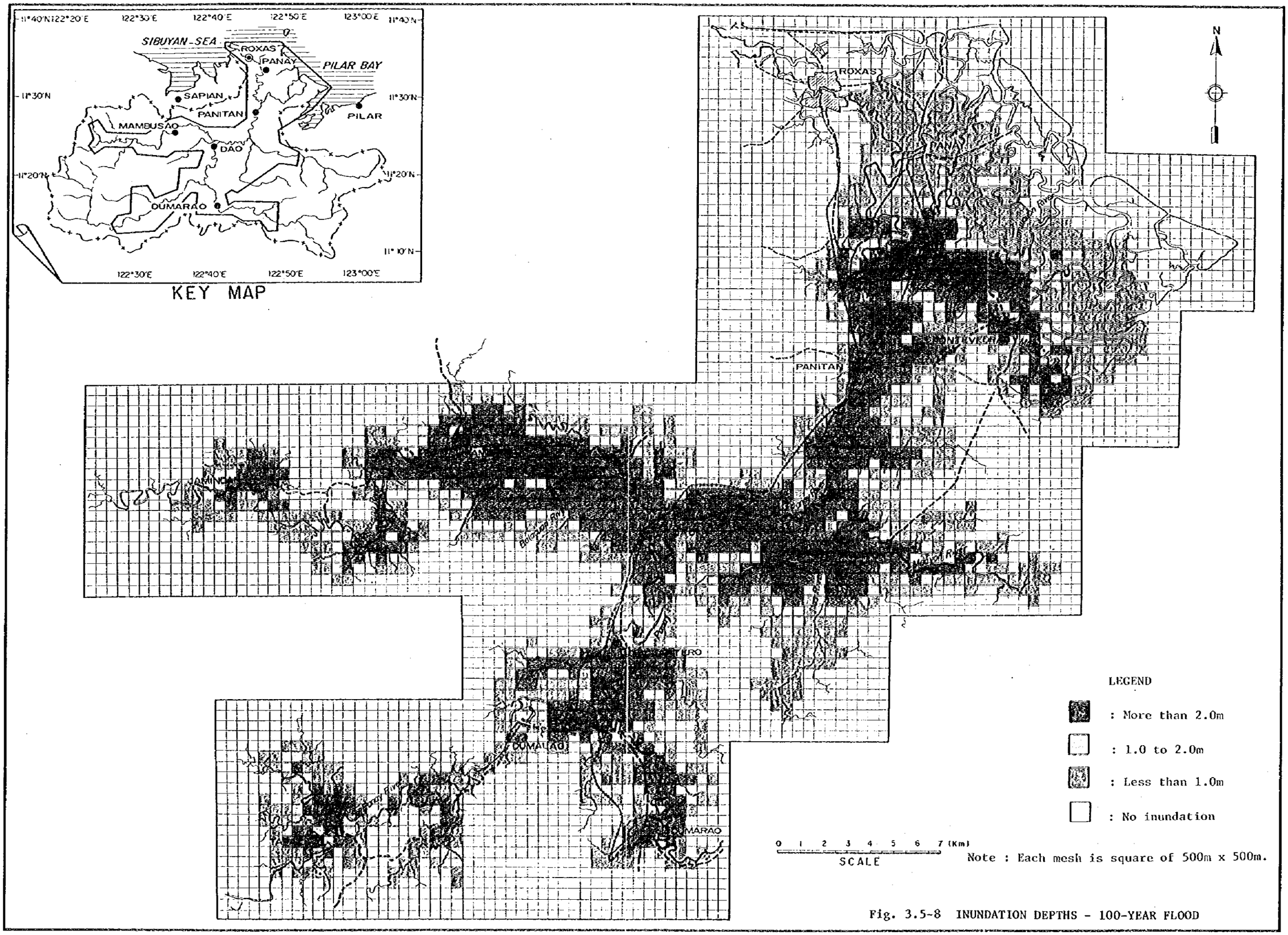



Fig. 3.5-8 INUNDATION DEPTHS - 100-YEAR FLOOD

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 | KAGRA | Cuartero, Capiz | 170 | 170 |
| 5 | CONSOLACION | Dumarao, Capiz | /1:- | |
| 6 | MALONOY | Dumarao, Capiz | /1:- | - |
| 7 | STA NITA | Dumalag, Capiz | 90 | 65 |
| 8 | CODINGLE | Dumarao, Capiz | 40 | 35 |
| 9 | TASLAN-TRACTARO | Dumarao, Capiz | 26 | 20 |
| 10 | BATING | Mambusao, Capiz | /1:- | - |
| 11 | CALA-ACTS | Mambusao, Capiz | 70 | 60 |
| 12 | SAN JOSE BUNACEYSON | Roxas City | 68 | 45 |
| 13 | MANAY | Sigma, Capiz | 85 | 55 |
| 14 | ILAS | Dao, Capiz | 650 | 550 |
| 15 | BALUGTAN | Sigma, Capiz | 280 | 250 |
| 16 | STRASBURG | Maayon, Capiz | 40 | 25 |
| 17 | NASUGGAN-AMUIC | Lemery, Iloilo | 50 | 20 |
| 18 | MARAPAL | Lemery, Iloilo | 65 | 40 |
| 19 | LEMERY | Lemery, Iloilo | 15 | 5 |
| 20 | PONTOC | Lemery, Iloilo | 170 | 130 |
| 21 | DATOC | Dao, Capiz | /2: | |
| 22 | MALONOY | Dao, Capiz | /2: | |
| 23 | MAIMOY | Cuartero, Capiz | /2: | |
| | TOTAL | | 2,184 | 1,695 |

/1 : Not operated due to improper maintenance of facility, as of December 1983.

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

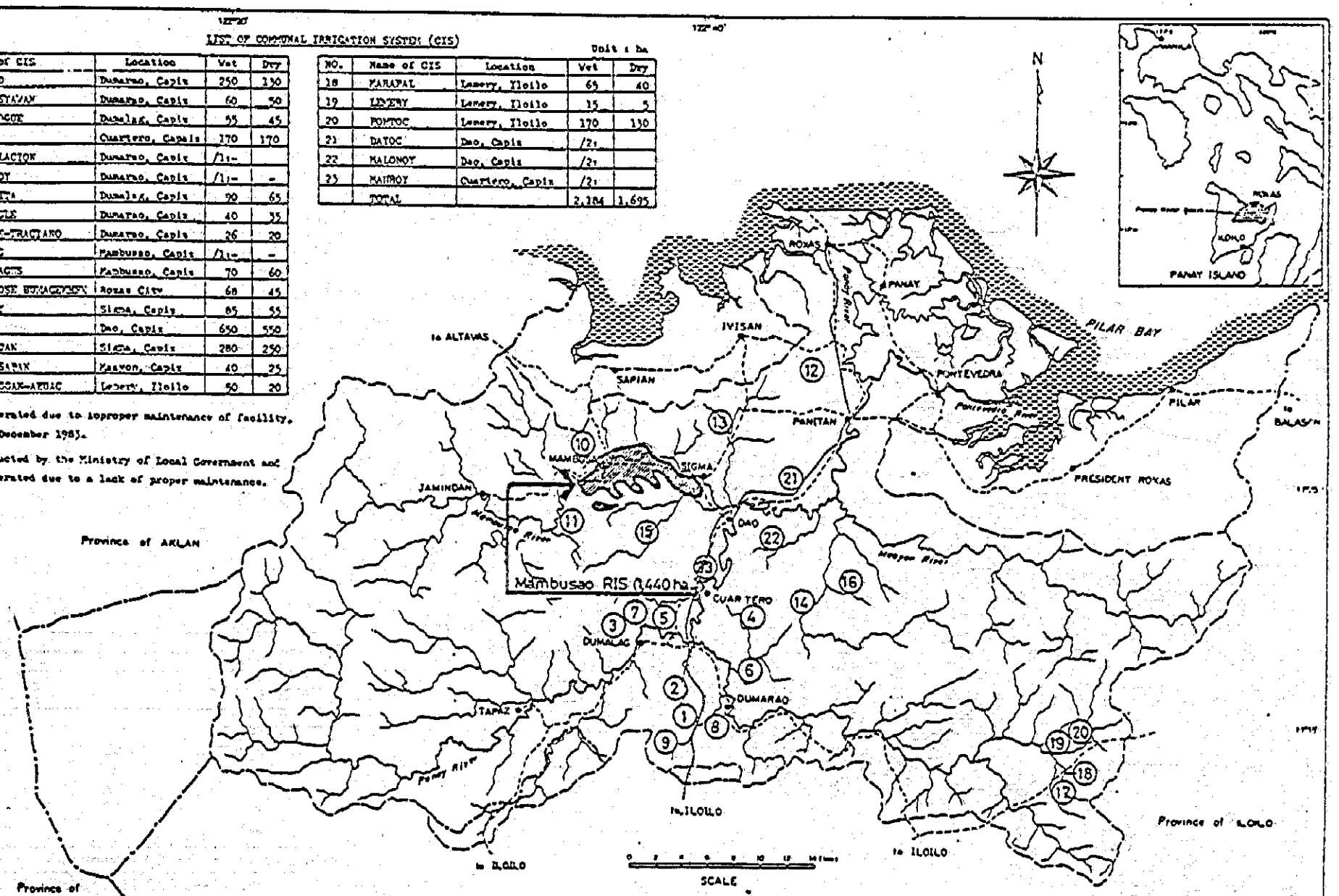



Fig. 3.6-1 LOCATION OF EXISTING RIS AND CIS

PUMP IRRIGATION SYSTEMS (FSDC)

| Name of Reach | Irrigated Area (ha) | Water Right (l/s) |
|---|---|---|
| 1. PANAY - I | 326 | 326 |
| 2. PANAY - II | 285 | 285 |
| 3. PANAY - III | 324 | 324 |
| 4. PANAY - IV | 156 | 156 |
| 5. PANAY - V | 1,360 | 1,360 |
| Sub-total | 2,441 | 2,451 |
| 6. BADBARAN | 0 | 0 |
| 7. MAMBUSAO | 738 | 738 |
| 8. MAAYON | 281 | 281 |
| 9. PONTEVEDRA | 0 | 0 |
| Total | 3,460 | 3,460 |

Note : 0 : PIS operated under FSDC

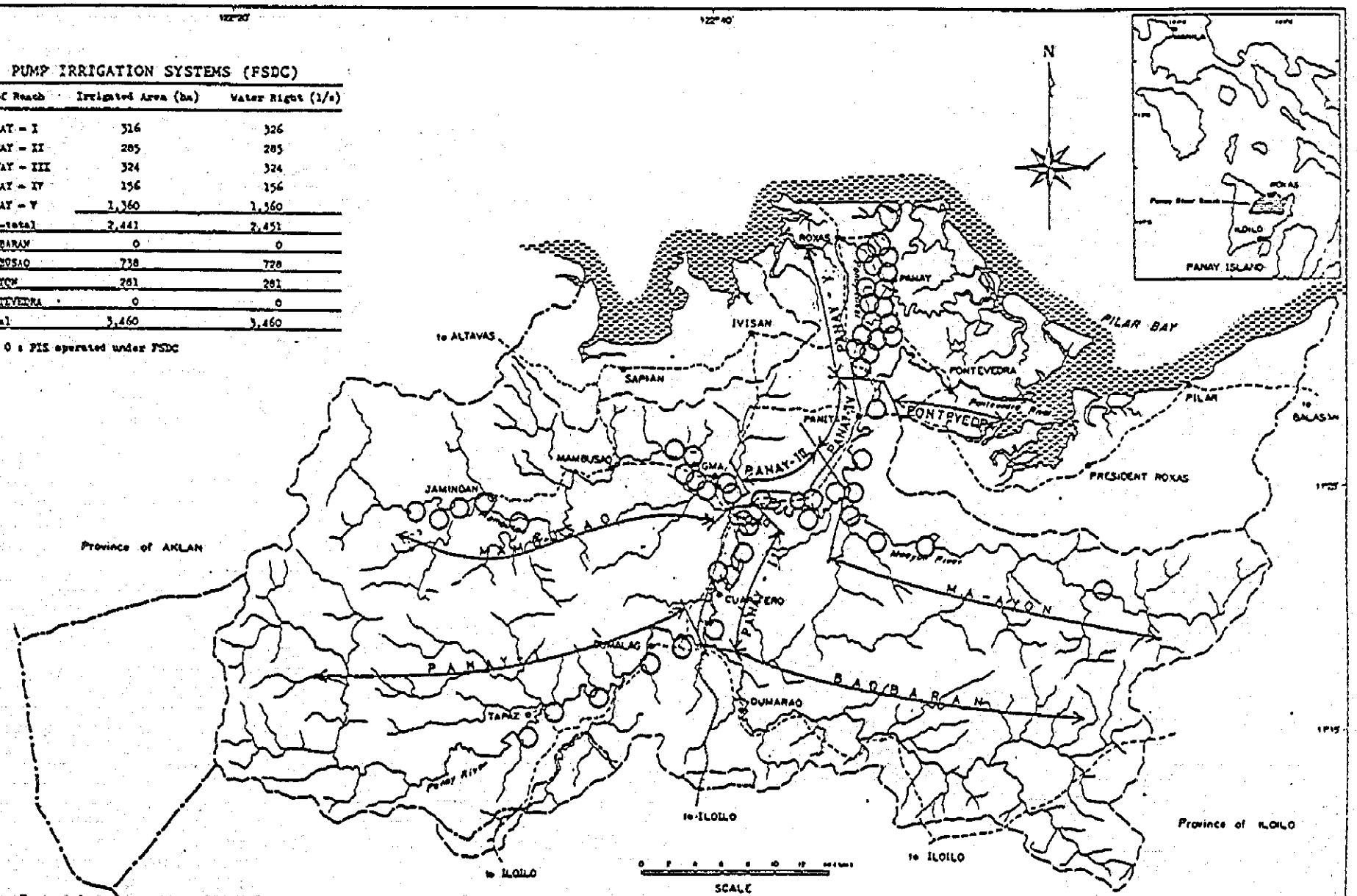



Fig. 3.6-2 LOCATION OF EXISTING PIS (FSDC)

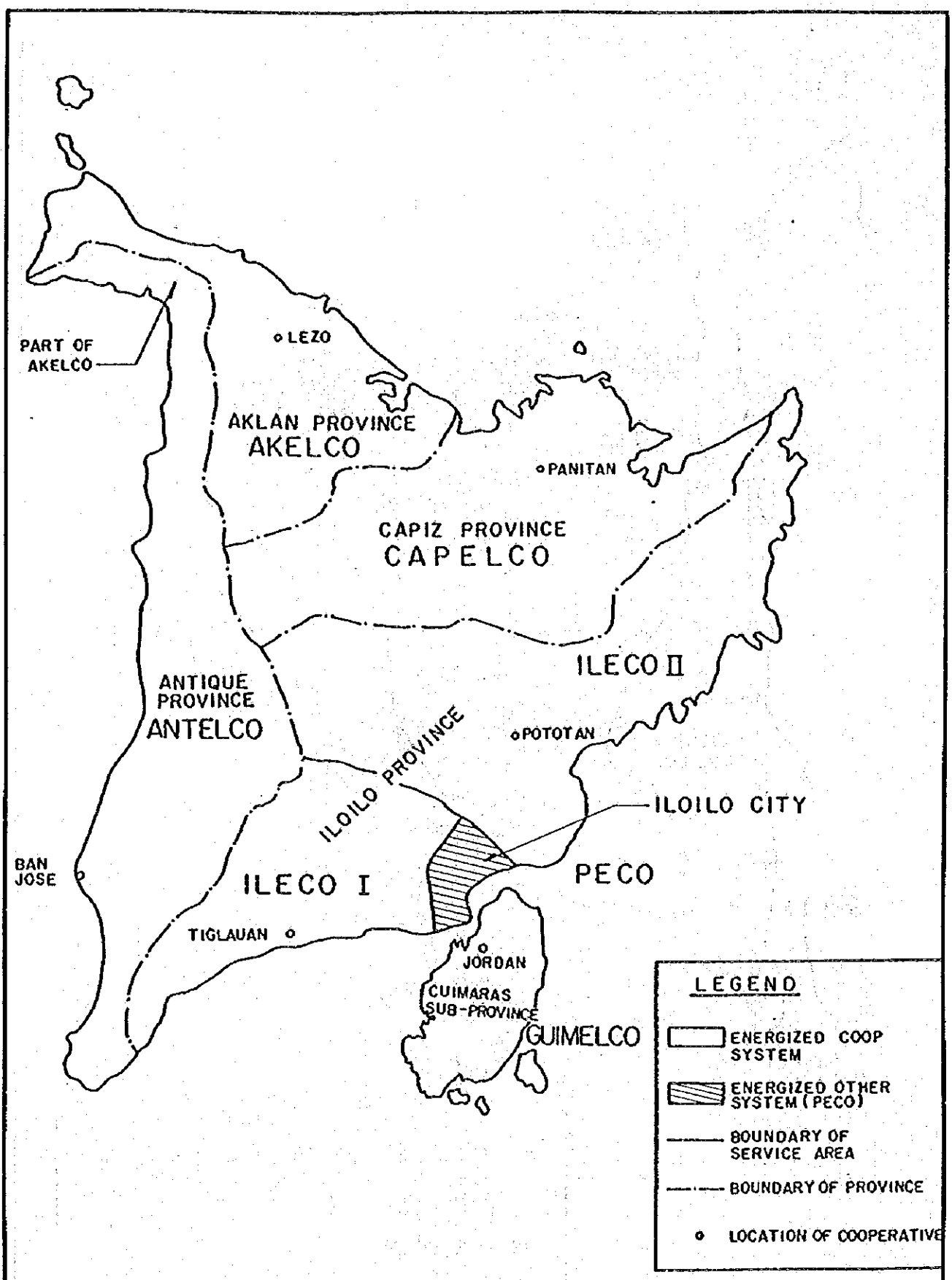



Fig. 3.8 -1 MAP OF COOPERATIVE SERVICE AREA

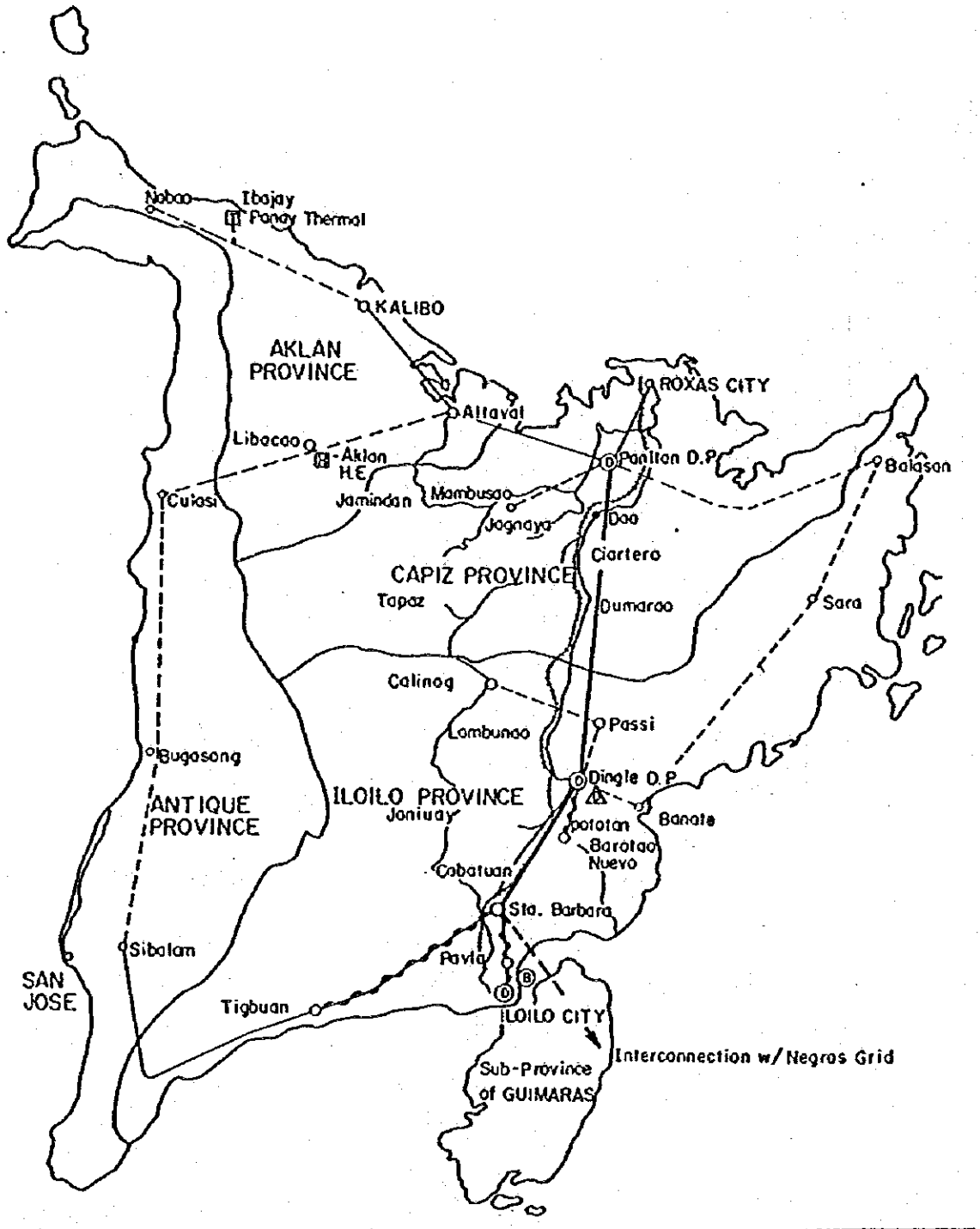
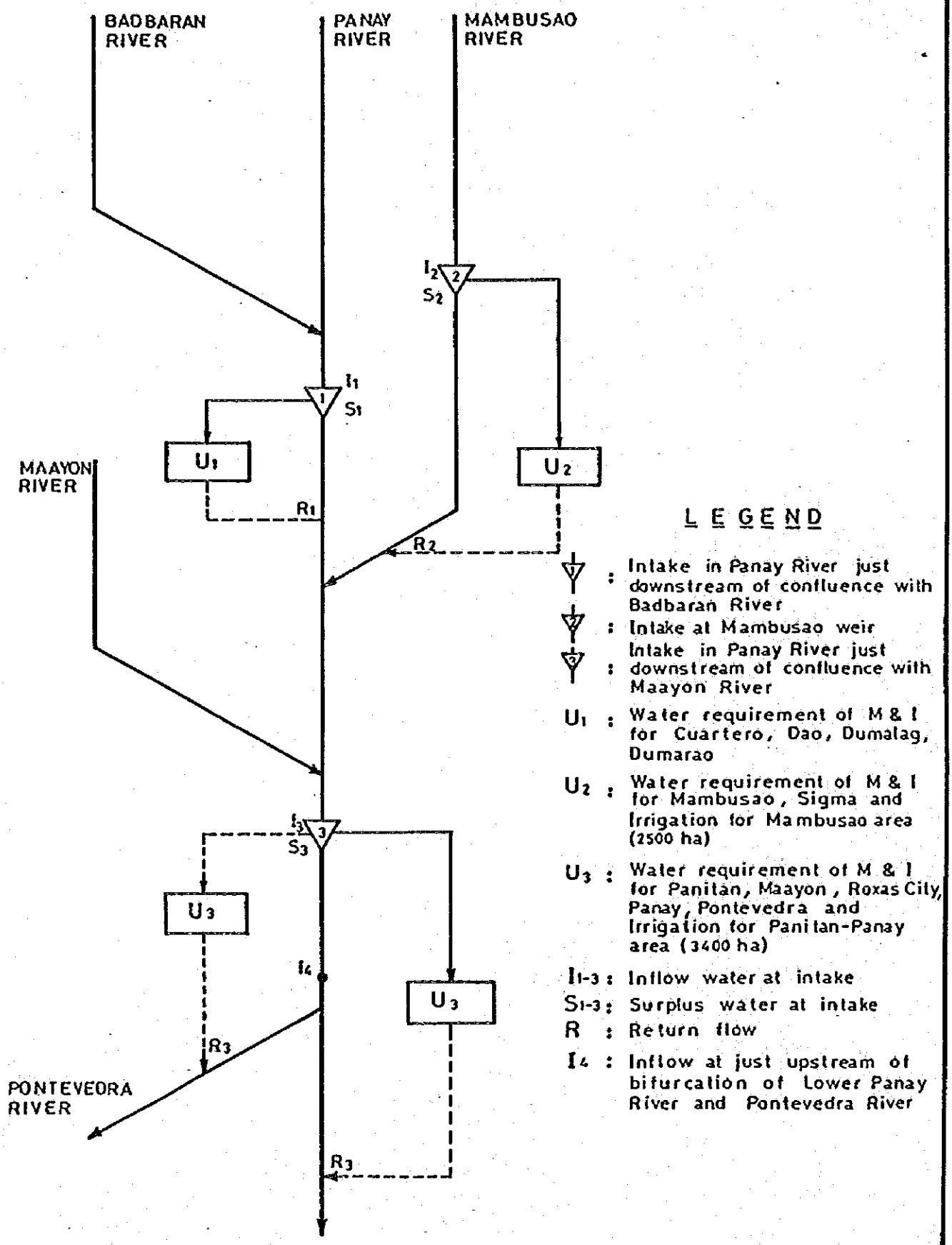
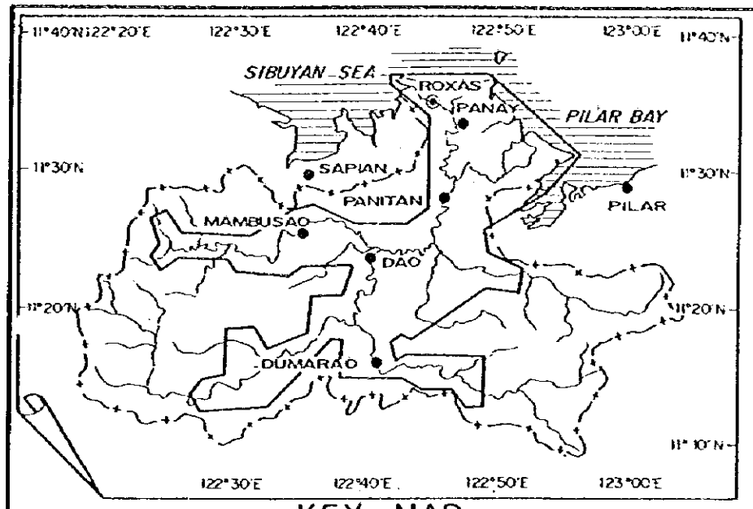


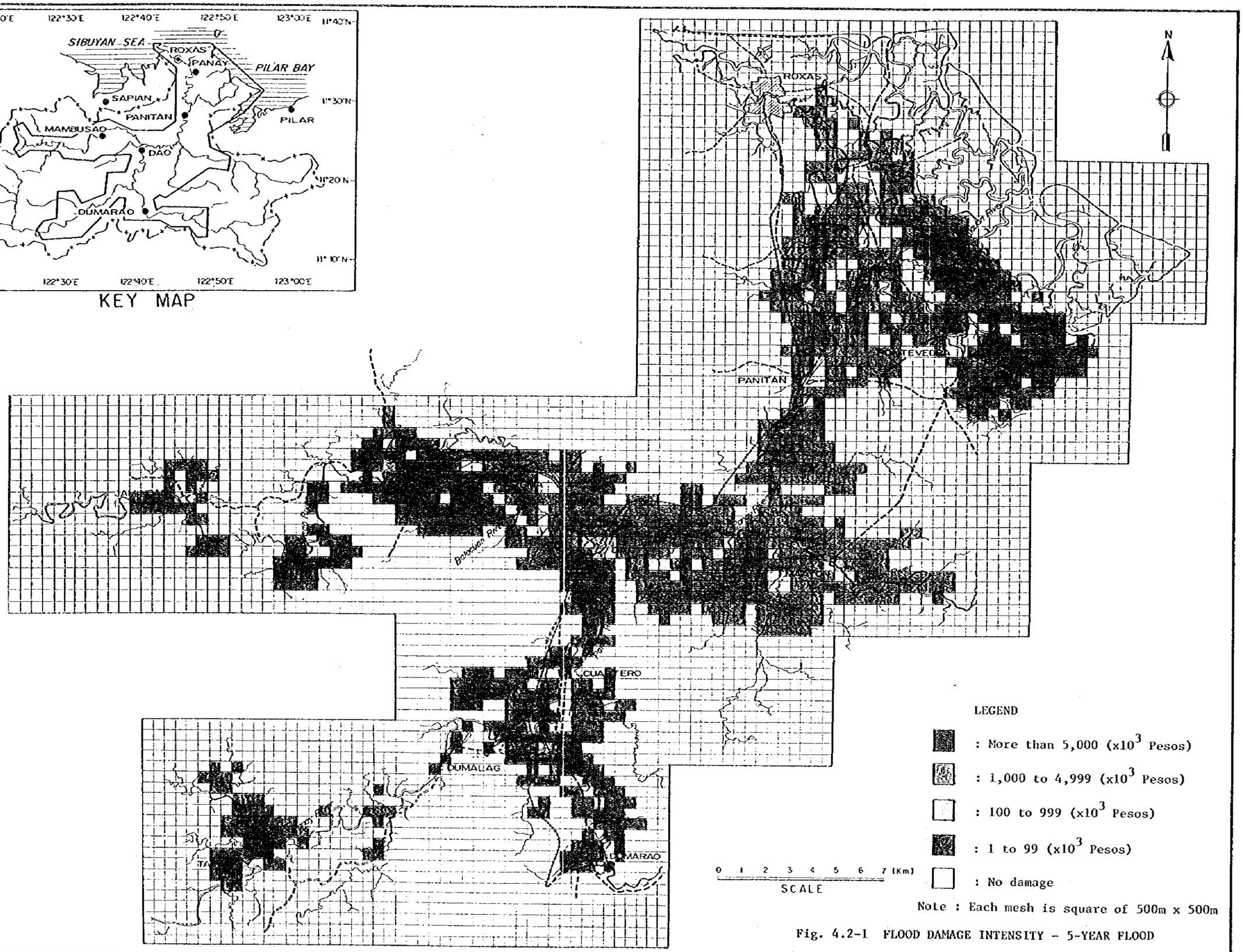

Fig. 3.8-2 PANAY POWER SYSTEM 1984

Fig. 3.9-1 SCHEMATIC DIAGRAMS FOR WATER BUDGET






KEY MAP




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

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

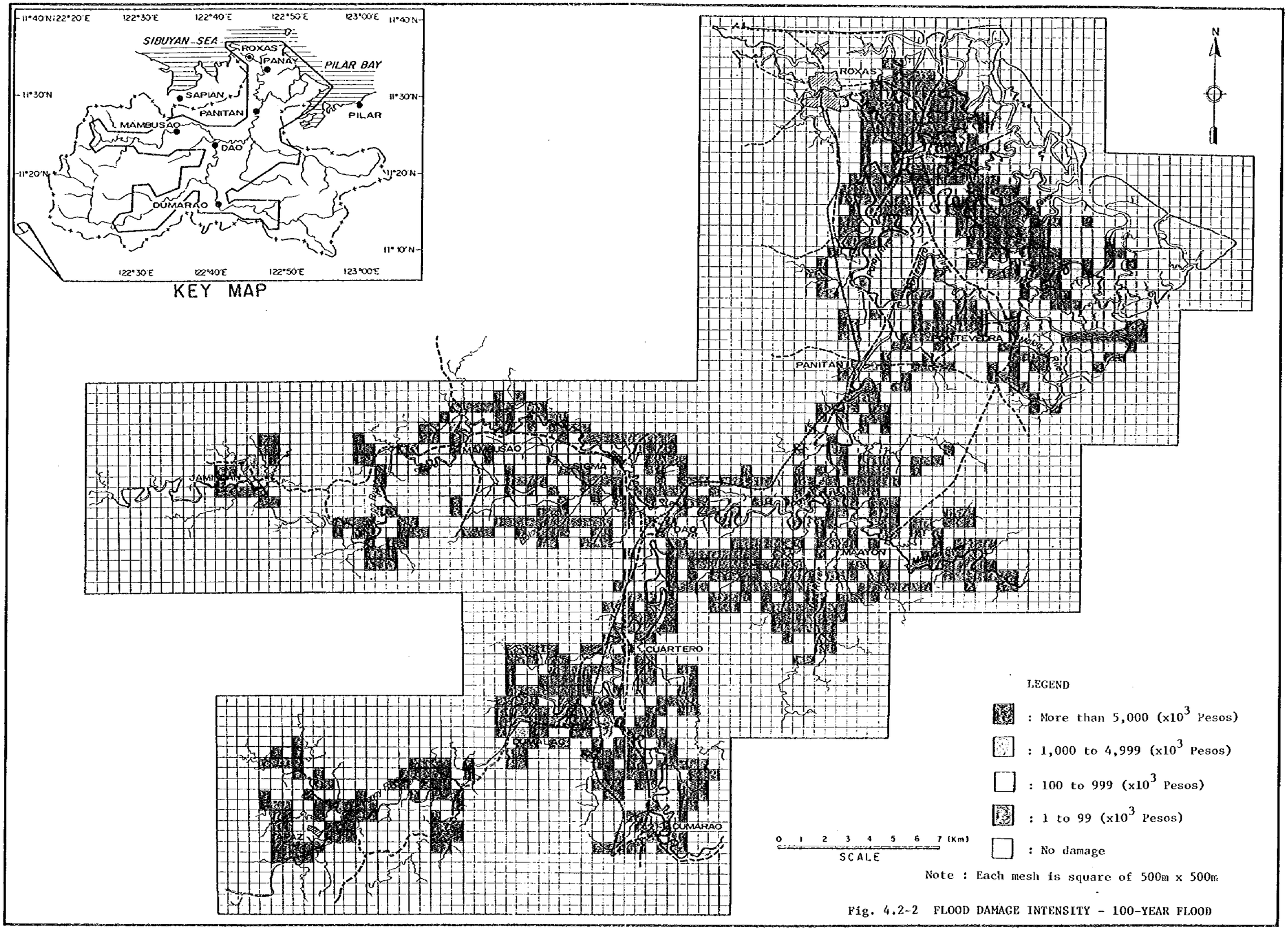



Fig. 4.2-2 FLOOD DAMAGE INTENSITY - 100-YEAR FLOOD

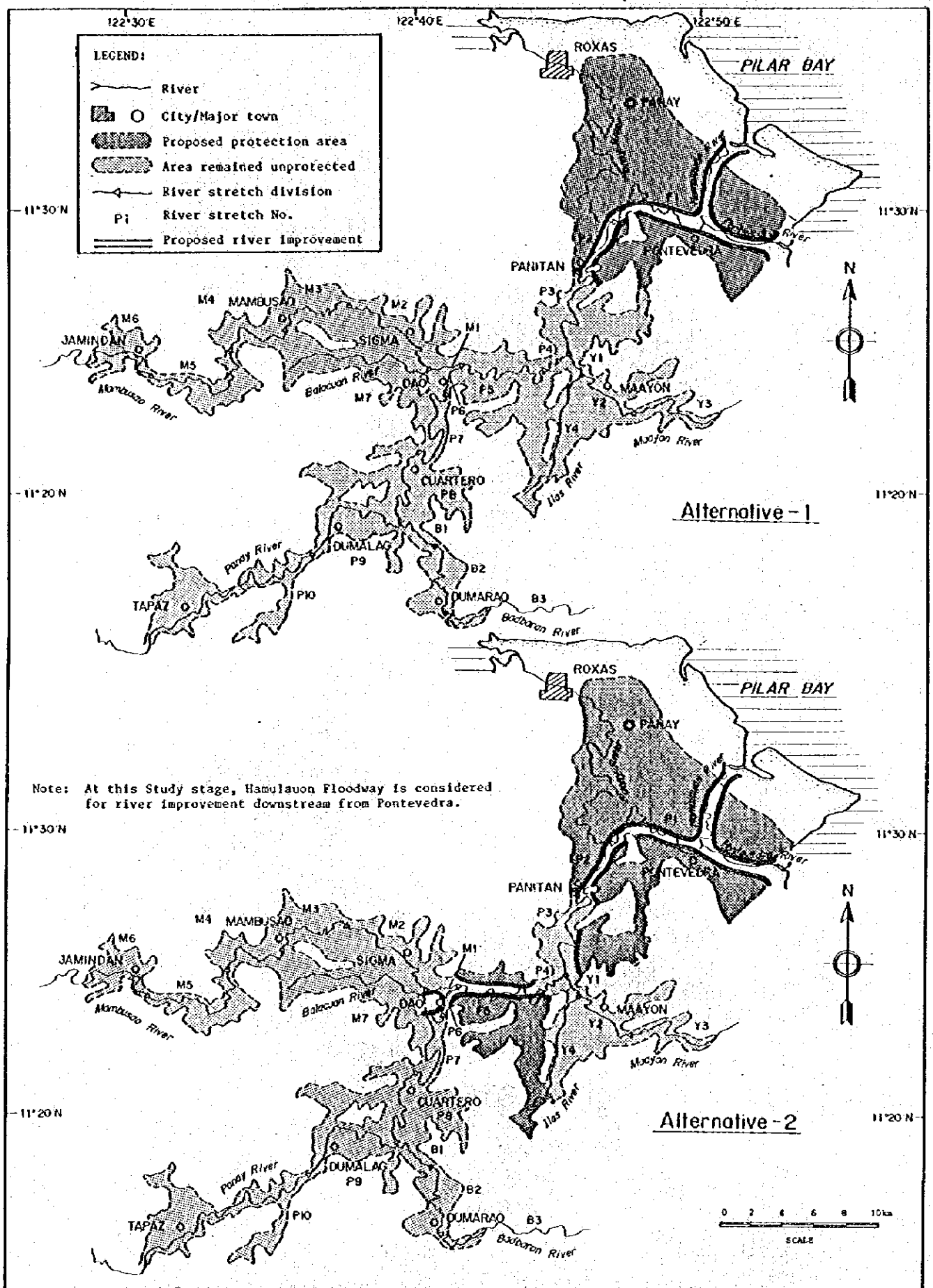



Fig.4.2-3 FLOOD PROTECTION AREA OF ALTERNATIVE-1 AND ALTERNATIVE-2

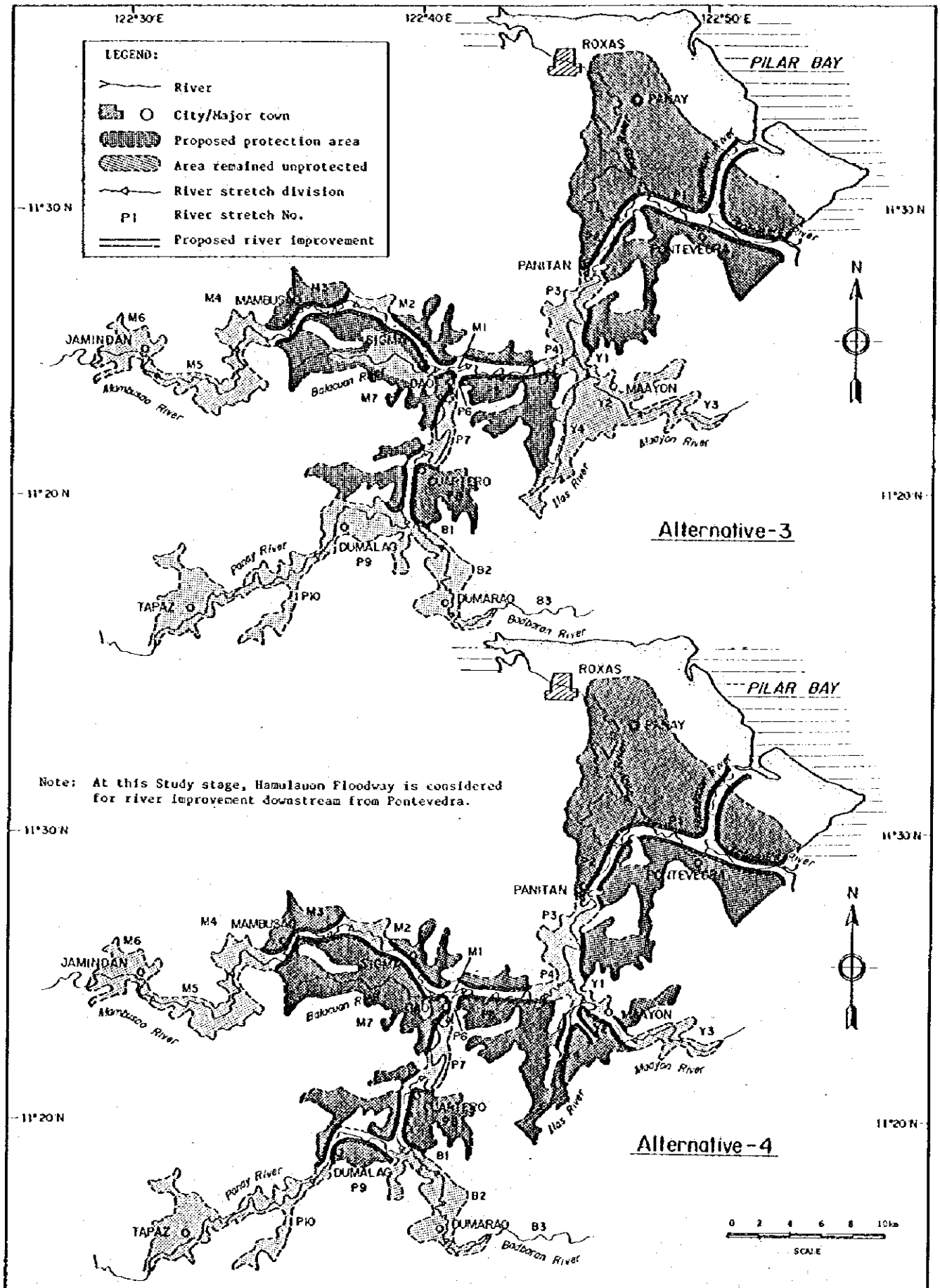



Fig.4.2-4 FLOOD PROTECTION AREA OF ALTERNATIVE-3 AND ALTERNATIVE-4

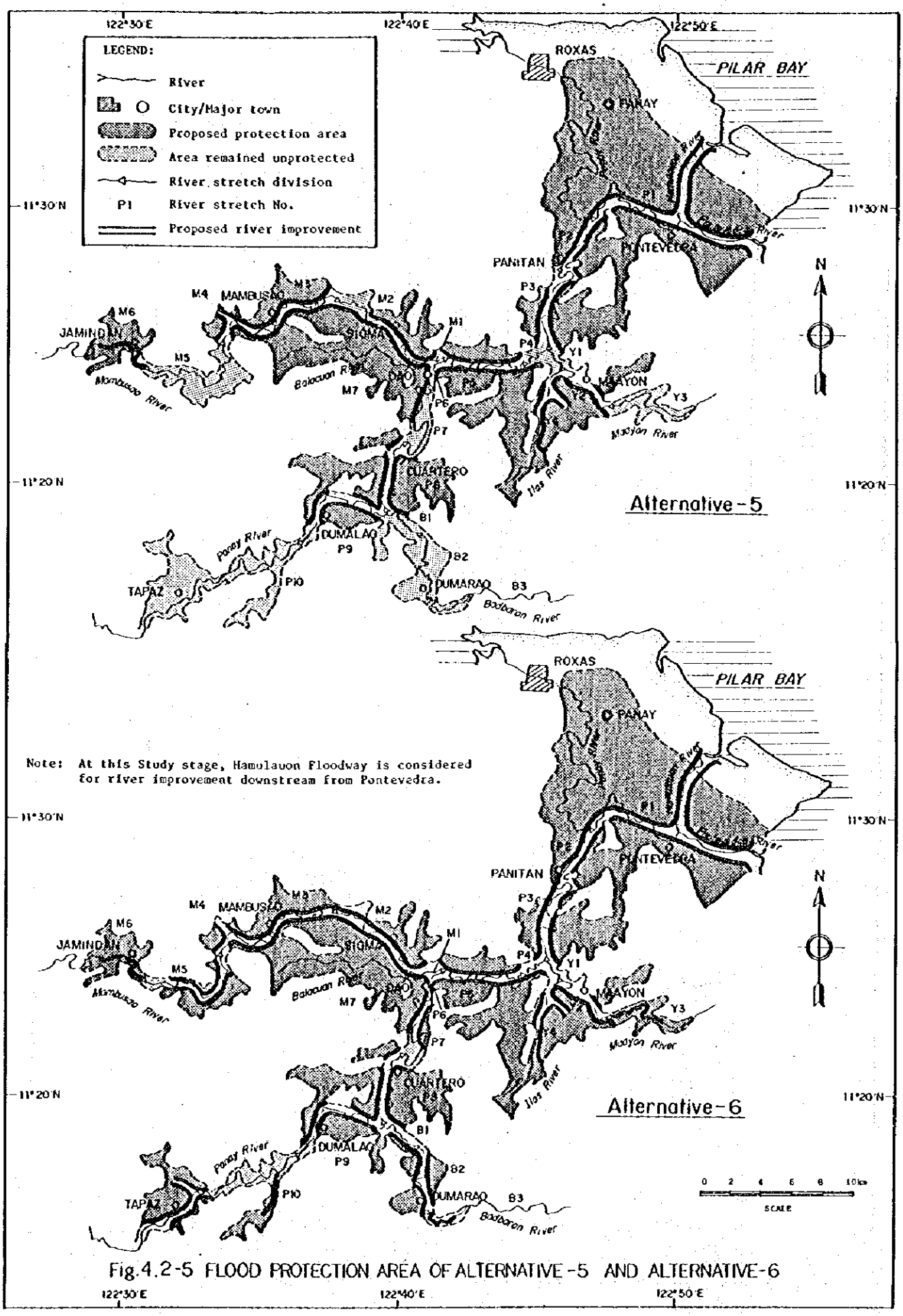
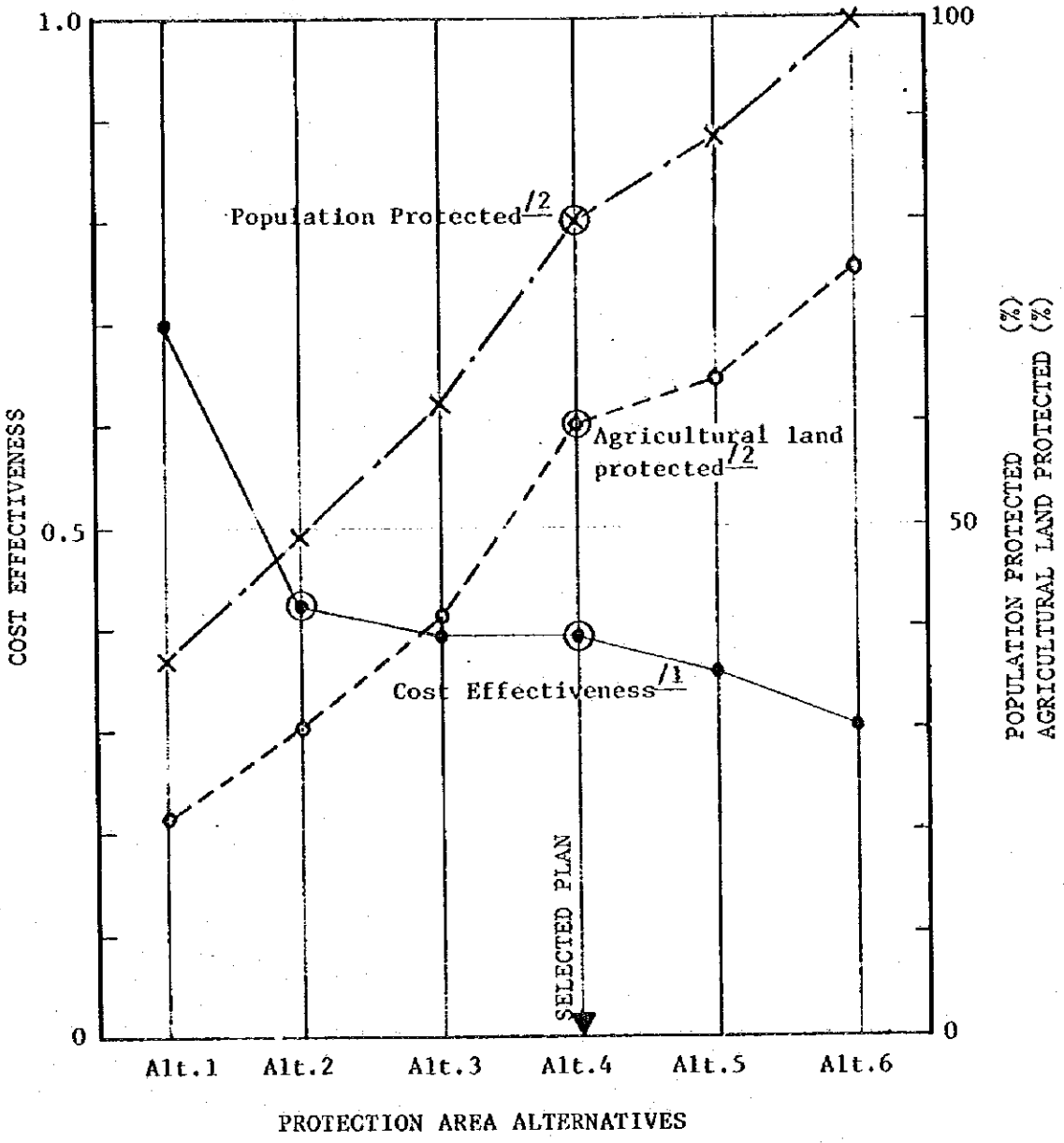



Fig.4.2-5 FLOOD PROTECTION AREA OF ALTERNATIVE-5 AND ALTERNATIVE-6




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

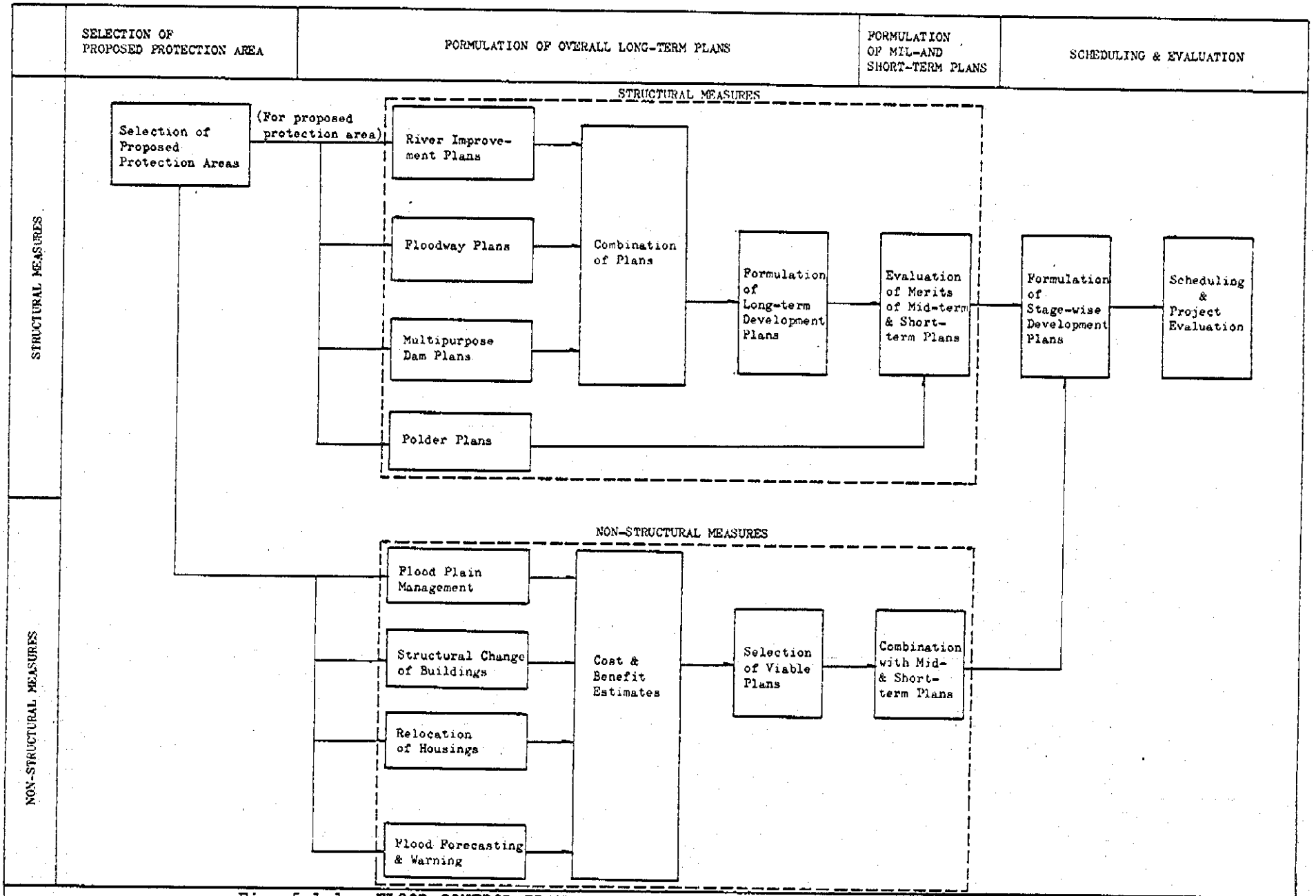



Fig. 5.1-1 FLOOD CONTROL PLAN - PLAN FORMULATION LOGIC DIAGRAM

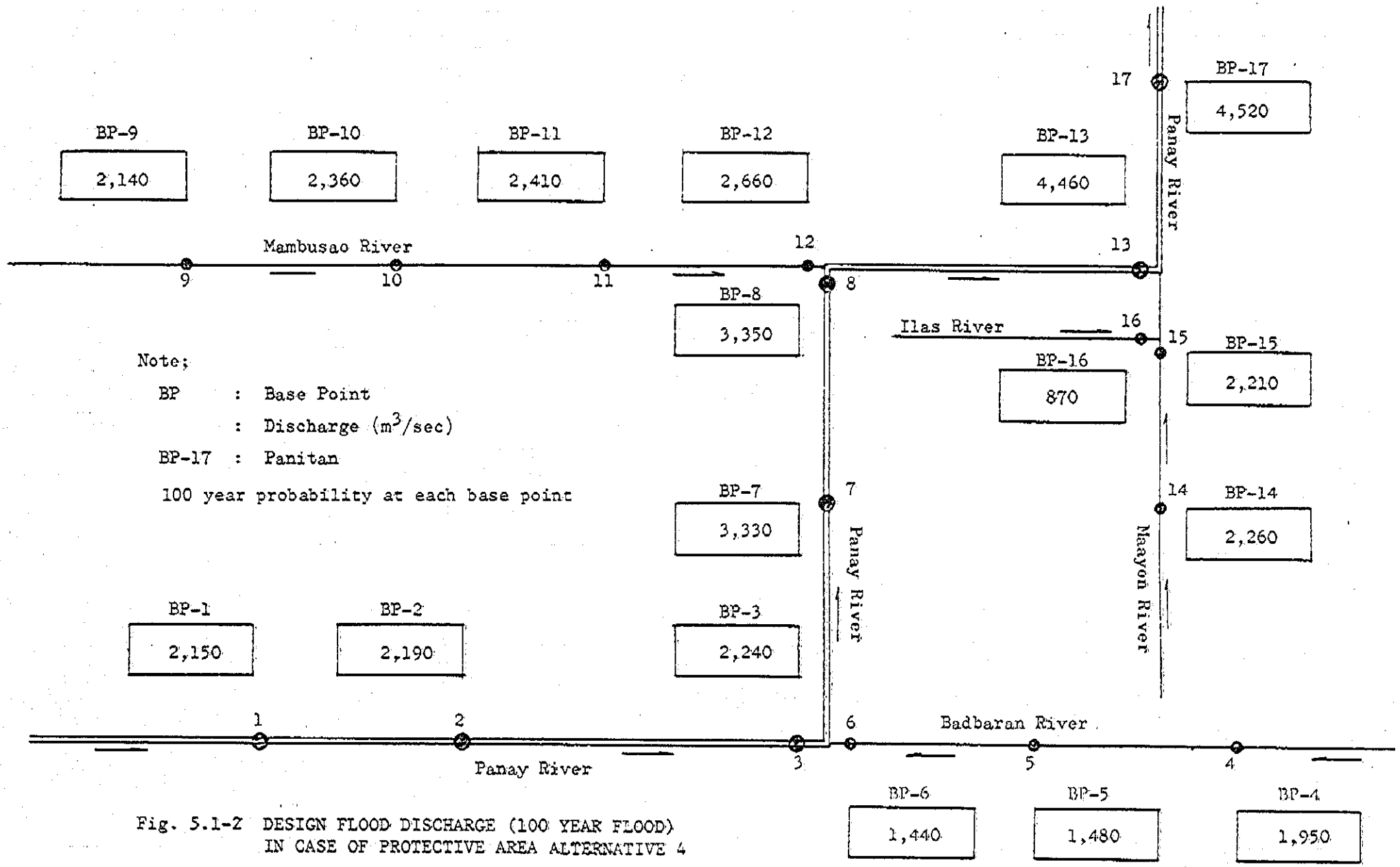



Fig. 5.1-2 DESIGN FLOOD DISCHARGE (100 YEAR FLOOD) IN CASE OF PROTECTIVE AREA ALTERNATIVE 4

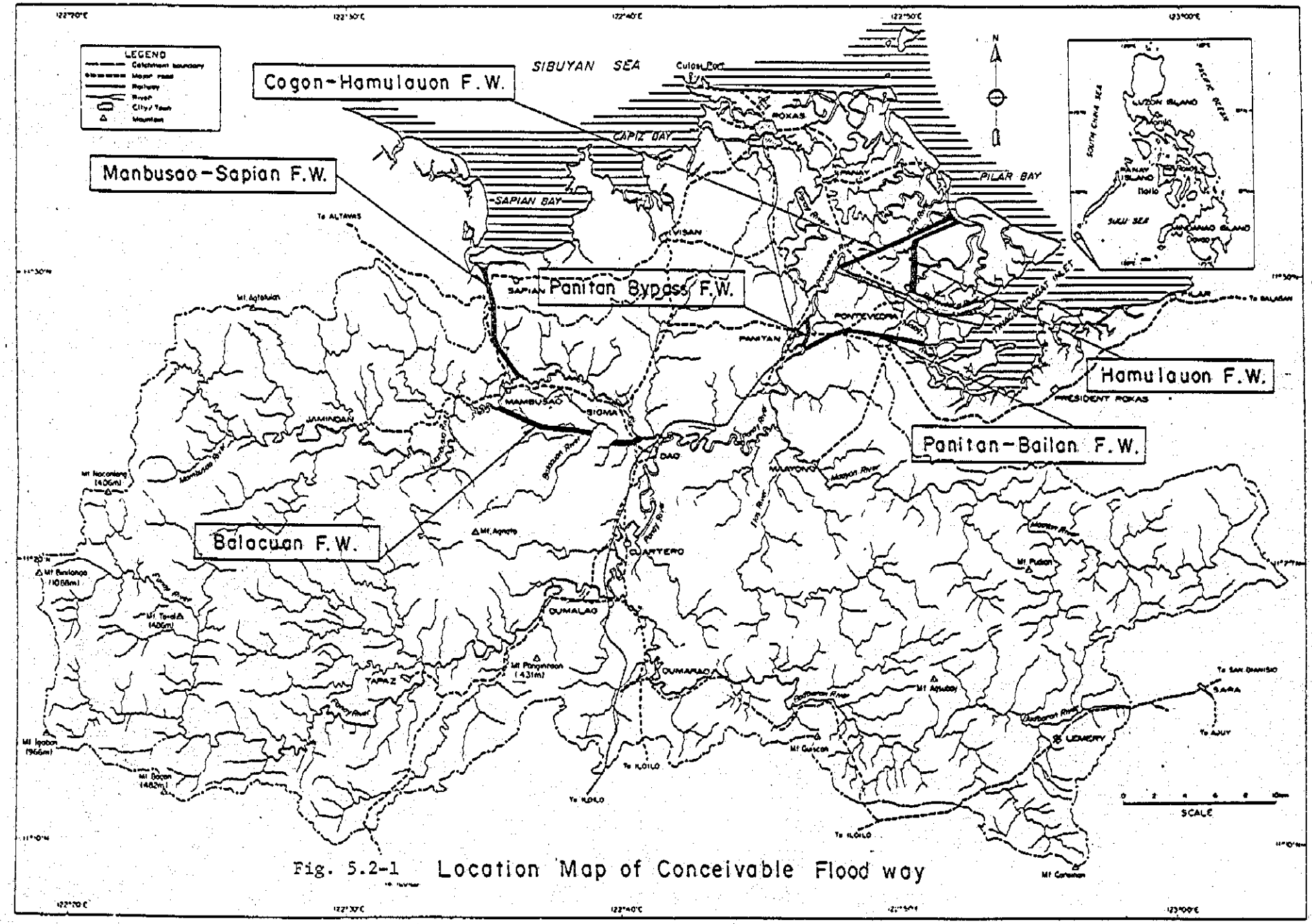



Fig. 5.2-1 Location Map of Conceivable Flood way

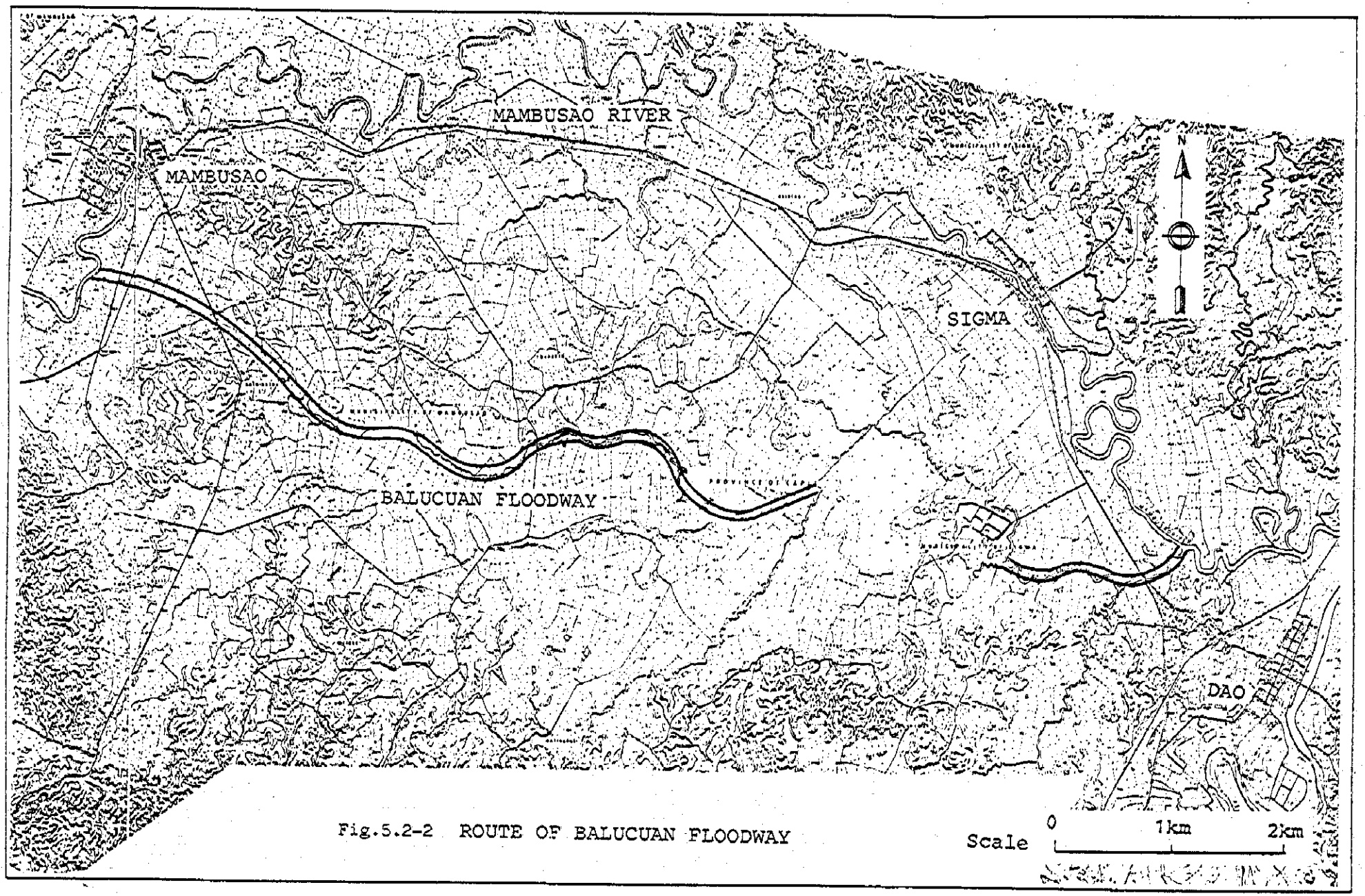



Fig.5.2-2 ROUTE OF BALUCUAN FLOODWAY

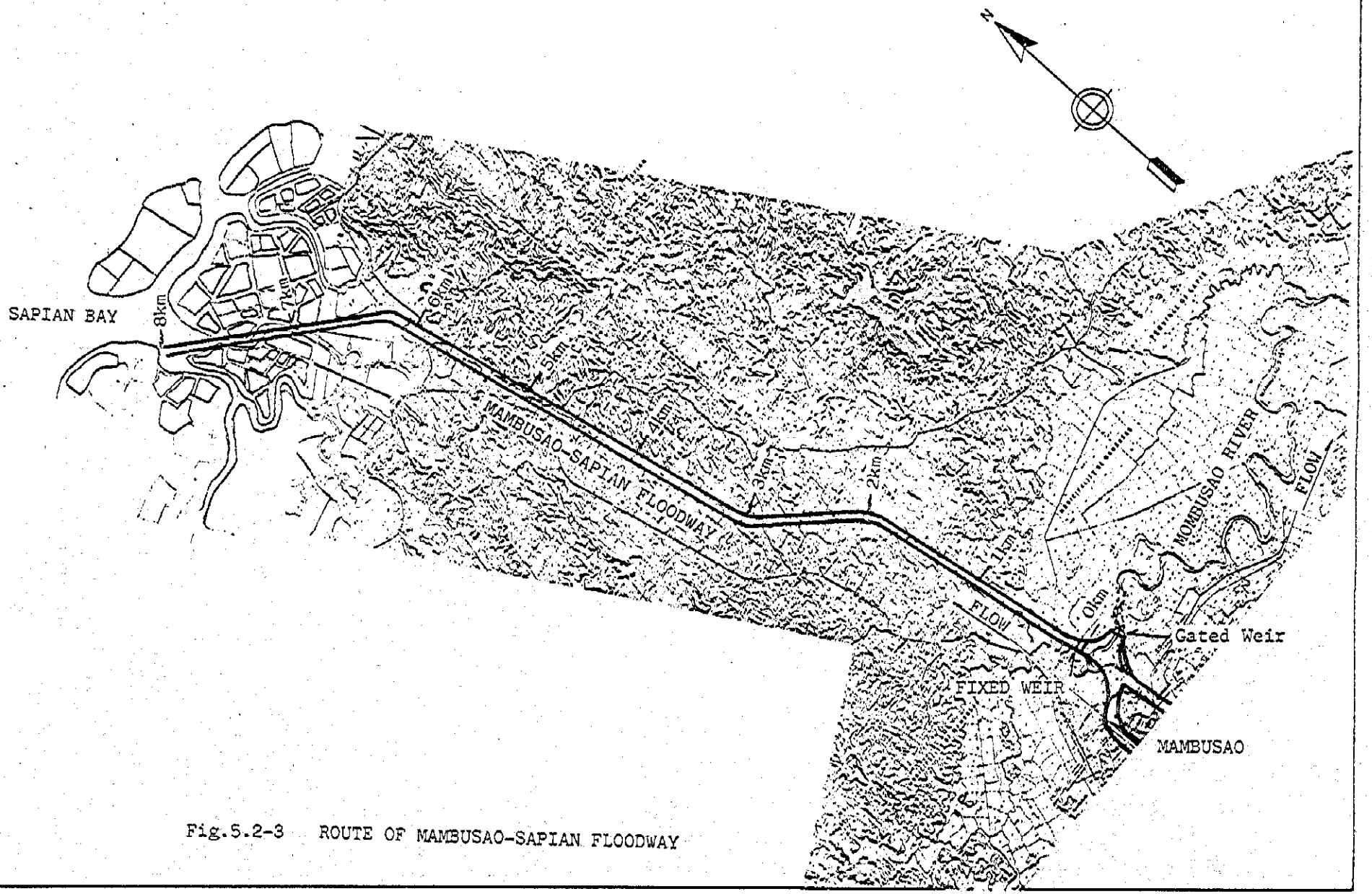



Fig.5.2-3 ROUTE OF MAMBUSAO-SAPIAN FLOODWAY

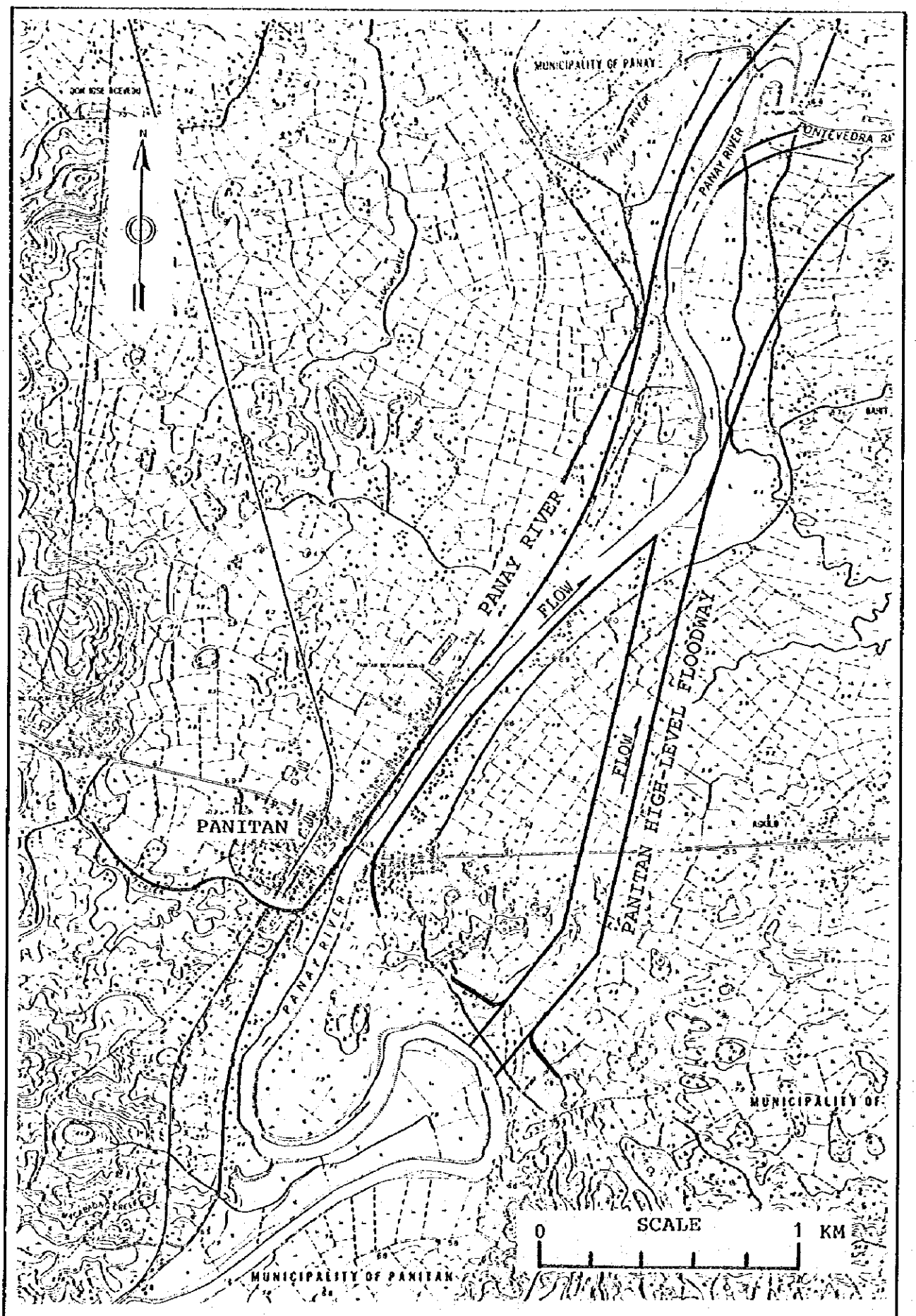



Fig. 5.2-4 ROUTE OF PANITAN HIGH-LEVEL FLOODWAY

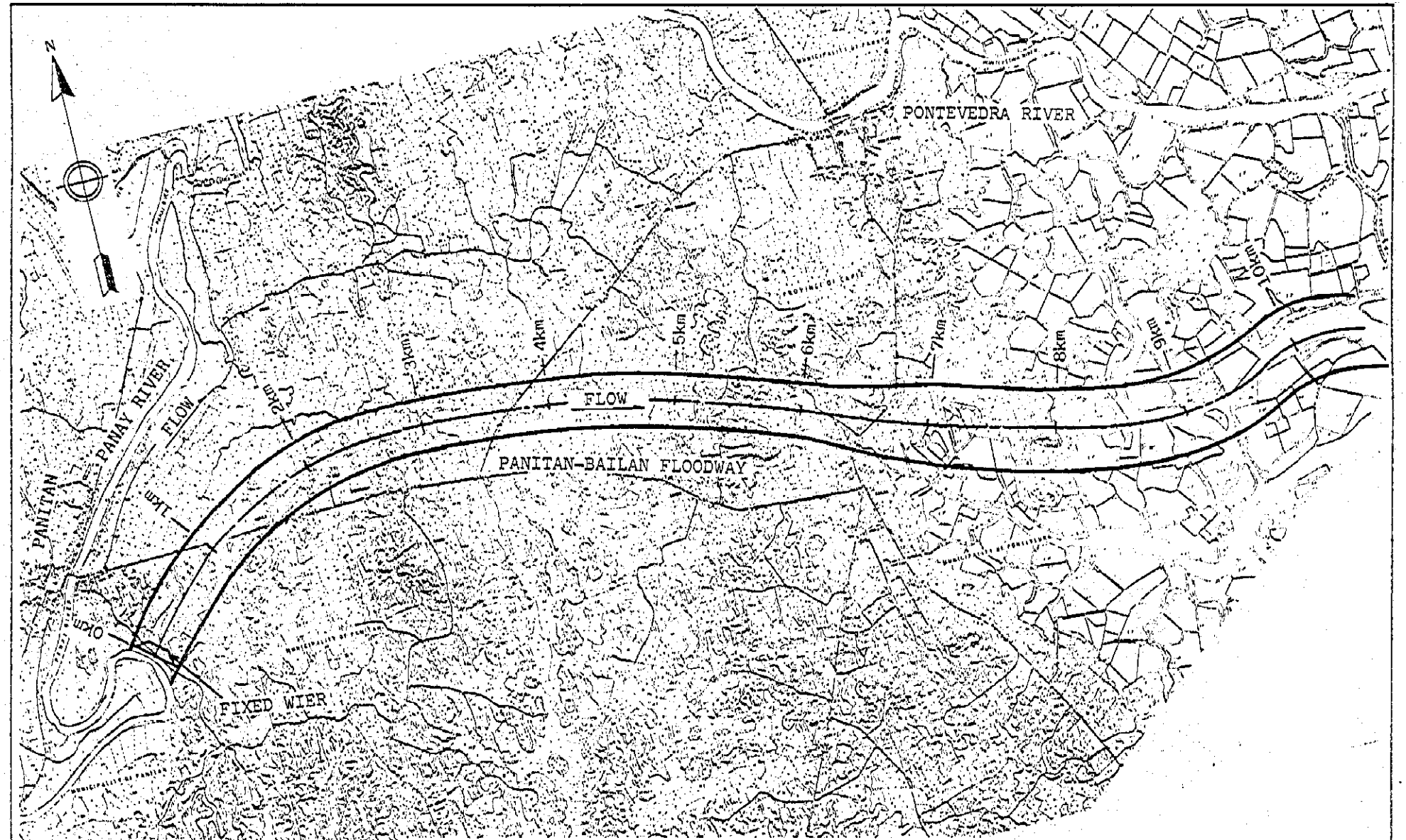



Fig 5.2-5 ROUTE OF PANITAN-BAILAN FLOODWAY

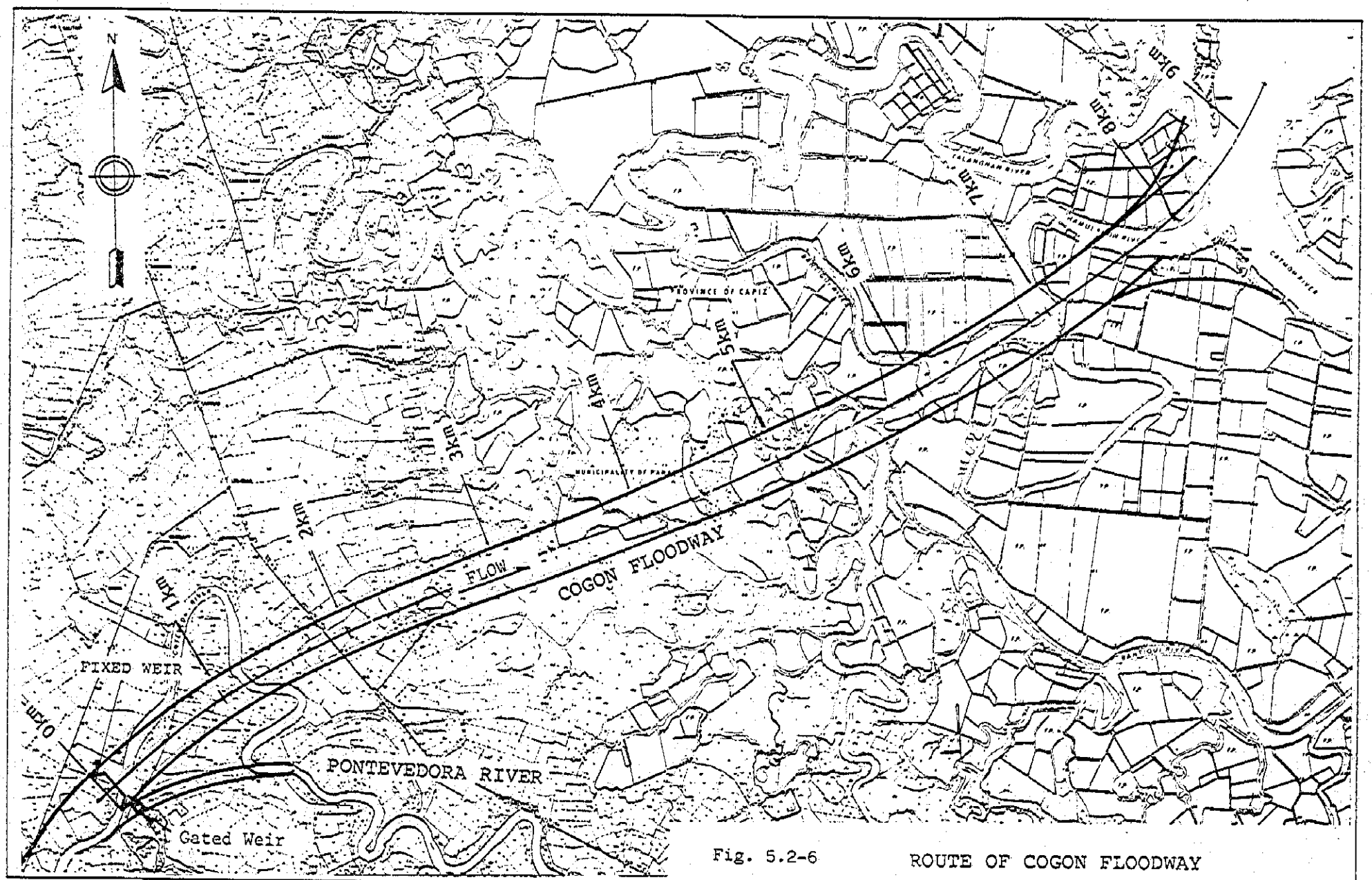



Fig. 5.2-6 ROUTE OF COGON FLOODWAY

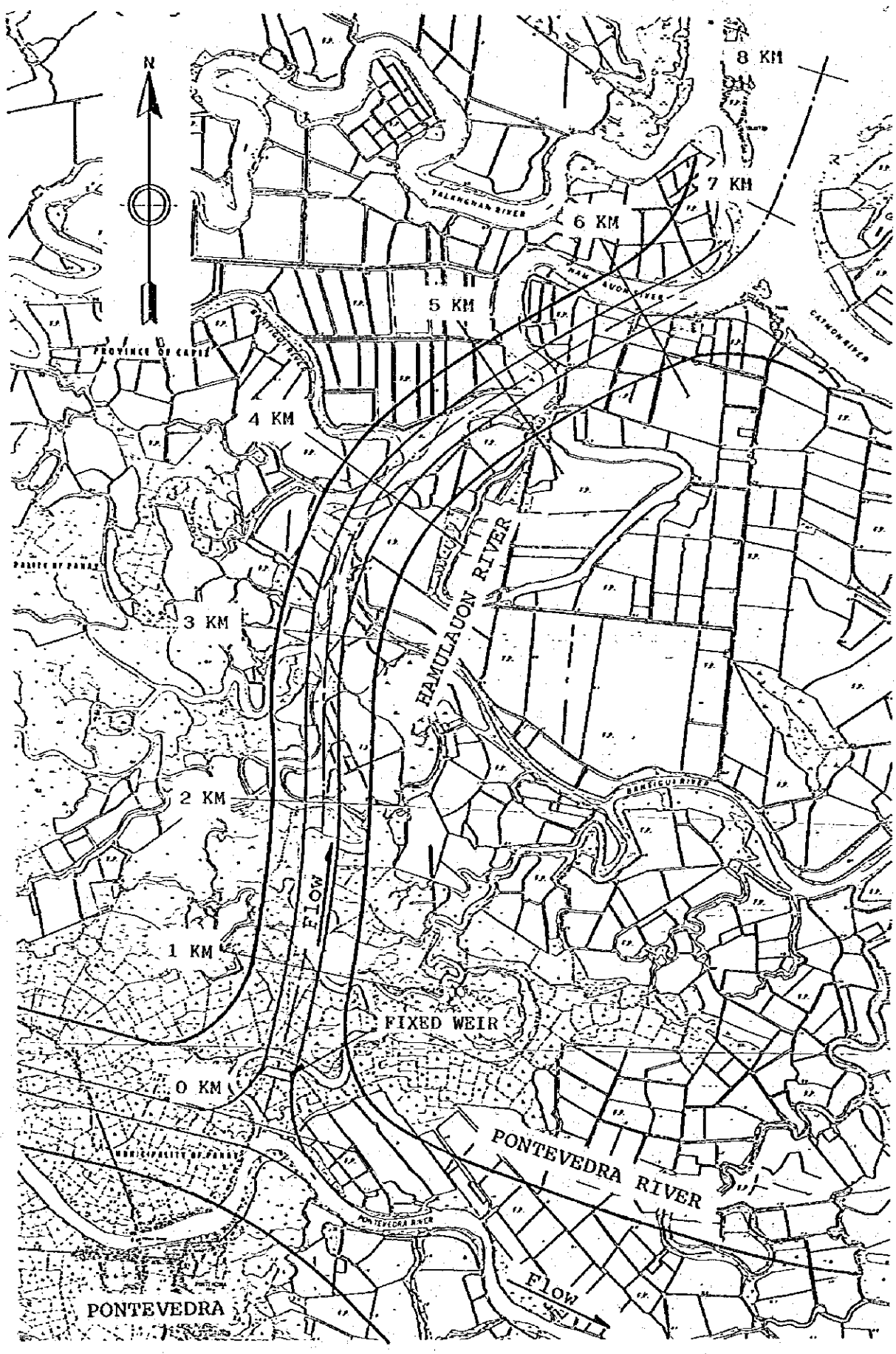
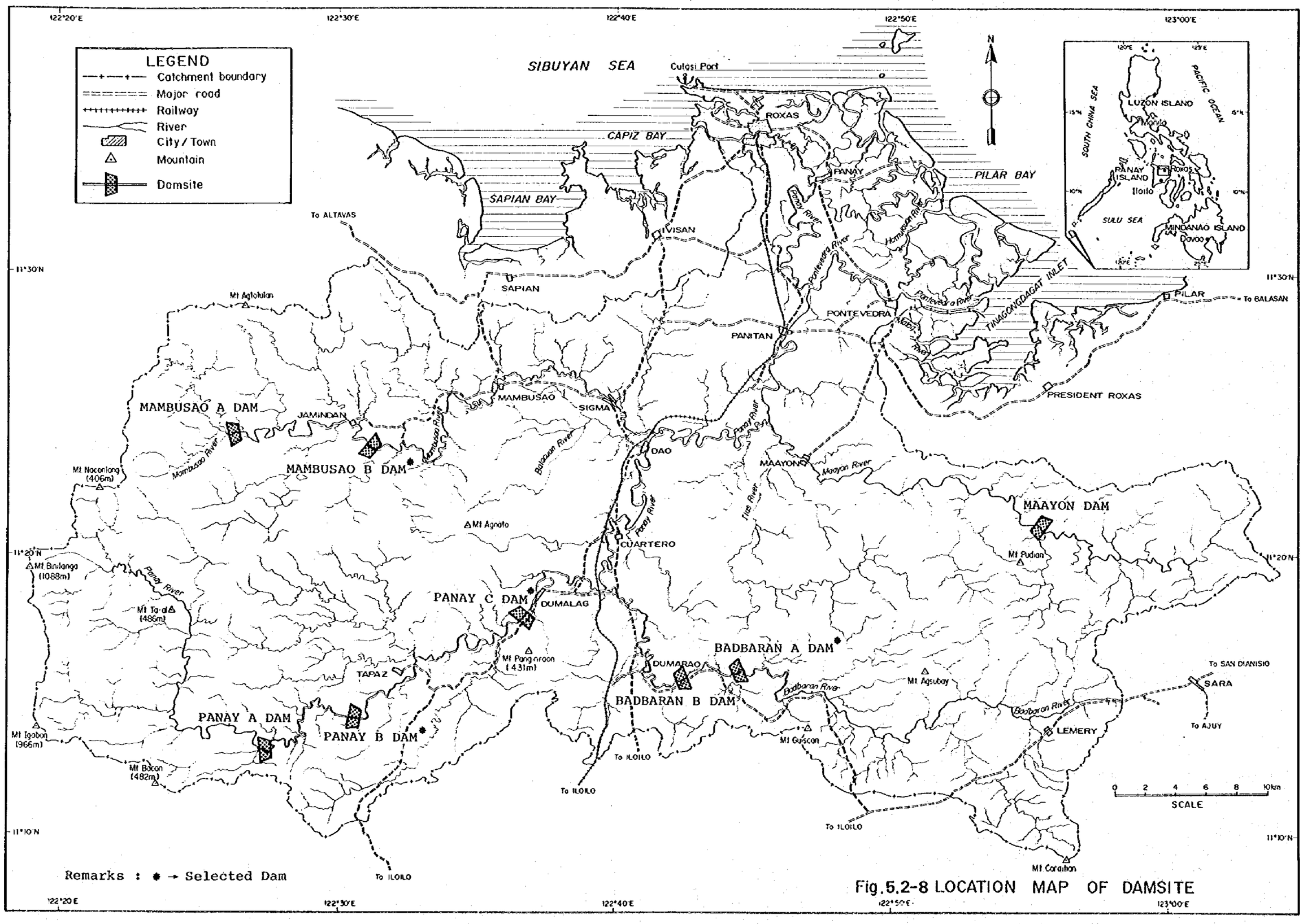
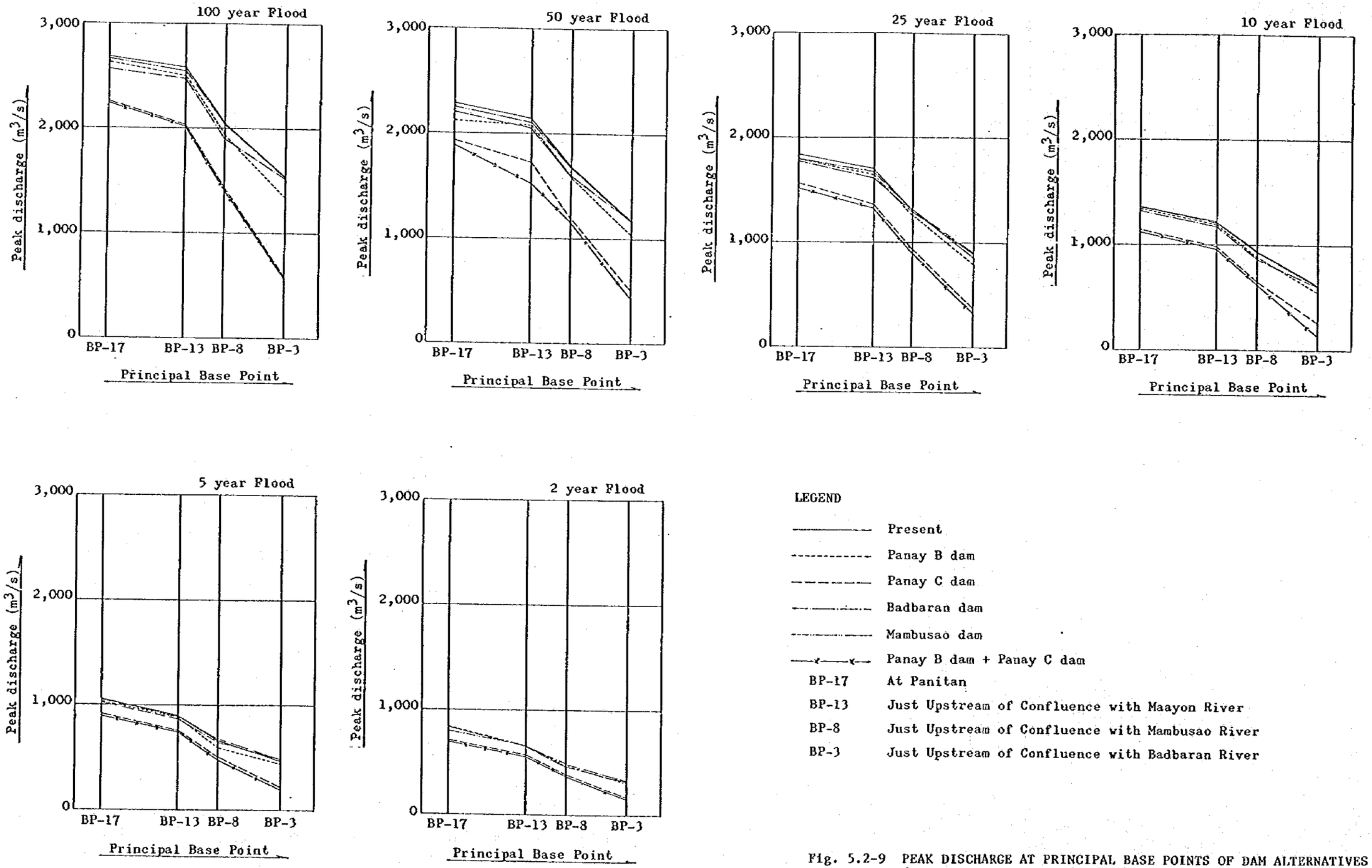



Fig. 5.2-7 ROUTE OF HAMULAUON FLOODWAY




Remarks : ✱ → Selected Dam

Fig.5.2-8 LOCATION MAP OF DAMSITE




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 |

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

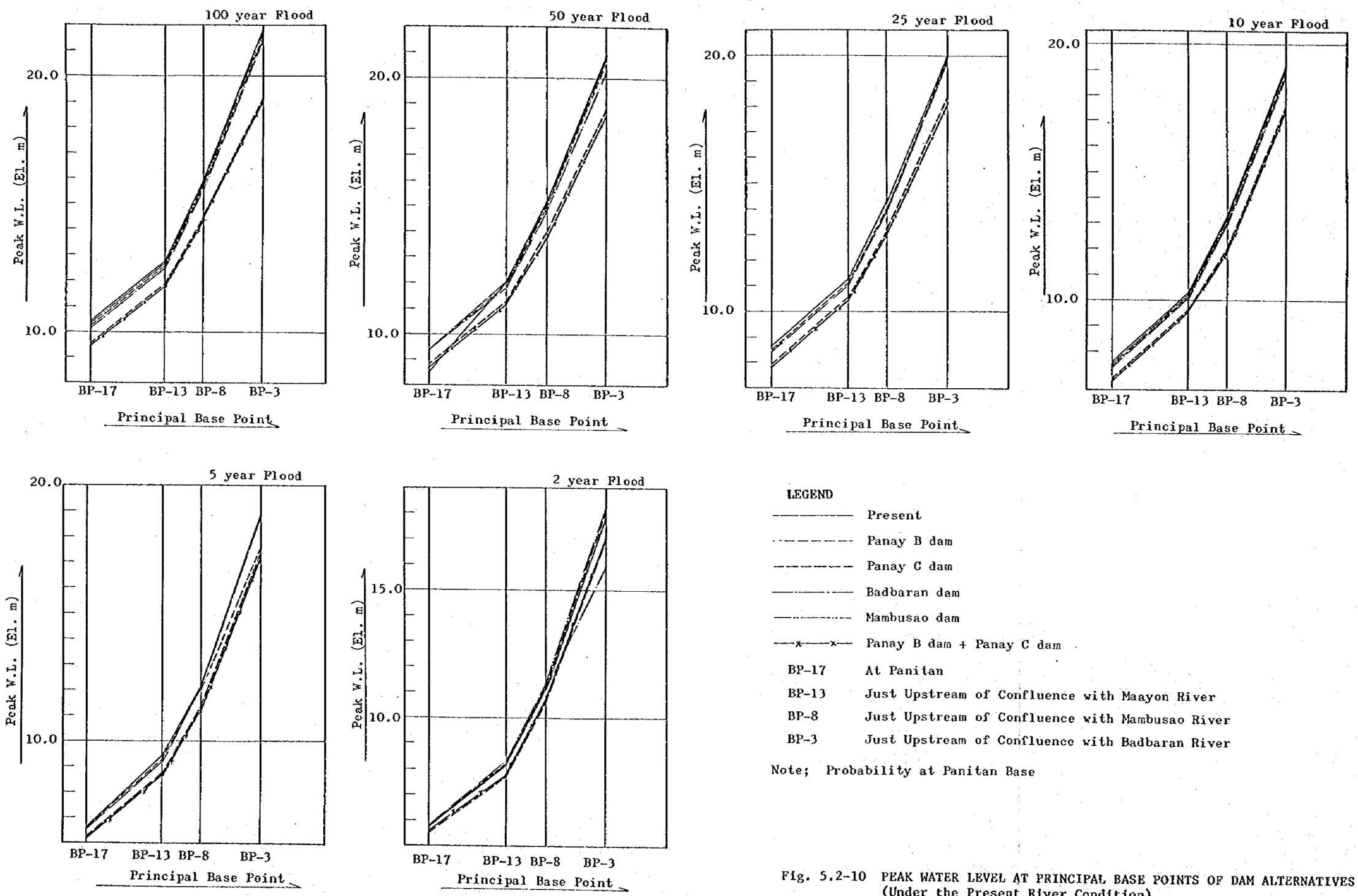



Fig. 5.2-10 PEAK WATER LEVEL AT PRINCIPAL BASE POINTS OF DAM ALTERNATIVES (Under the Present River Condition)

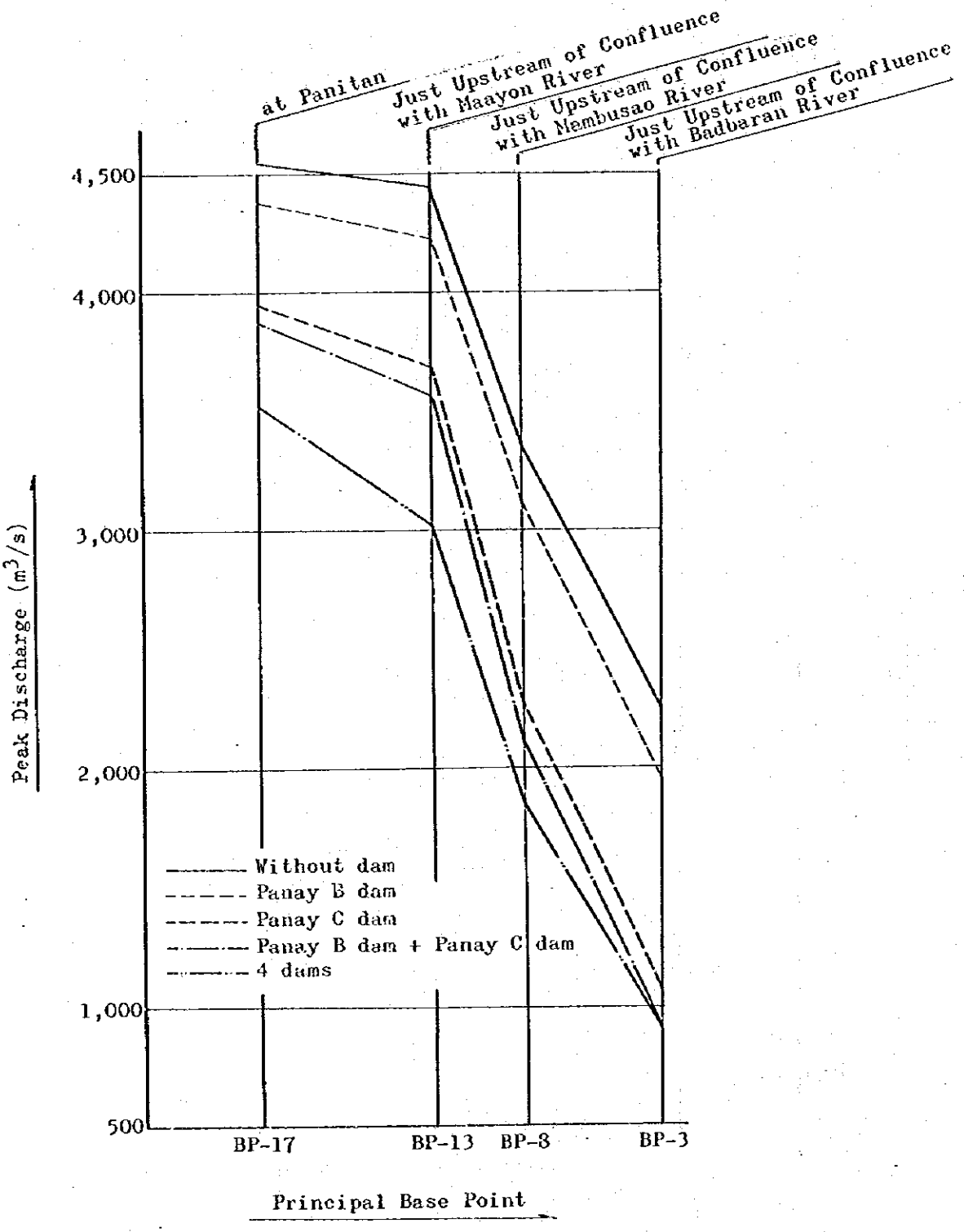



Fig. 5.2-11 Peak Discharge at Principal Base Points along Panay River in LP Alternatives with Dam(s) (100 year flood)*

* Probability at Each Base Point

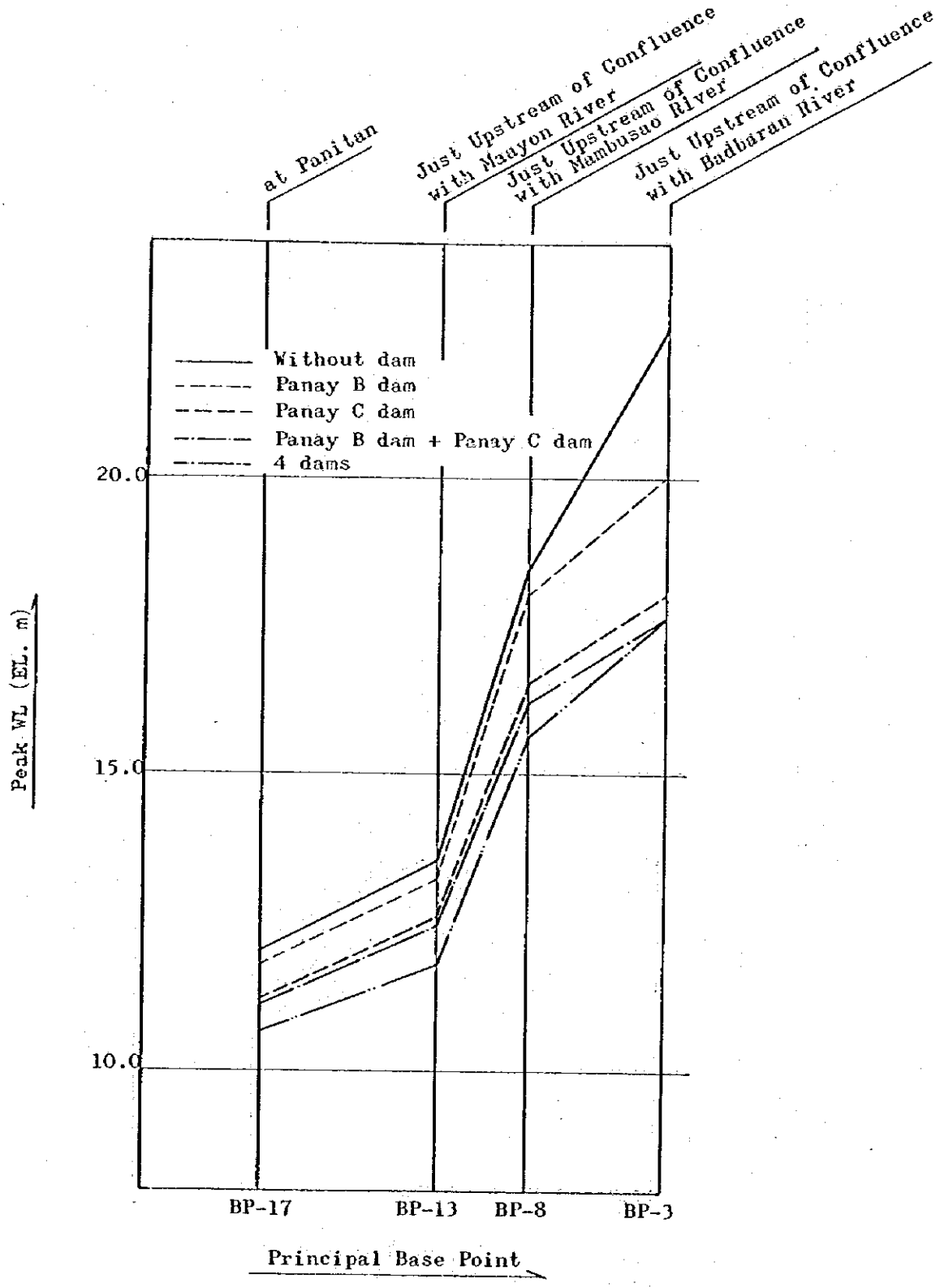



Fig. 5.2-12 Peak Water Level at the Principal Base Points along the Panay River in LP Alternatives with Dam(s) (100 year flood)*

* Probability at Each Base Point

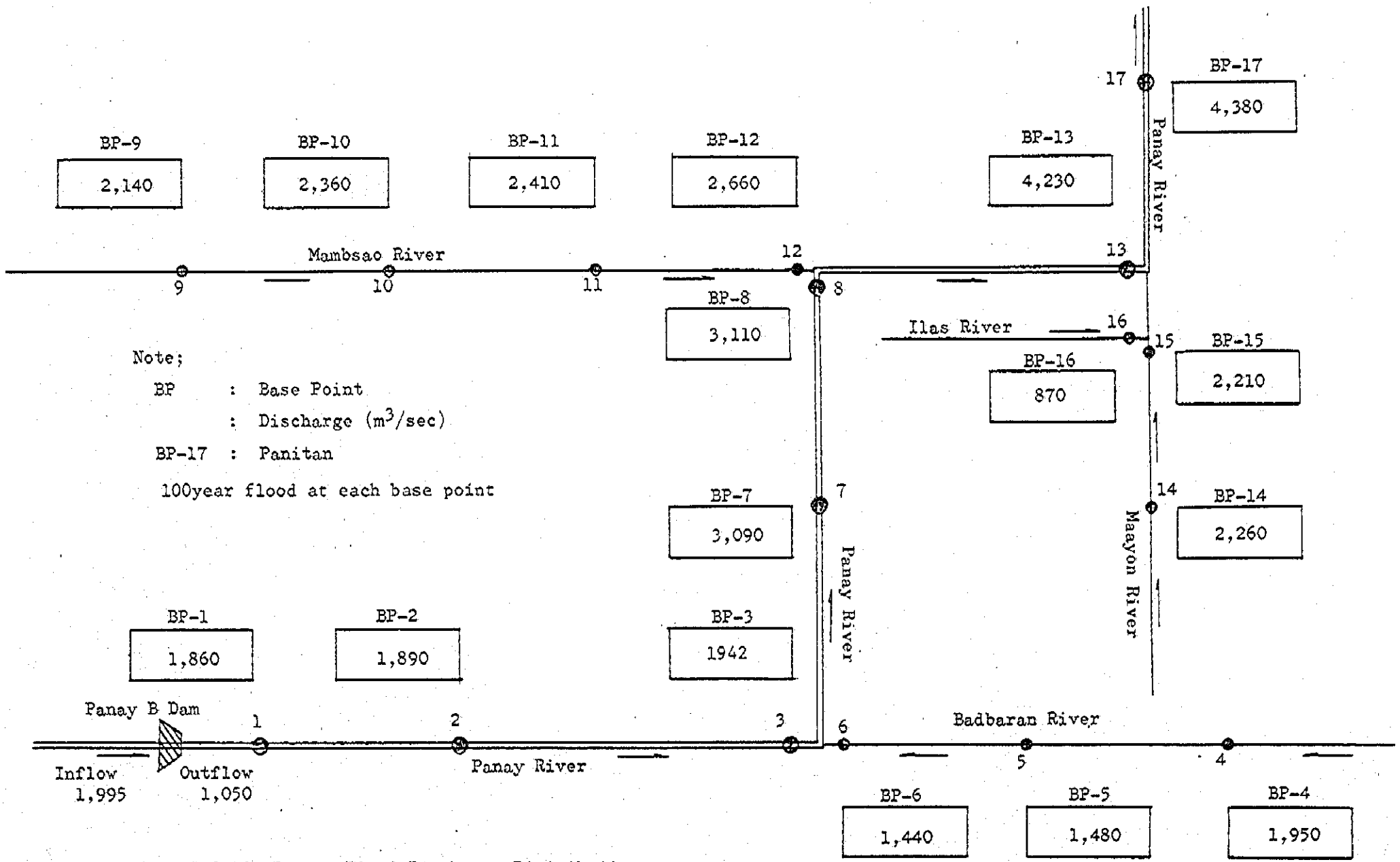



Fig. 5.2-13 Design Flood Discharge Distribution in case of LP Alternative DR-1

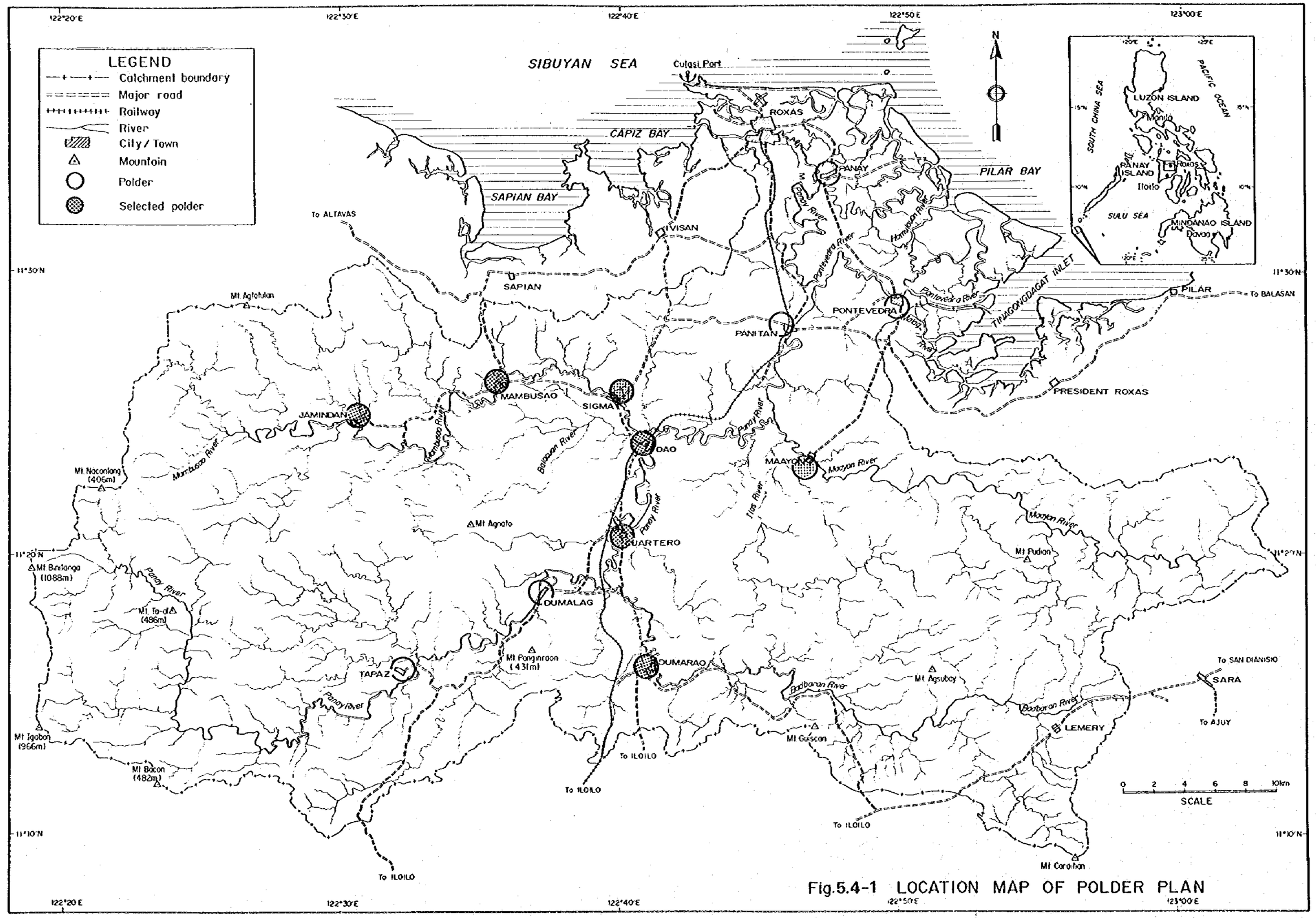



Fig.5.4-1 LOCATION MAP OF POLDER PLAN

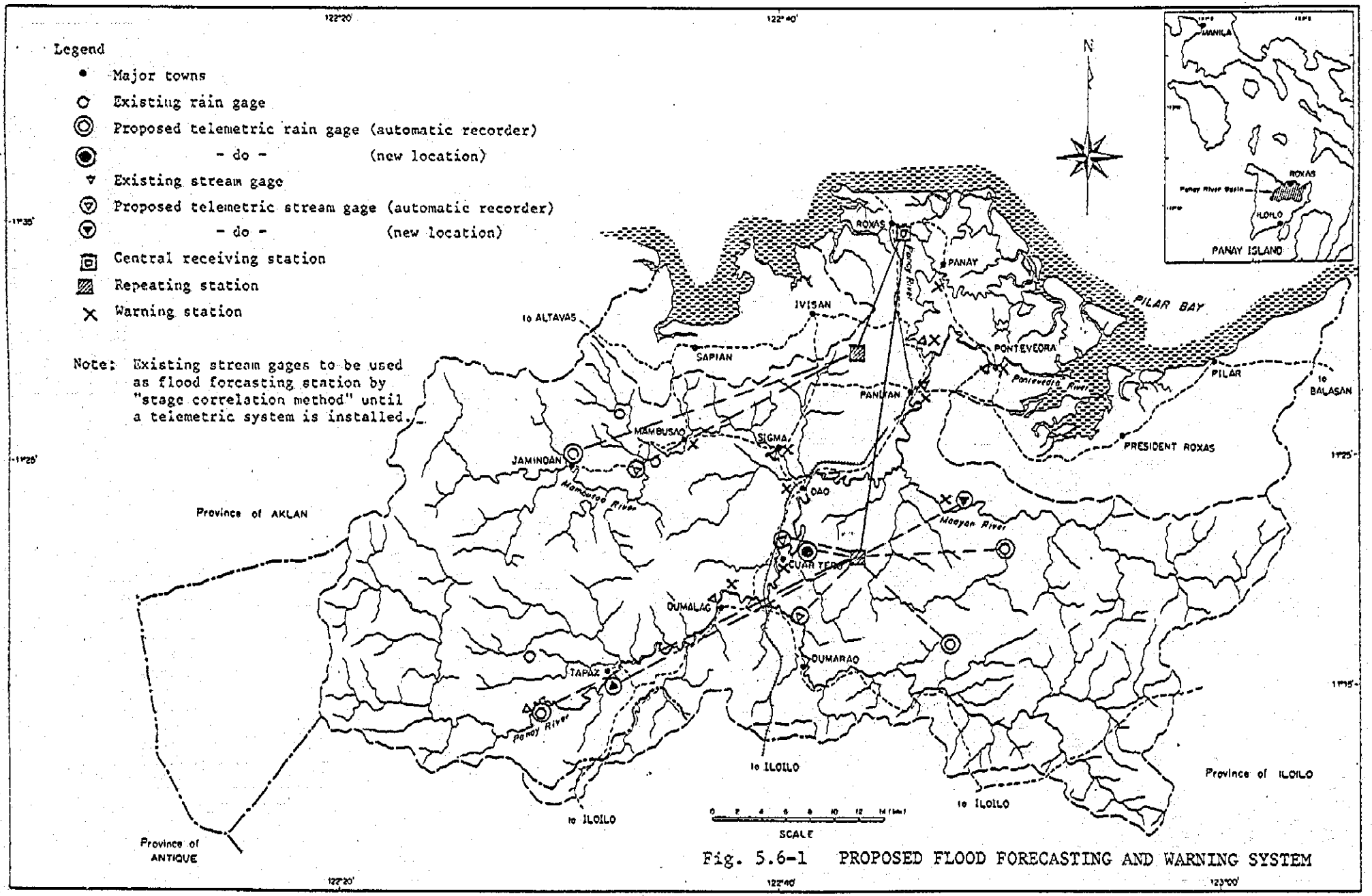
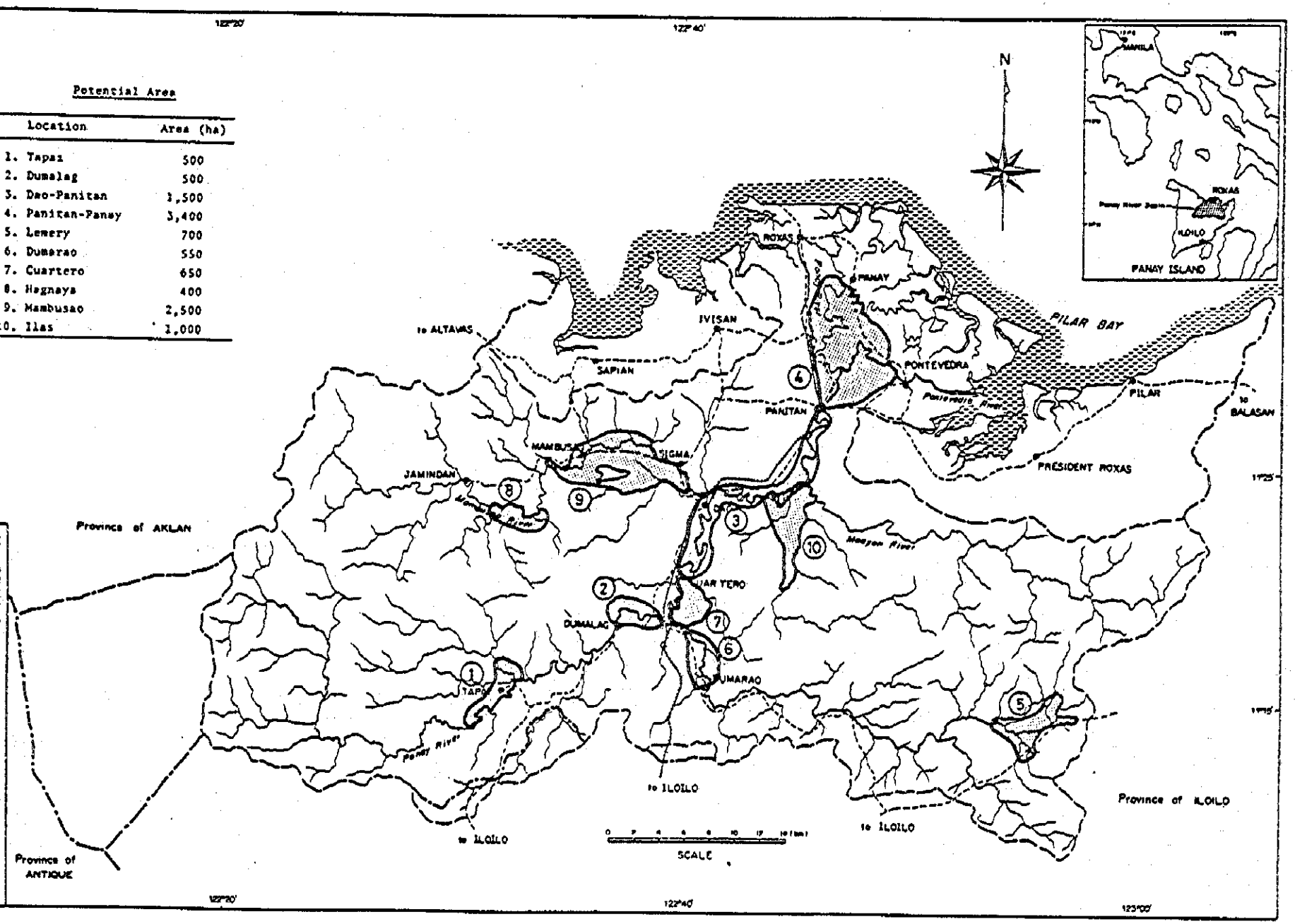



Fig. 5.6-1 PROPOSED FLOOD FORECASTING AND WARNING SYSTEM

Potential Area

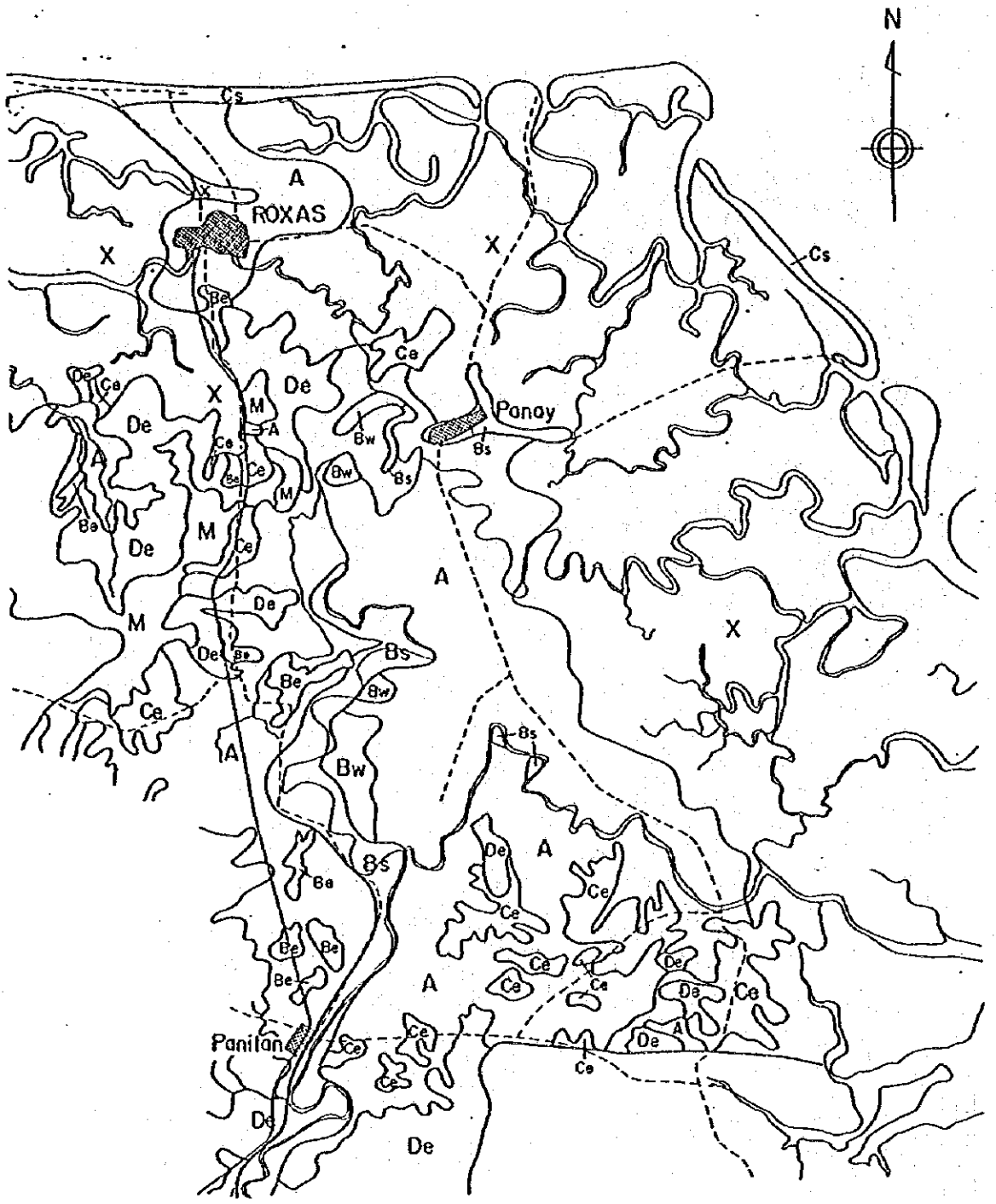
| Location | Area (ha) |
|---|---|
| 1. Tapaz | 500 |
| 2. Dumalag | 500 |
| 3. Dao-Panitan | 1,500 |
| 4. Panitan-Panay | 3,400 |
| 5. Lemery | 700 |
| 6. Dumarao | 550 |
| 7. Cuartero | 650 |
| 8. Hagnaya | 400 |
| 9. Mambusao | 2,500 |
| 10. Ilas | 1,000 |




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

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<br>Bw<br>Bs | Erosion<br>Weiness<br>Soil |
| | C | Moderately good land | Ce<br>Cs | Erosion<br>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 |

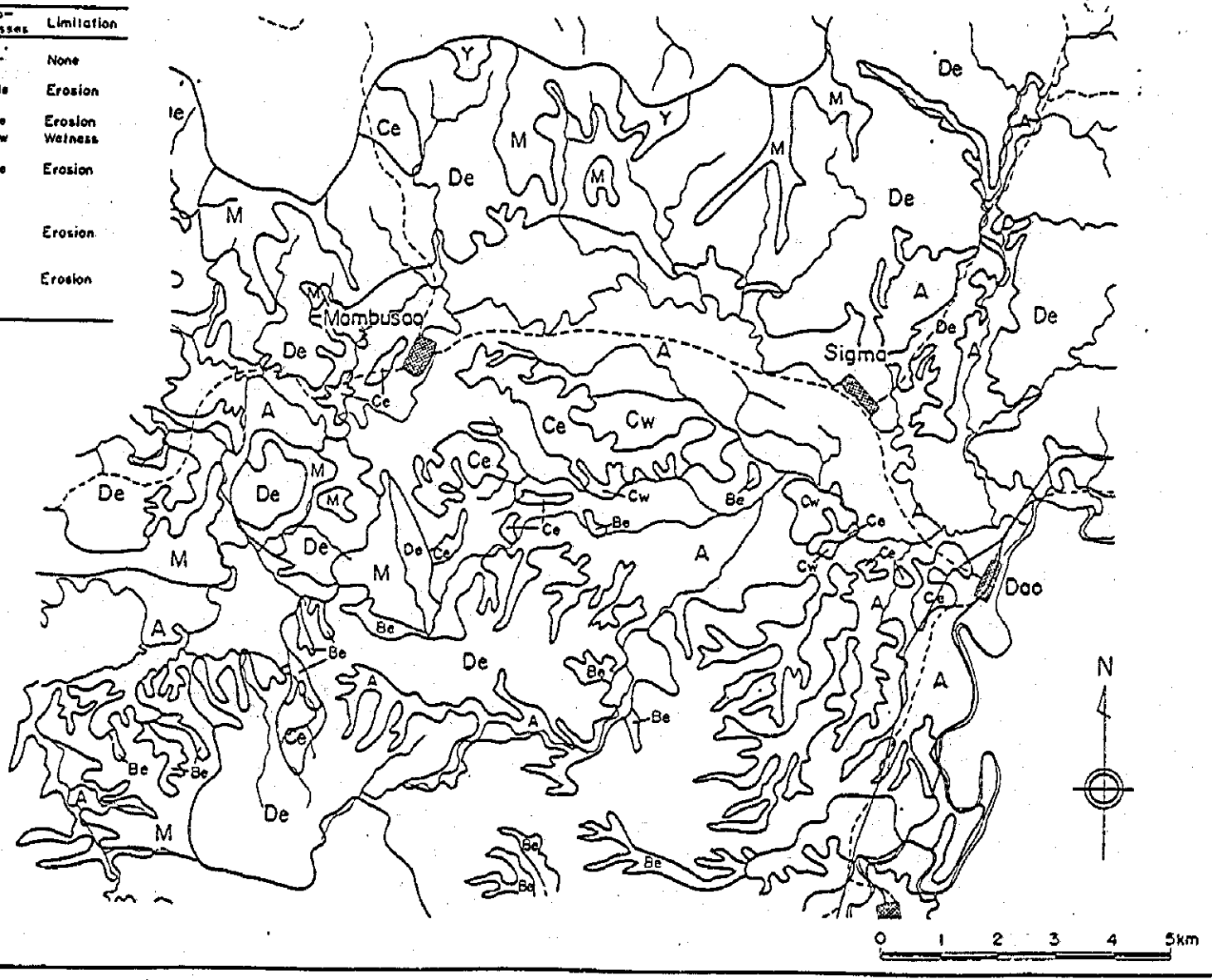
MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

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

JAPAN INTERNATIONAL COOPERATION AGENCY

## LEGEND

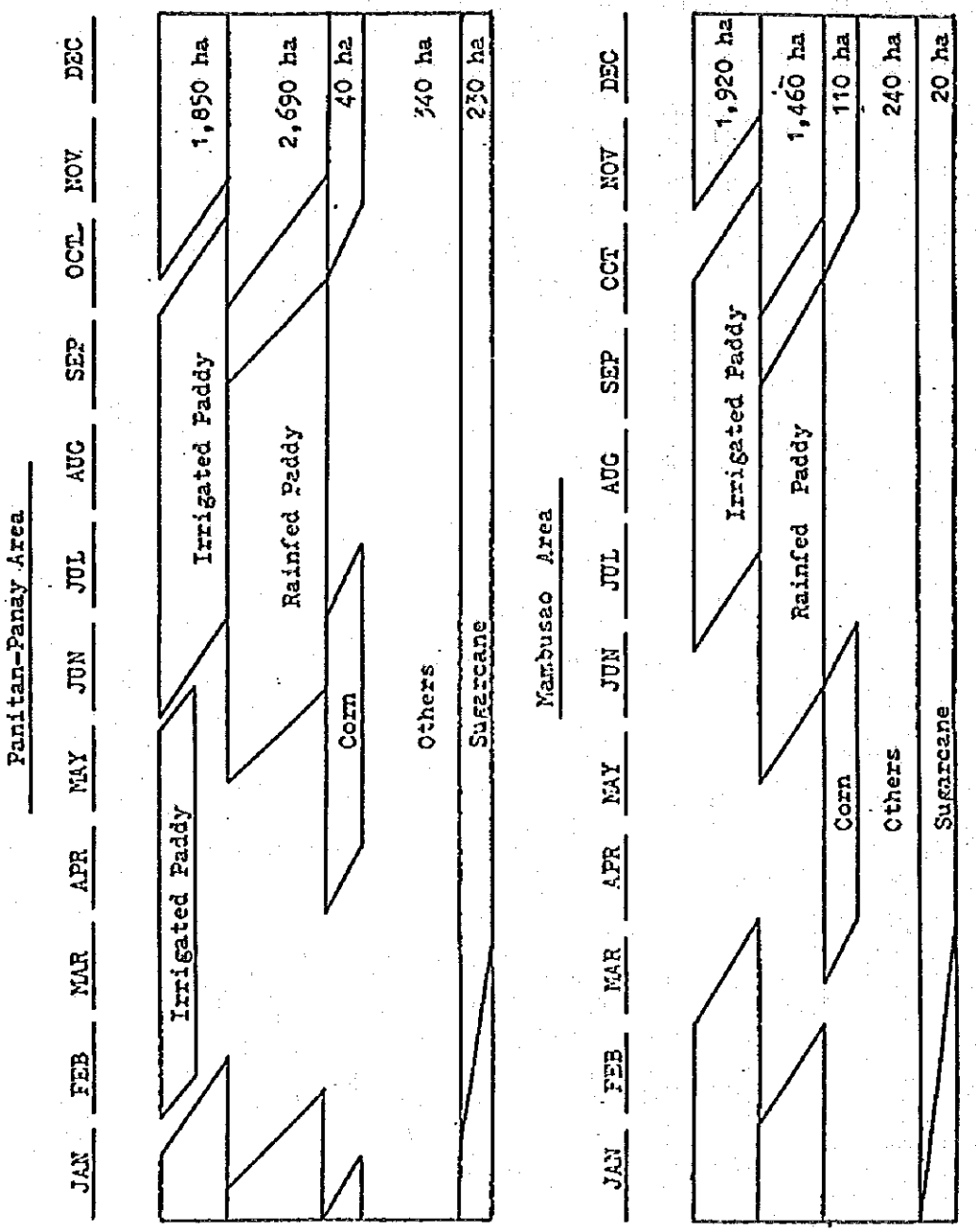
| Suitability | Class | | Sub-classes | Limitation |
|---|---|---|---|---|
| Land Suitable for Cultivation | A | Very good land | - | None |
| | B | Good land | Be | Erosion |
| | C | Moderately good land | Ce<br>Cw | Erosion<br>Wetness |
| Land Suitable for Limited Cultivation | D | Fairly good land | De | Erosion |
| Lands Limited to Pasture or Forestry | M | Steep | - | Erosion |
| Lands Limited to wildlife | Y | Very hilly mountainous | - | Erosion |




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

Fig. 6.2-2 Land Suitability Map of Mambusao Area

JAPAN INTERNATIONAL COOPERATION AGENCY

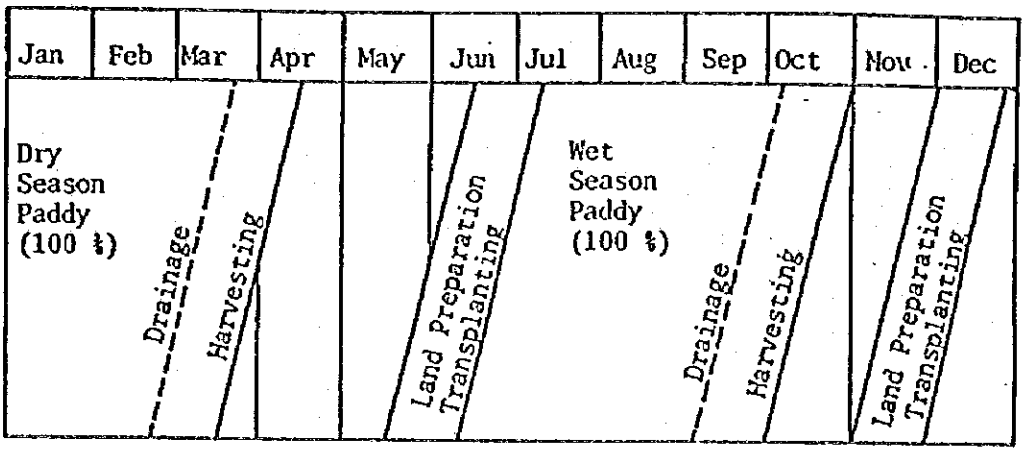



MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

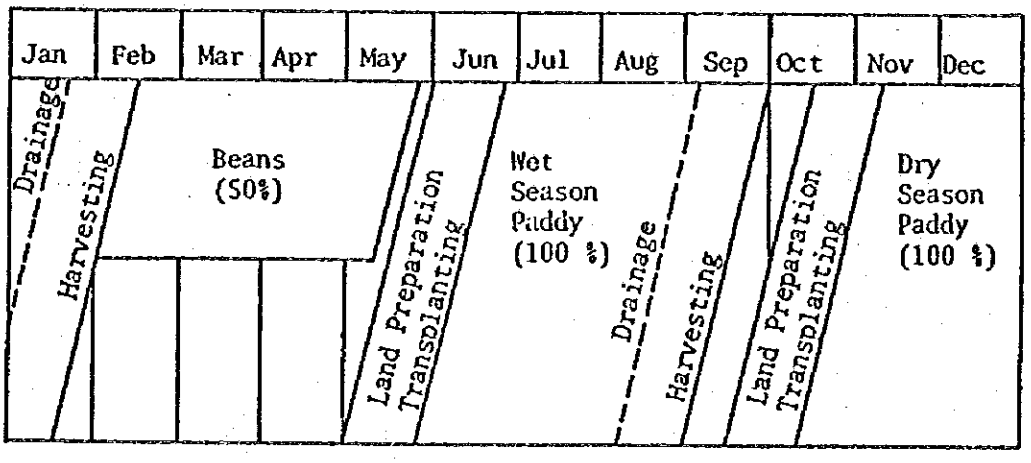
Fig.6.2-3Present Cropping Pattern

JAPAN INTERNATIONAL COOPERATION AGENCY

I. Mambusao Area (Cropping Intensity: 2.0)



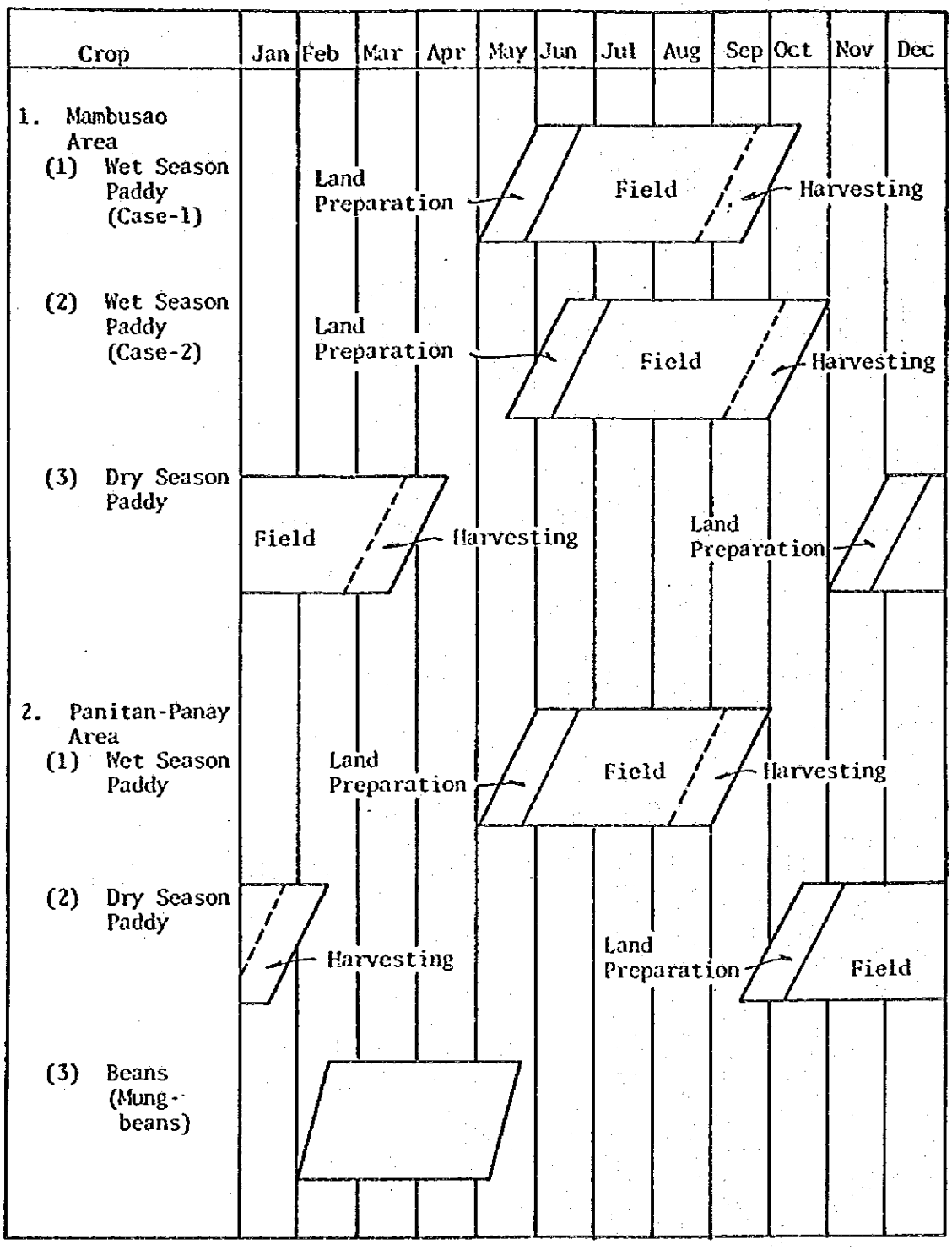

II. Panitan - Panay Area (Cropping Intensity: 2.5)




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

Fig.6.3-1 Proposed Cropping Pattern

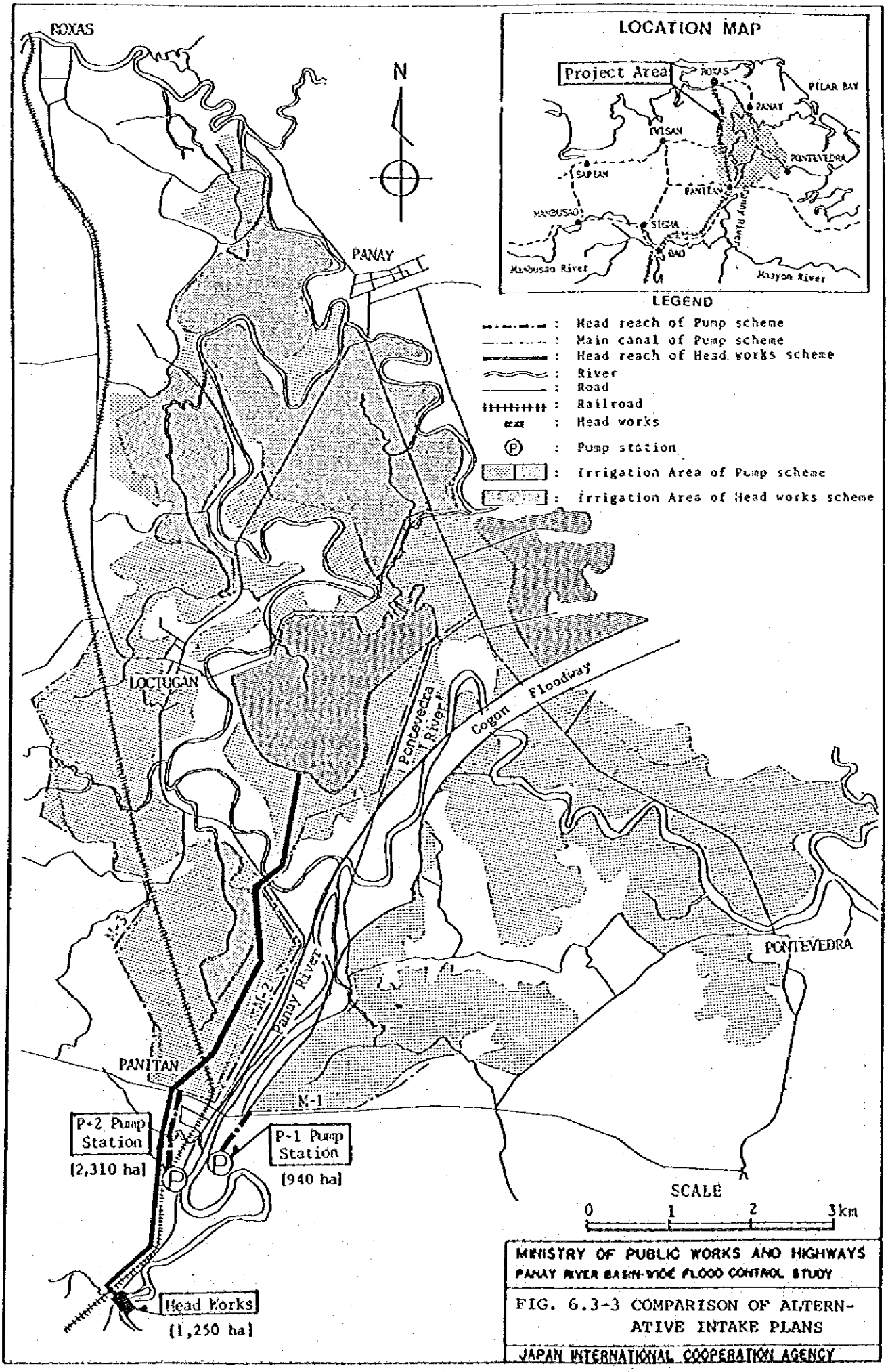
JAPAN INTERNATIONAL COOPERATION AGENCY




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

Fig.6.3-2 Cropping Calendar

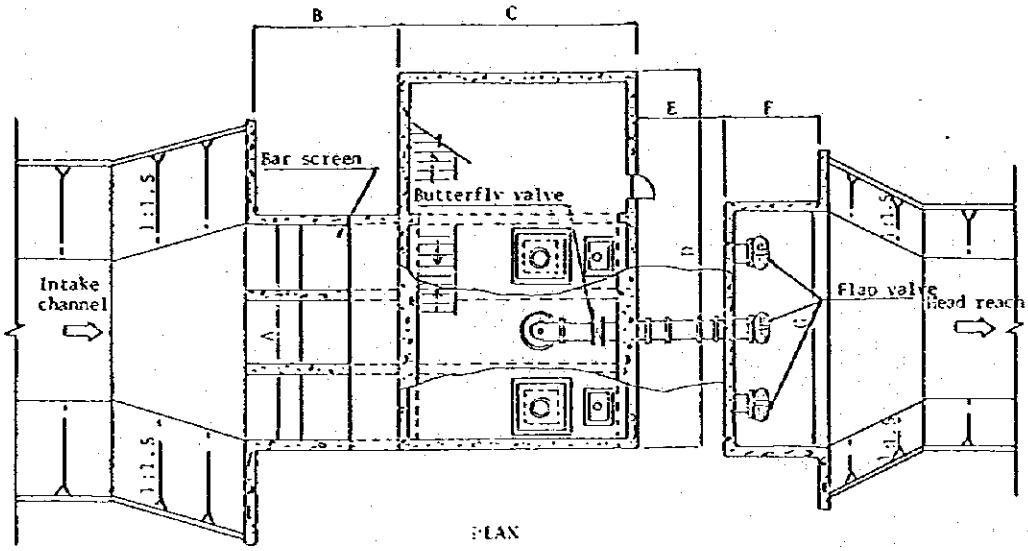
JAPAN INTERNATIONAL COOPERATION AGENCY




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

FIG. 6.3-3 COMPARISON OF ALTERNATIVE INTAKE PLANS

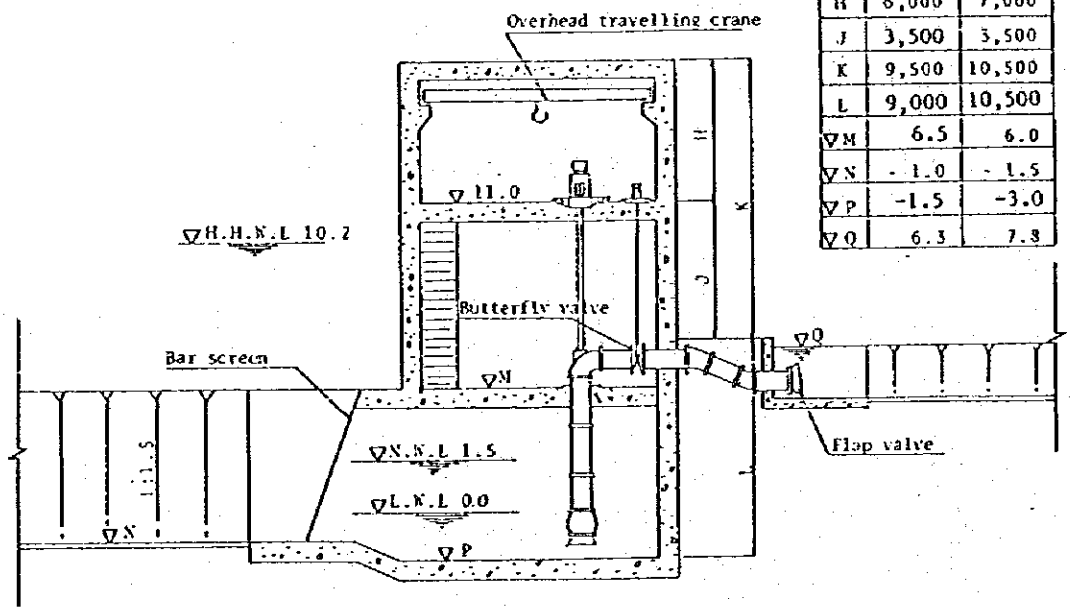
JAPAN INTERNATIONAL COOPERATION AGENCY




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 |

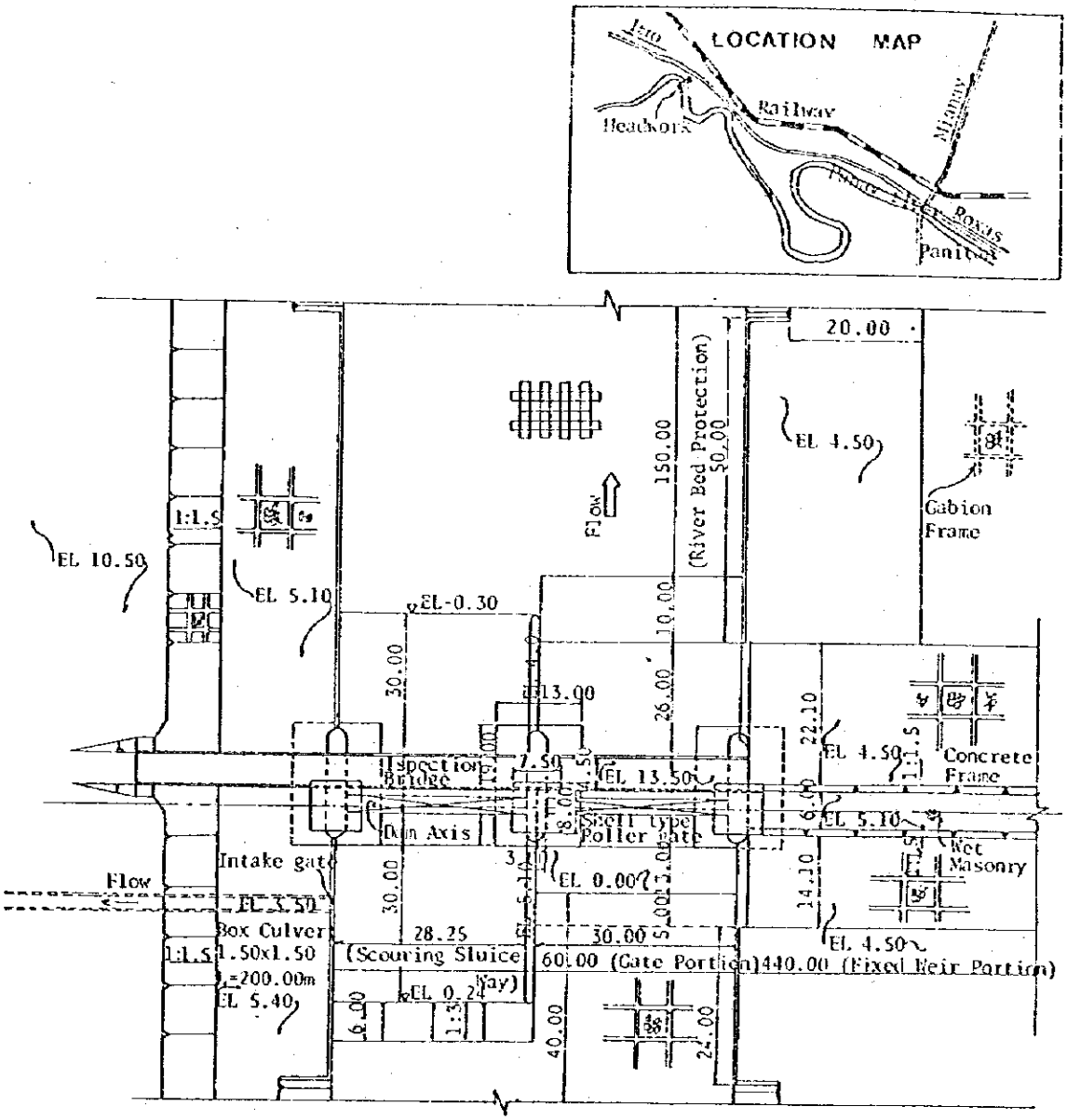



PROFILE

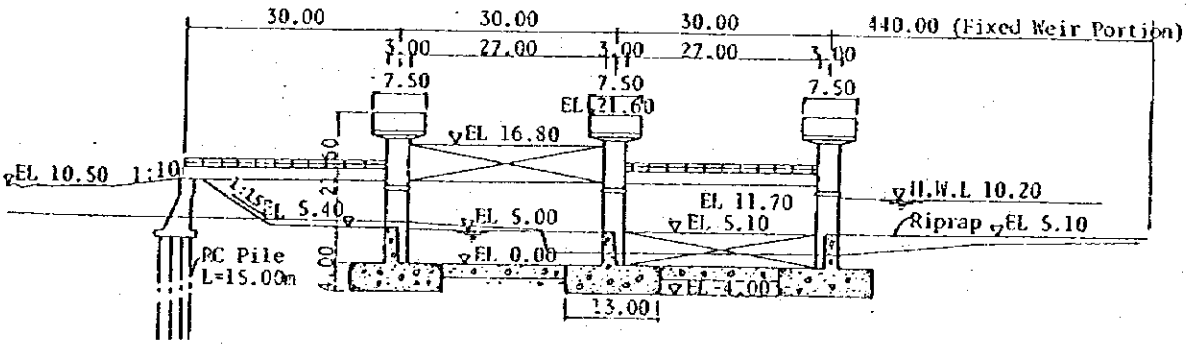
MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

FIG. 6.3-4 PUMP STATION

JAPAN INTERNATIONAL COOPERATION AGENCY




PLAN




PROFILE

SCALE
0 10 20 30 40 50 m

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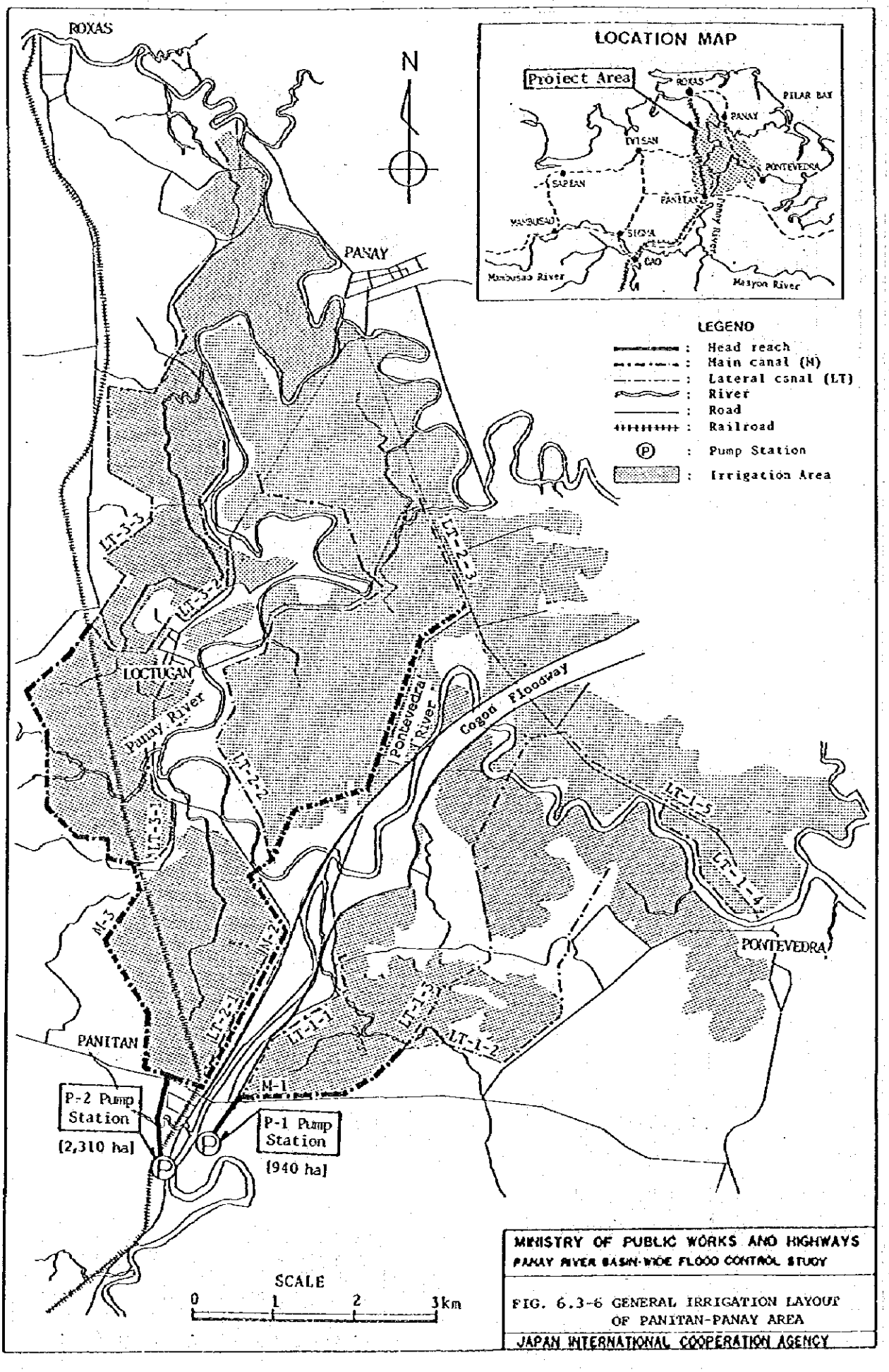
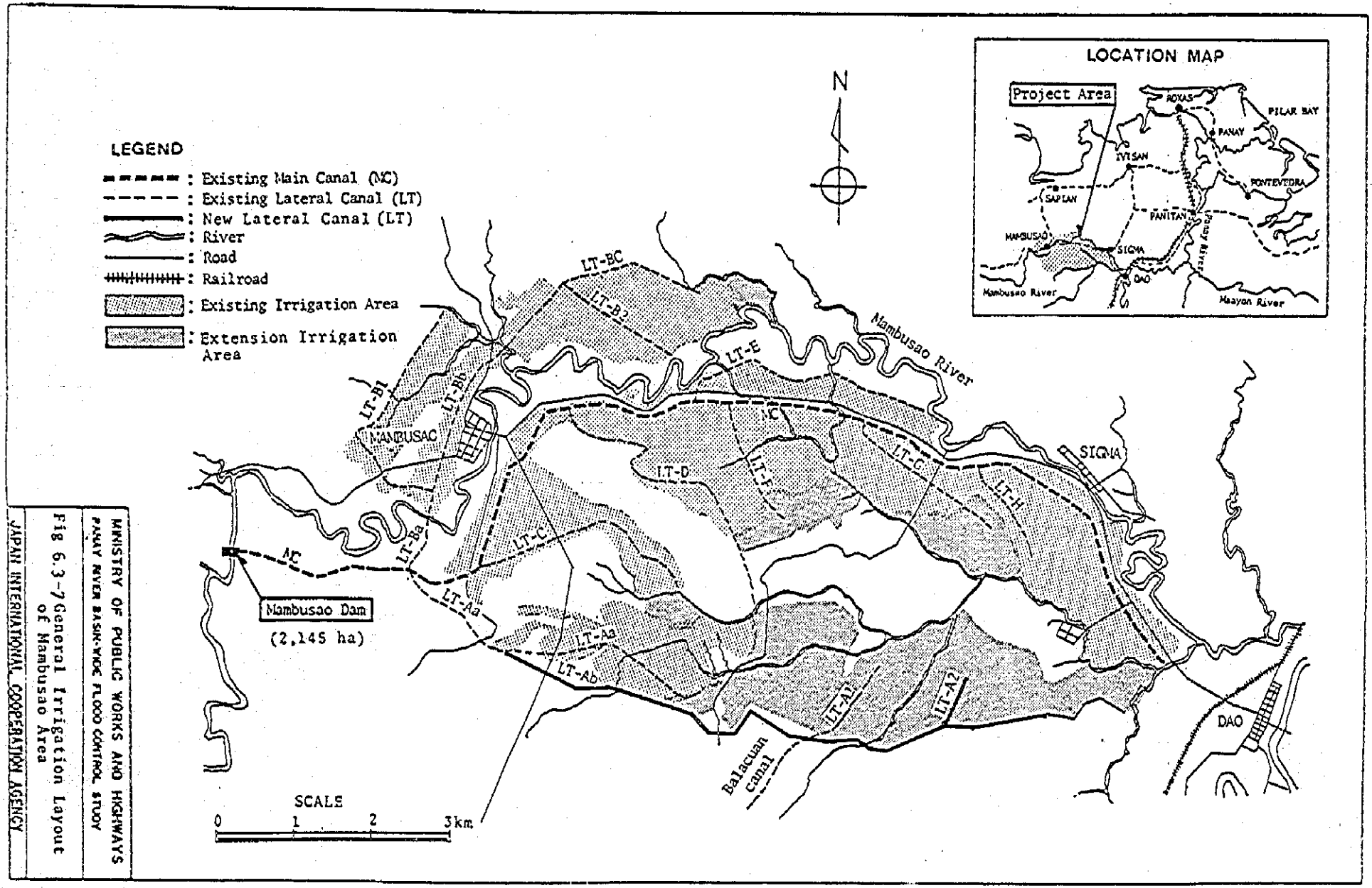
PAMAY RIVER BASIN-WIDE FLOOD CONTROL STUDY

FIG. 6.3-5 HEADWORKS

JAPAN INTERNATIONAL COOPERATION AGENCY


LOCATION MAP
Project Area
ROXAS
PILAR BAY
PANAY
TIVISAN
PONTEVEDRA
SAPEAN
PANITAN
MAMBUSAO
SIGMA
CAO
Mambusao River
Mayon River
N
ROXAS
PANAY
LEGEND
: Head reach
: Main canal (M)
: Lateral canal (LT)
: River
: Road
: Railroad
: Pump Station
: Irrigation Area
LT-3-3
LT-3-2
LT-2-3
LOCTUGAN
Panay River
Pontevedra River
Cogon Floodway
LT-2-2
LT-5-1
LT-1-5
LT-1-4
M-3
M-2
PONTEVEDRA
LT-2-1
LT-1-1
LT-1-3
LT-1-2
PANITAN
M-1
P-2 Pump Station
(2,310 ha)
P-1 Pump Station
(940 ha)
SCALE
0
1
2
3km
MINISTRY OF PUBLIC WORKS AND HIGHWAYS
PANAY RIVER BASIN-WIDE FLOOD CONTROL STUDY
FIG. 6.3-6 GENERAL IRRIGATION LAYOUT OF PANITAN-PANAY AREA
JAPAN INTERNATIONAL COOPERATION AGENCY




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

Fig 6.3-7 General Irrigation Layout of Mambusao Area

JAPAN INTERNATIONAL COOPERATION AGENCY

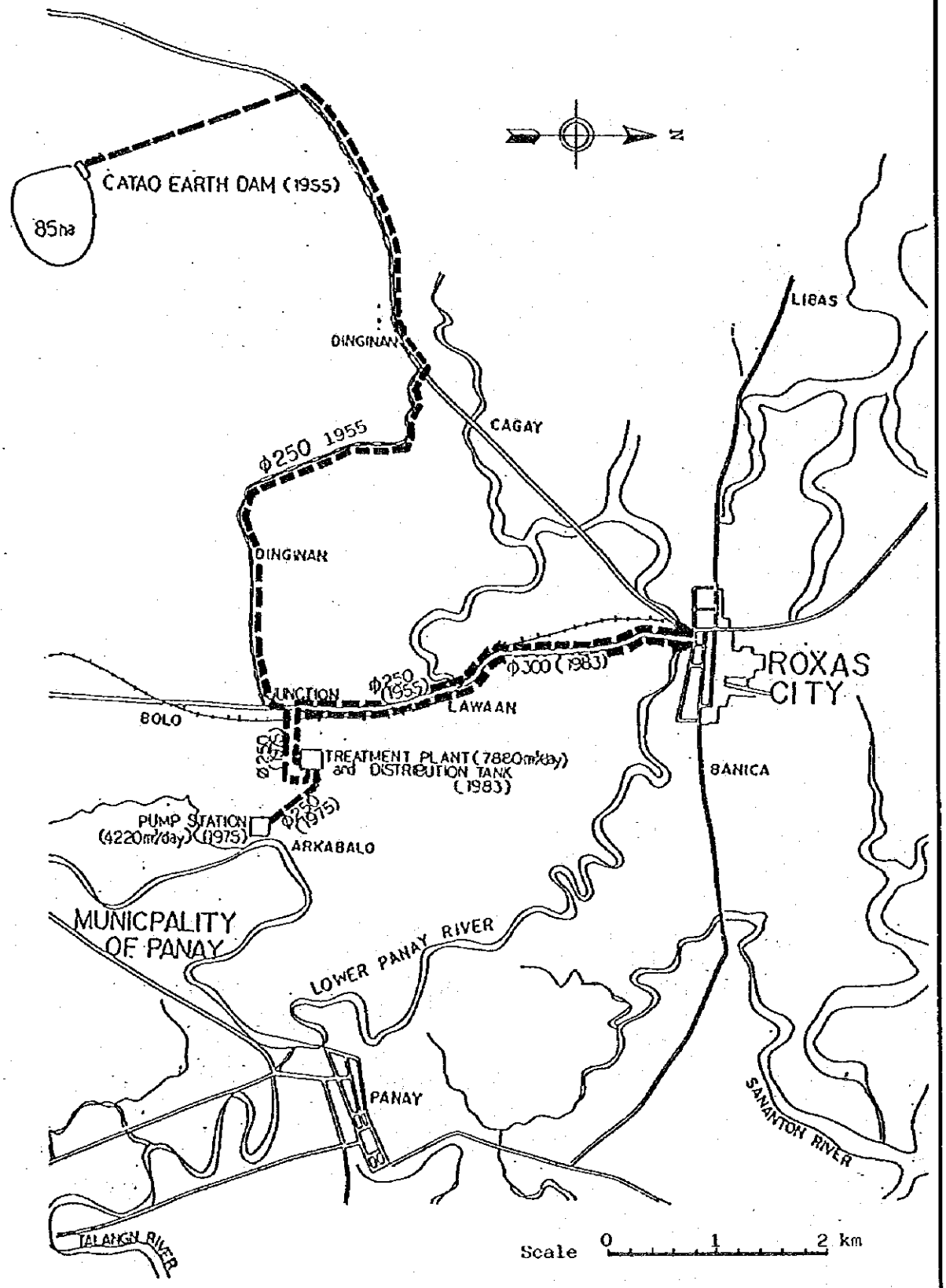



Fig. 7.2-1 Existing Water Supply System

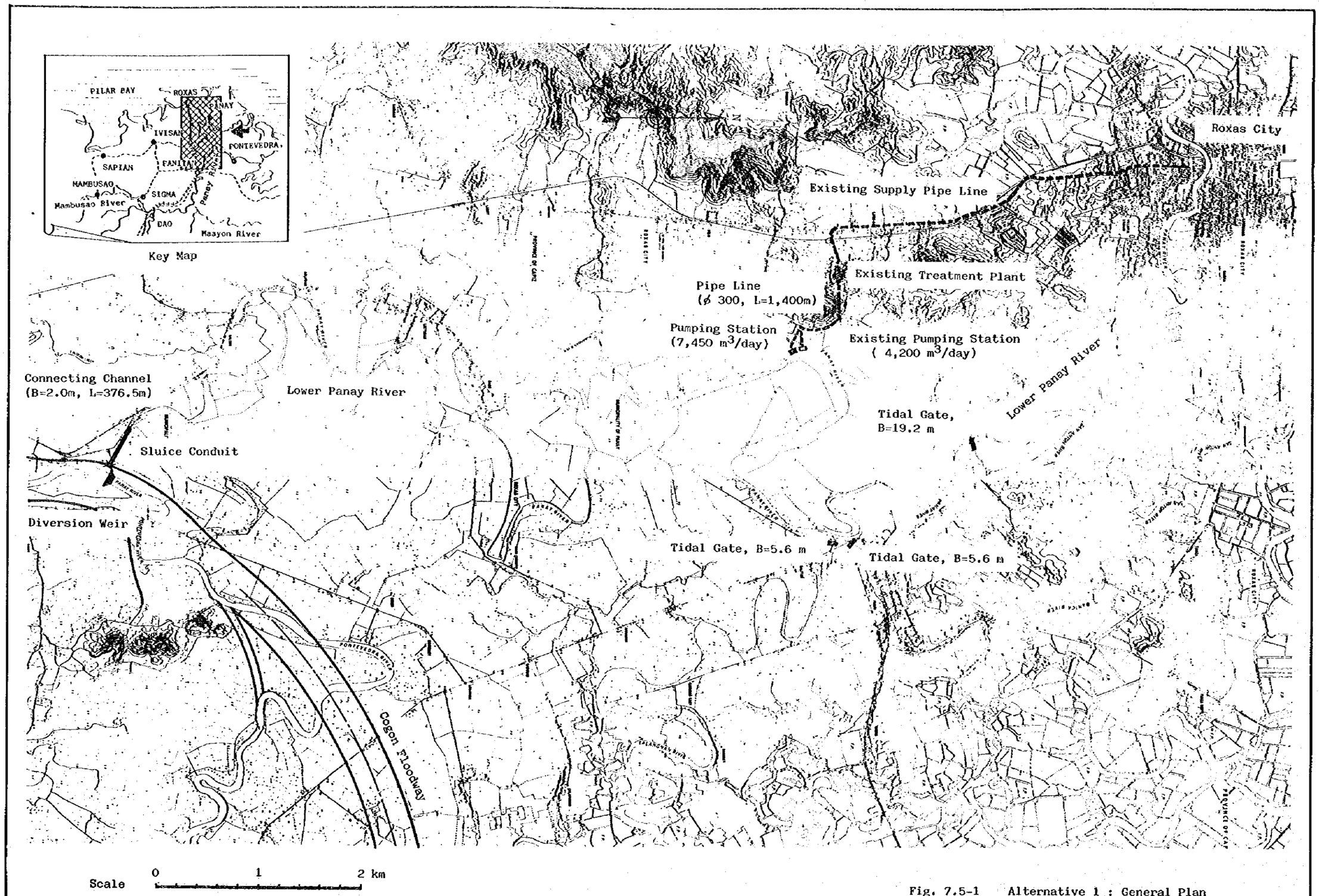
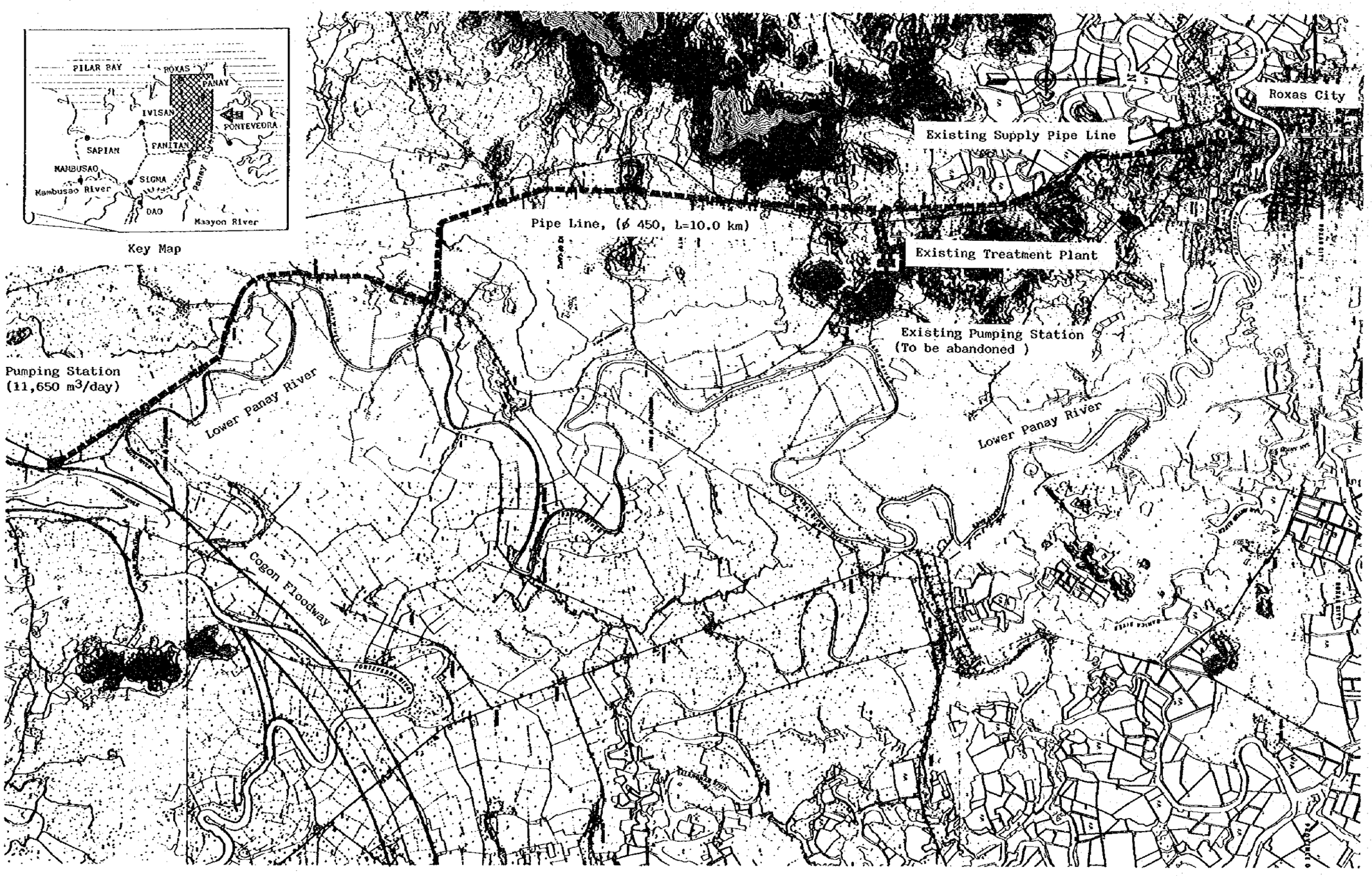
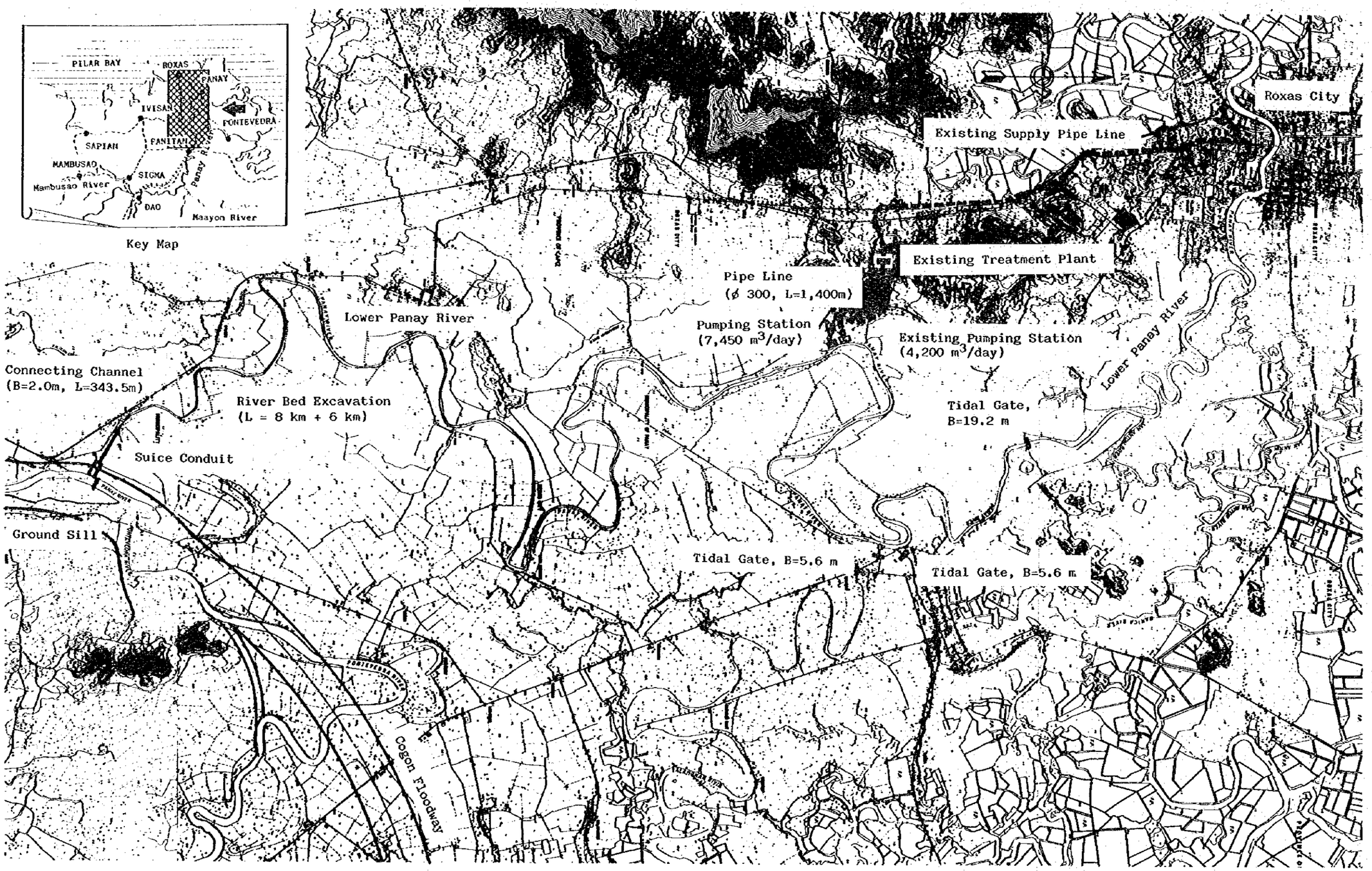



Fig. 7.5-1 Alternative 1 : General Plan




Scale 0 1 2 km

Fig. 7.5-2 Alternative 2 : General Plan




Scale 0 1 2 km

Fig. 7.5-3 Alternative 3 : General Plan

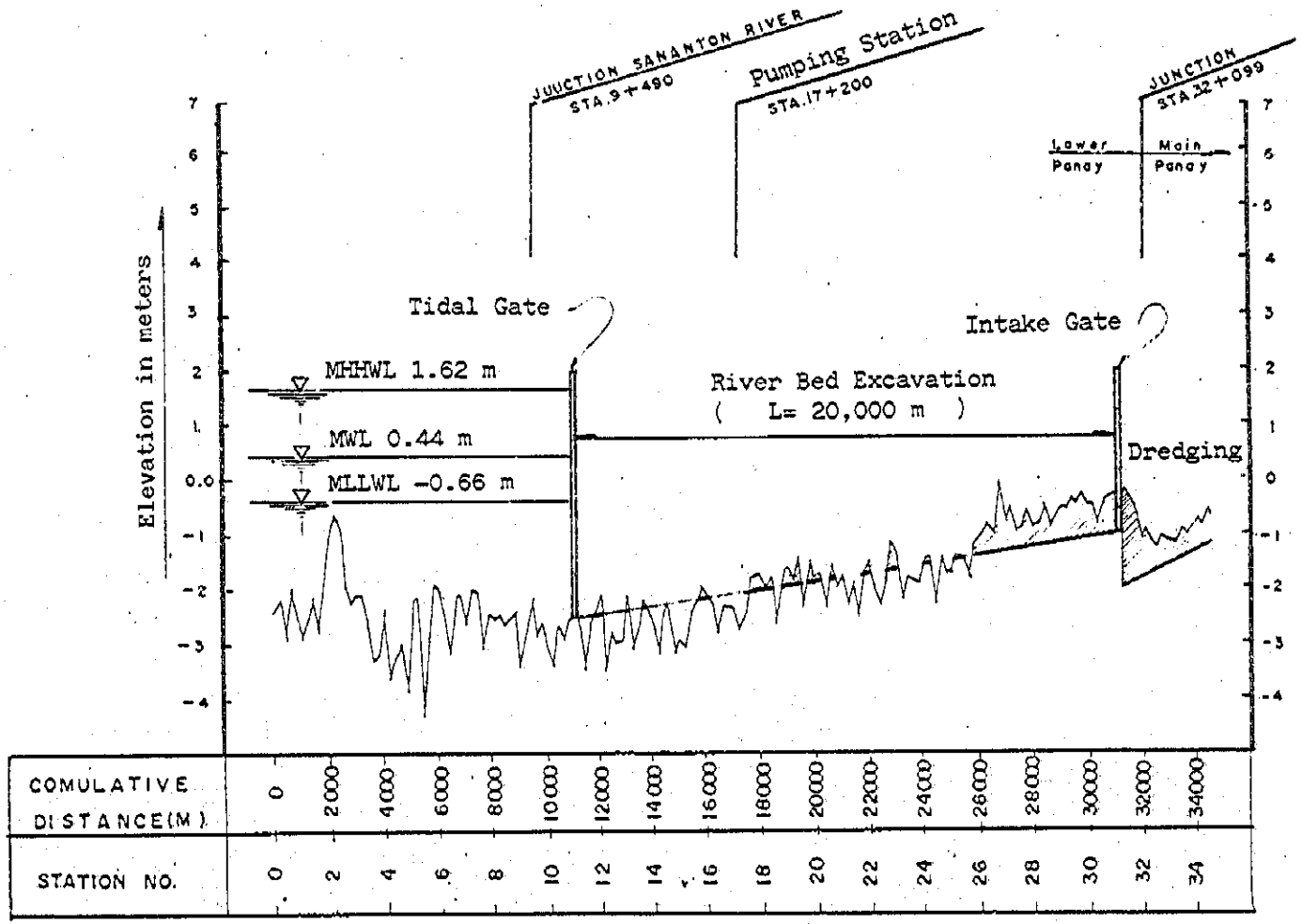



Fig. 7.5-4 Alternative 3 : Profile of Lower Panay River

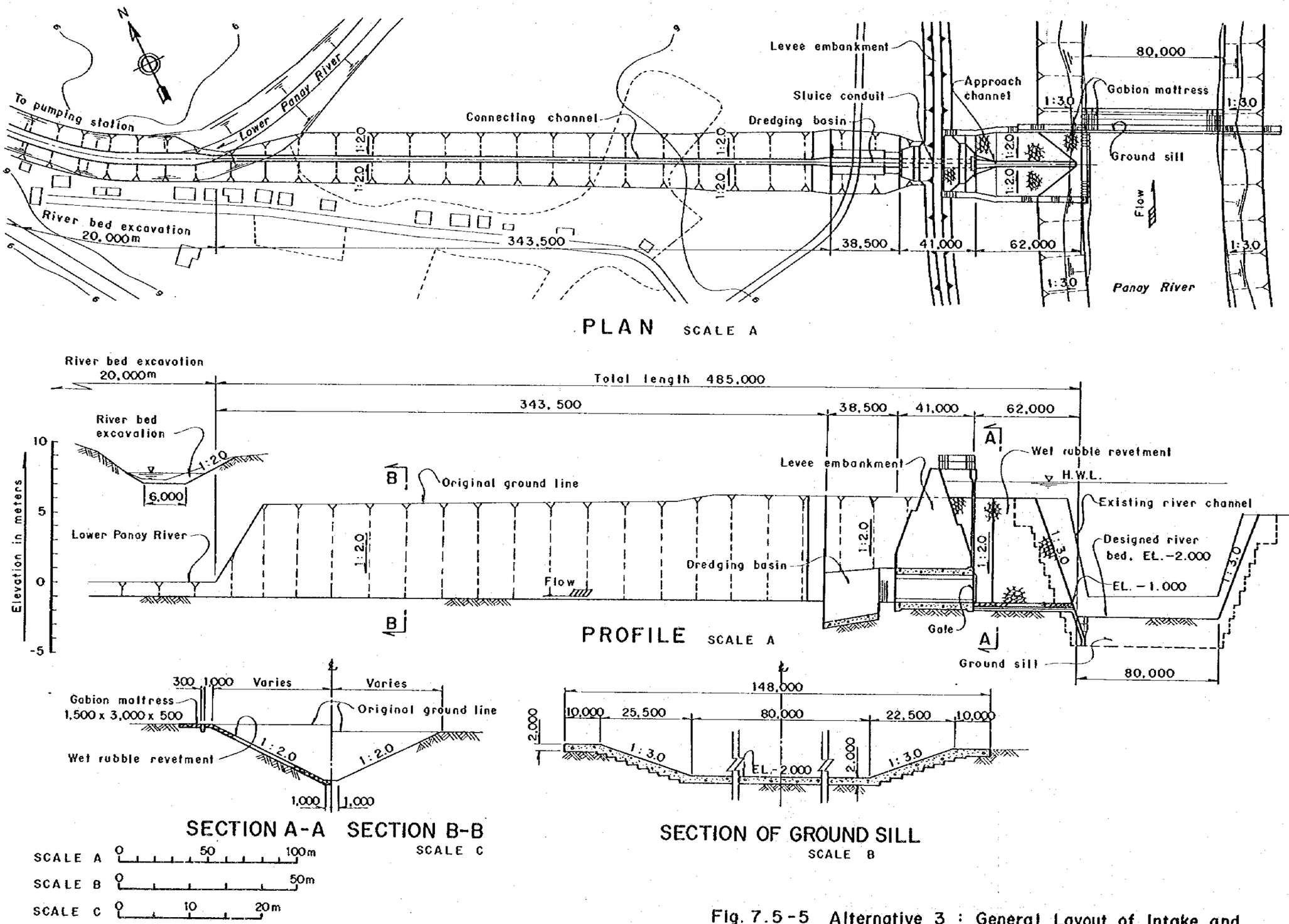



Fig. 7.5-5 Alternative 3 : General Layout of Intake and Connecting Channel

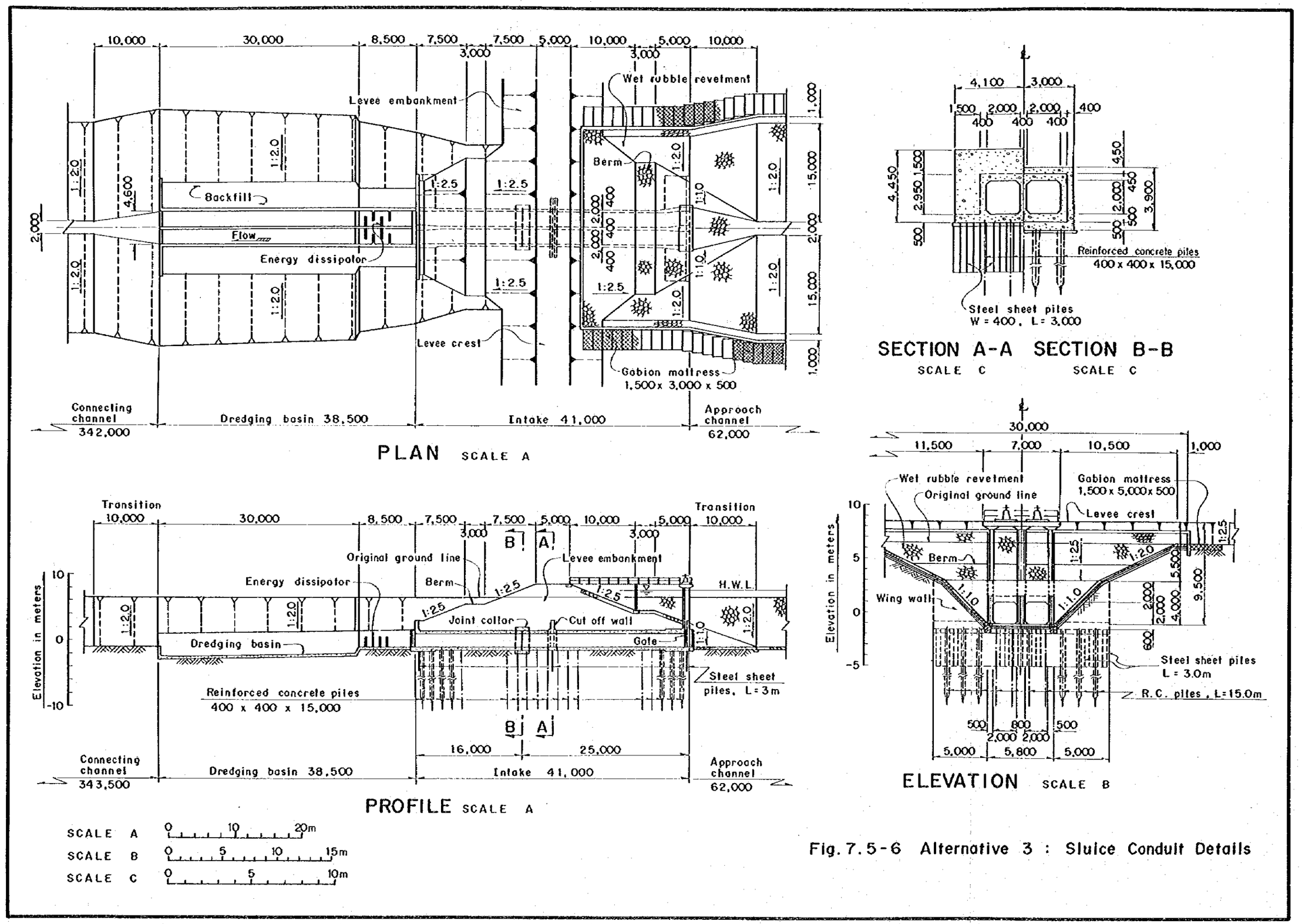



Fig. 7.5-6 Alternative 3 : Sluice Conduit Details