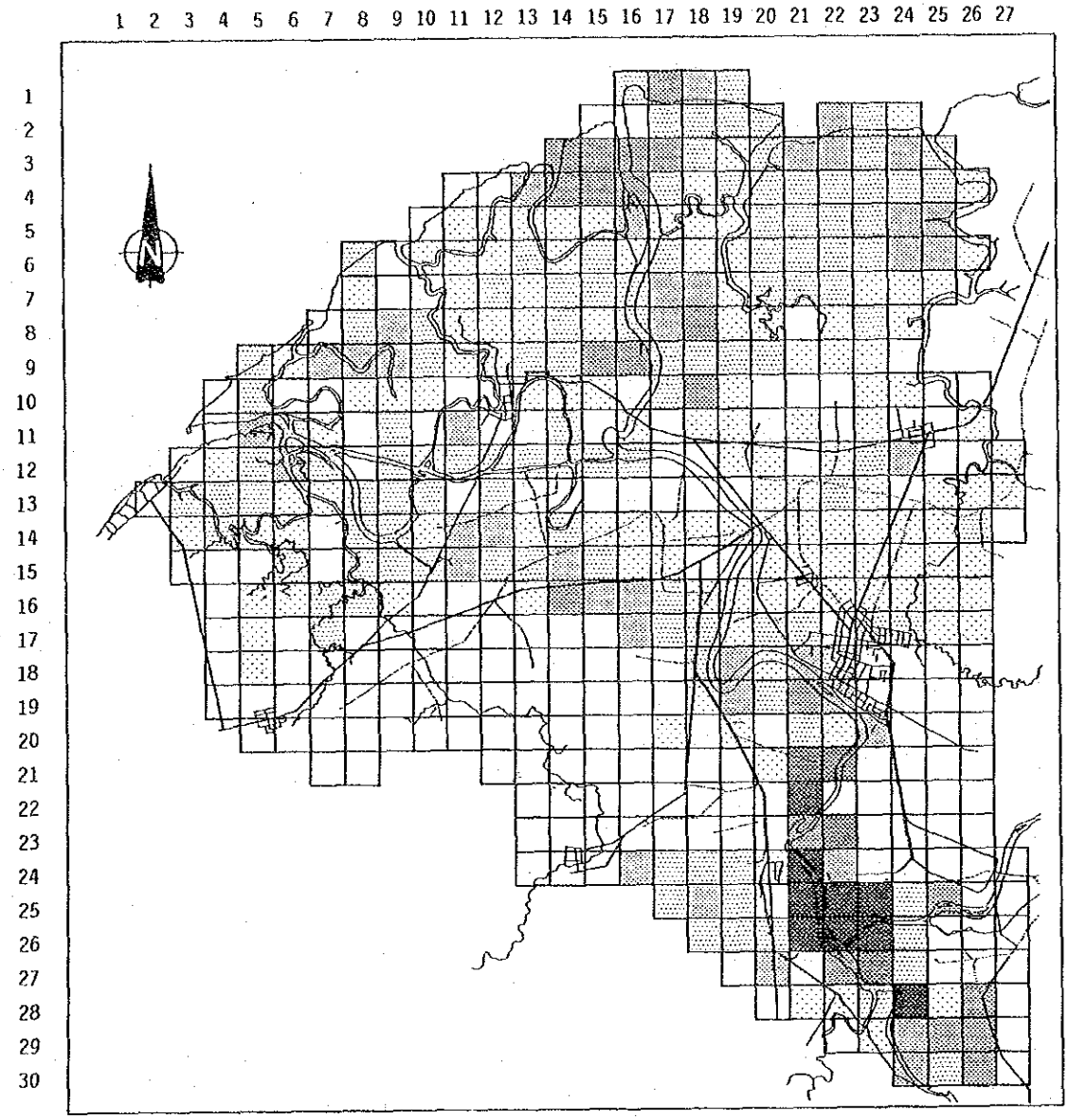


LEGEND

- : No inundation
- : 0.0 - 0.5 m
- : 0.5 - 1.0 m
- : 1.0 - 1.5 m
- : 1.5 - 2.0 m
- : 2.0 - 2.5 m
- : 2.5 - 3.0 m
- : > 3.0 m

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-5 MAXIMUM INUNDATION PATTERNS (4/6) BY FLOOD RETURN PERIOD

5-year return period flood

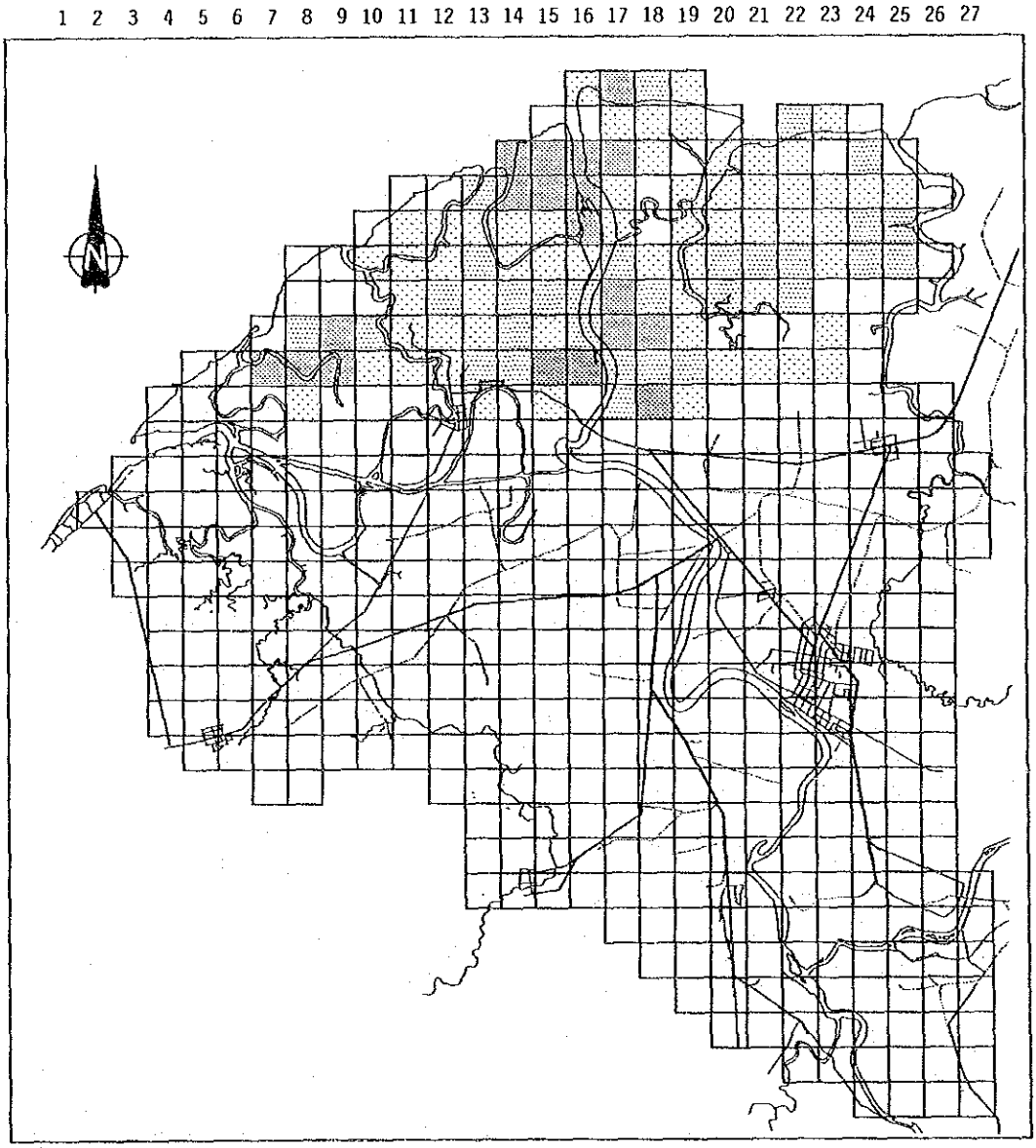


LEGEND

- : No inundation
- : 0.0 - 0.5 m
- : 0.5 - 1.0 m
- : 1.0 - 1.5 m
- : 1.5 - 2.0 m
- : 2.0 - 2.5 m
- : 2.5 - 3.0 m
- : > 3.0 m

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-5 MAXIMUM INUNDATION PATTERNS (5/6) BY FLOOD RETURN PERIOD

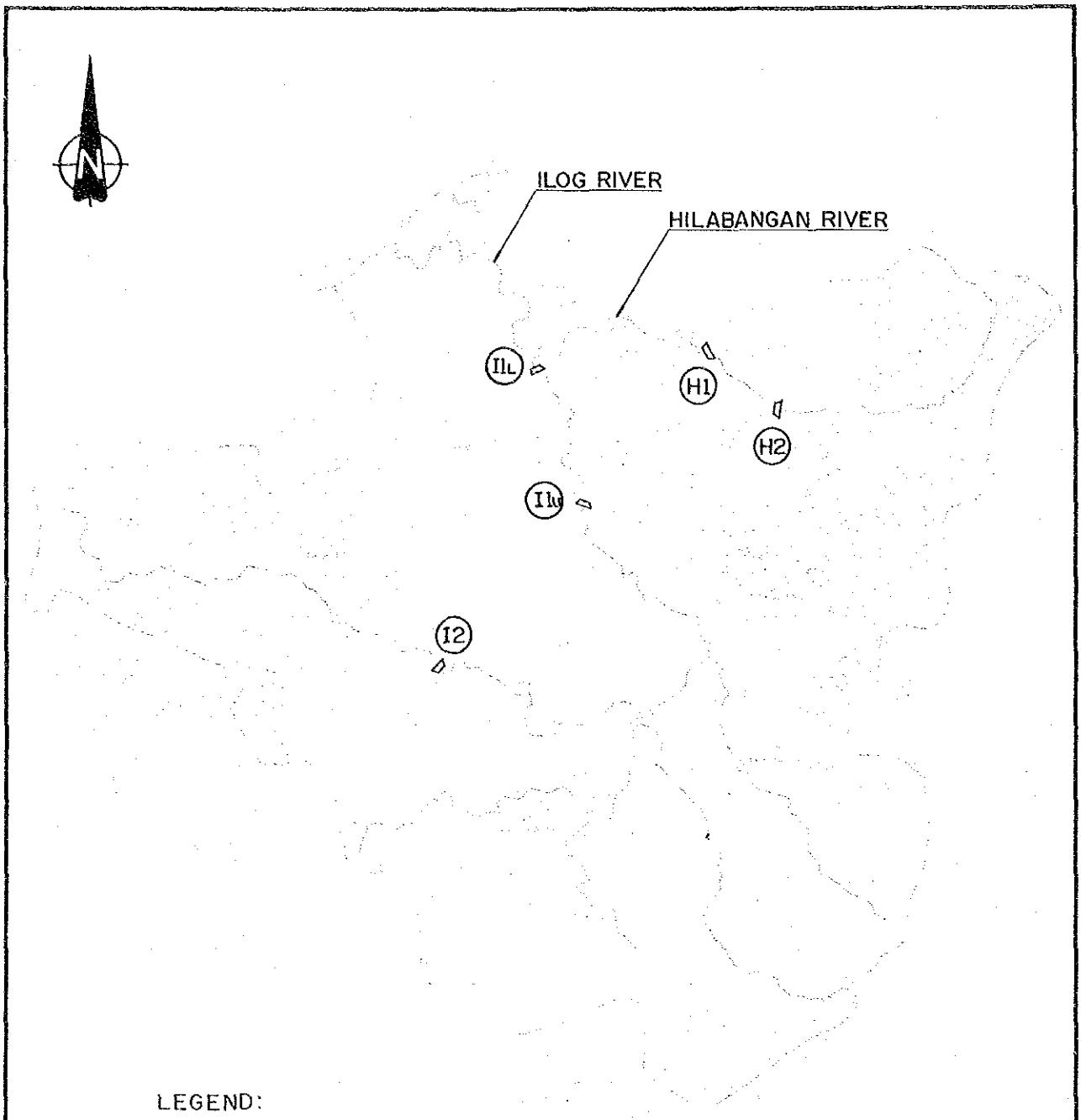
2-year return period flood



LEGEND

- : No inundation
- : 0.0 - 0.5 m
- : 0.5 - 1.0 m
- : 1.0 - 1.5 m
- : 1.5 - 2.0 m
- : 2.0 - 2.5 m
- : 2.5 - 3.0 m
- : > 3.0 m

THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.2-5 MAXIMUM INUNDATION PATTERNS (6/6) BY FLOOD RETURN PERIOD



LEGEND:

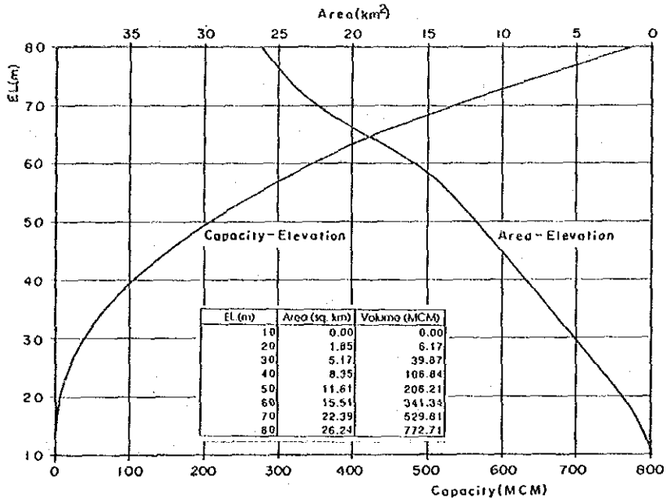
- (H1) HILABANGAN No. I DAM SITE
- (H2) HILABANGAN No.2 DAM SITE
- (IIu) ILOG No. I DAM SITE (UPPER SITE)
- (IIL) ILOG No. I DAM SITE (LOWER SITE)
- (I2) ILOG No. 2 DAM SITE

SCALE : 1/400,000

0 5 10 15 20 25 30km

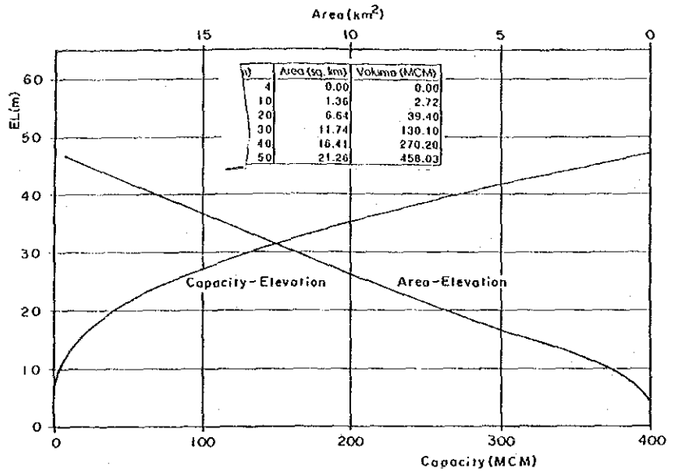
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.3-1 LOCATION OF POSSIBLE DAM SITES

ILOG RIVER



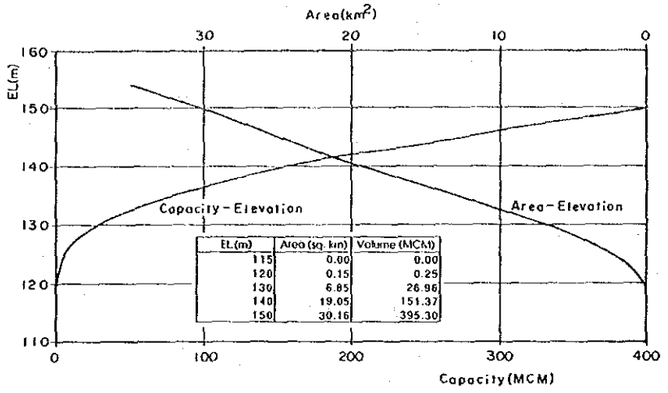
EL(m)	Area (sq. km)	Volume (MCM)
10	0.00	0.00
20	1.85	6.17
30	5.12	39.87
40	8.35	106.84
50	11.61	206.21
60	15.54	341.33
70	22.39	529.61
80	26.24	772.71

Ilog No.1 Upper



EL(m)	Area (sq. km)	Volume (MCM)
4	0.00	0.00
10	1.36	2.72
20	6.64	39.40
30	11.74	130.10
40	16.41	270.20
50	21.26	458.03

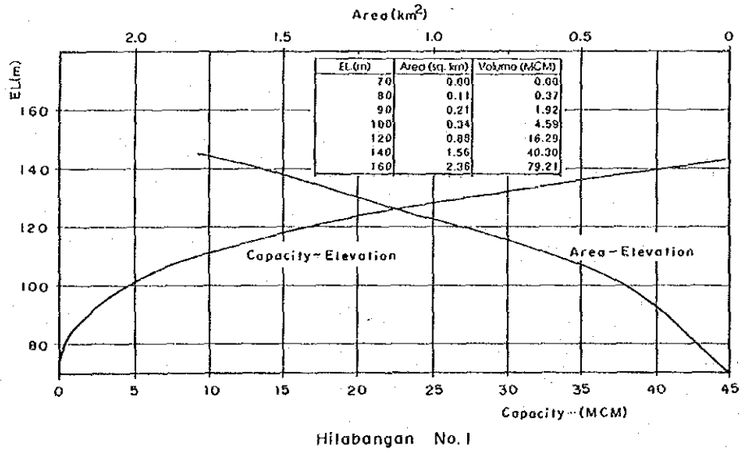
Ilog No.1 Lower



EL.(m)	Area (sq. km)	Volume (MCM)
115	0.00	0.00
120	0.15	0.25
130	6.85	26.96
140	19.05	151.37
150	30.16	395.30

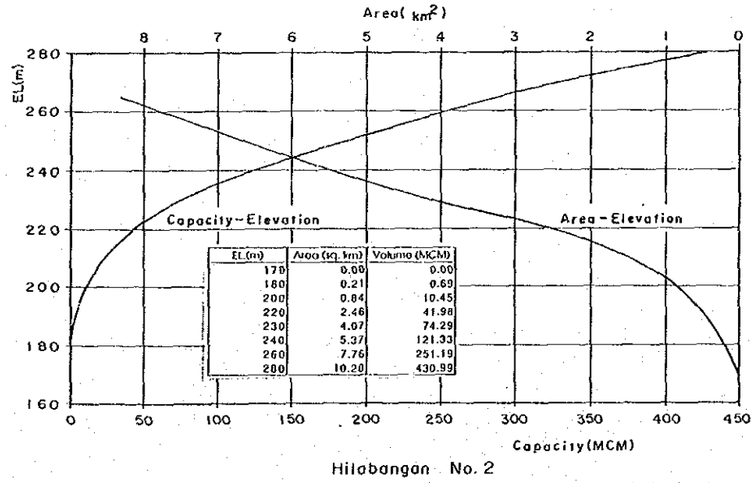
Ilog No.2

HILABANGAN RIVER



EL.(m)	Area (sq. km)	Volume (MCM)
70	0.00	0.00
80	0.11	0.37
90	0.21	1.92
100	0.34	4.59
120	0.88	16.29
140	1.56	40.30
160	2.36	79.21

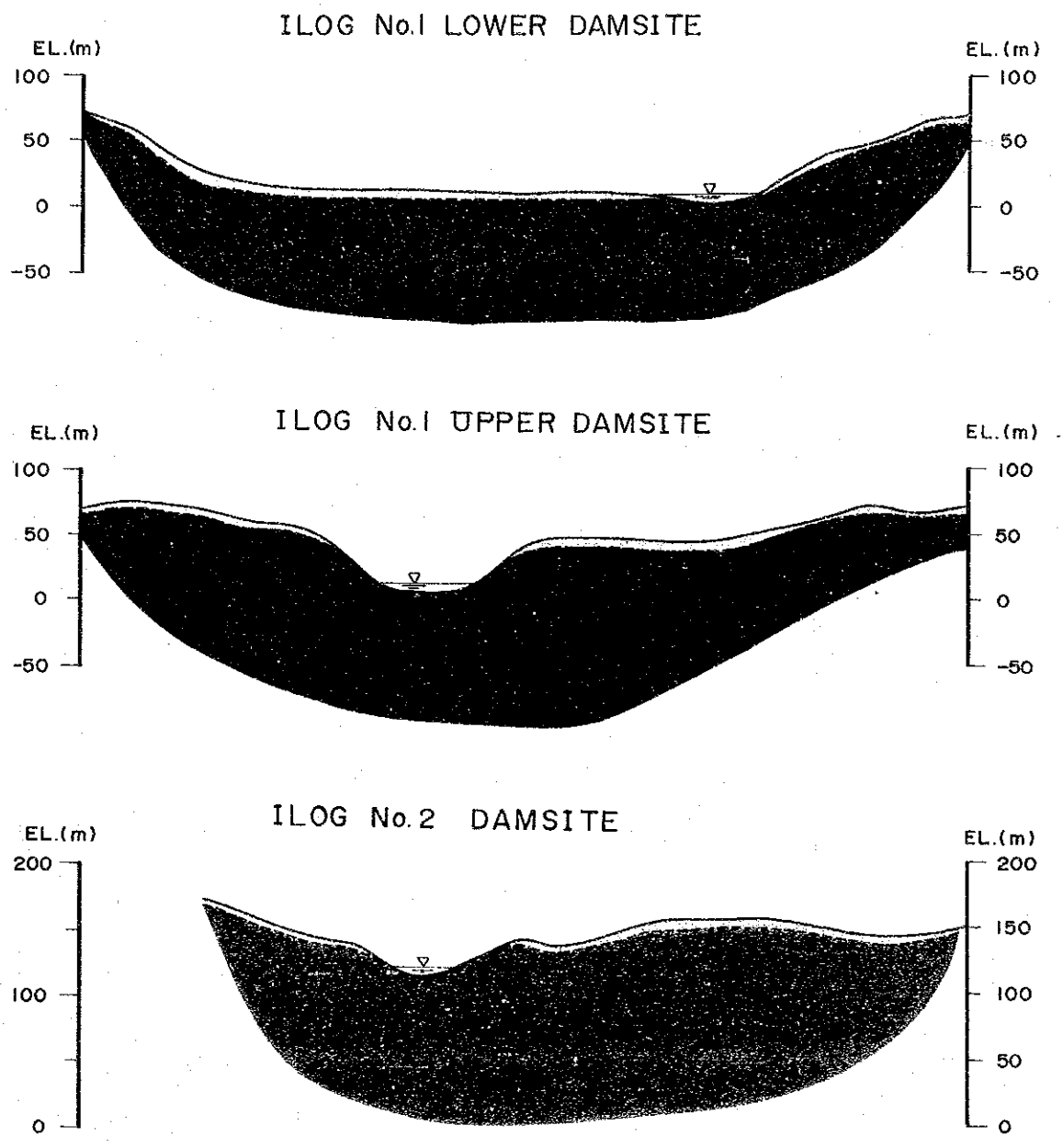
Hilabangan No. 1



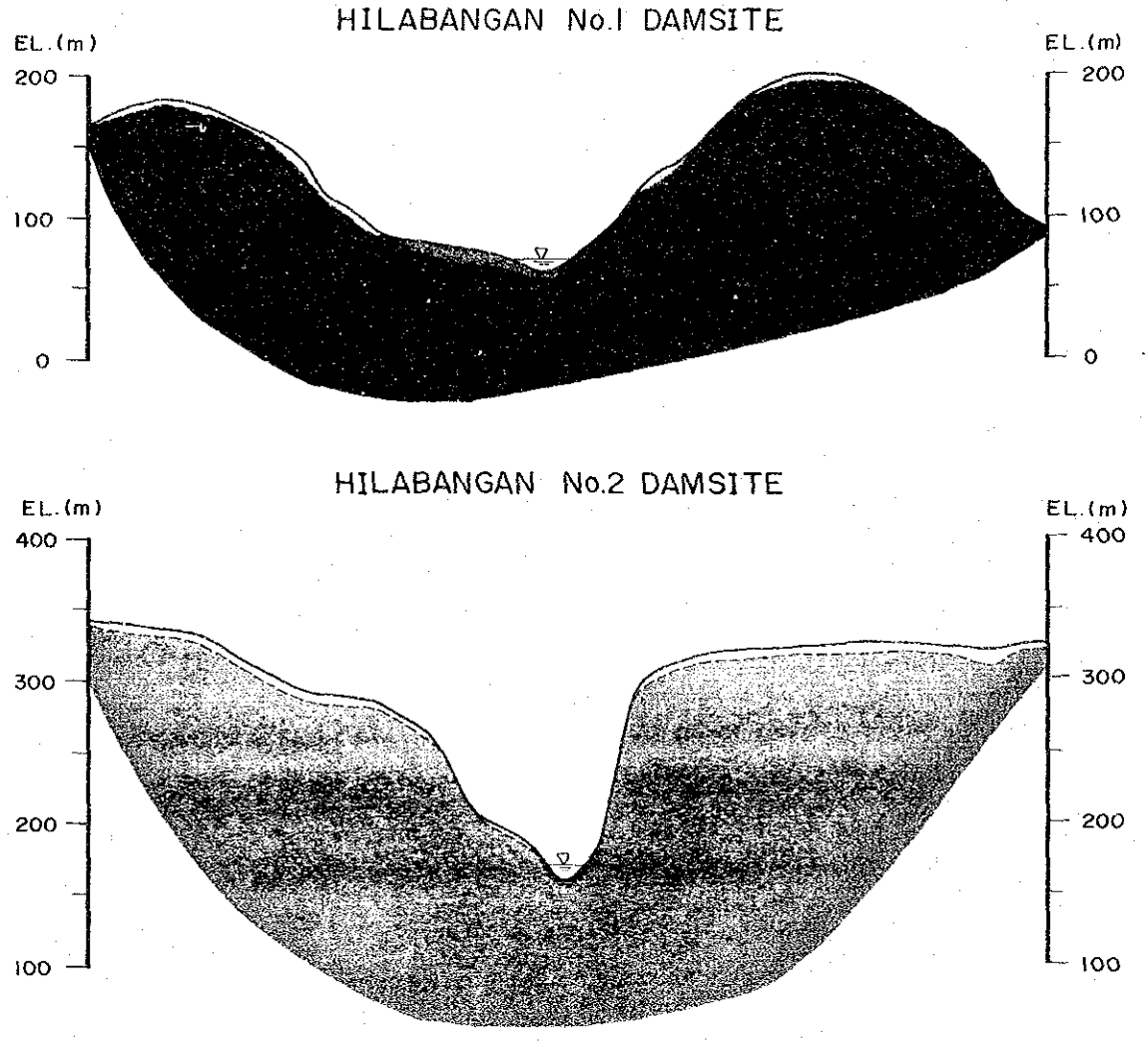
EL.(m)	Area (sq. km)	Volume (MCM)
170	0.00	0.00
180	0.21	0.69
200	0.84	10.45
220	2.46	41.98
230	4.07	74.29
240	5.37	121.33
260	7.76	251.19
280	10.20	430.99

Hilabangan No. 2

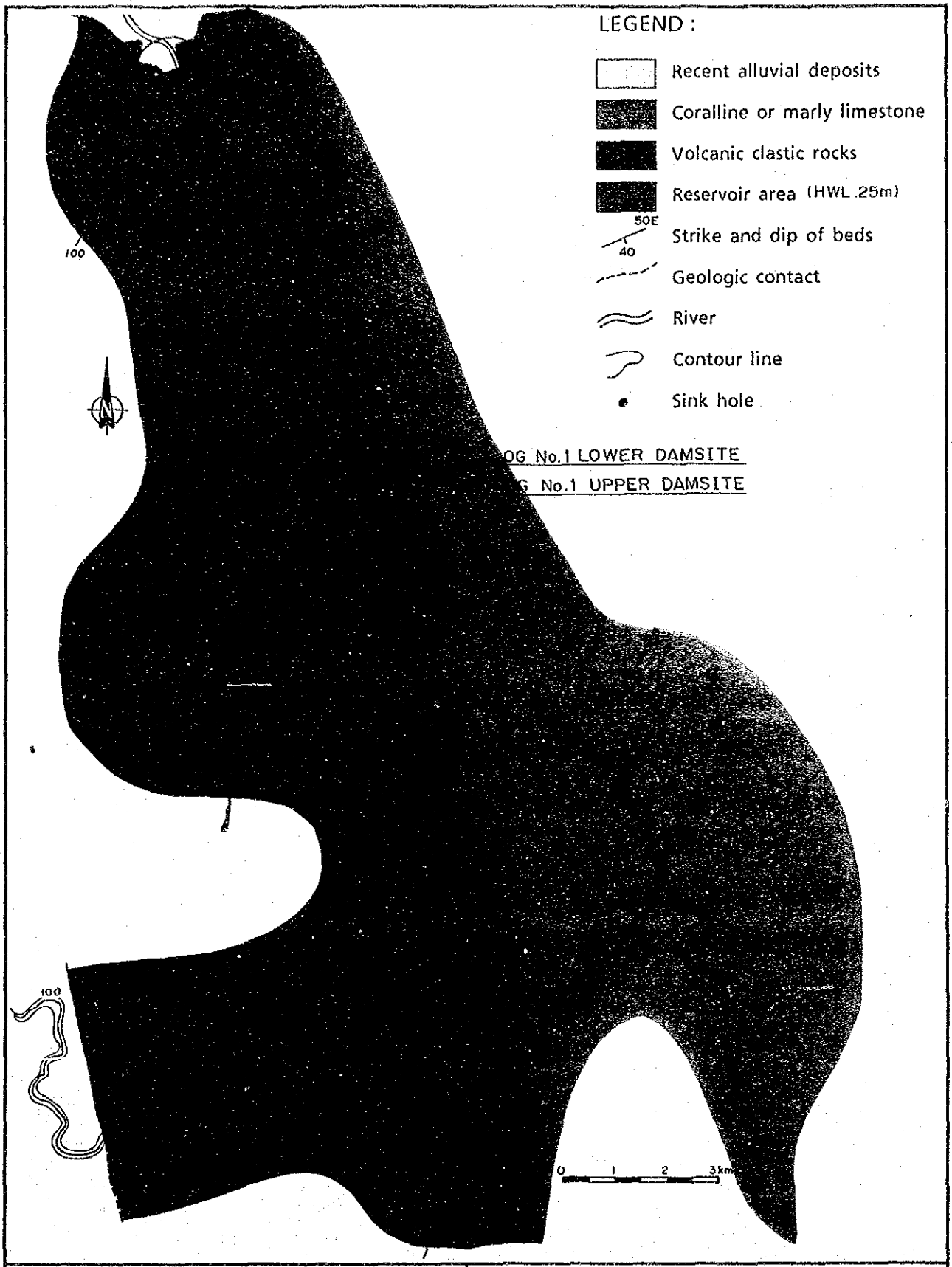
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.3-2 STORAGE CAPACITY-AREA CURVE



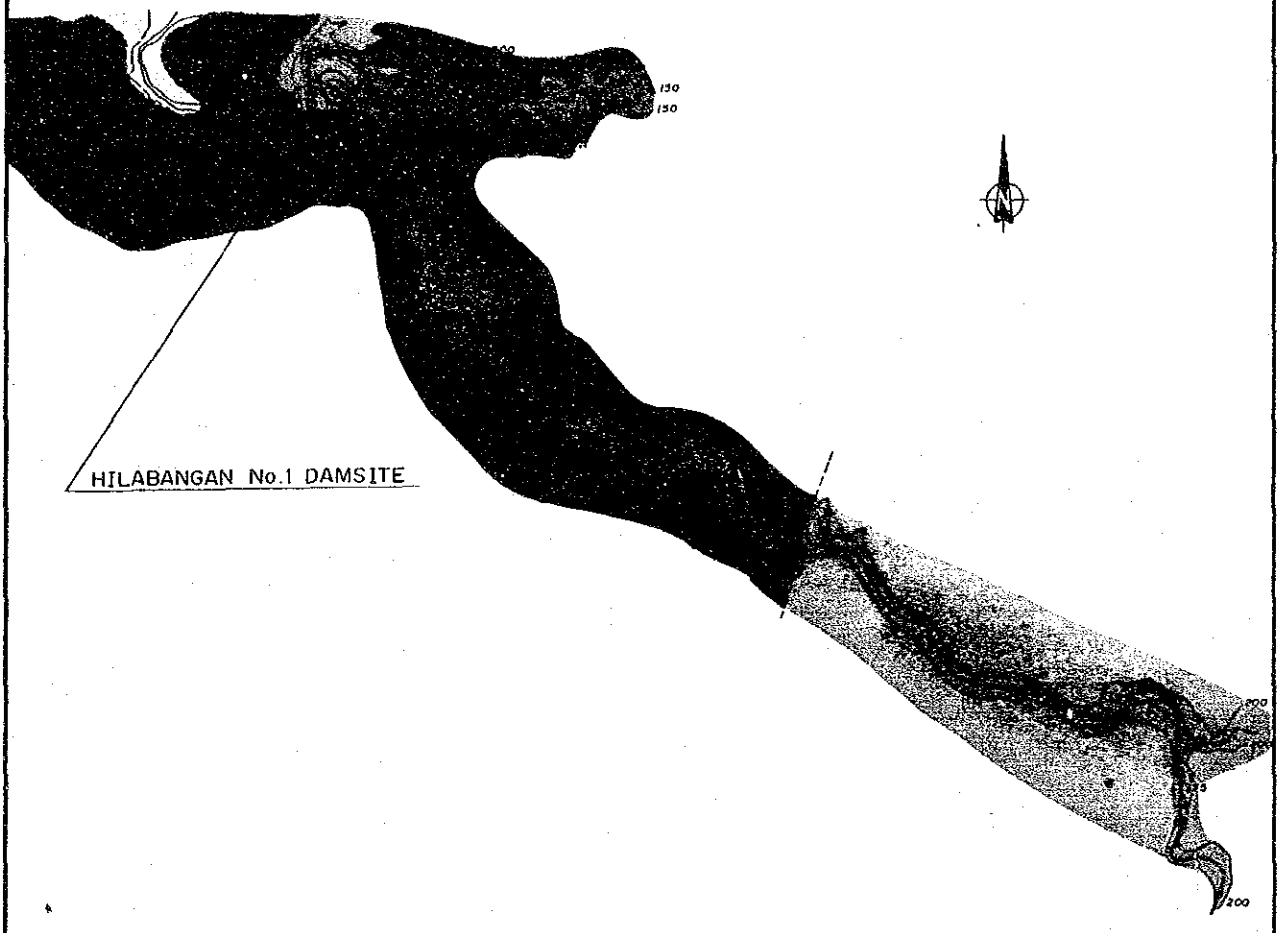
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.3-3 GEOLOGIC SECTION OF DAM SITE (1/2)



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.3-3 GEOLOGIC SECTION OF DAM SITE (2/2)



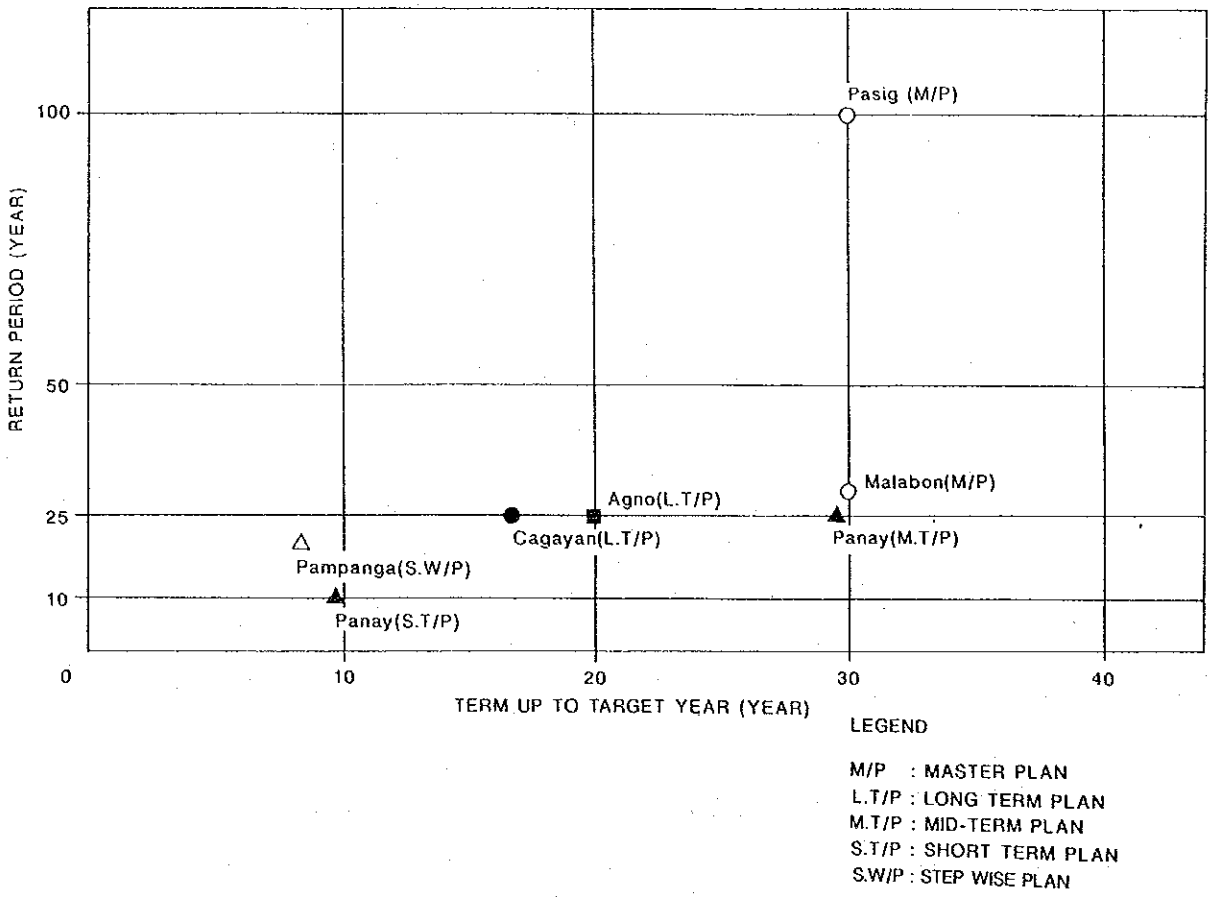
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.3-4 GEOLOGIC MAP OF ILOG NO.1 UPPER AND LOWER DAM SITES



LEGEND :

- Recent alluvial deposits
- Dense crystalline limestone
- Volcanic clastic rocks
- Reservoir area (HWL. 150m)
- 50E / 40 — Strike and dip of beds
- Geologic contact
- River
- Contour line
- Sink hole

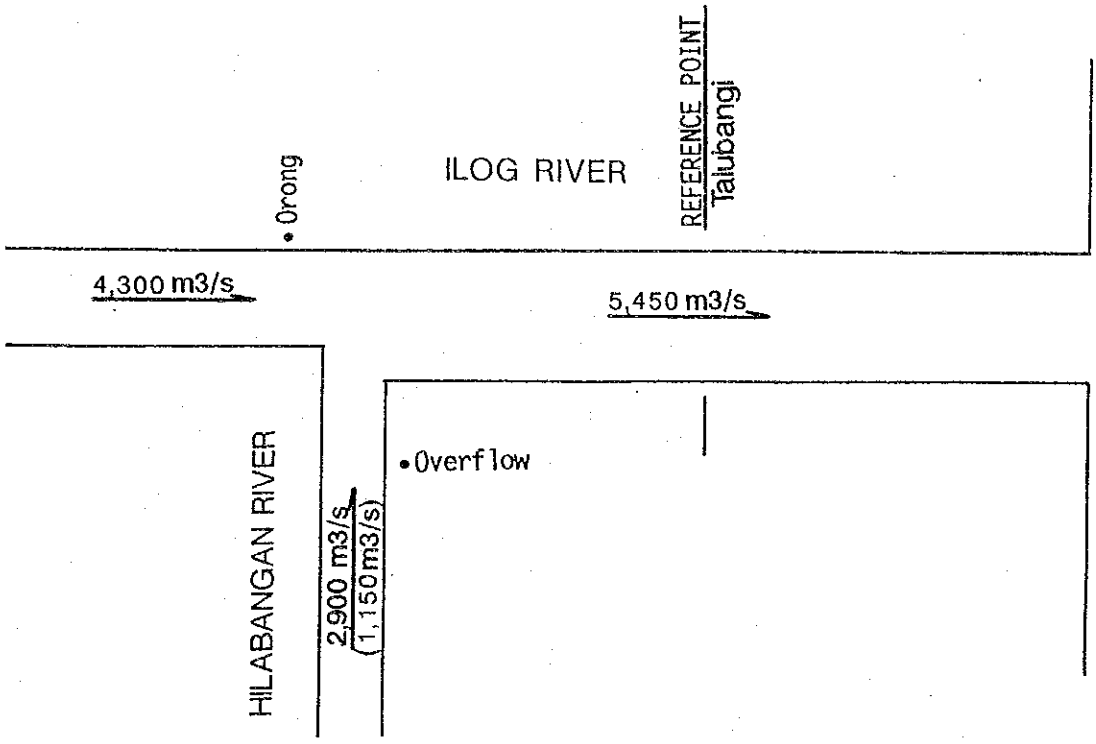
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.3.3-5 GEOLOGIC MAP OF HILABANGAN NO.1 DAM SITE



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT

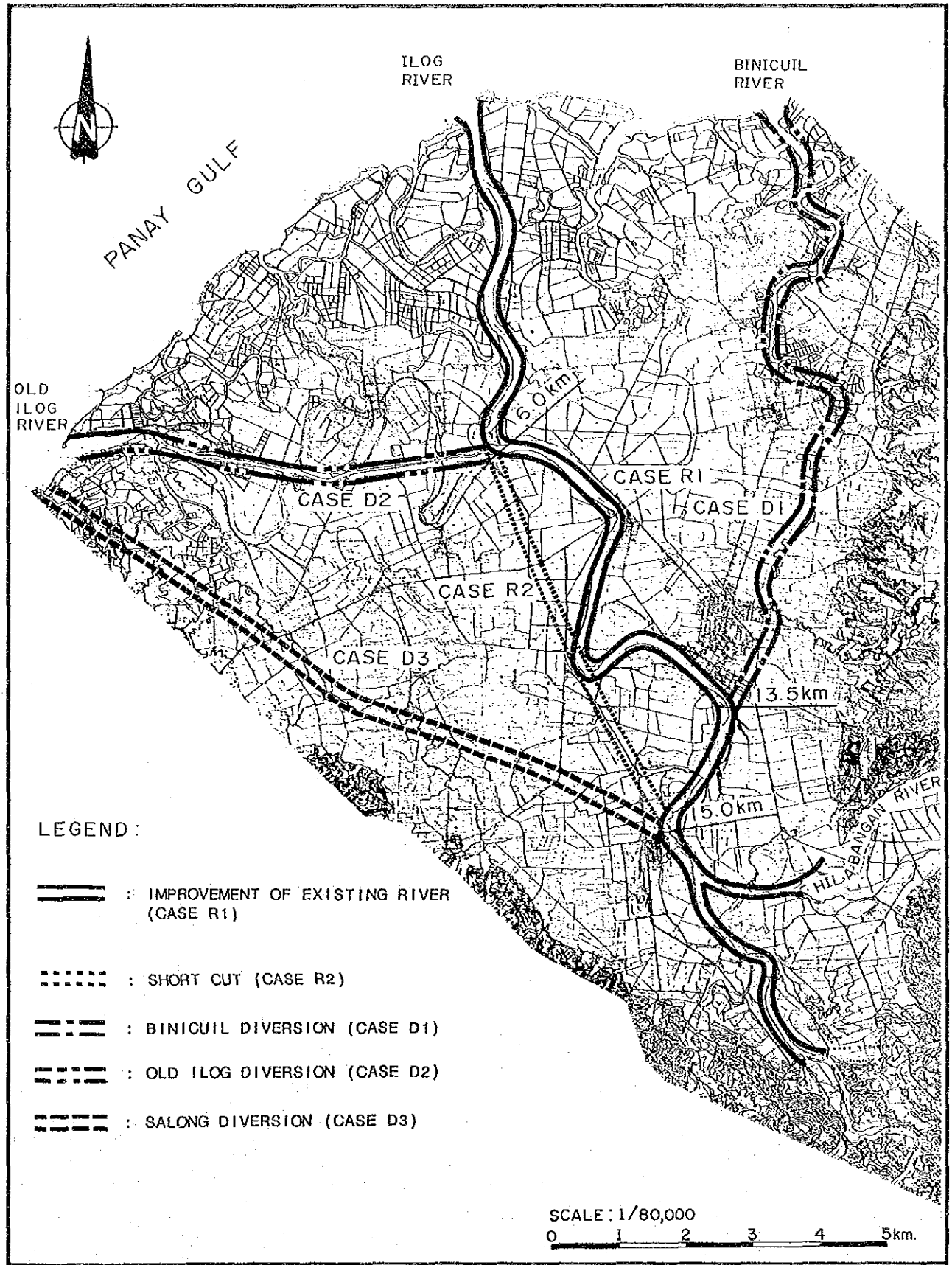
JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 4.2-1 TARGET YEAR AND PROJECT SCALE

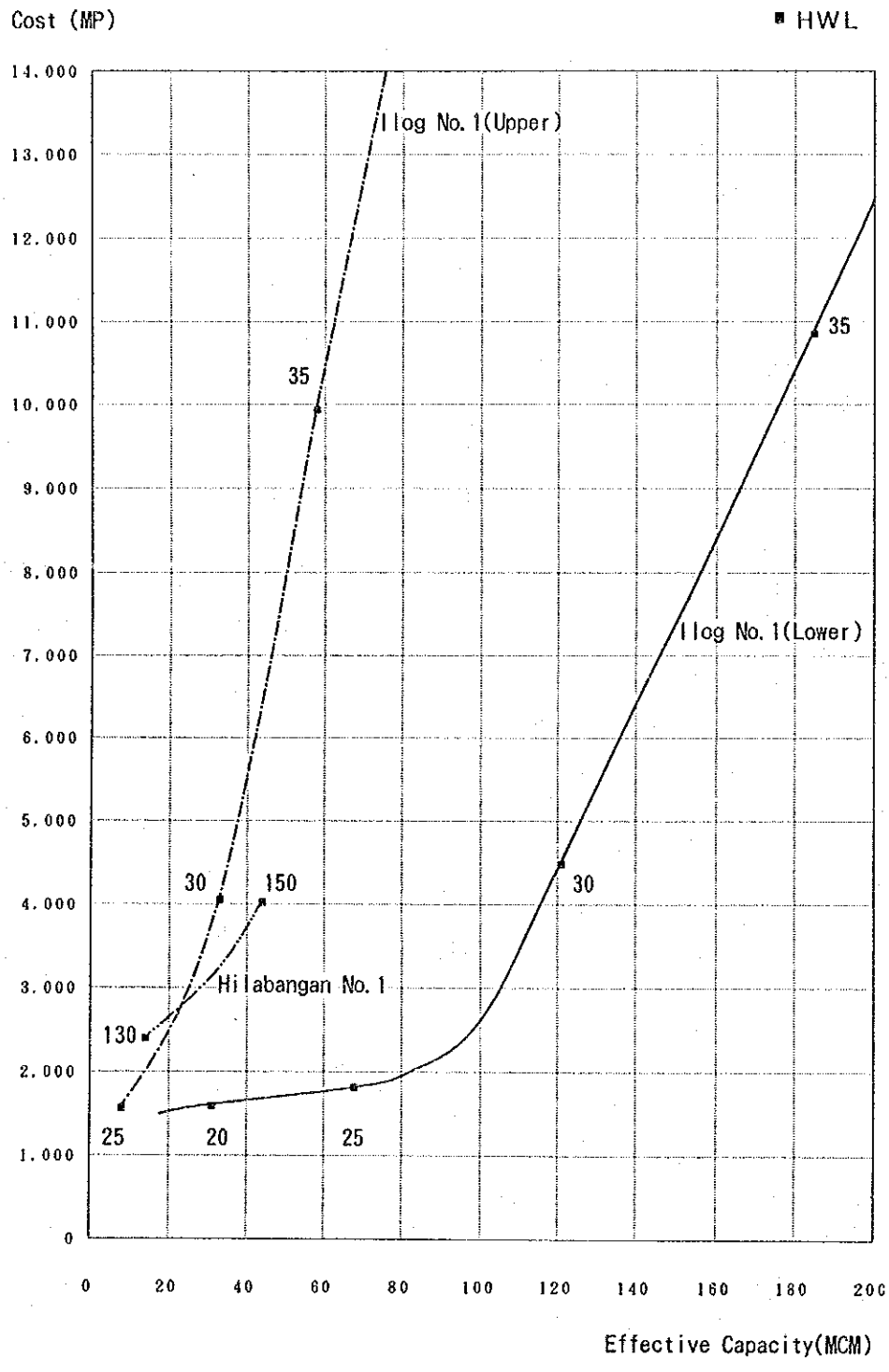


NOTE : FIGURE IN PARENTHESES IS THE FLOOD DISCHARGE OF HILABANGAN RIVER WHEN PEAK FLOOD OCCURS AT THE REFERENCE POINT

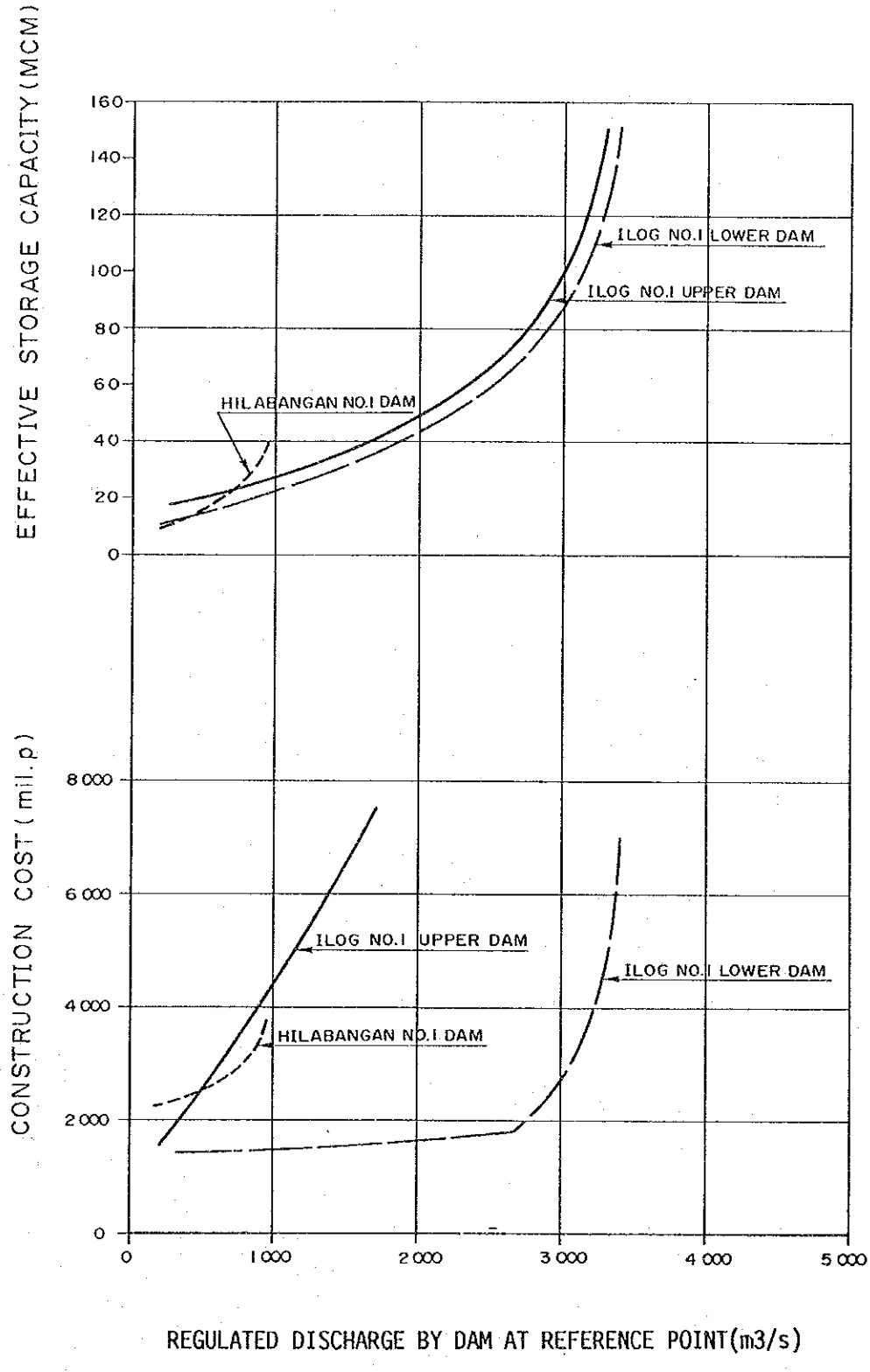
THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.4.3-1 BASIC PROJECT FLOOD



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.4.4-1 ALTERNATIVE CASES OF RIVER IMPROVEMENT AND DIVERSION PLANS



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.4.4-2 COST-EFFECTIVE CAPACITY CURVE



THE STUDY ON ILOG-HILABANGAN RIVER BASIN FLOOD CONTROL PROJECT JAPAN INTERNATIONAL COOPERATION AGENCY	Fig.4.4-3 EFFECTIVE STORAGE CAPACITY AND CONSTRUCTION COST VERSUS REGULATION EFFECT