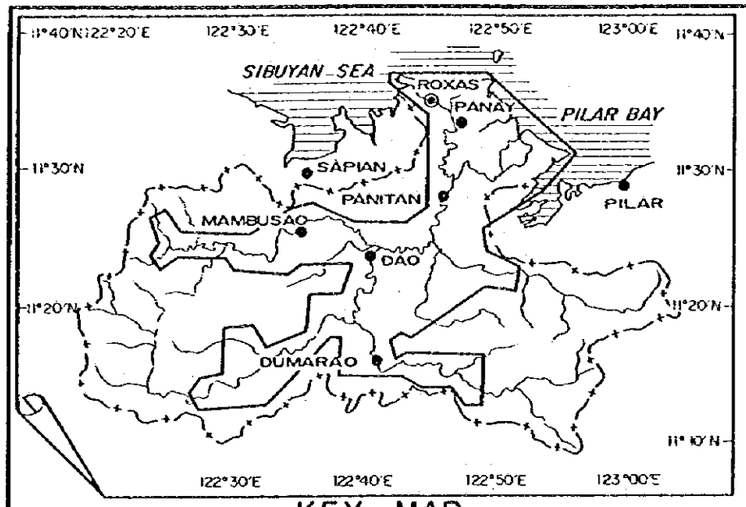


図 3.5-8　　１００年洪水の冠水深

Fig. 3.5-8　INUNDATION DEPTHS - 100-YEAR FLOOD

LIST OF COMMUNAL IRRIGATION SYSTEM (CIS)

Unit : ha

No.	Name of CIS	Location	Wet	Dry
1	SALCED	Dumarao, Capiz	250	130
2	ALIPASYAWAN	Dumarao, Capiz	60	50
3	SAN ROQUE	Dumalag, Capiz	55	45
4	KAGBA	Quartero, Capiz	170	170
5	CONSOLACION	Dumarao, Capiz	/1:-	
6	MALONOY	Dumarao, Capiz	/1:-	-
7	STA RITA	Dumalag, Capiz	90	65
8	CORTINGLE	Dumarao, Capiz	40	35
9	TAGLAY-TRACTANO	Dumarao, Capiz	26	20
10	BATUDIC	Mambusao, Capiz	/1:-	-
11	CALA-ACTIC	Mambusao, Capiz	70	60
12	SAN JOSE BUNAGSONGAN	Roxas City	68	45
13	MANAY	Sigma, Capiz	85	55
14	ILAS	Dao, Capiz	650	550
15	BALUCTAN	Sigma, Capiz	280	250
16	SINABSABAN	Maayon, Capiz	40	25
17	MASUNOGAN-AMOAC	Lemery, Iloilo	50	20

NO.	Name of CIS	Location	Wet	Dry
18	MANAPAL	Lemery, Iloilo	65	40
19	LUYENY	Lemery, Iloilo	15	5
20	POMTOC	Lemery, Iloilo	170	130
21	DAYOC	Dao, Capiz	/2:	
22	MALONOY	Dao, Capiz	/2:	
23	MAYHOY	Quartero, Capiz	/2:	
	TOTAL		2,164	1,695

/1 : Not operated due to improper maintenance of facility, as of December 1985.

/2 : Constructed by the Ministry of Local Government and not operated due to a lack of proper maintenance.

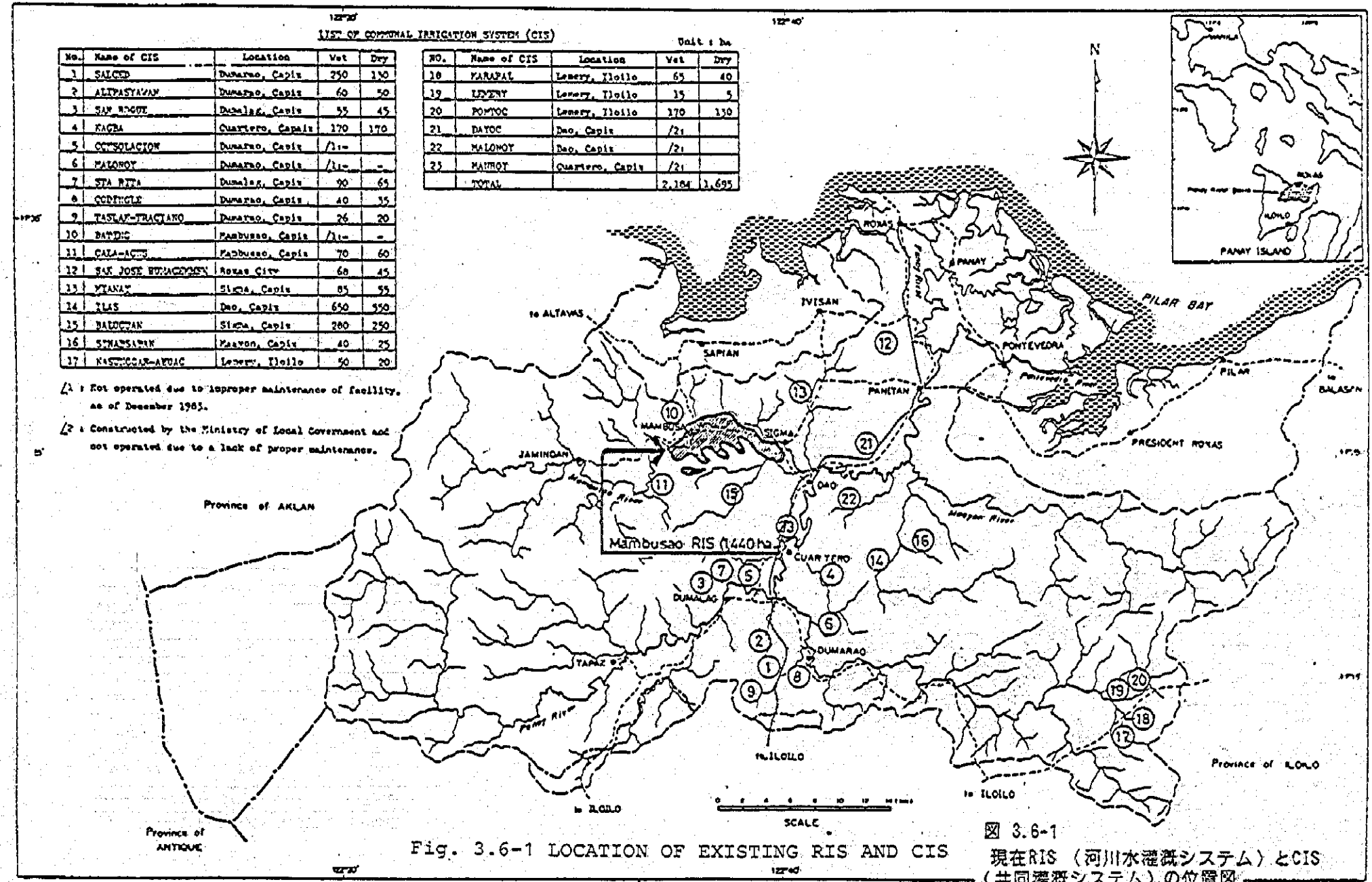


Fig. 3.6-1 LOCATION OF EXISTING RIS AND CIS

図 3.6-1
現在RIS（河川水灌漑システム）とCIS（共同灌漑システム）の位置図

PUMP IRRIGATION SYSTEMS (FSDC)

Name of Reach	Irrigated Area (ha)	Water Right (l/s)
1. PANAY - I	326	326
2. PANAY - II	265	265
3. PANAY - III	324	324
4. PANAY - IV	156	156
5. PANAY - V	1,360	1,360
Sub-total	2,451	2,451
6. BADBARAN	0	0
7. MATOSAO	738	728
8. MAAYON	281	281
9. PONTEVEDRA	0	0
Total	3,460	3,460

Note : 0 = PIS operated under FSDC

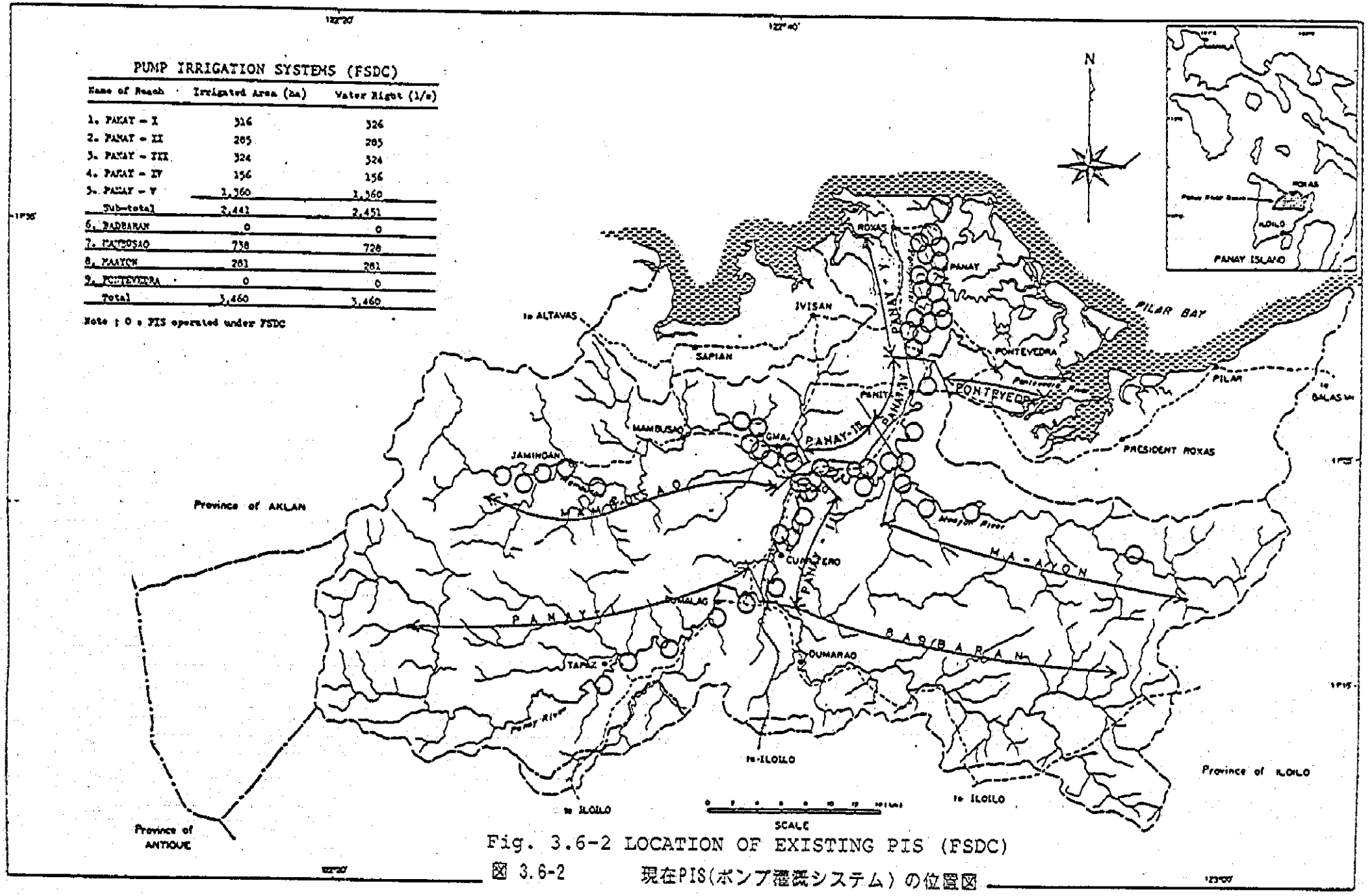


Fig. 3.6-2 LOCATION OF EXISTING PIS (FSDC)

図 3.6-2 現在PIS(ポンプ灌漑システム)の位置図

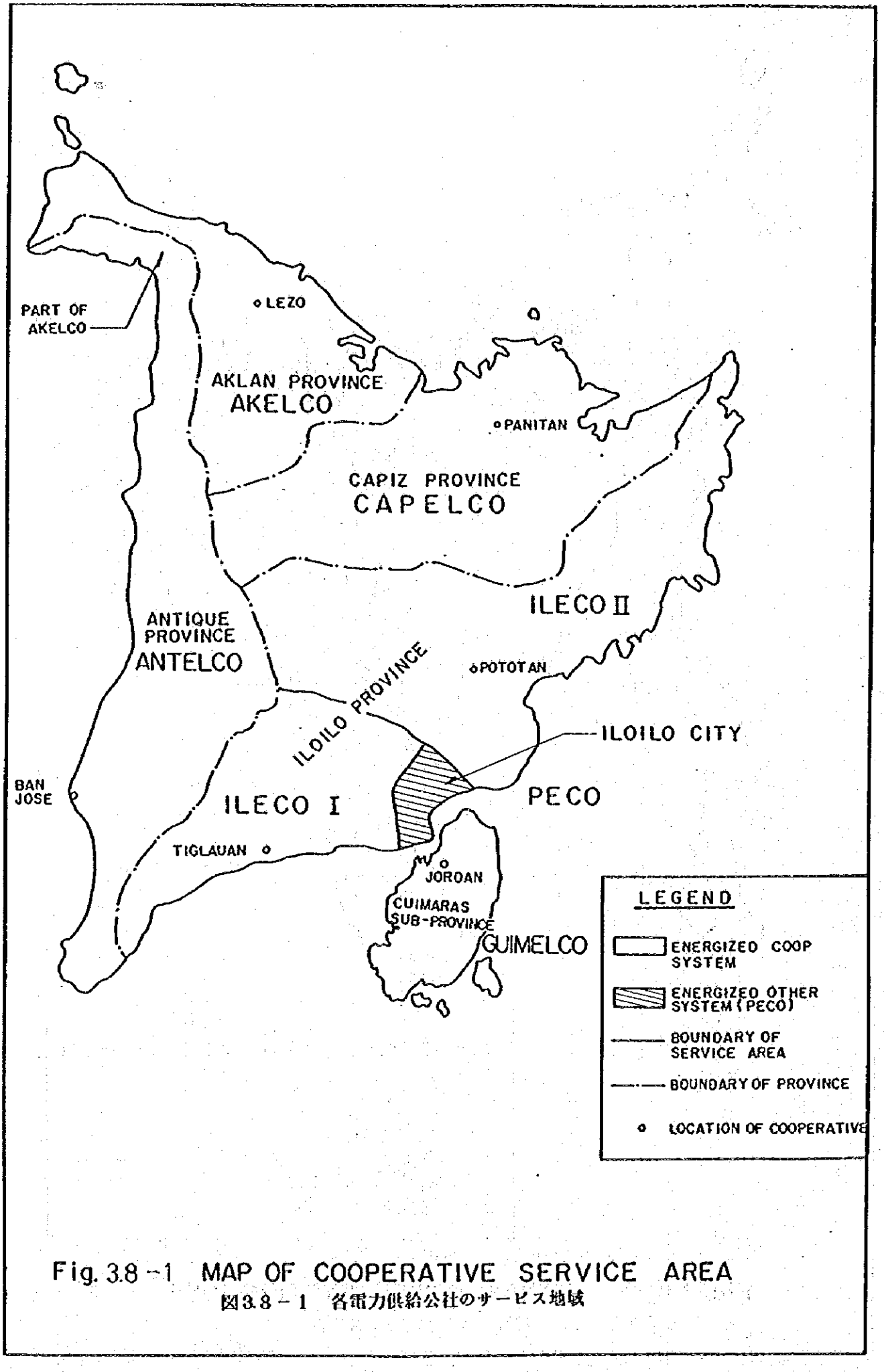


Fig. 3.8 -1 MAP OF COOPERATIVE SERVICE AREA

図3.8－1 各電力供給公社のサービス地域

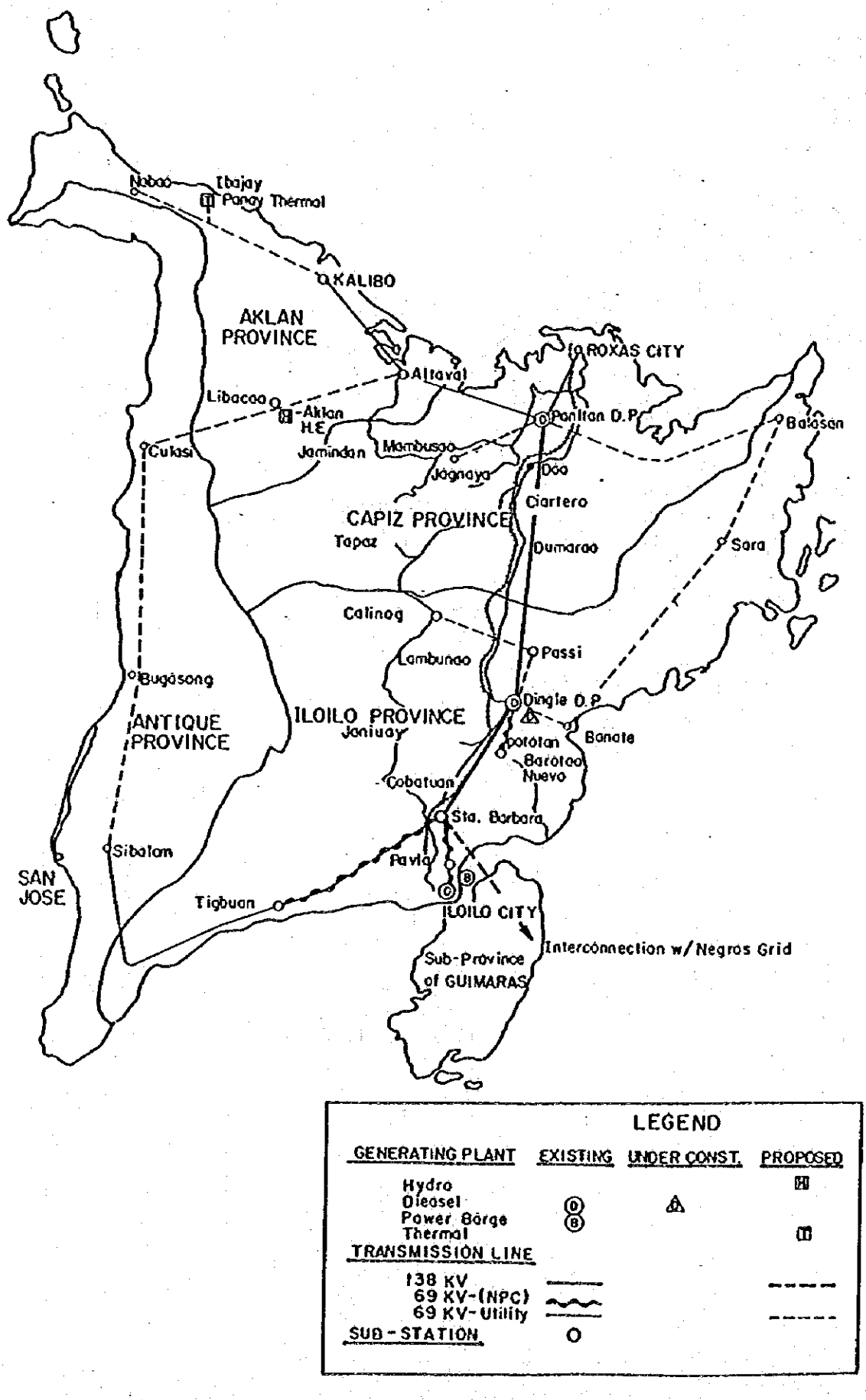
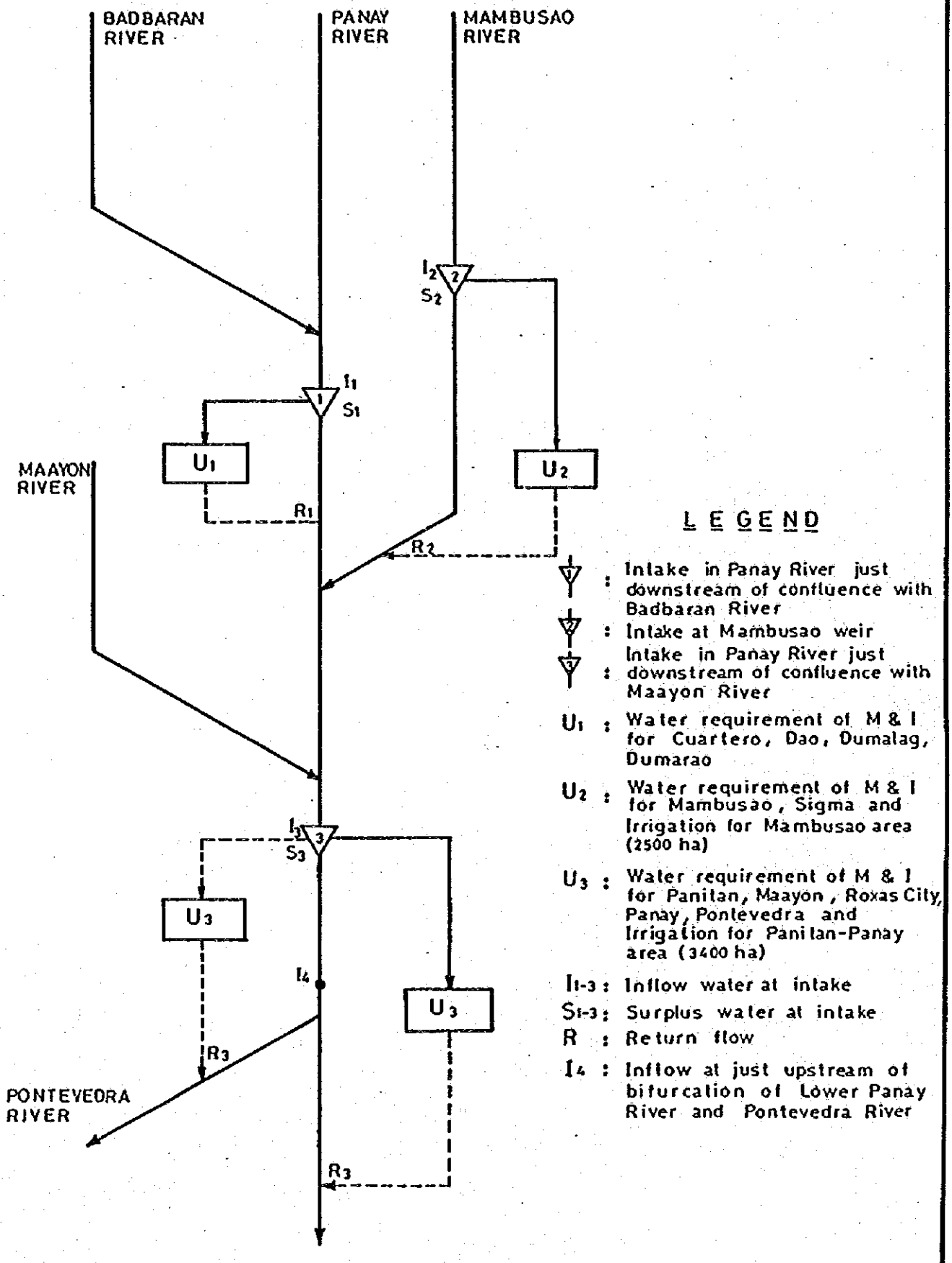


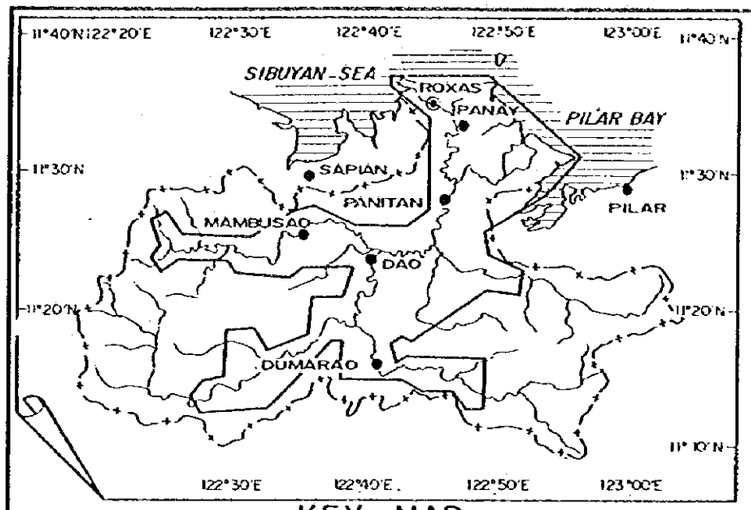
Fig. 3.8-2 PANAY POWER SYSTEM 1984

図 3.8-2 1984年パナイ電力システム

Fig. 3.9-1 SCHEMATIC DIAGRAMS FOR WATER BUDGET

図 3.9-1 水収支の概略図

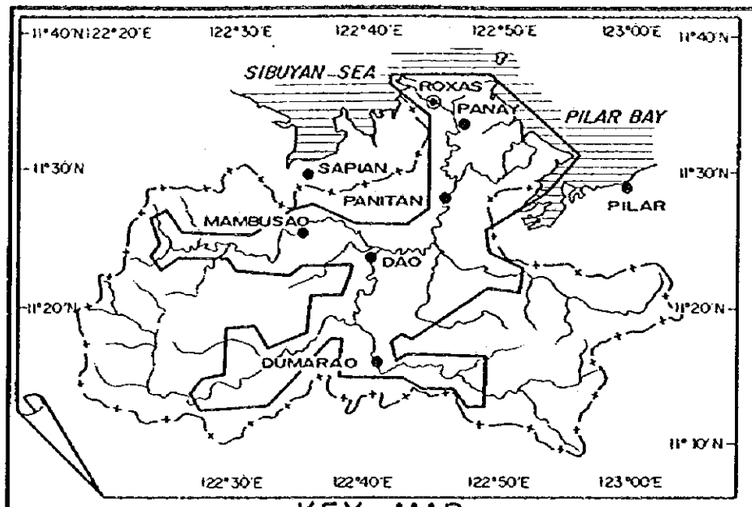




KEY MAP

図4.2－1　5年洪水の洪水被害強度

Fig. 4.2-1　FLOOD DAMAGE INTENSITY - 5-YEAR FLOOD



KEY MAP

Note : Each mesh is square of 500m x 500m

Fig. 4.2-2 FLOOD DAMAGE INTENSITY - 100-YEAR FLOOD

図 4.2-2 100年洪水の洪水被害強度

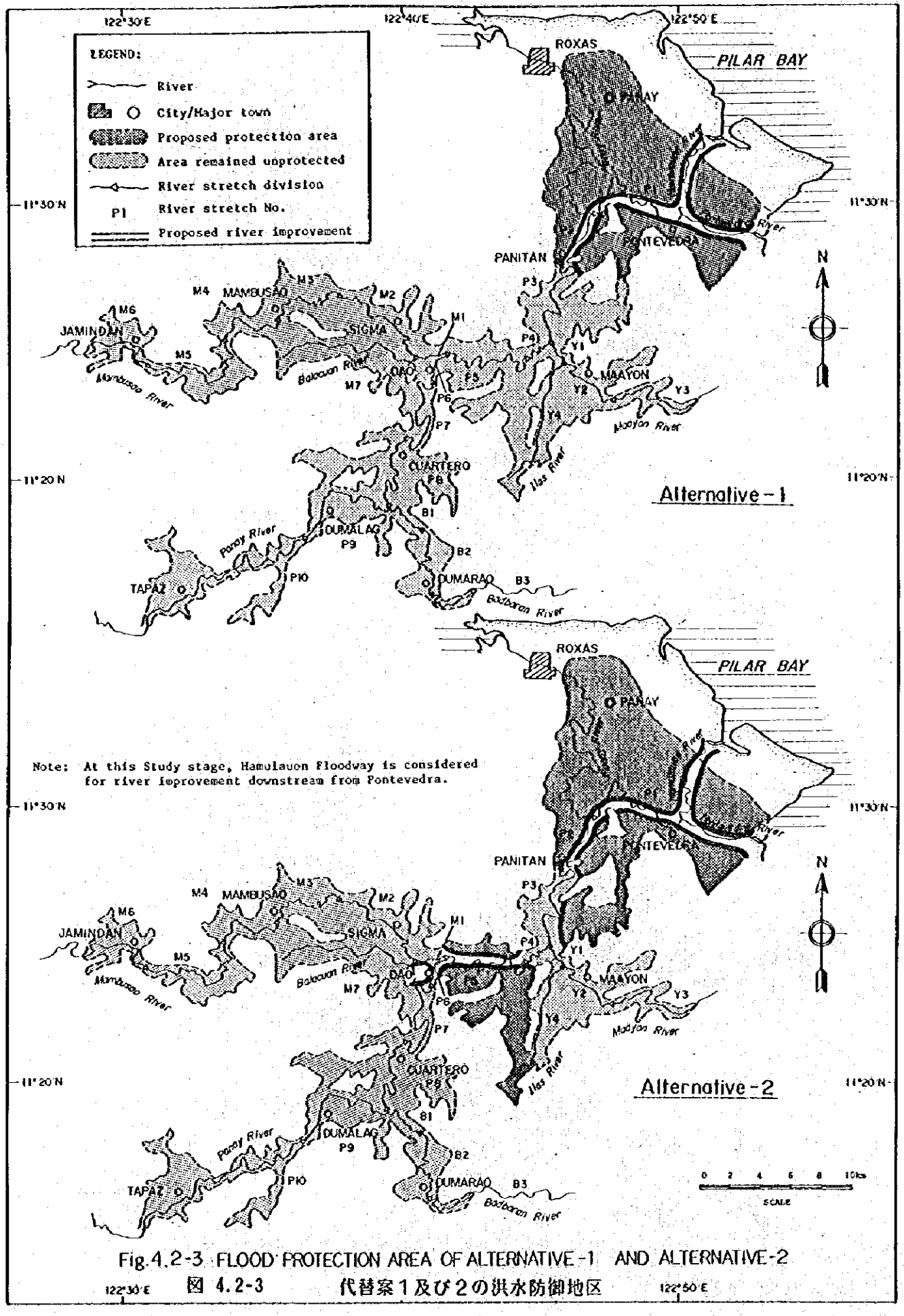


Fig.4.2-3 FLOOD PROTECTION AREA OF ALTERNATIVE-1 AND ALTERNATIVE-2

図 4.2-3 代替案1及び2の洪水防御地区

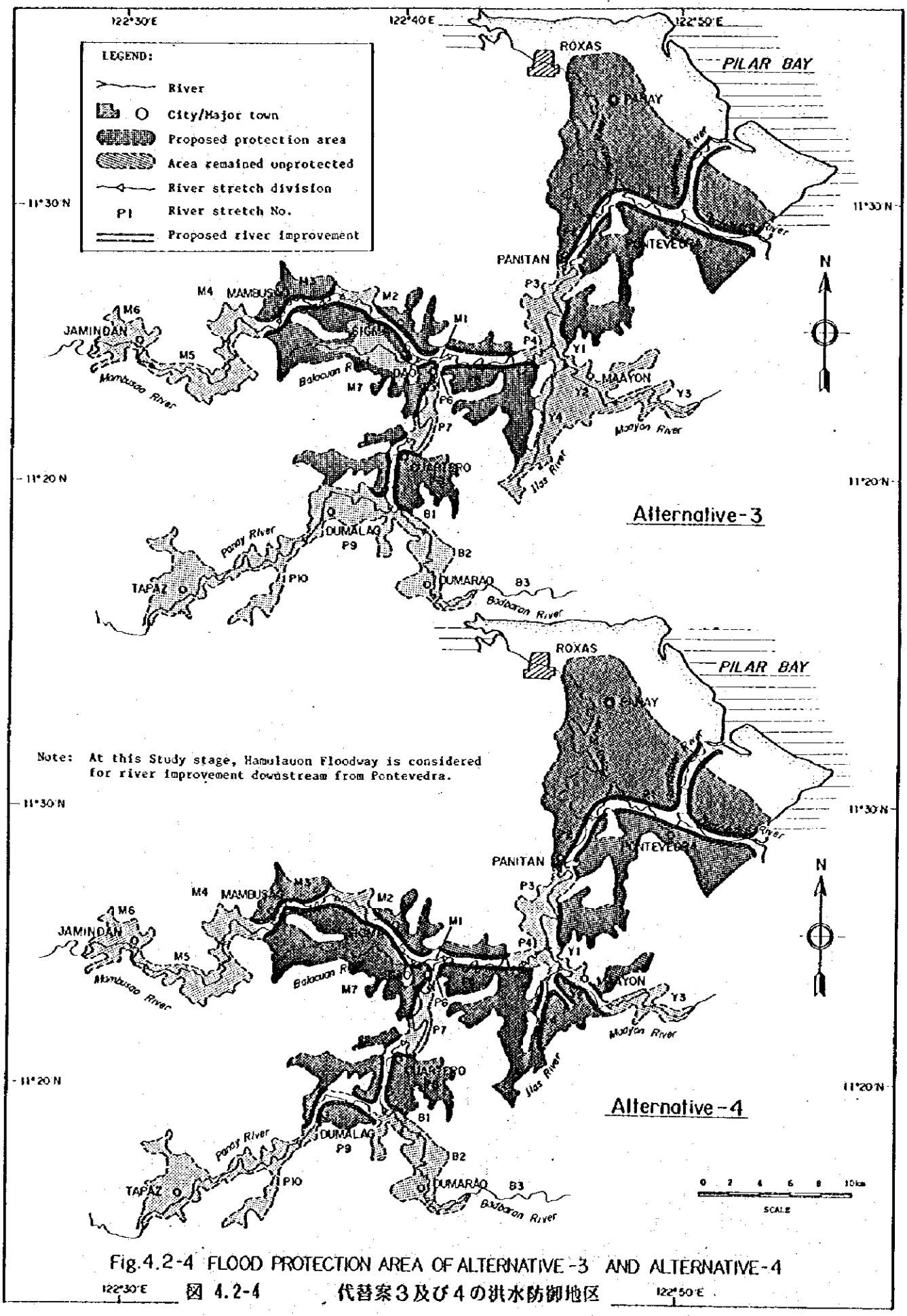


Fig.4.2-4 FLOOD PROTECTION AREA OF ALTERNATIVE-3 AND ALTERNATIVE-4

図 4.2-4 代替案3及び4の洪水防御地区

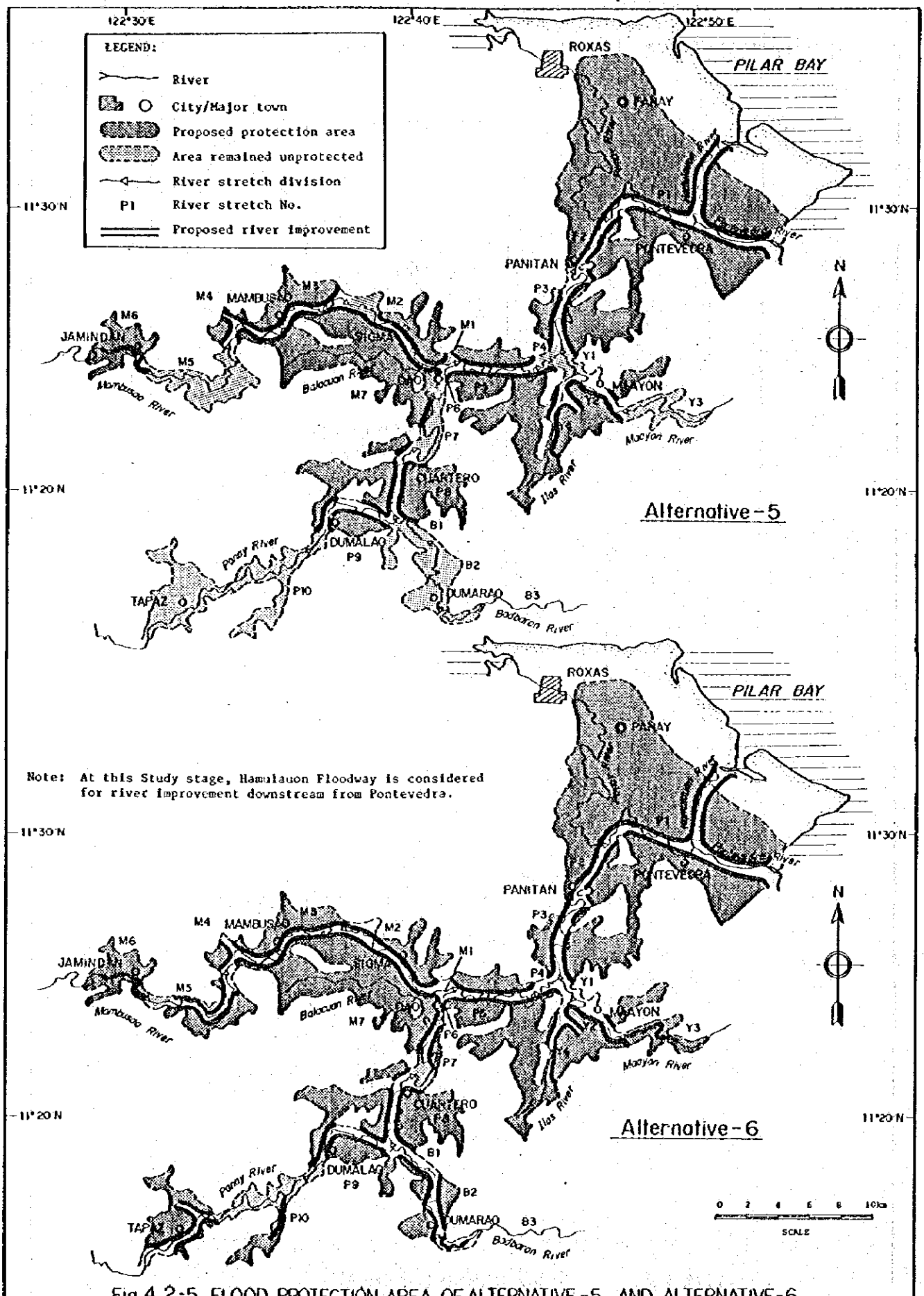
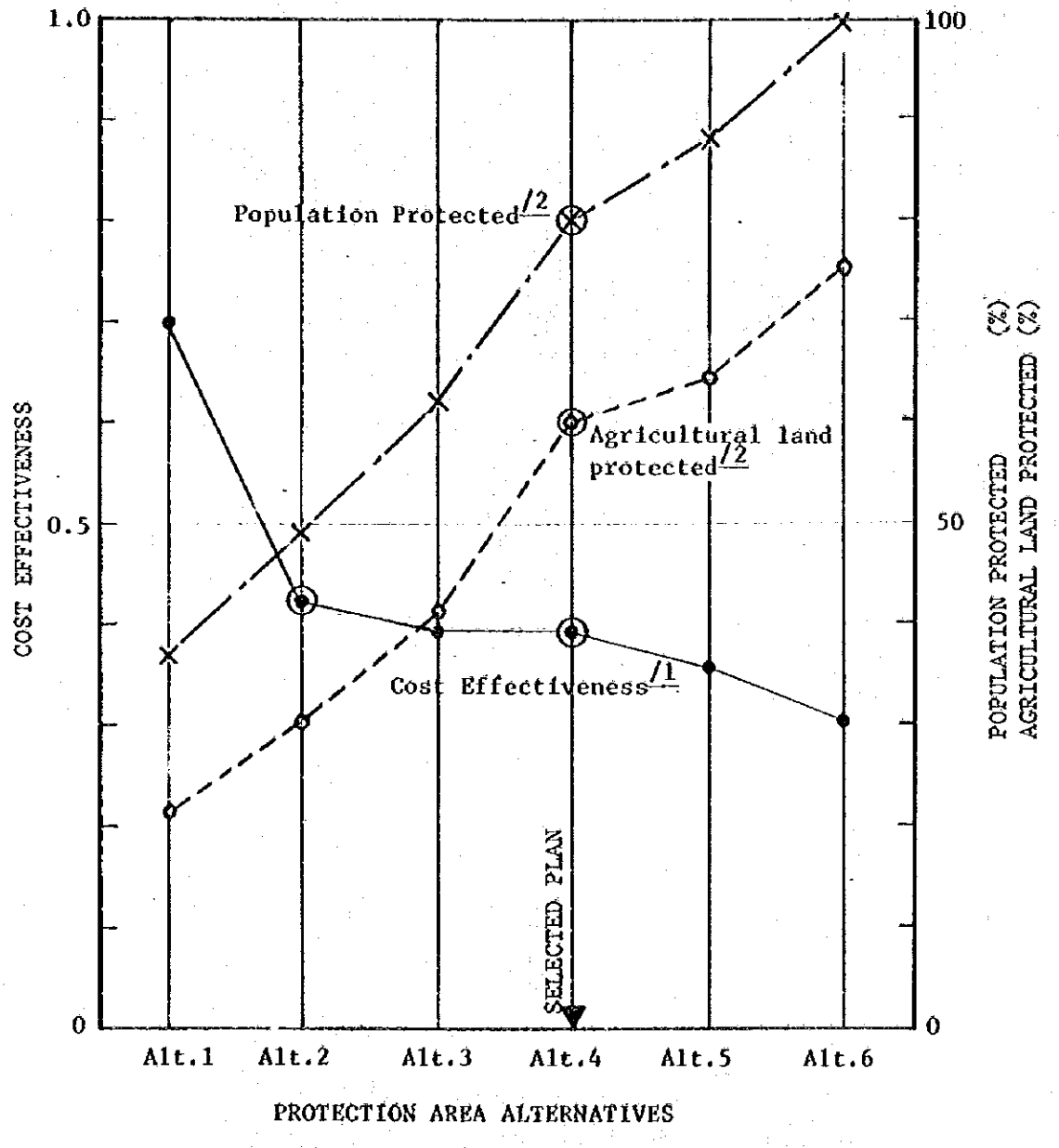


Fig.4.2-5 FLOOD PROTECTION AREA OF ALTERNATIVE-5 AND ALTERNATIVE-6

図 4.2-5 代替案5及び6の洪水防御地区



Notes: /1 Expressed in terms of benefit-cost ratio (present worth of damage reduction/present worth of cost)

/2 % to total population and agricultural land area in flood prone area

○ Points where a notable change in index value is seen.

Fig. 4.2-6 COMPARISON OF FLOOD PROTECTION AREA ALTERNATIVES

図 4.2-6 洪水防御地区代替案の比較

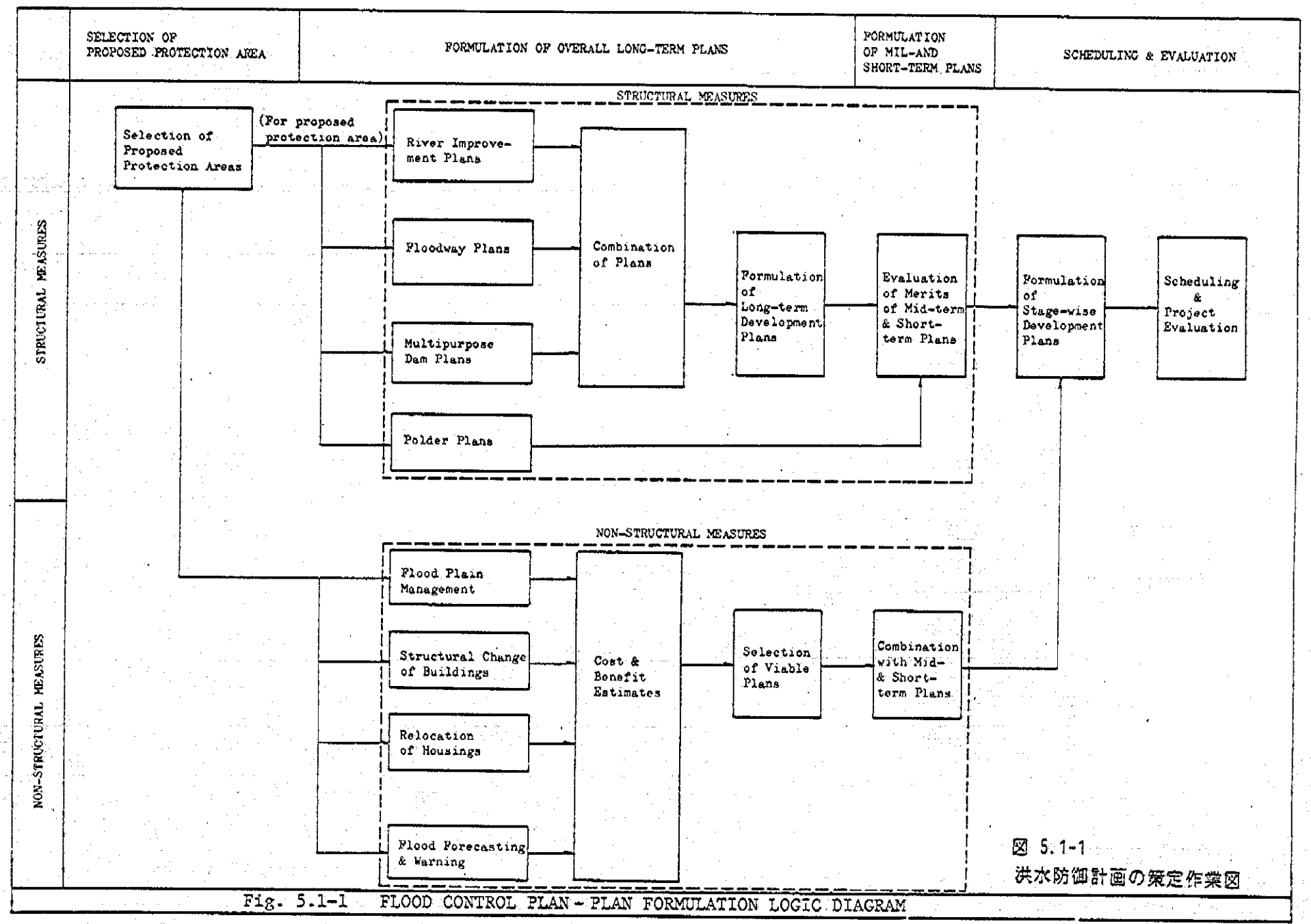


Fig. 5.1-1 FLOOD CONTROL PLAN - PLAN FORMULATION LOGIC DIAGRAM

図 5.1-1
洪水防御計画の策定作業図

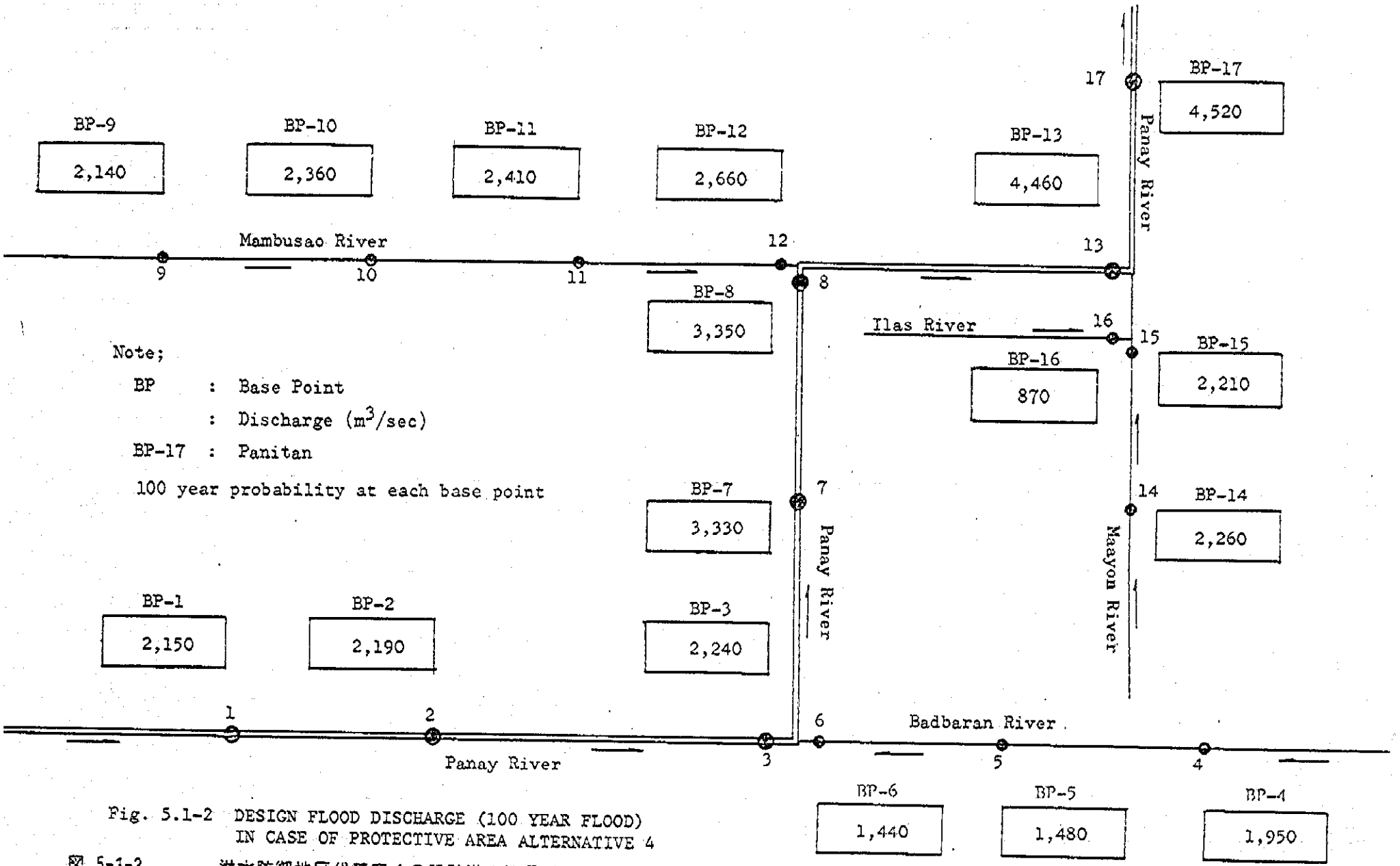


Fig. 5.1-2 DESIGN FLOOD DISCHARGE (100 YEAR FLOOD) IN CASE OF PROTECTIVE AREA ALTERNATIVE 4

図 5-1-2 洪水防御地区代替案４の設計洪水流量（１００年洪水）

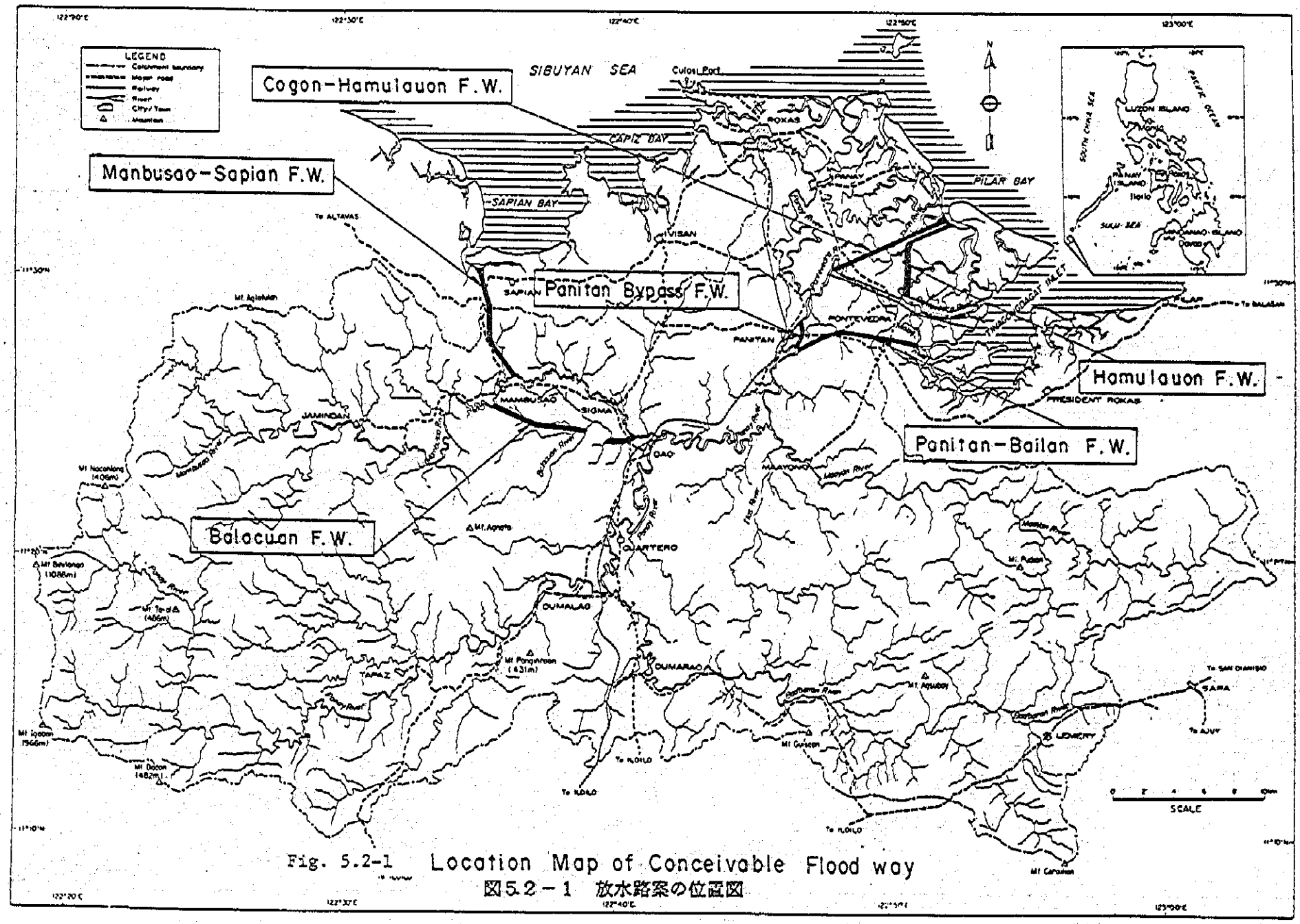


Fig. 5.2-1 Location Map of Conceivable Flood way

図5.2－1 放水路案の位置図

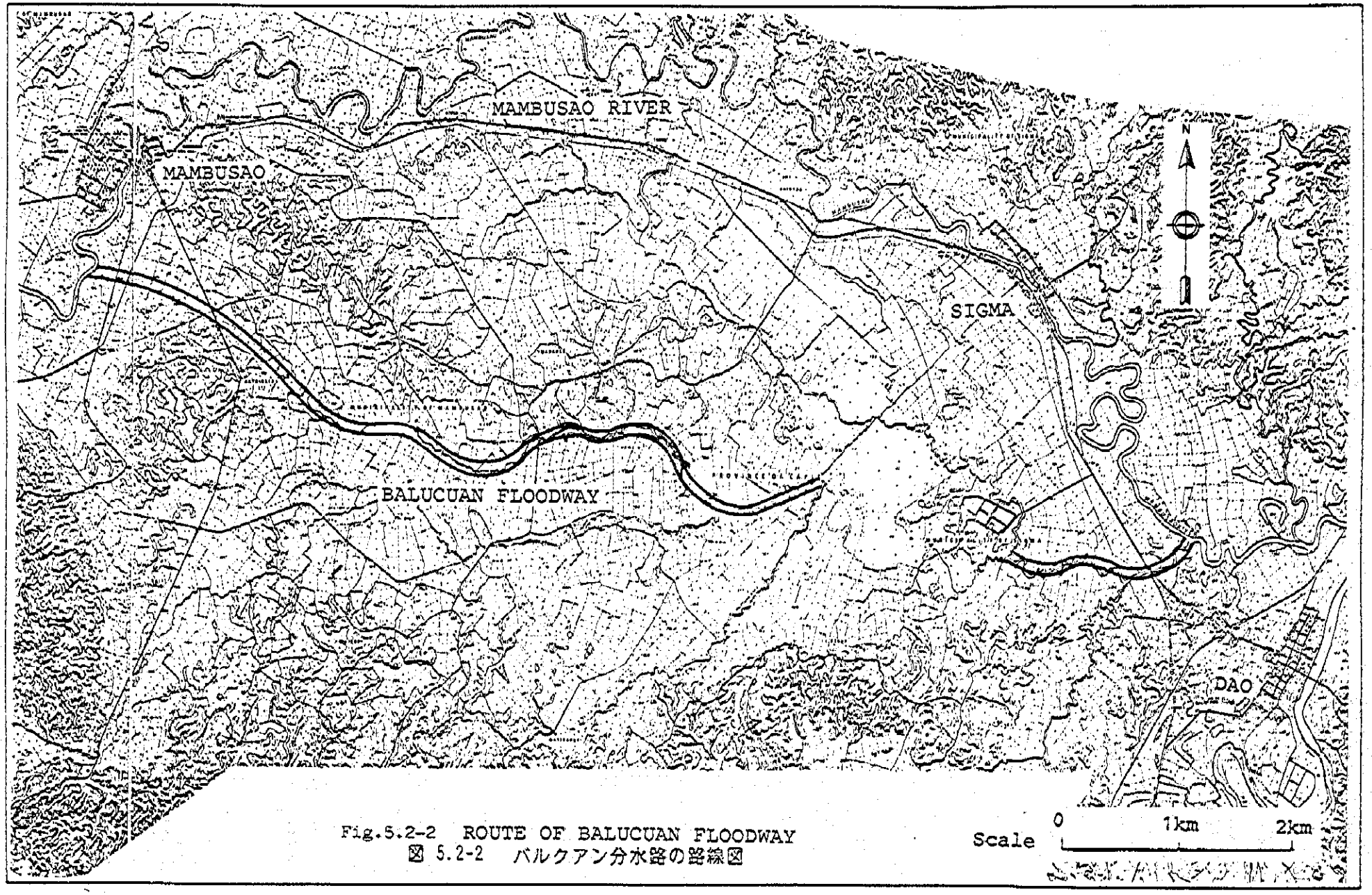


Fig.5.2-2 ROUTE OF BALUCUAN FLOODWAY
図 5.2-2 バルクアン分水路の路線図

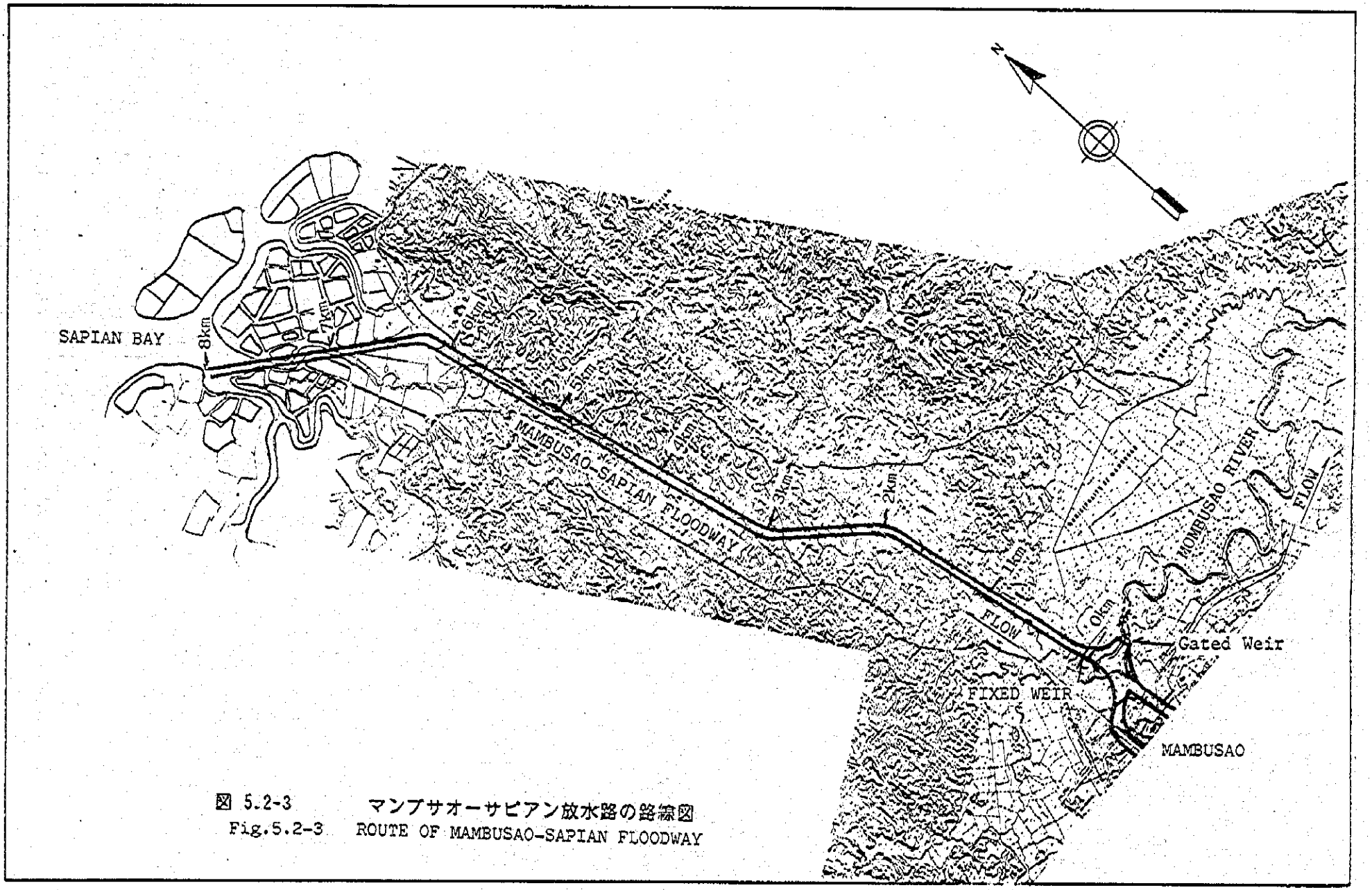


図 5.2-3　　マンブサオーサピアン放水路の路線図

Fig.5.2-3　ROUTE OF MAMBUSAO-SAPIAN FLOODWAY

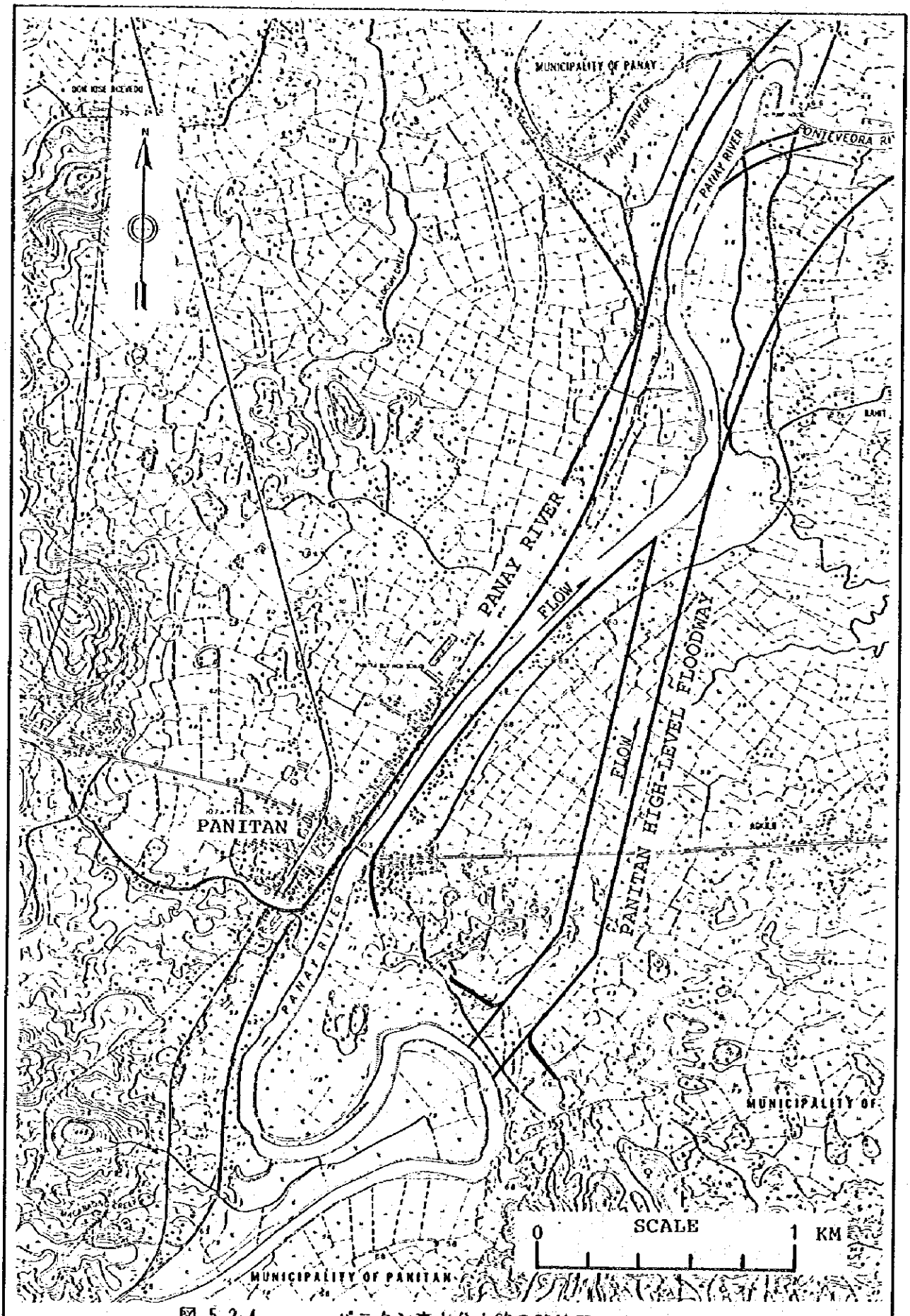


図 5.2-4　パニタン高水分水路の路線図

Fig. 5.2-4　ROUTE OF PANITAN HIGH-LEVEL FLOODWAY

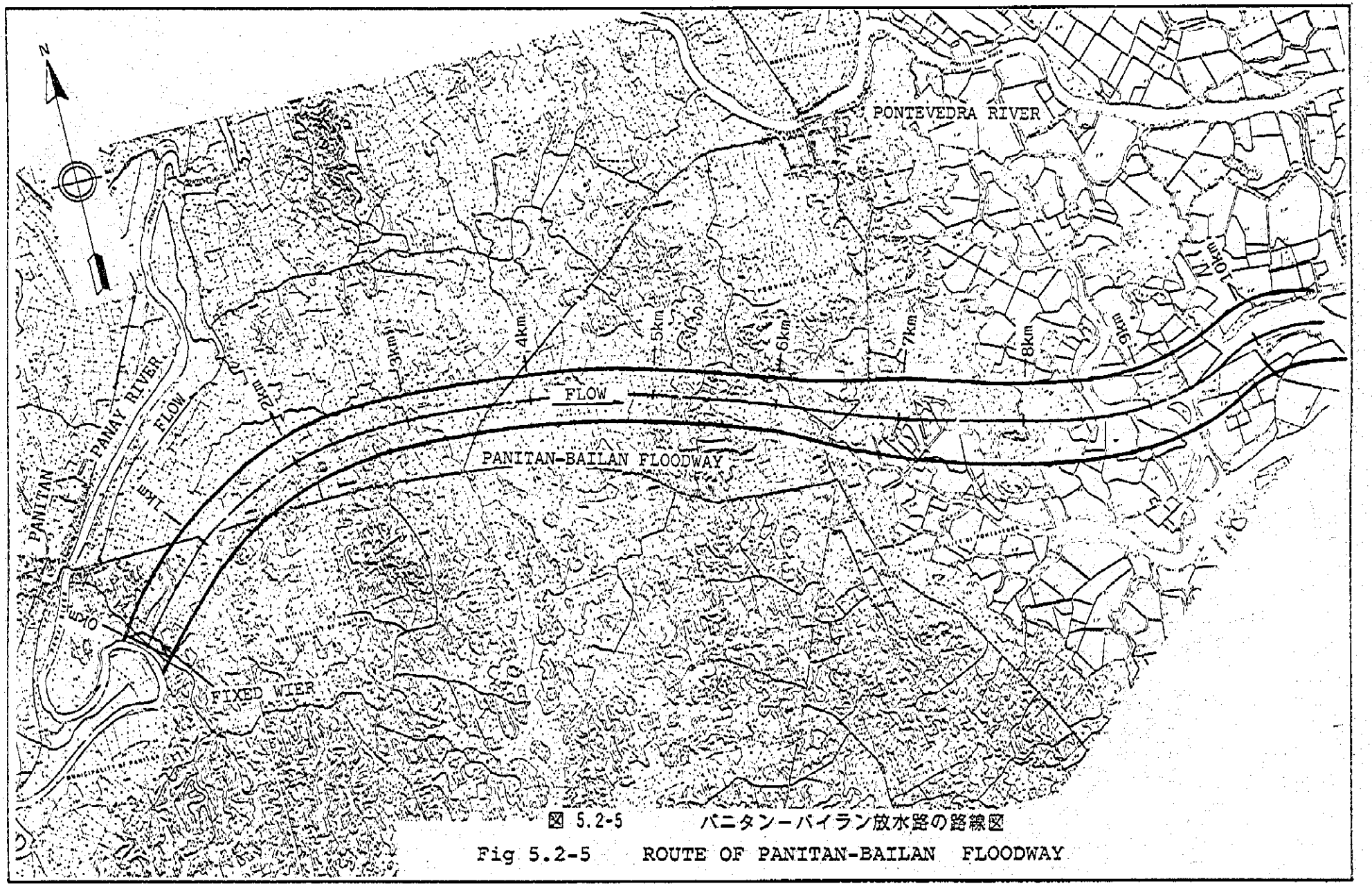


図 5.2-5　パニタン－バイラン放水路の路線図

Fig 5.2-5　ROUTE OF PANITAN-BAILAN FLOODWAY

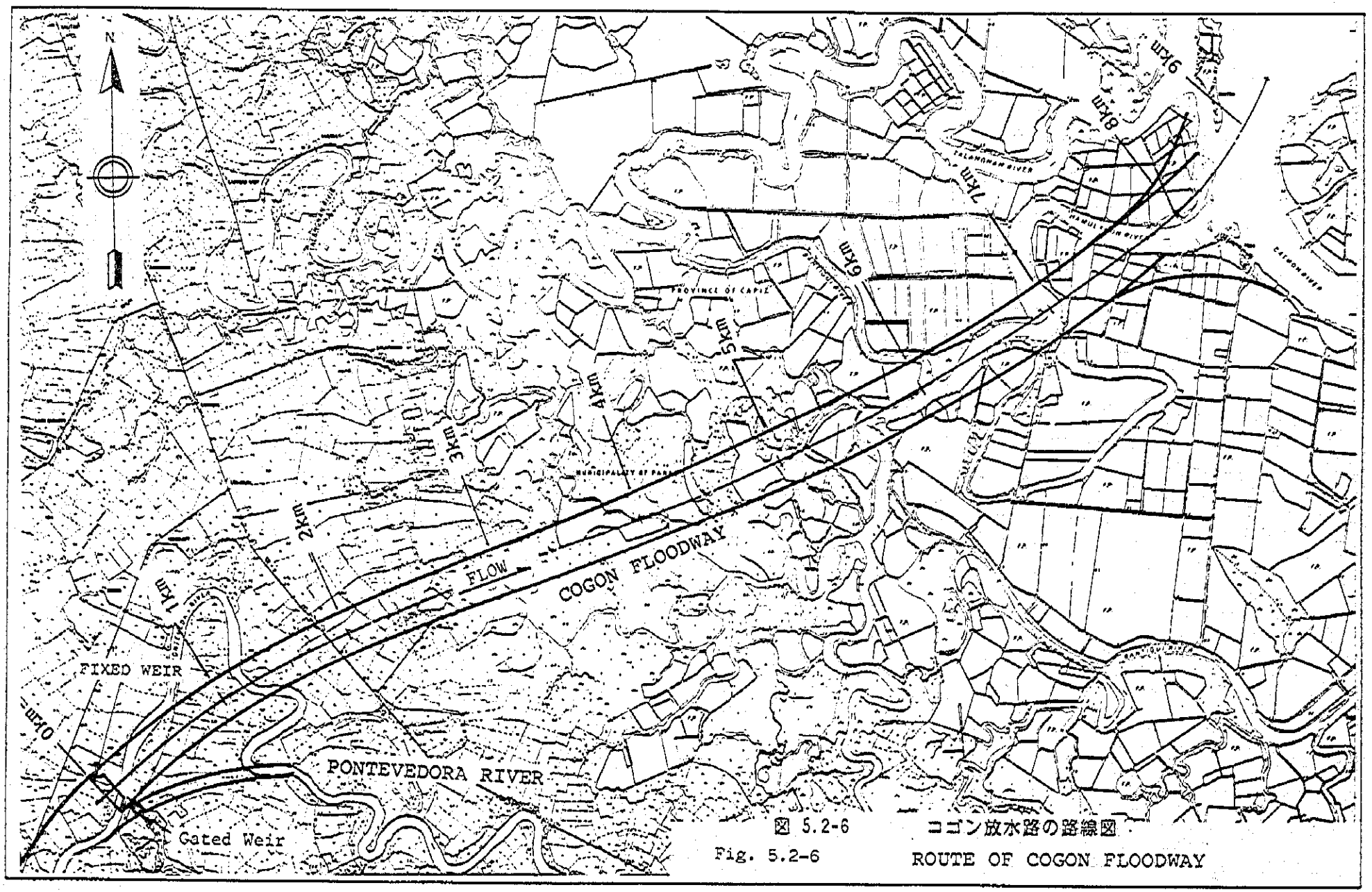


図 5.2-6 コゴン放水路の路線図

Fig. 5.2-6 ROUTE OF COGON FLOODWAY

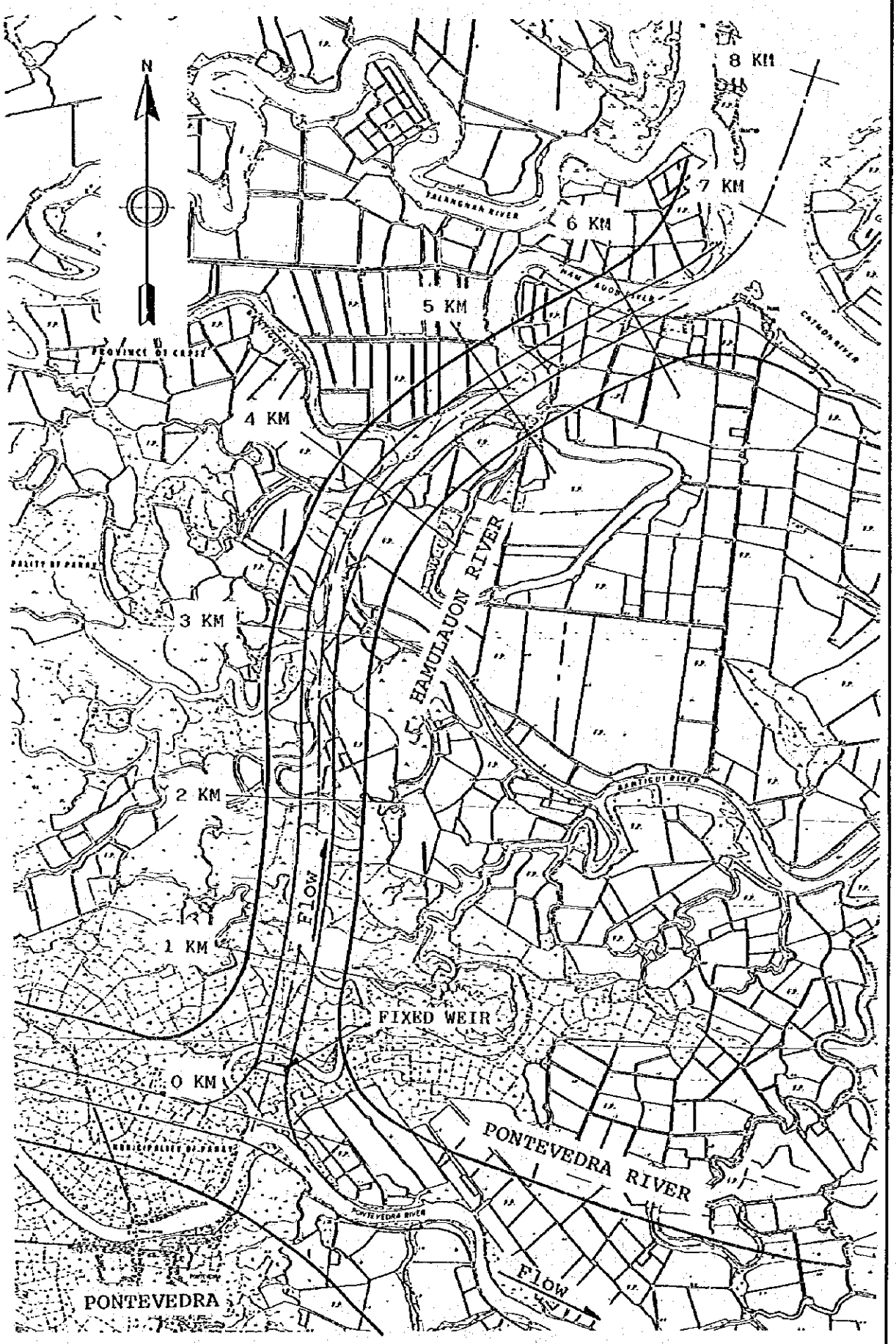


図 5.2-7　　ハムラオン放水路の路線図

Fig. 5.2-7　　ROUTE OF HAMULAUON FLOODWAY

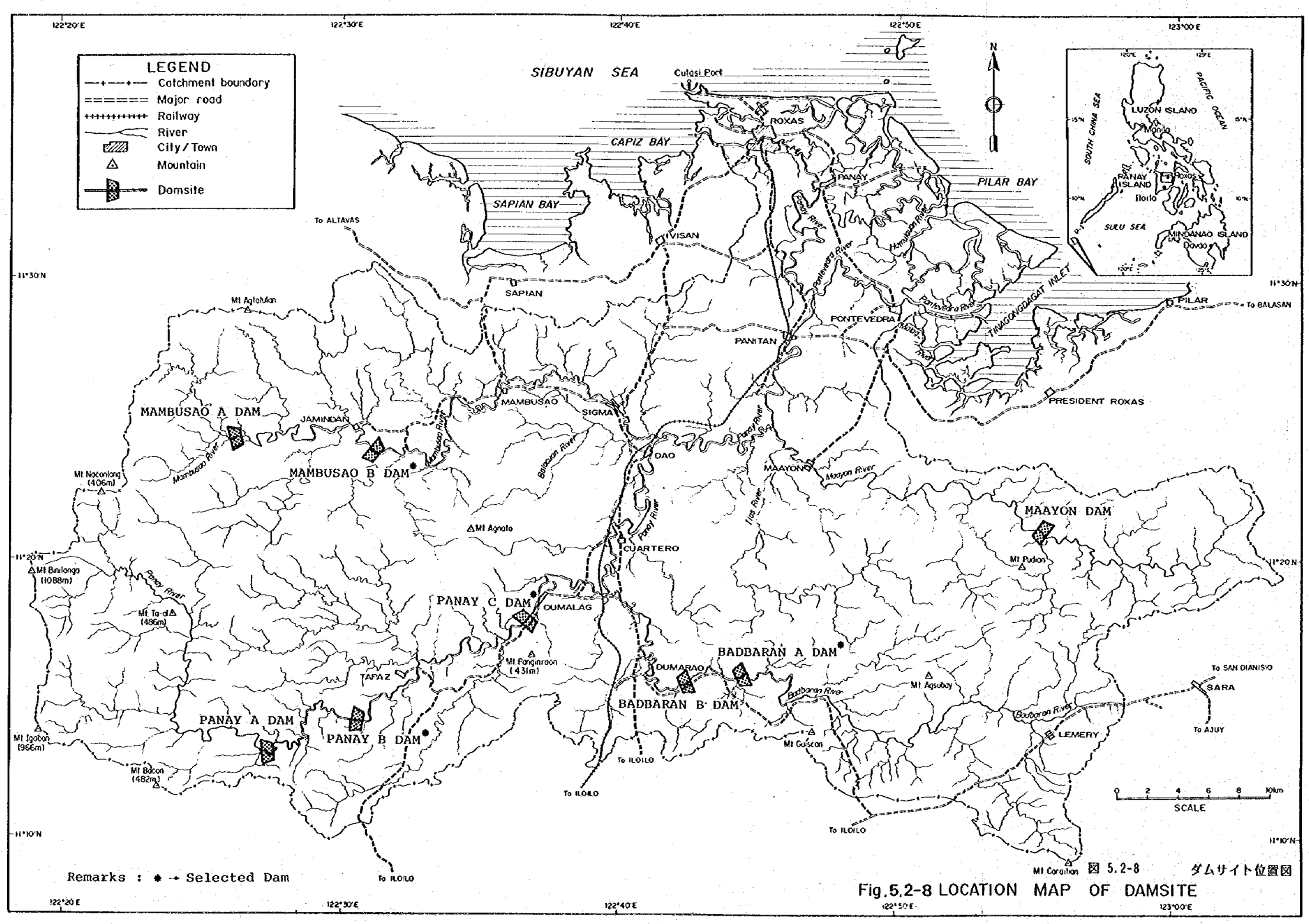
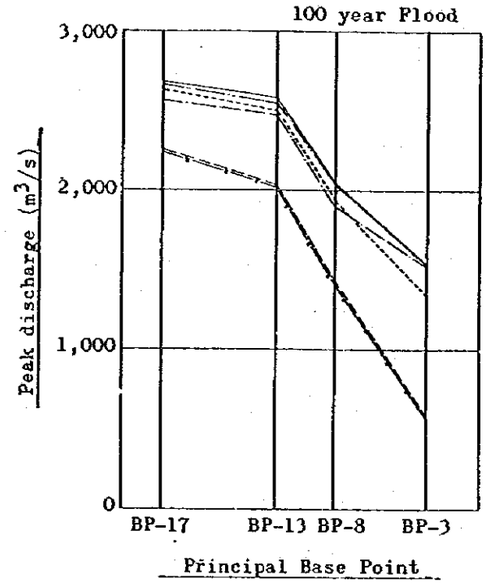
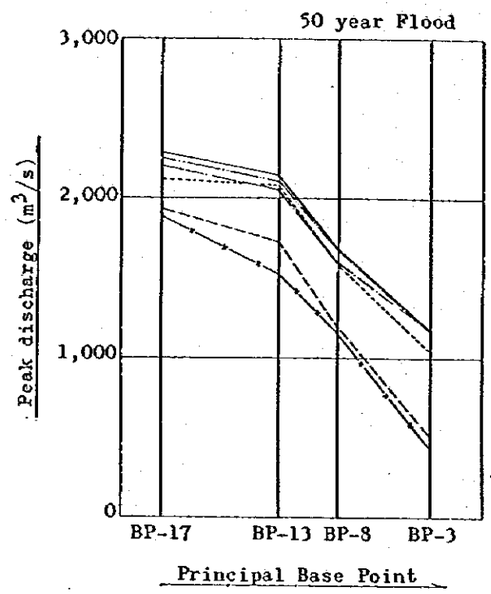
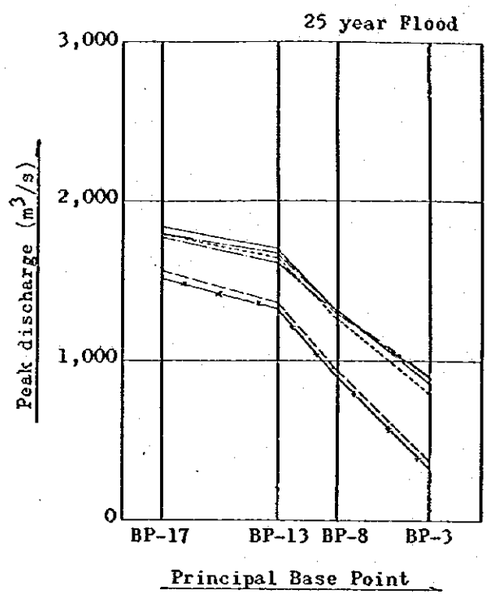


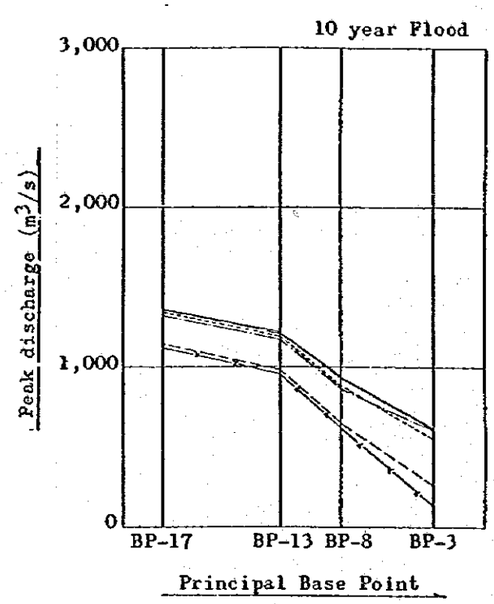
図 5.2-8 ダムサイト位置図

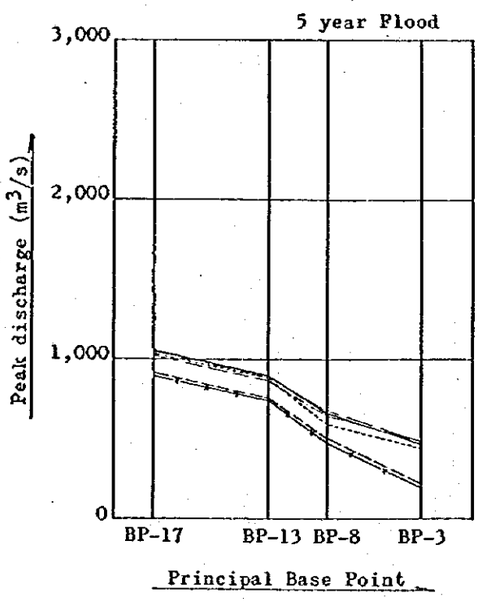
Fig.5.2-8 LOCATION MAP OF DAMSITE

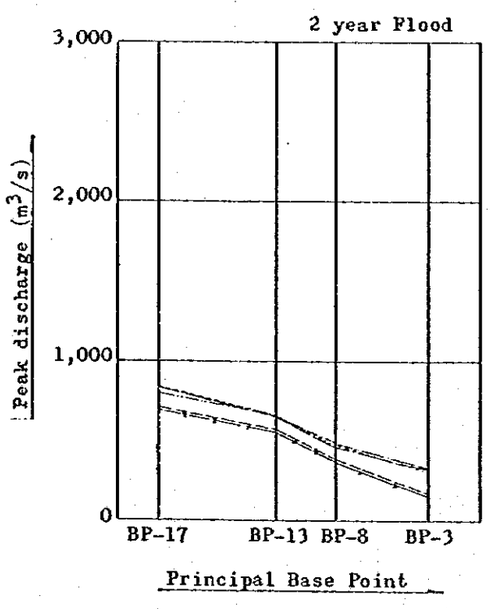










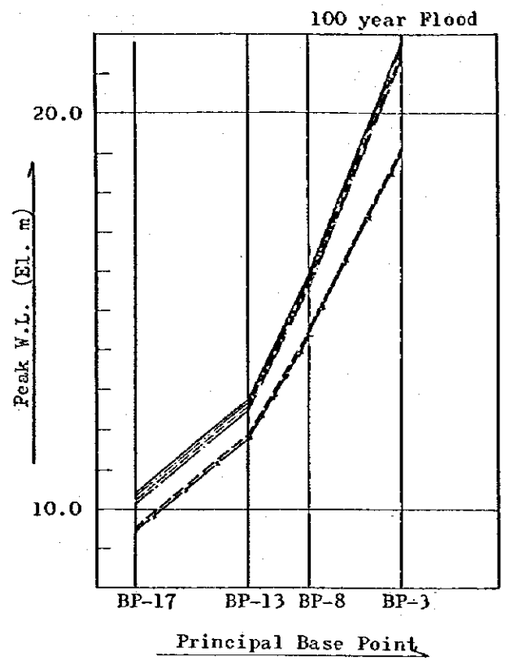


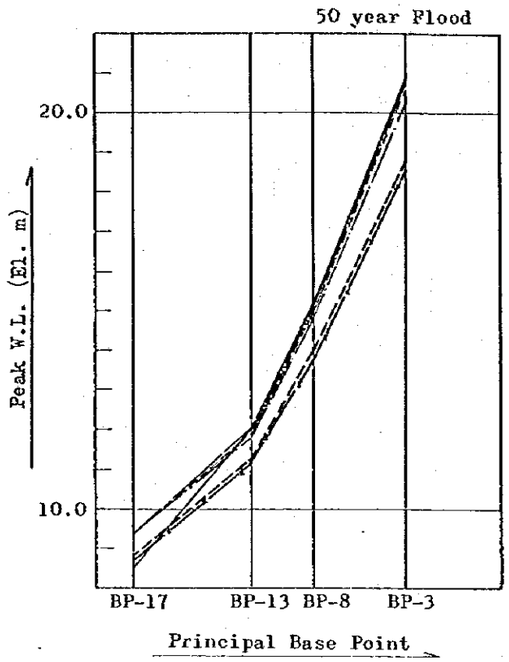
LEGEND

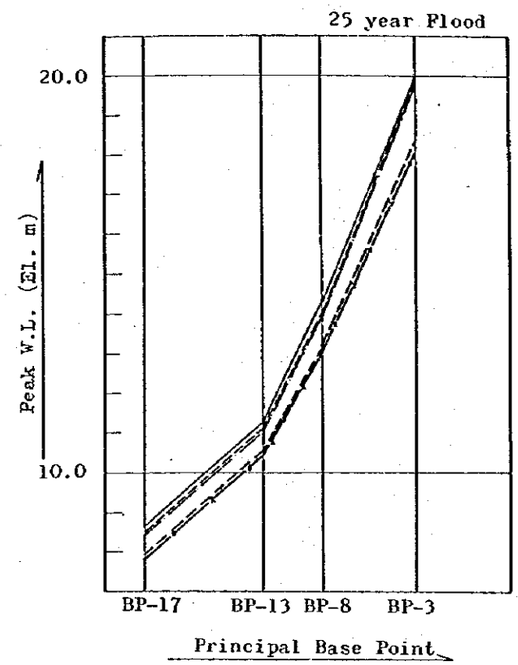
————	Present
- - - - - -	Panay B dam
— — — —	Panay C dam
——·——·——	Badbaran dam
——··——··——	Mambusao dam
——‹——‹——	Panay B dam + Panay C dam
BP-17	At Panitan
BP-13	Just Upstream of Confluence with Maayon River
BP-8	Just Upstream of Confluence with Mambusao River
BP-3	Just Upstream of Confluence with Badbaran River

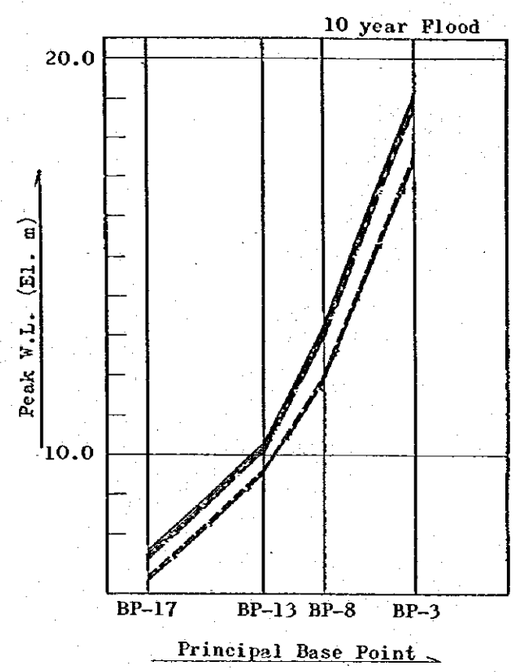
図 5.2-9　　ダム代替案の主要基準点でのピーク流量（現況河道）

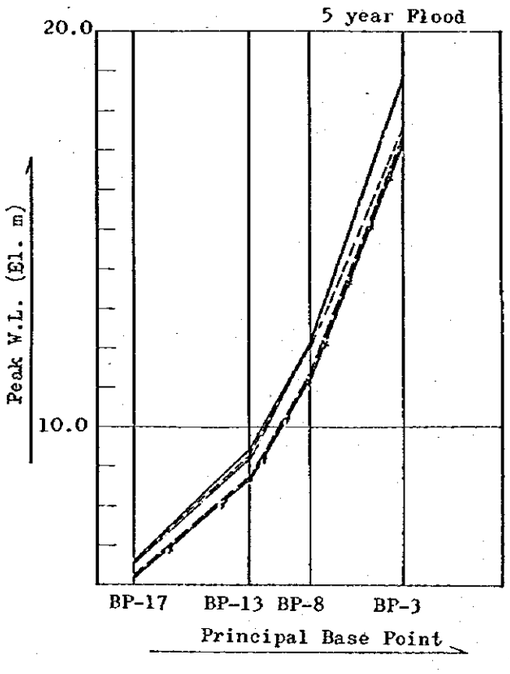
Fig. 5.2-9 PEAK DISCHARGE AT PRINCIPAL BASE POINTS OF DAM ALTERNATIVES (Under the Present River Condition)

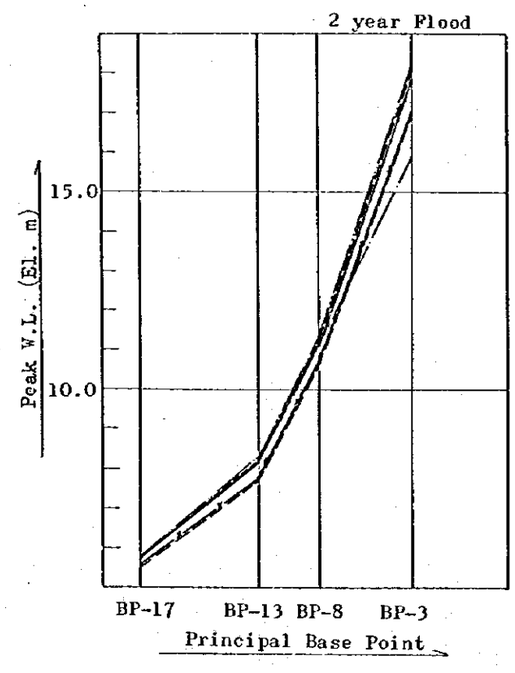












LEGEND

———	Present
·-·-·-·-	Panay B dam
– – – – –	Panay C dam
——·——·——	Badbaran dam
——··——··——	Mambusao dam
—x—x—	Panay B dam + Panay C dam

BP-17	At Panitan
BP-13	Just Upstream of Confluence with Maayon River
BP-8	Just Upstream of Confluence with Mambusao River
BP-3	Just Upstream of Confluence with Badbaran River

Note; Probability at Panitan Base

図 5.2-10　ダム代替案の主要基準点でのピーク水位（現況河道）

Fig. 5.2-10 PEAK WATER LEVEL AT PRINCIPAL BASE POINTS OF DAM ALTERNATIVES (Under the Present River Condition)

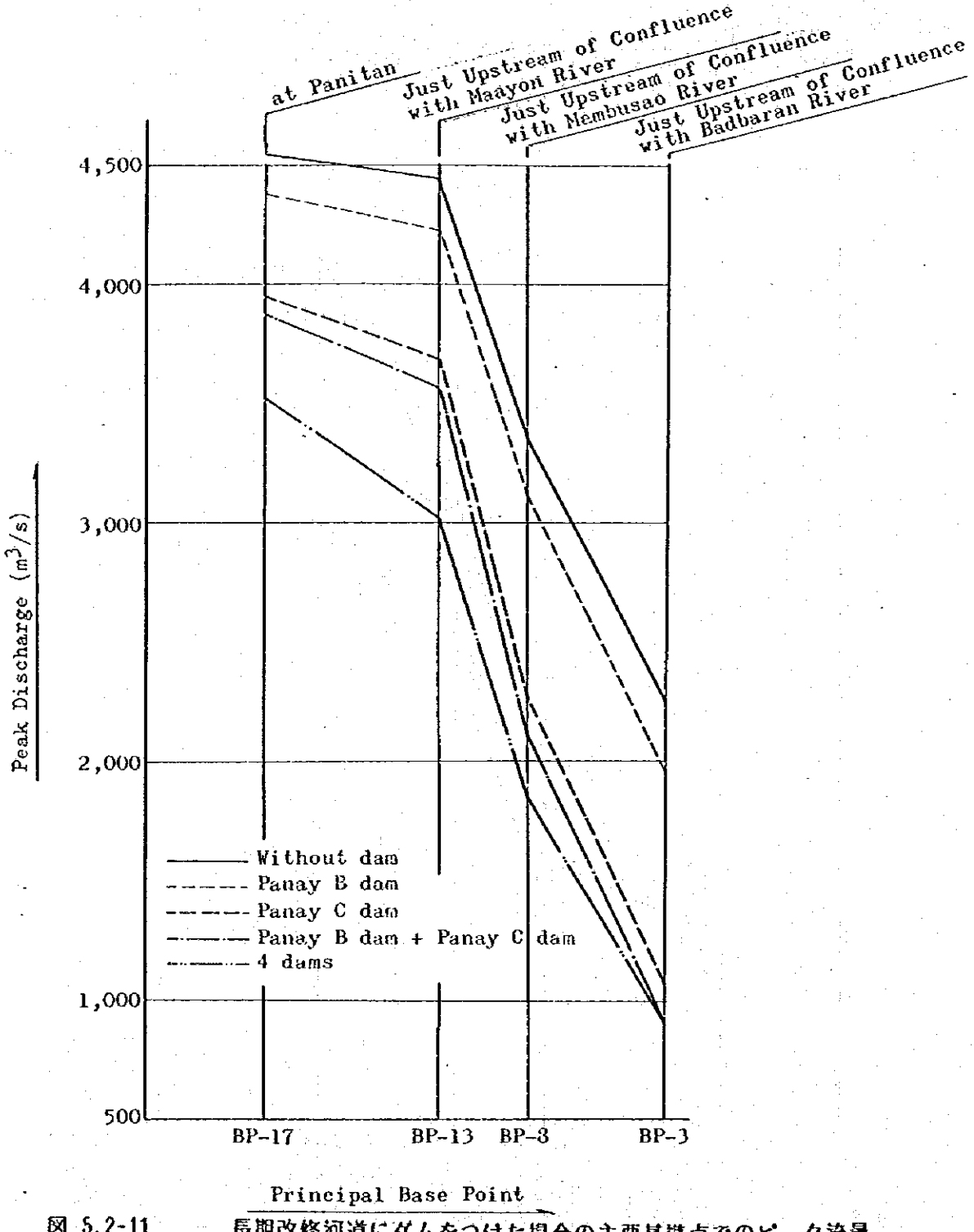


図 5.2-11　長期改修河道にダムをつけた場合の主要基準点でのピーク流量

Fig. 5.2-11　Peak Discharge at Principal Base Points along Panay River in LP Alternatives with Dam(s) (100 year flood)*

* Probability at Each Base Point

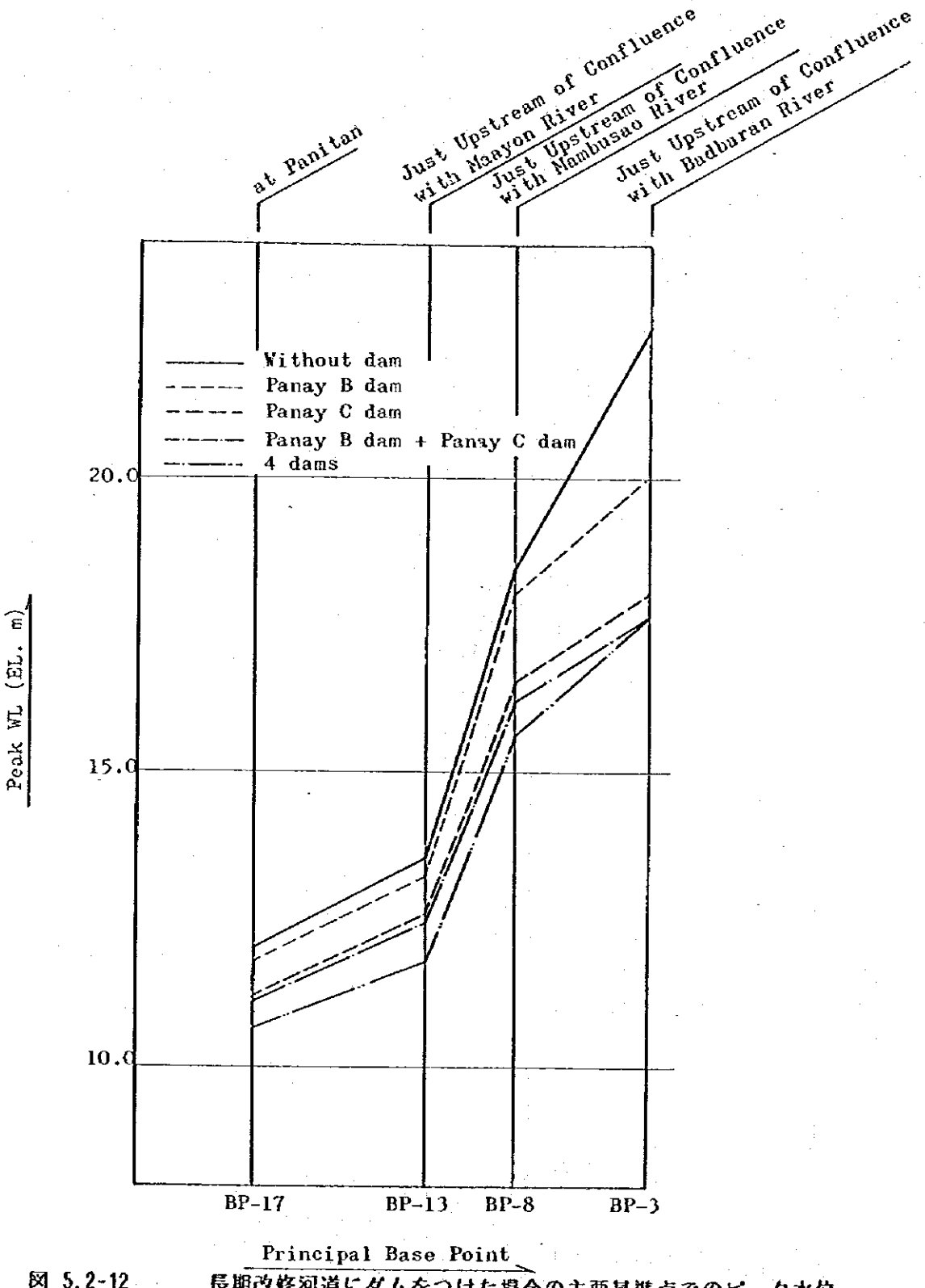


図 5.2-12　長期改修河道にダムをつけた場合の主要基準点でのピーク水位

Fig. 5.2-12 Peak Water Level at the Principal Base Points along the Panay River in LP Alternatives with Dam(s) (100 year flood)*

* Probability at Each Base Point

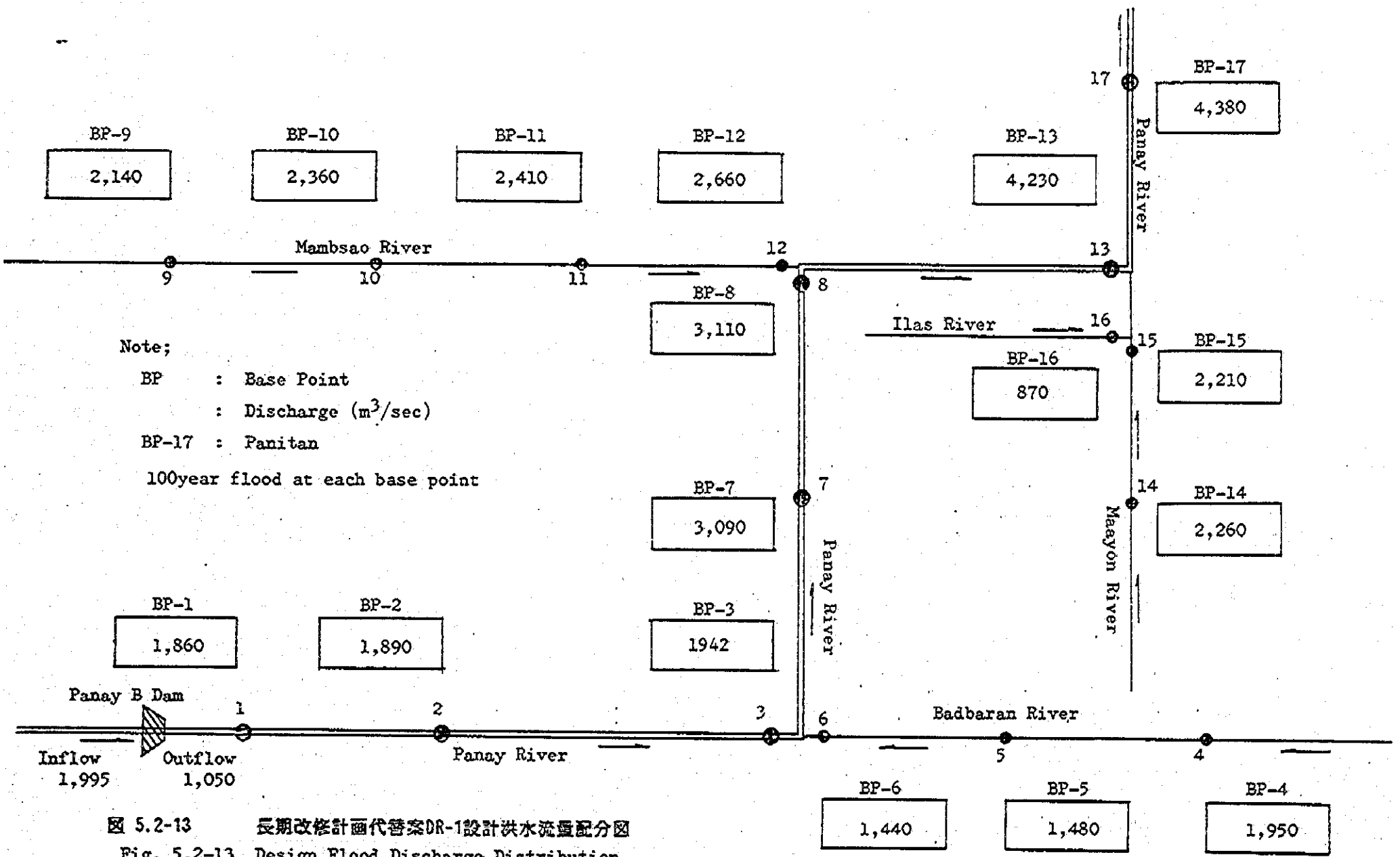


図 5.2-13 長期改修計画代替案DR-1設計洪水流量配分図

Fig. 5.2-13 Design Flood Discharge Distribution in case of LP Alternative DR-1

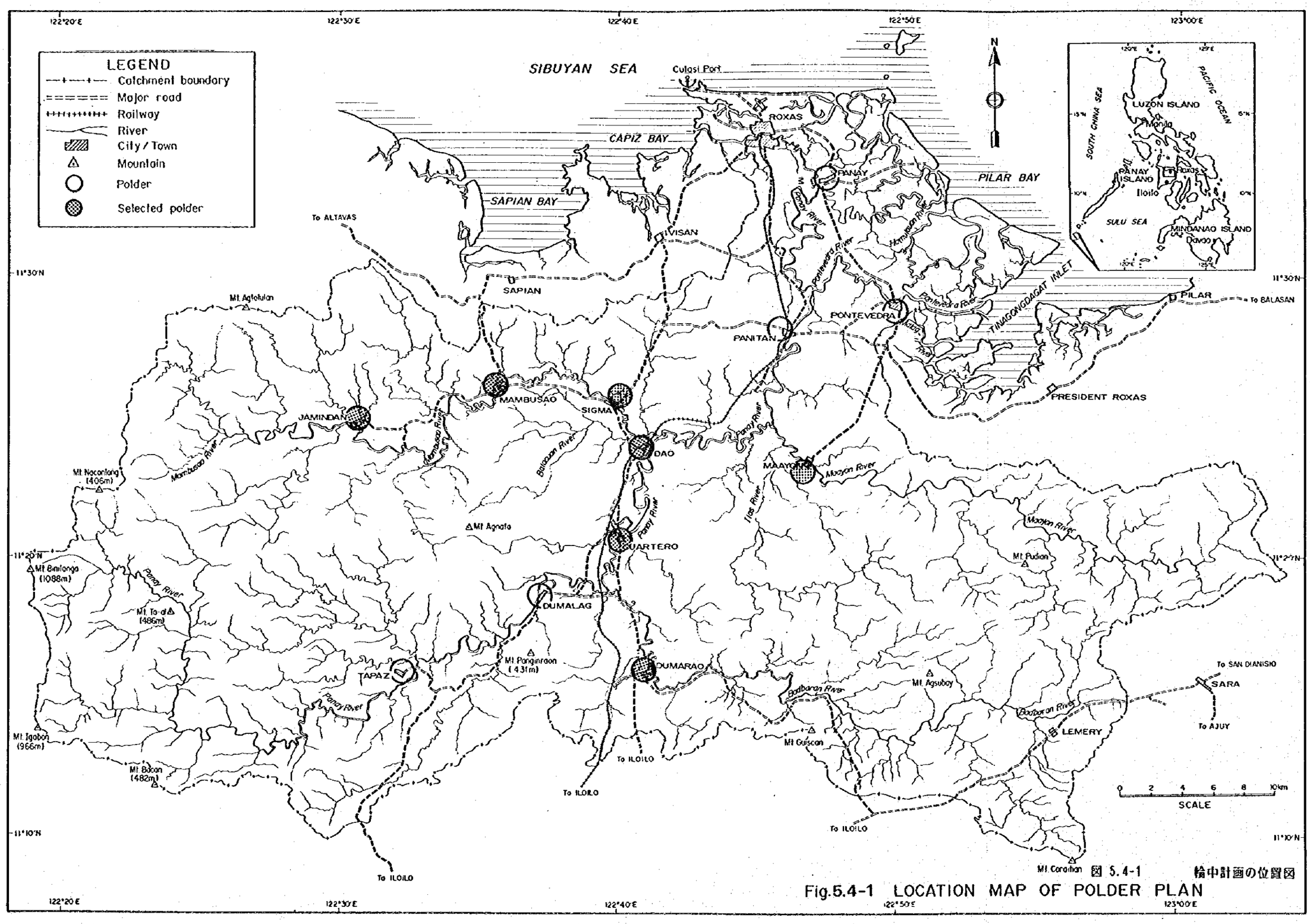


図 5.4-1 検中計画の位置図

Fig.5.4-1 LOCATION MAP OF POLDER PLAN

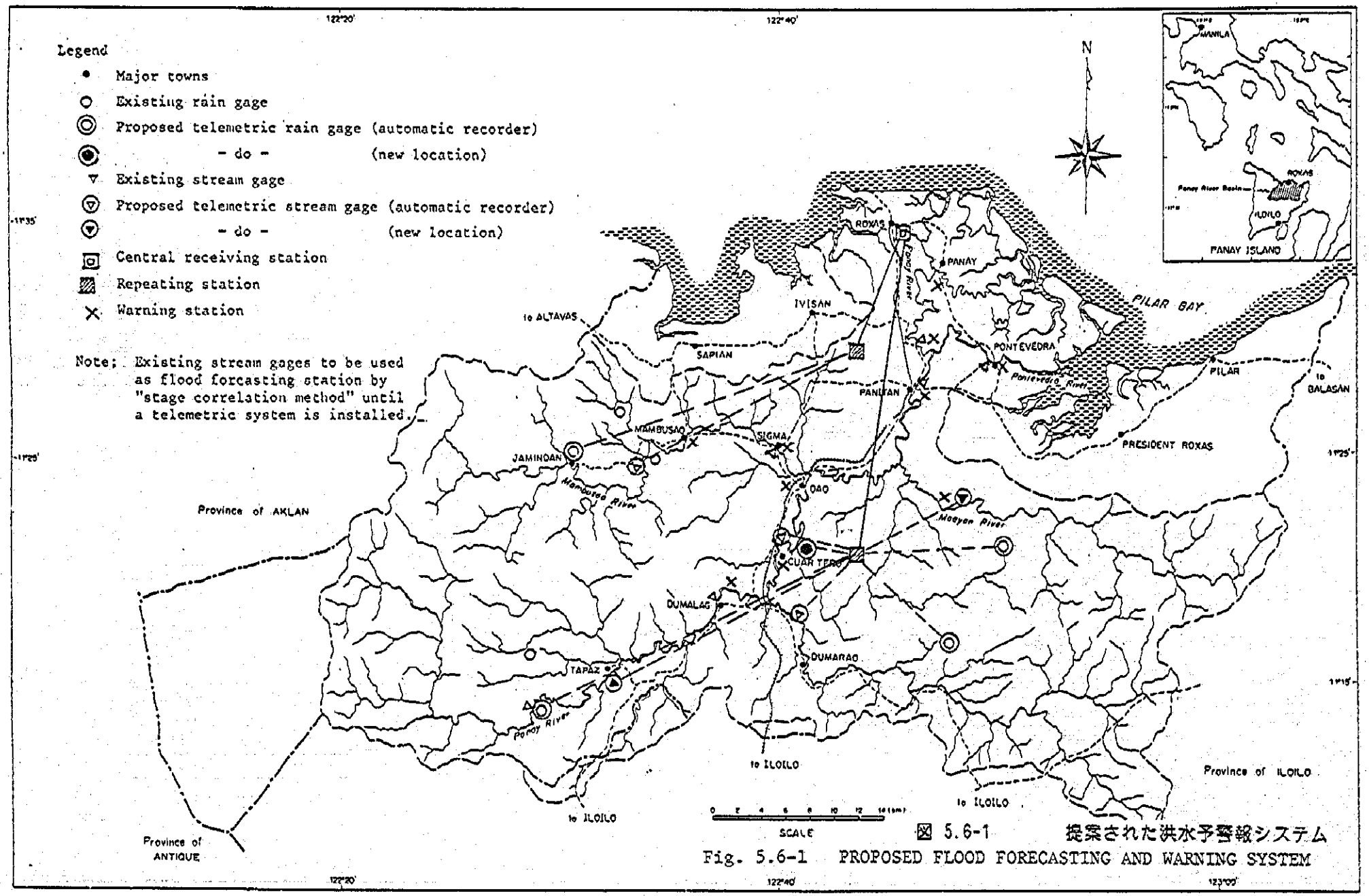
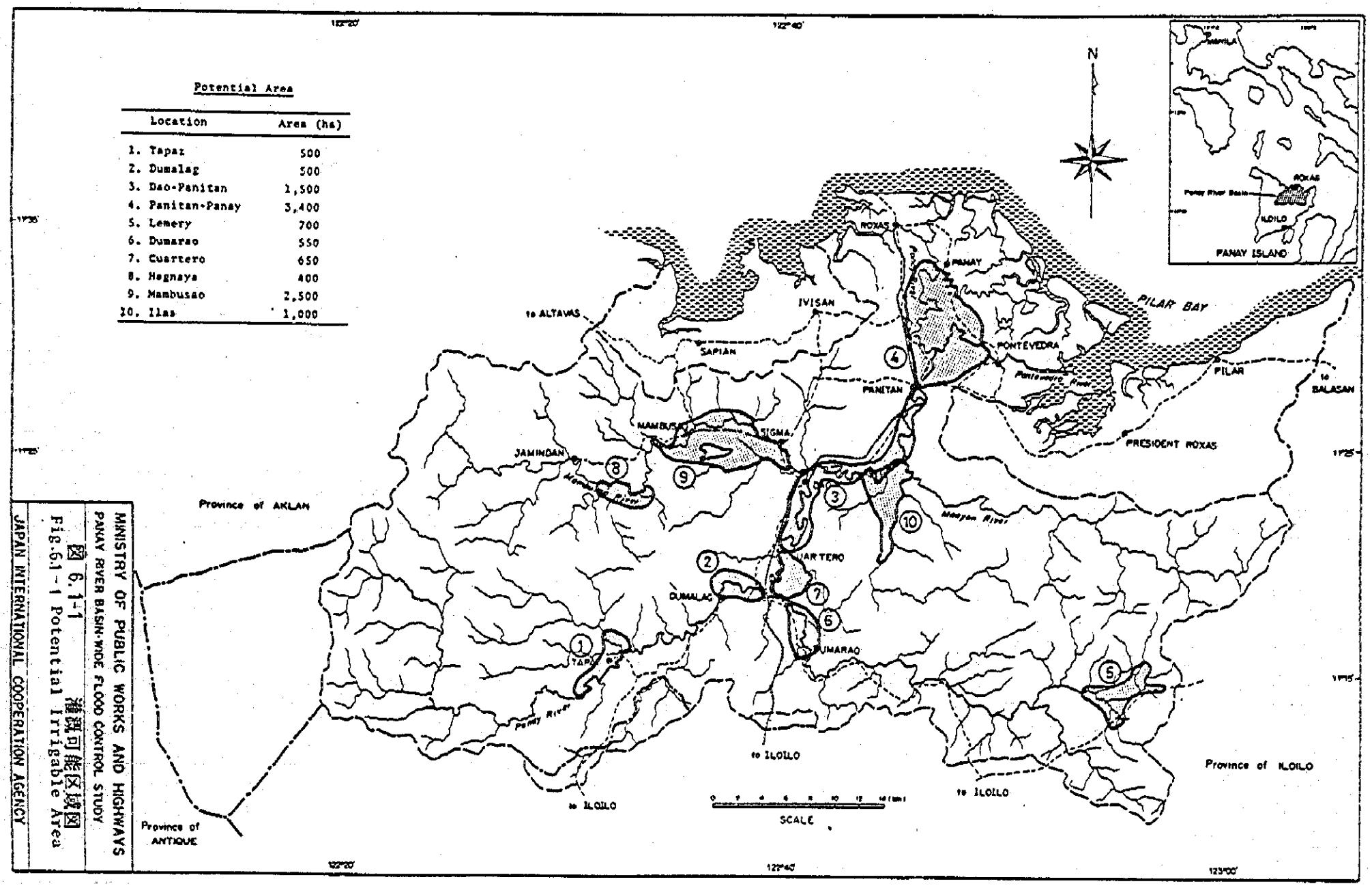


図 5.6-1 提案された洪水予警報システム

Fig. 5.6-1 PROPOSED FLOOD FORECASTING AND WARNING SYSTEM



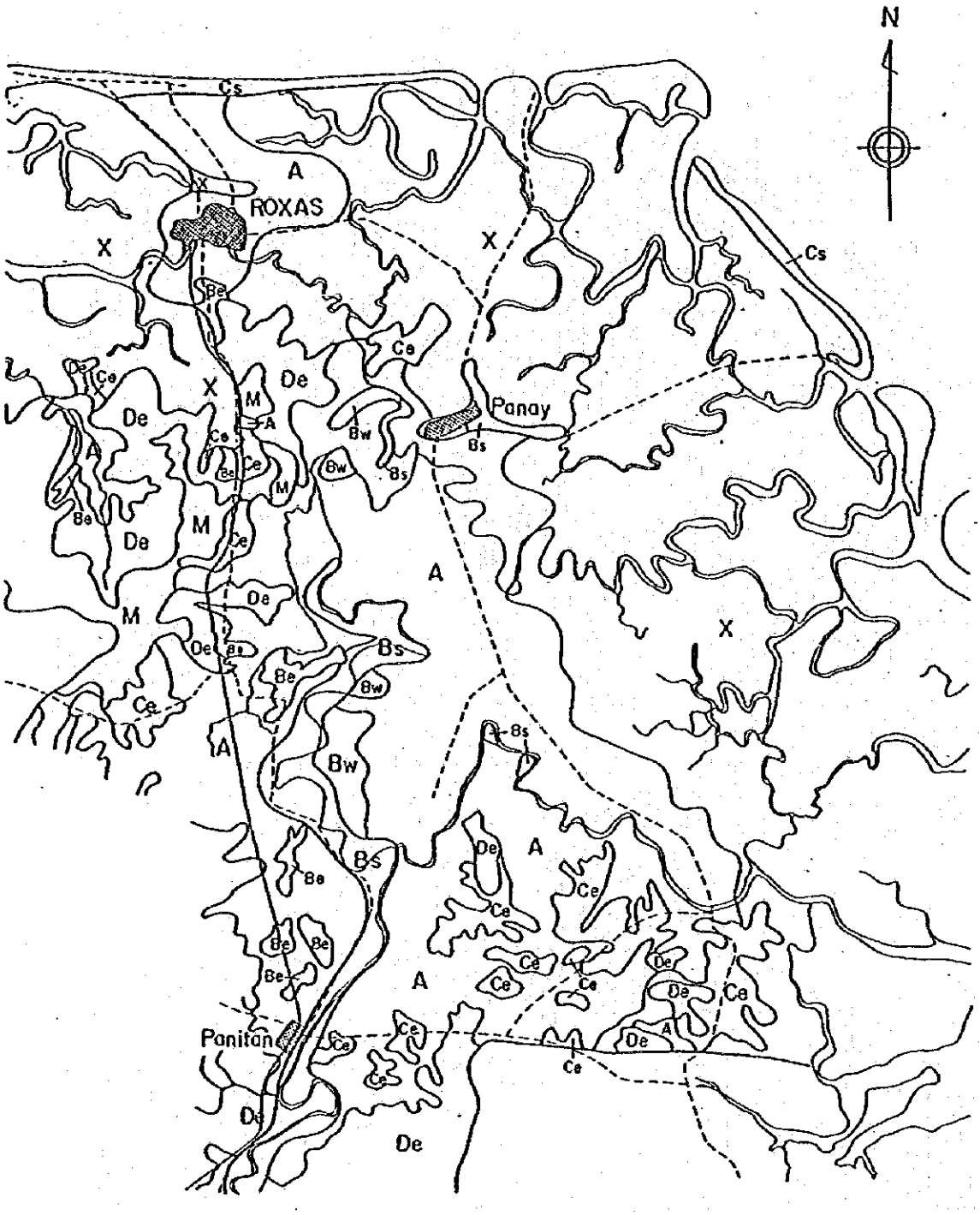
MINISTRY OF PUBLIC WORKS AND HIGHWAYS

PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

図 6.1-1 潅漑可能区域図

Fig.6.1-1 Potential Irrigable Area

JAPAN INTERNATIONAL COOPERATION AGENCY



LEGEND

Suitability	Class		Sub-classes	Limitation
Land Suitable for Cultivation	A	Very good land	--	None
	B	Good land	Be Bw Bs	Erosion Wetness Soil
	C	Moderately good land	Ce Cs	Erosion Soil
Land Suitable for Limited Cultivation	D	Fairly good land	De	Erosion
Lands Limited to Pasture or Forestry	M	Steep	-	Erosion
Lands Limited to wildlife	X	Marshy and Swampy land	-	Water

0 1 2 3 4 5km

図 6.2-1
パニタン－パナイ地区の土地利用適性図

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Fig.6.2-1 Land Suitability Map of Panitan-Panay Area

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図 6.2-2　　マンブサオ地区の土地利用適性図

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PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

Fig. 6.2-2 Land Suitability Map of Mambusao Area

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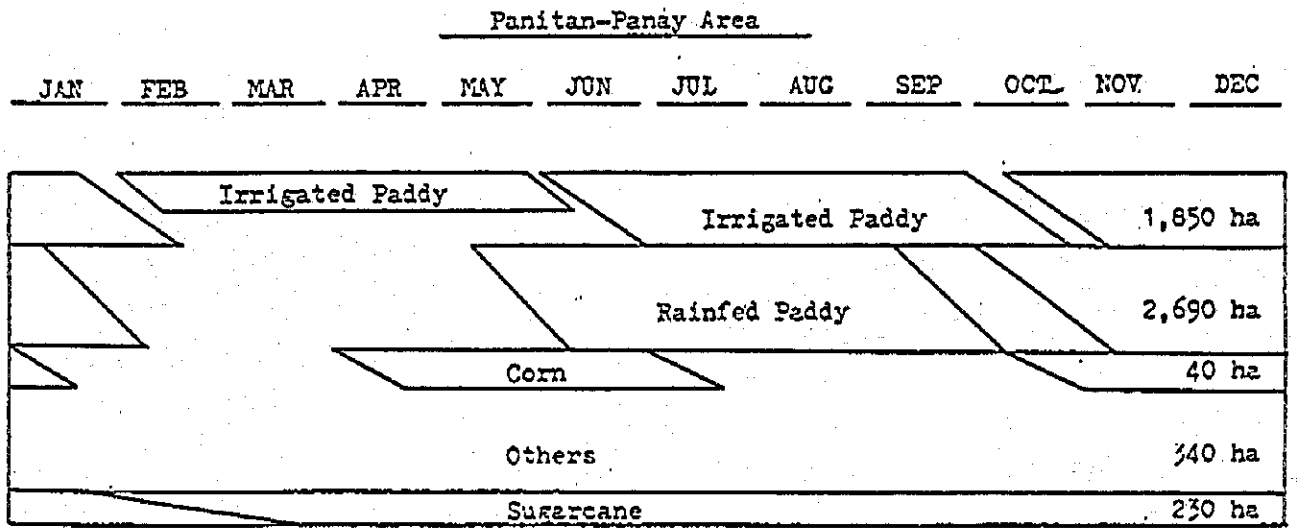

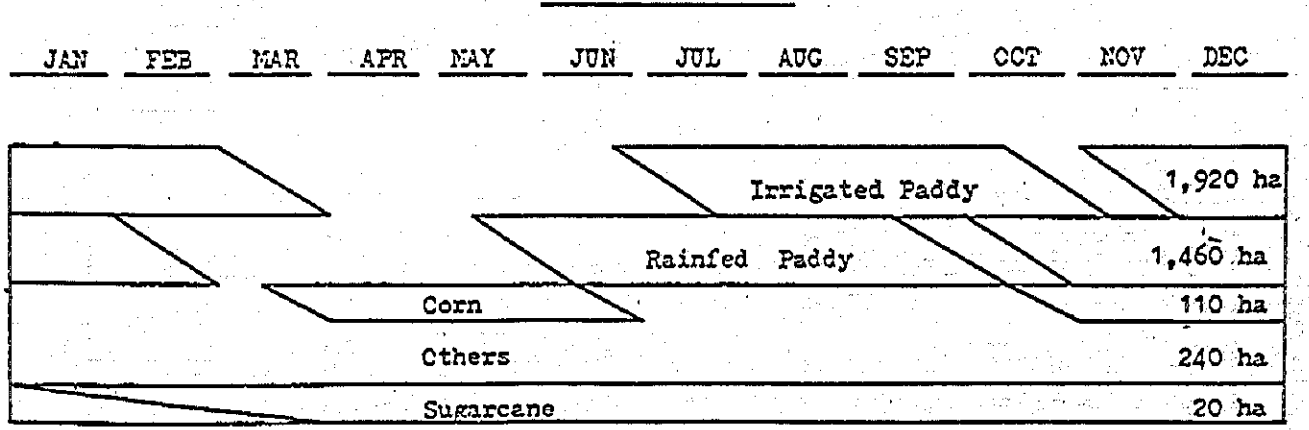

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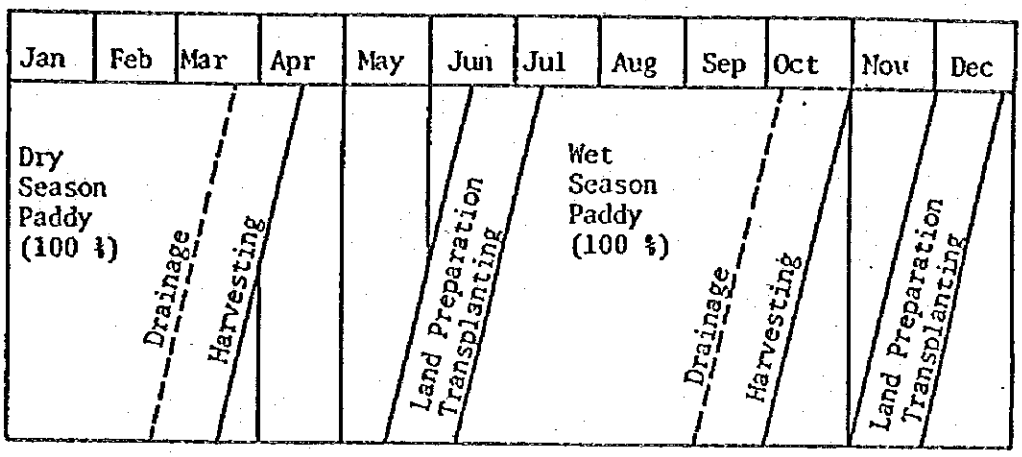
Fig.6.2-3 Present Cropping Pattern
図 6.2-3 現況作付図

I. Mambusao Area (Cropping Intensity: 2.0)



II. Panitan - Panay Area (Cropping Intensity: 2.5)

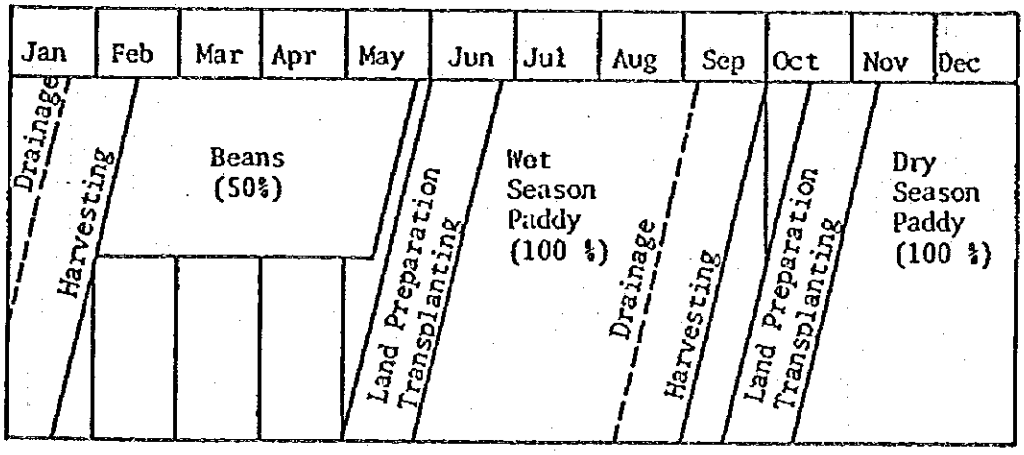


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Fig.6.3-1 Proposed Cropping Pattern
図 6.3-1 提案された作付パターン

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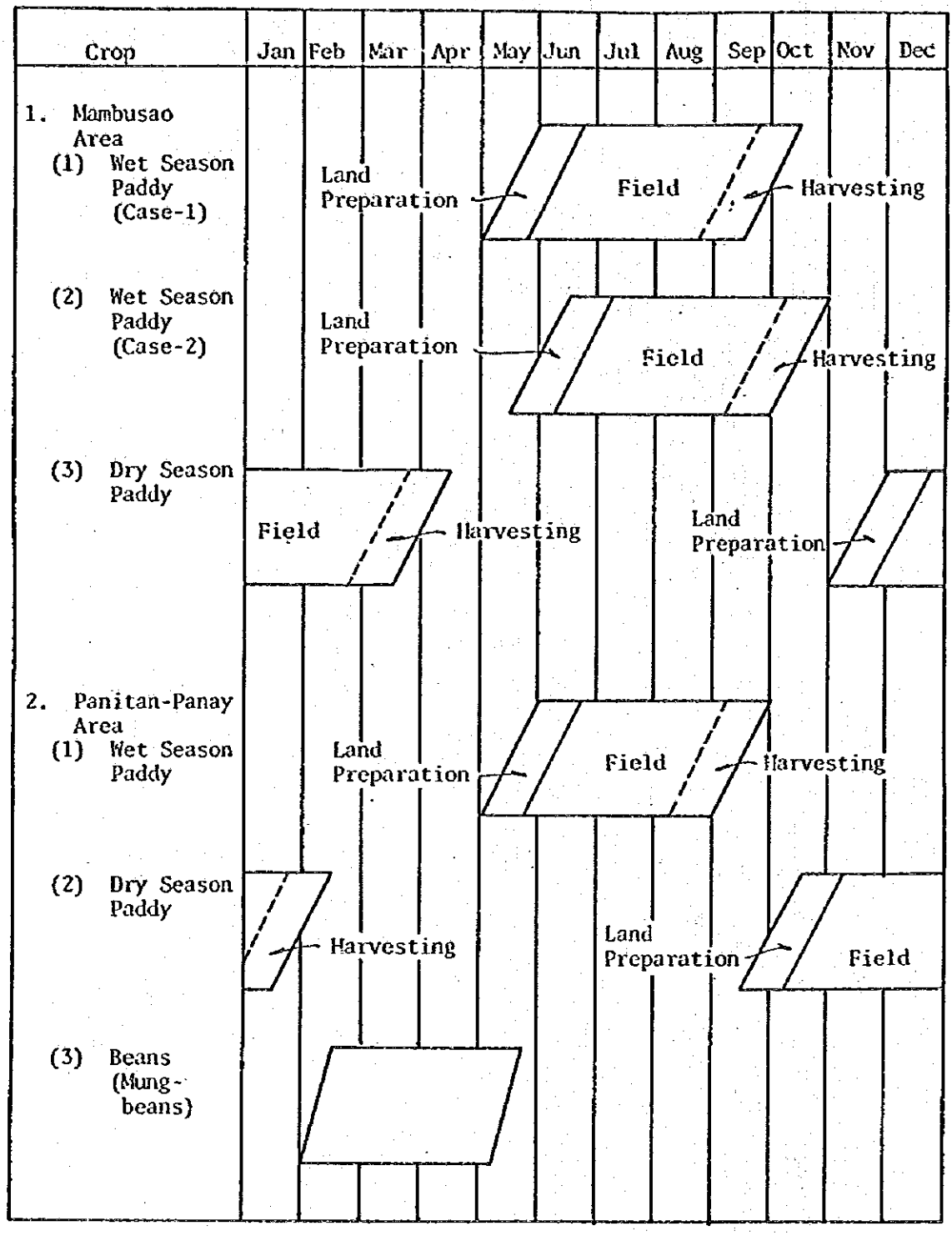

MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

図 6.3-2 作付カレンダー
Fig.6.3-2 Cropping Calendar

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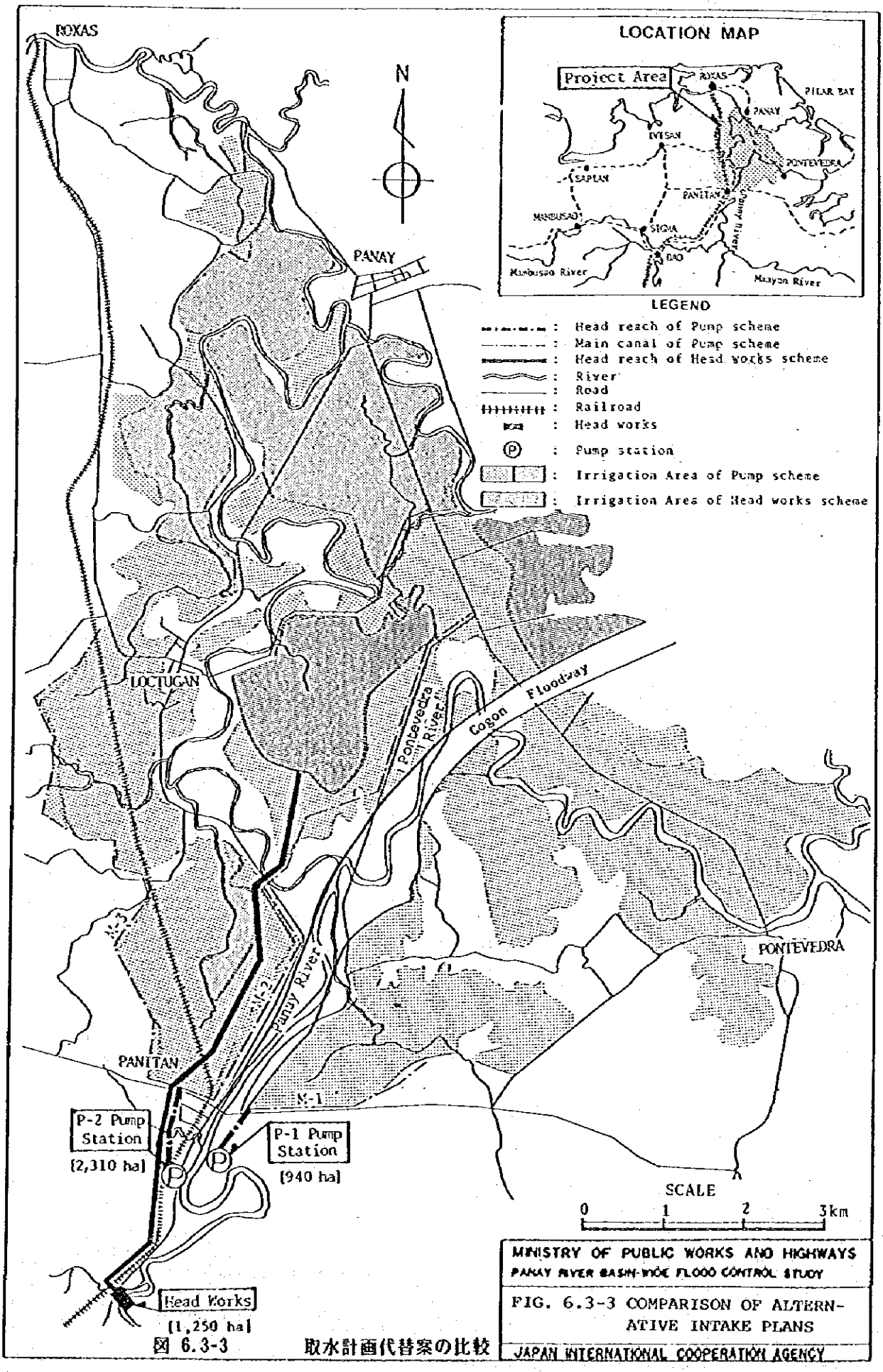
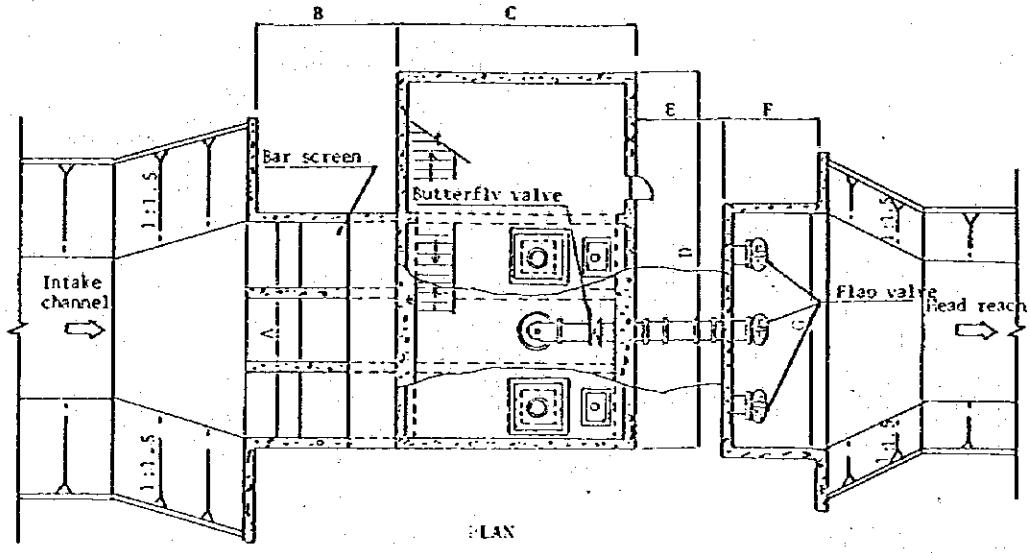


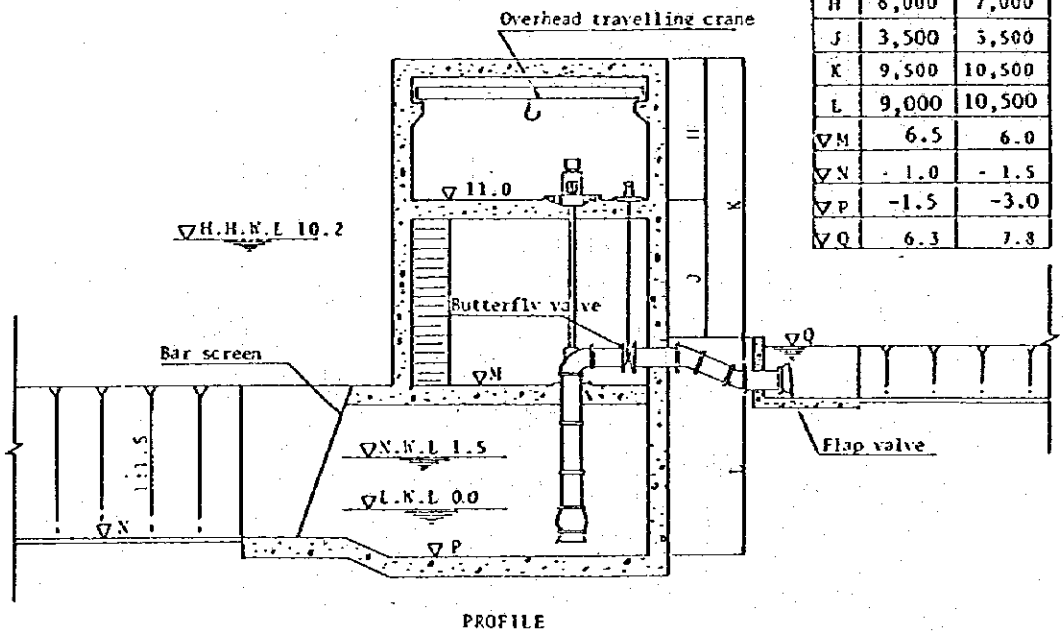
図 6.3-3 取水計画代替案の比較



PLAN

DIMENSION TABLE

	P-1	P-2
NOS OF PUMP	3	2
A	4,600	6,500
B	5,000	6,000
C	6,000	7,000
D	8,000	12,000
E	5,000	5,000
F	2,000	3,500
G	4,600	6,500
H	6,000	7,000
J	3,500	3,500
K	9,500	10,500
L	9,000	10,500
▽M	6.5	6.0
▽N	- 1.0	- 1.5
▽P	-1.5	-3.0
▽Q	6.3	7.8



PROFILE

MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

FIG. 6.3-4 PUMP STATION
図 6.3-4 ポンプ場

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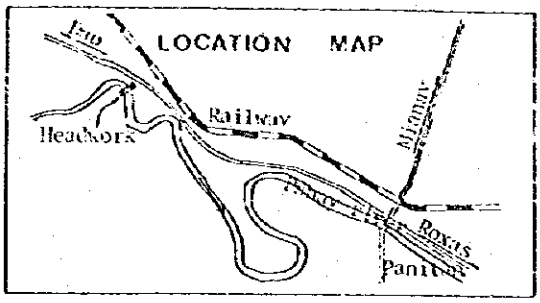
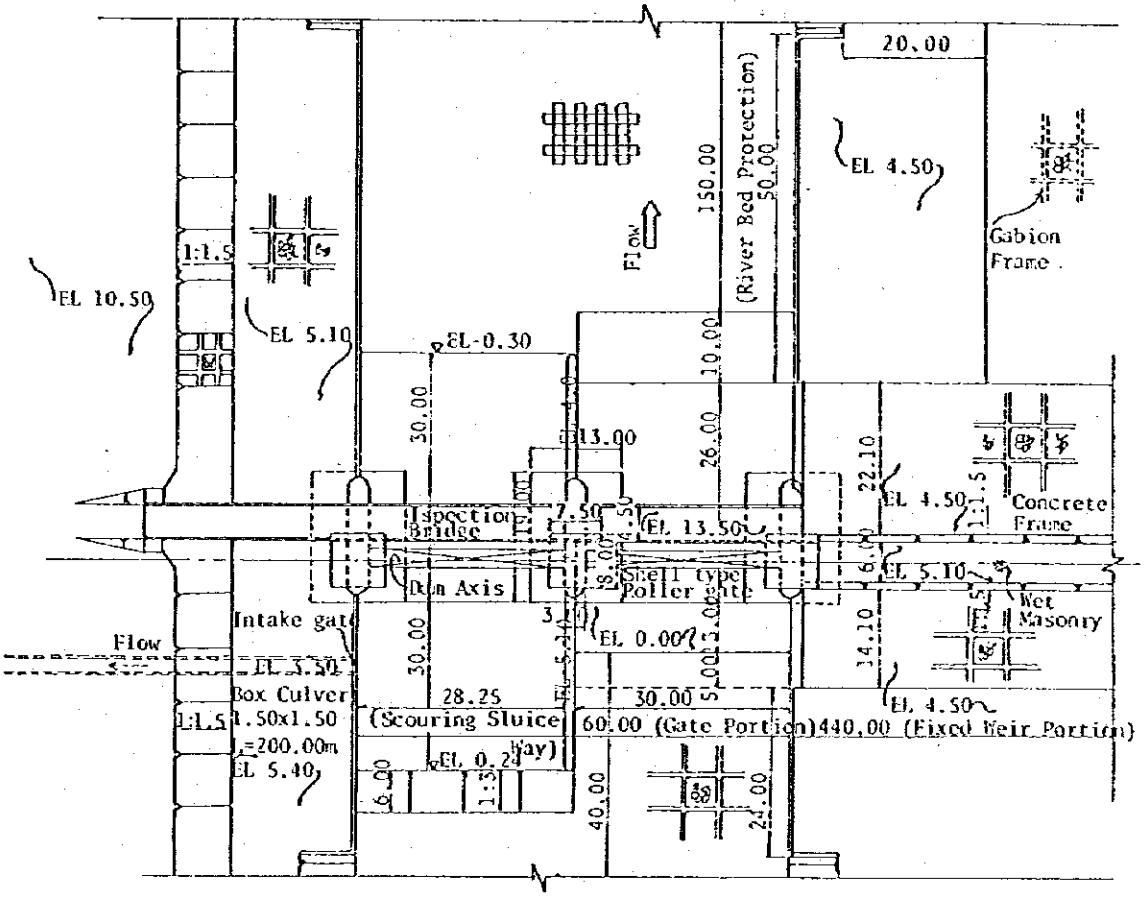
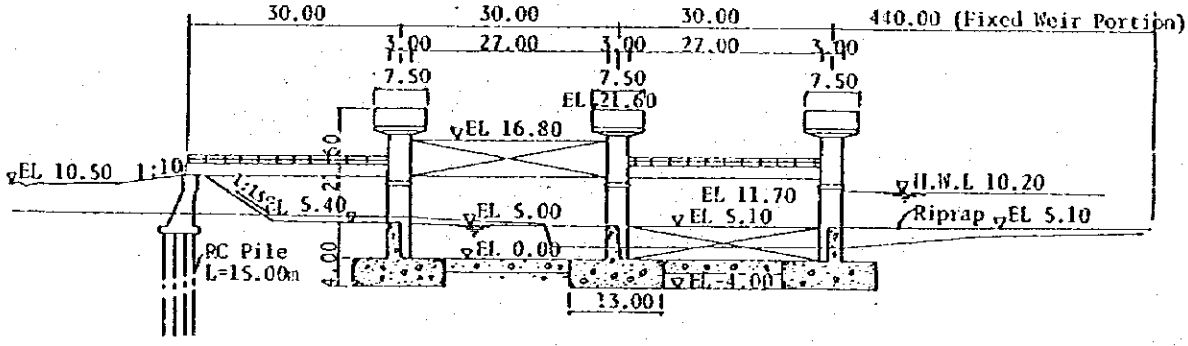




PLAN



PROFILE

SCALE
0 10 20 30 40 50 m

MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

FIG. 6.3-5 HEADWORKS
図 6.3-5 取水堰

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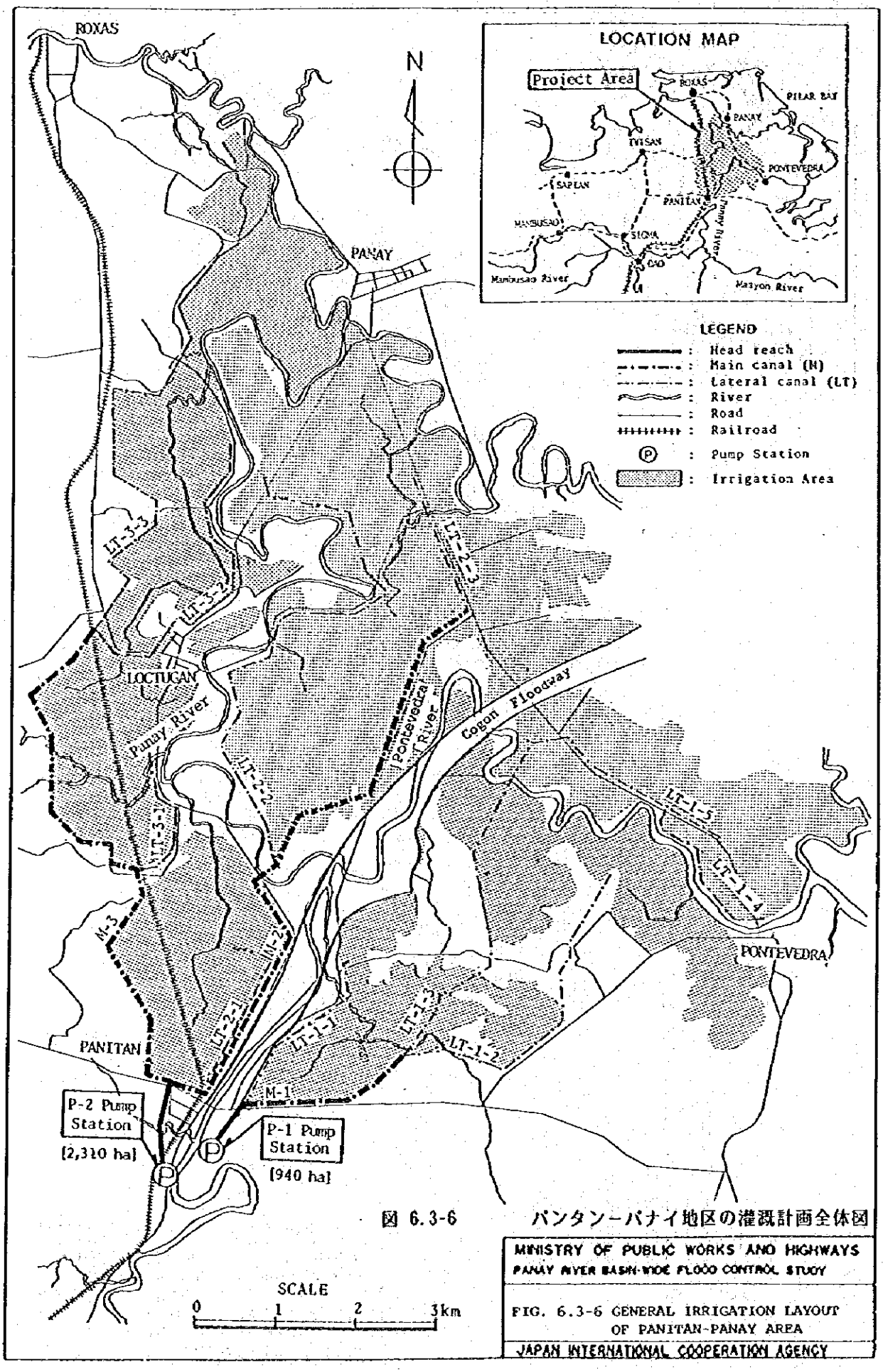

図 6.3-6 パンタン－パナイ地区の灌漑計画全体図

MINISTRY OF PUBLIC WORKS AND HIGHWAYS
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FIG. 6.3-6 GENERAL IRRIGATION LAYOUT OF PANITAN-PANAY AREA

JAPAN INTERNATIONAL COOPERATION AGENCY

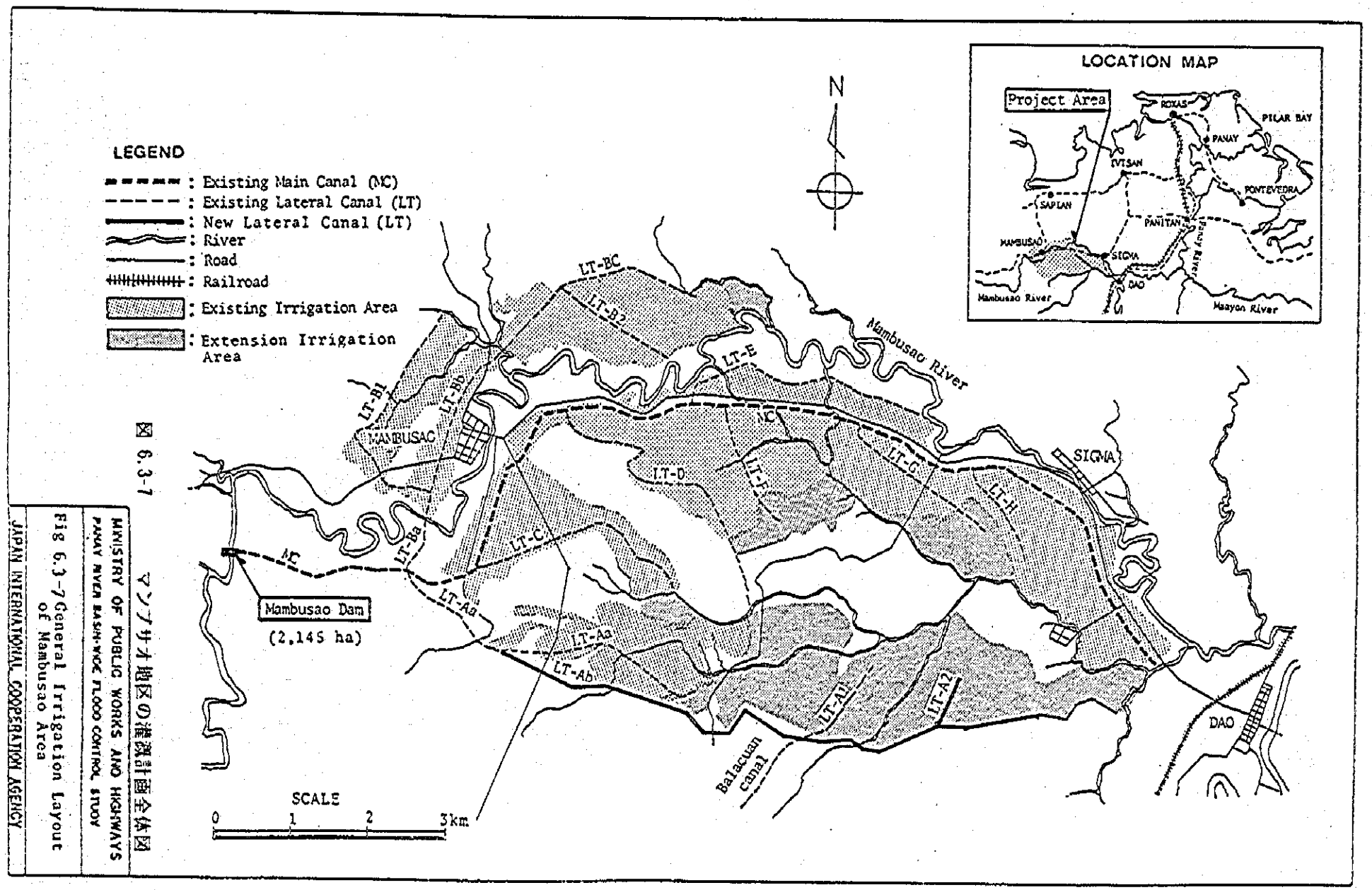


図 6.3-7 マンブサオ地区の灌漑計画全体図

Fig 6.3-7 General Irrigation Layout of Mambusao Area

MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY
JAPAN INTERNATIONAL COOPERATION AGENCY

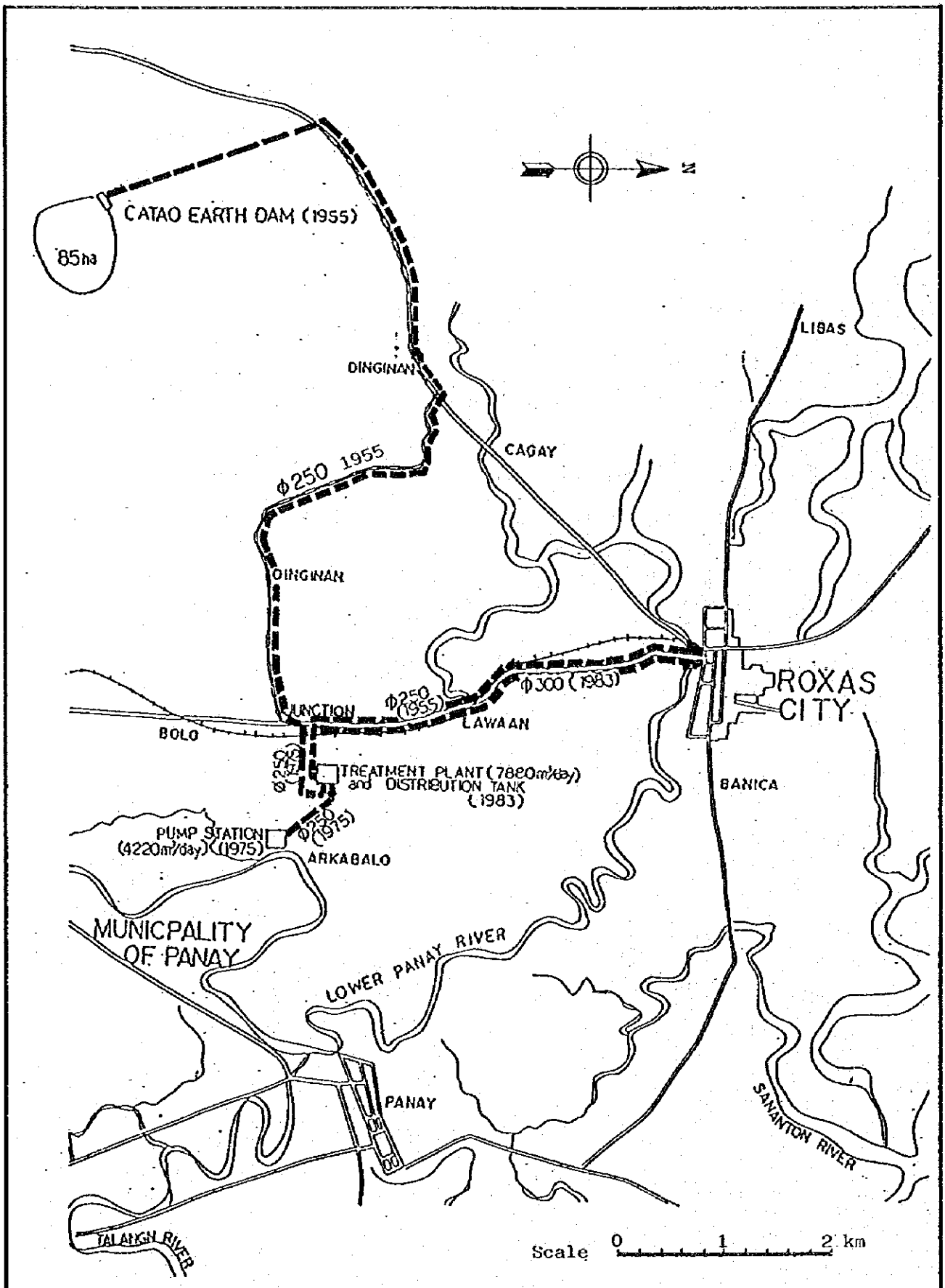


図 7.2-1　　現況水道供給システム

Fig. 7.2-1　Existing Water Supply System

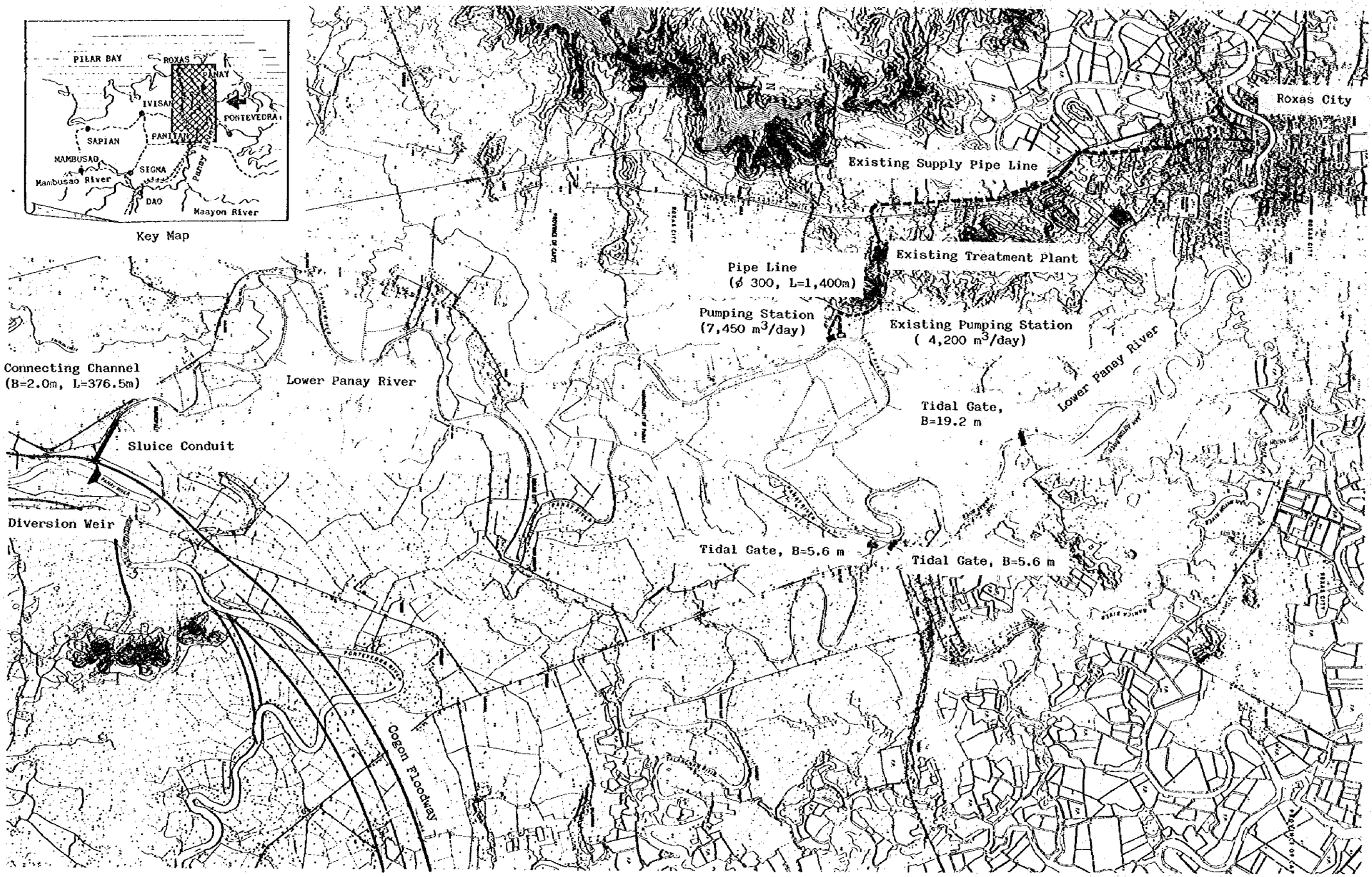
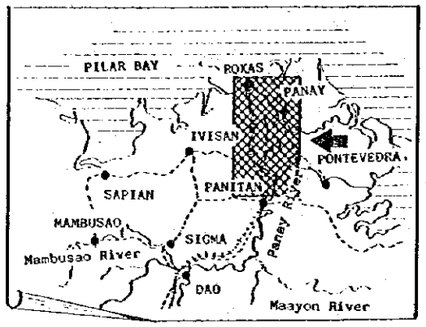


図 7.5-1　代替案1：全体図

Fig. 7.5-1　Alternative 1 : General Plan



Key Map

Pipe Line, (ø 450, L=10.0 km)

Existing Supply Pipe Line

Roxas City

Existing Treatment Plant

Existing Pumping Station
(To be abandoned)

Pumping Station
(11,650 m^3/day)

Lower Panay River

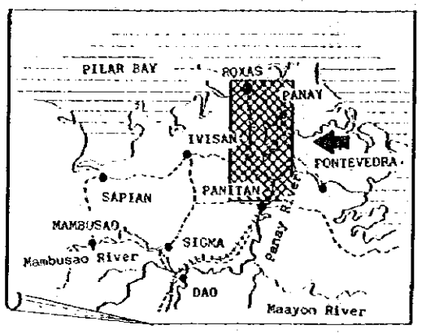
Lower Panay River

Cogon Floodway

Scale 0 1 2 km

図 7.5-2　　代替案２：全体図

Fig. 7.5-2　Alternative 2 : General Plan



Key Map

Roxas City

Existing Supply Pipe Line

Existing Treatment Plant

Pipe Line
(ø 300, L=1,400m)

Pumping Station
(7,450 m^3/day)

Existing Pumping Station
(4,200 m^3/day)

Lower Panay River

Connecting Channel
(B=2.0m, L=343.5m)

River Bed Excavation
(L = 8 km + 6 km)

Tidal Gate,
B=19.2 m

Suice Conduit

Ground Sill

Tidal Gate, B=5.6 m

Tidal Gate, B=5.6 m

Cogon Floodway

Scale 0 1 2 km

図 7.5-3 代替案3：全体図

Fig. 7.5-3 Alternative 3 : General Plan