

SKELTON DIAGRAM

MARK	NAME	REMARK
VCB	VACUM CIRCUIT BREAKER	
MCB	MOLDED CASE CIRCUIT BREAKER	
DS	DISCONNECTING SWICH	
LA	AIRRESTER	
Tr	TRANSFORMER	
SC	CONDENSER	
HF	HIGHT VOLTAG FUSE	
F	LOW VOLTAG FUSE	
CT	CURRENT TRANSFORMER	
PT	POTENTIAL TRANSFORMER	
G	AC. GENERATOR	
DE	DIESEL ENGINE	
VCS	VACUM SWICH	
A	A.C. AMPMETER	
AS	AMPMETER CHANG-OVER SWICH	
V	A.C. VOLTAG	
VS	VOLTAG CHANG-OVER SWICH	
W	WATT METER	
EM	ELECTRIC ENERGY METER	
PI	POWER FACTOR INDICATOR	
F	FREQUENCY METER	
27	UNDER VOLTAG RELAY	
51	OVER CURRENT RELAY	
67G	GROUND RELAY	

Fig. 4.19
SEWAGE TREATMENT PLANT
SKELTON DIAGRAM

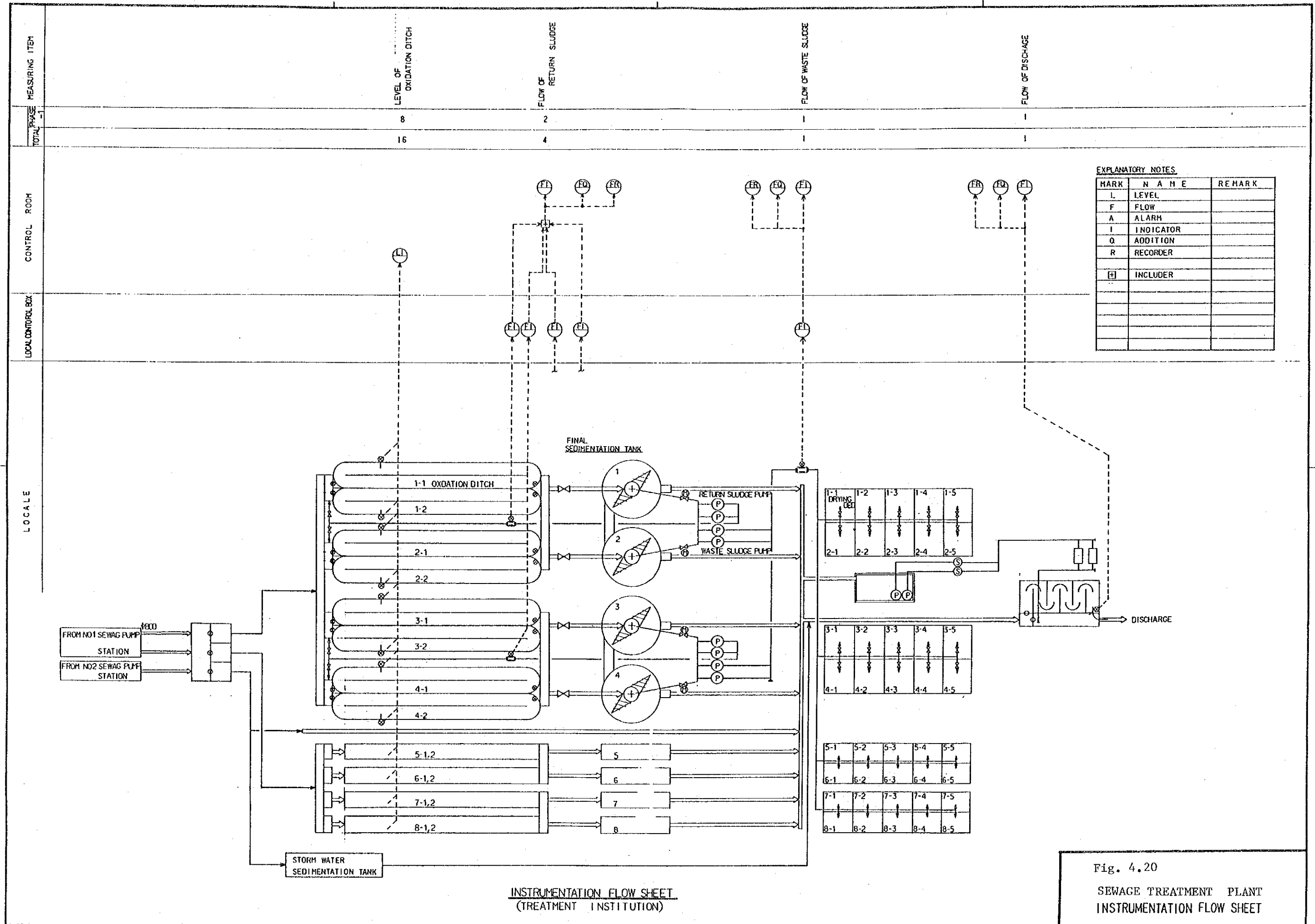


Fig. 4.20
SEWAGE TREATMENT PLANT
INSTRUMENTATION FLOW SHEET

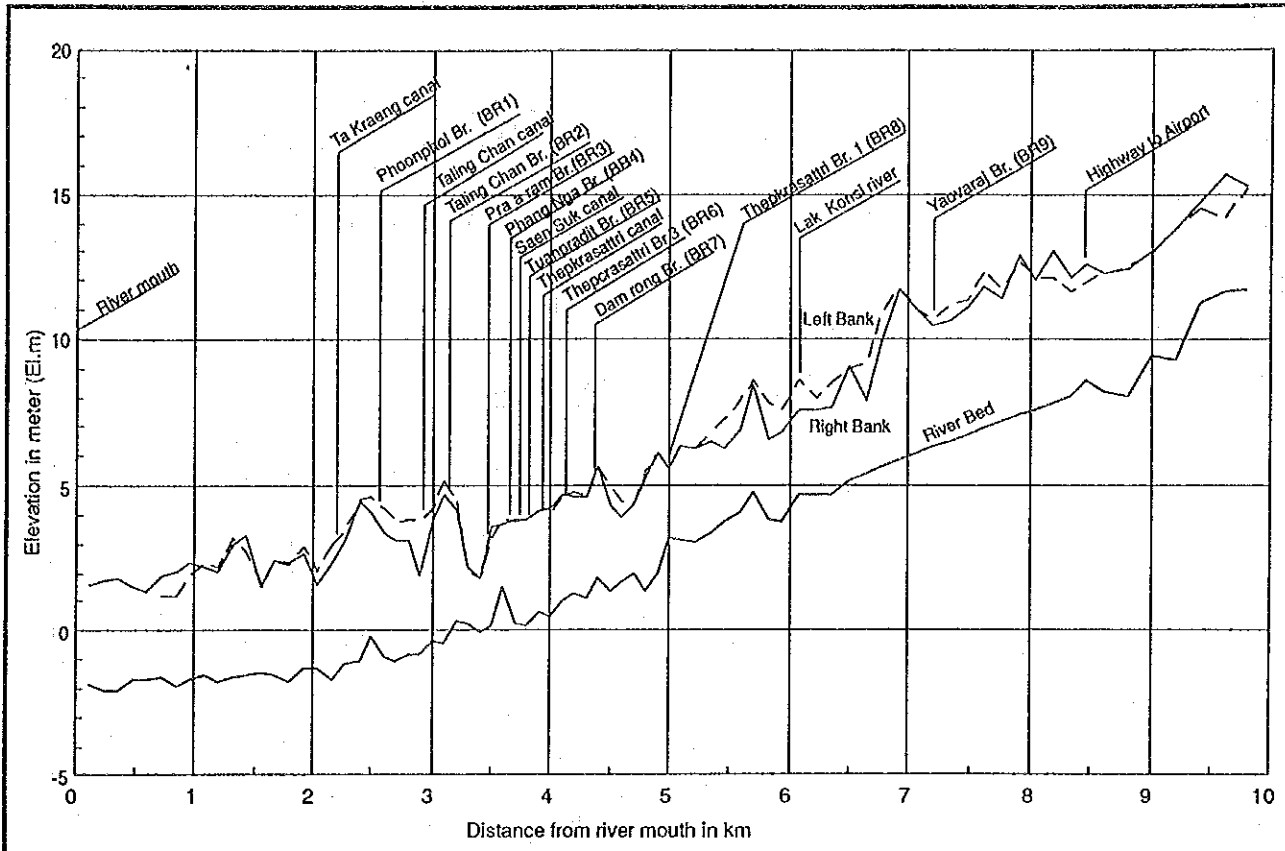


Fig. 7.1 LONGITUDINAL PROFILE OF BANG YAI RIVER

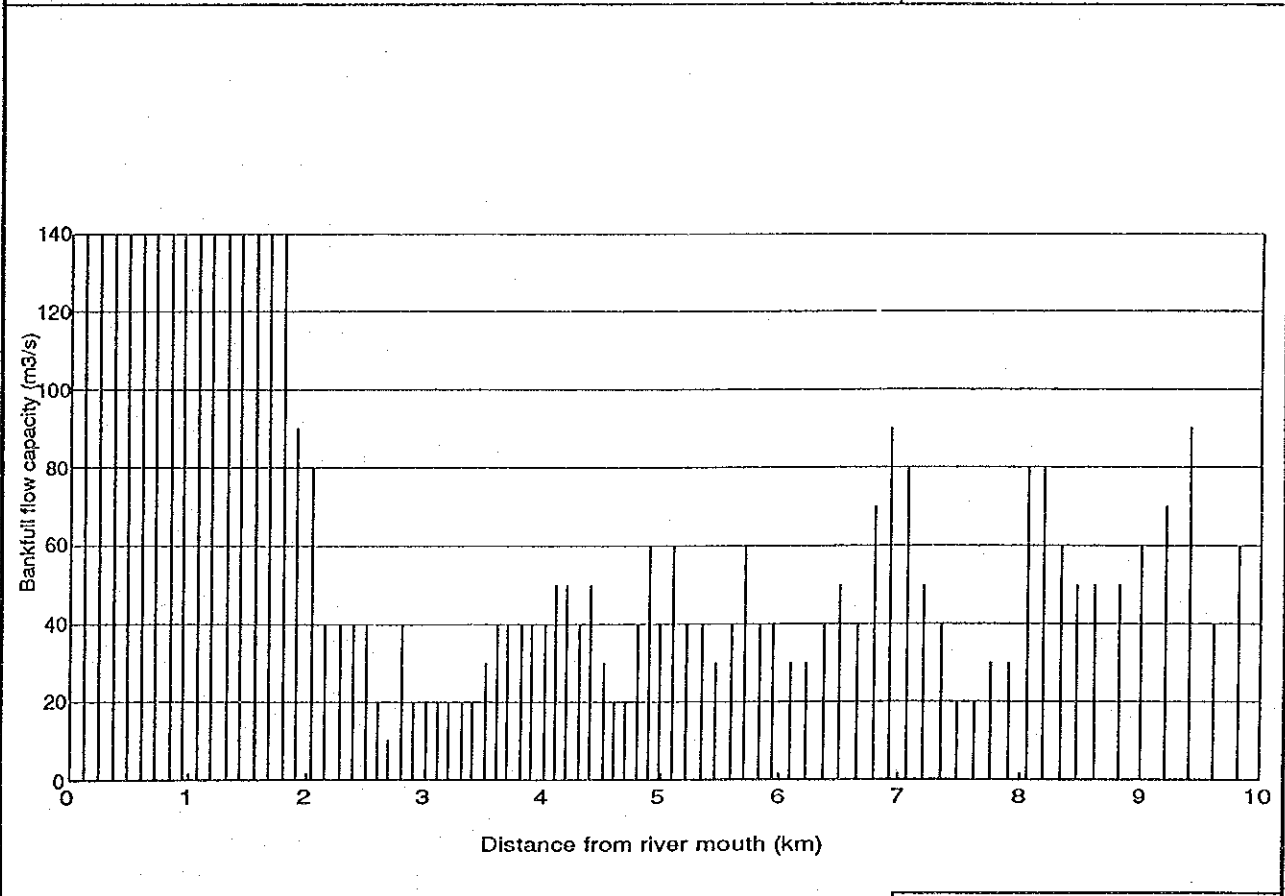
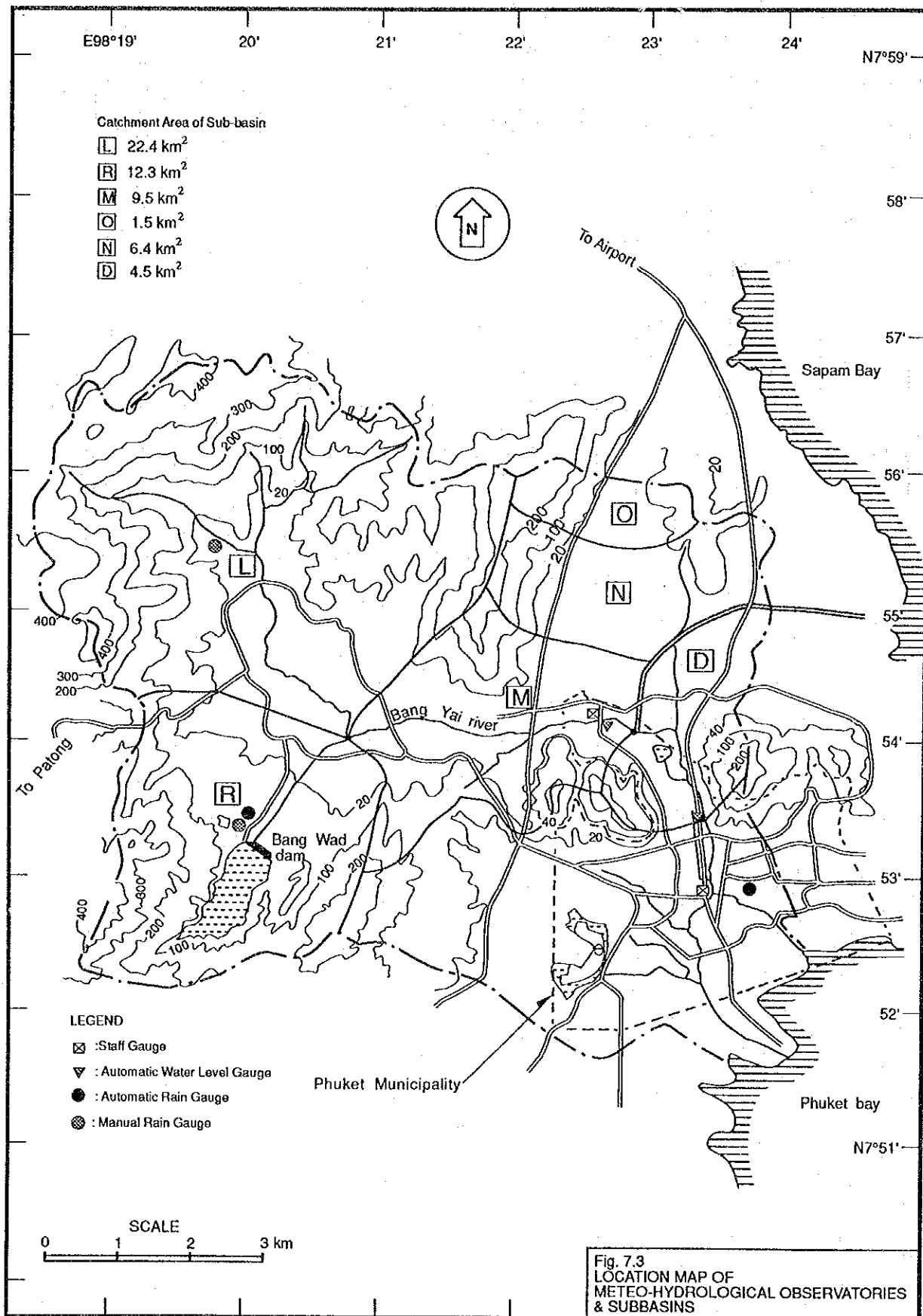


Fig. 7.2 FLOW CAPACITY OF BANG YAI RIVER



Discharge Measurement Record

		Water level (m)	Discharge (m ³ /s)
1989 Oct. 10	11:00~12:15	2.05	20.2
(2532)	17 11:10~11:30	0.74	5.1
	30 10:00~10:45	0.56	3.6
Nov. 7	11:10~11:40	0.5	2.9
	21 11:10~11:30	0.43	2.1
Dec. 26	9:15~9:40	0.37	0.6
1990 Jan. 15		0.2	-
(2533)			

$$Q = 2.81 H^2 + 4.21 H$$

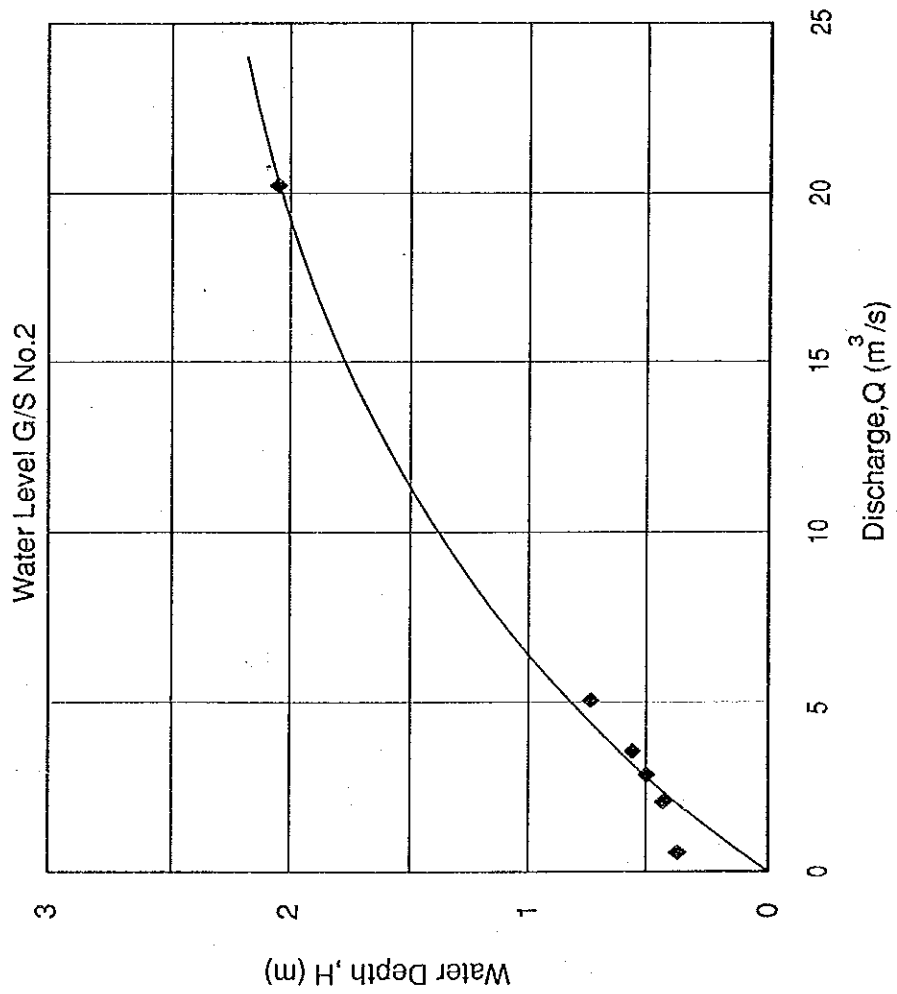


Fig. 7.4
DISCHARGE RATING CURVE

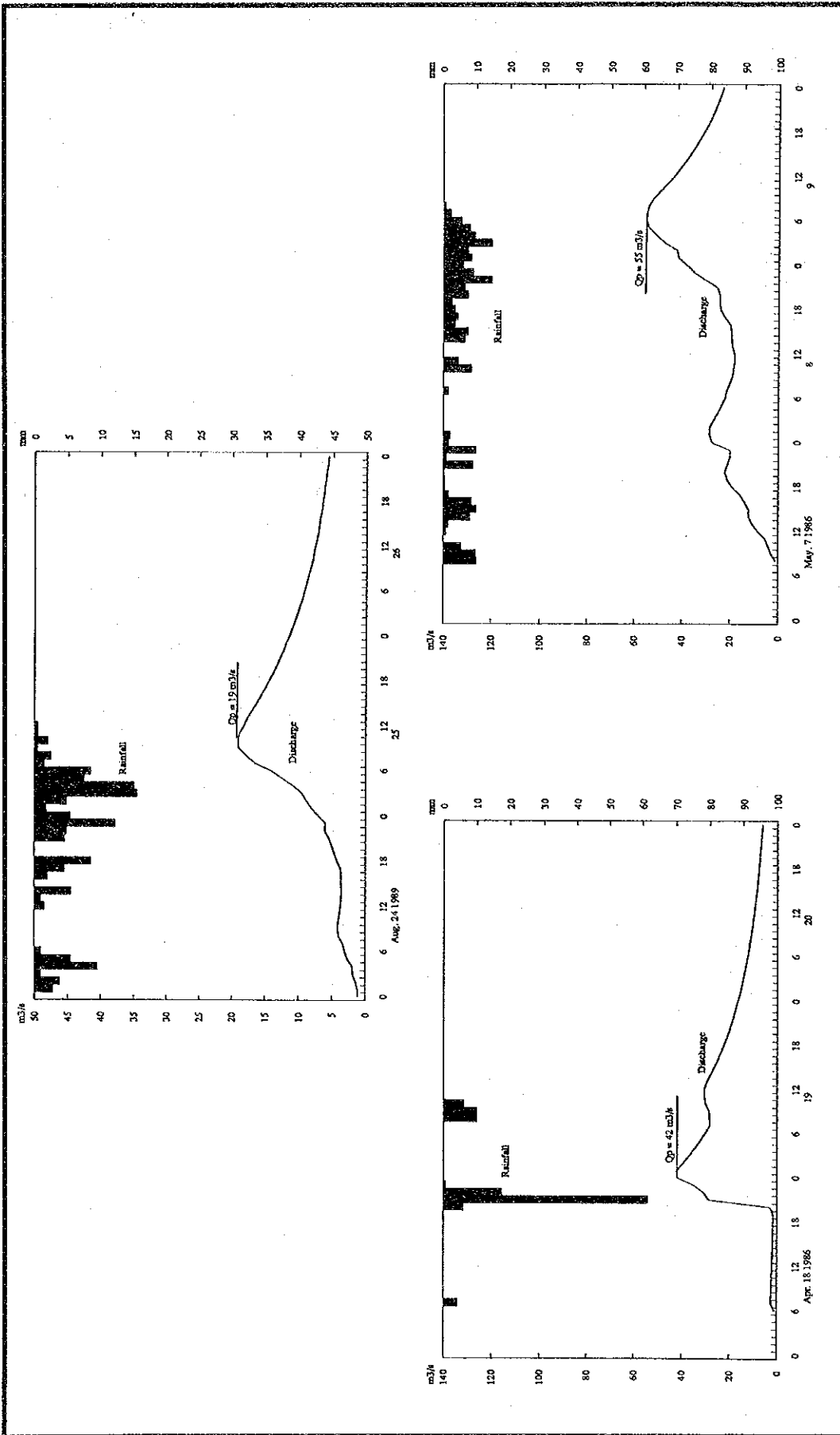


Fig. 7.5 FLOOD SIMULATION FOR PAST FLOOD(1/2)

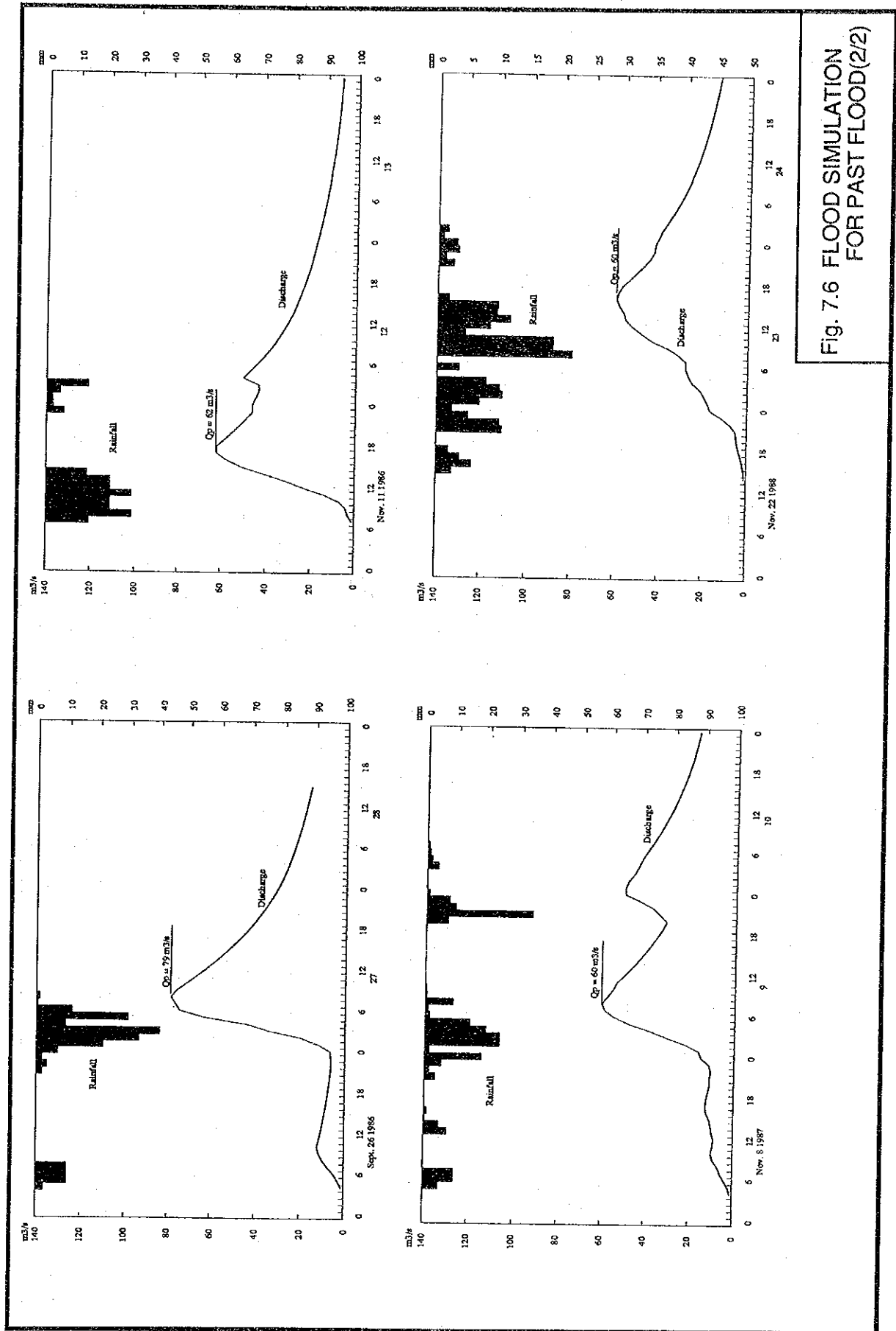


Fig. 7.6 FLOOD SIMULATION FOR PAST FLOOD(2/2)

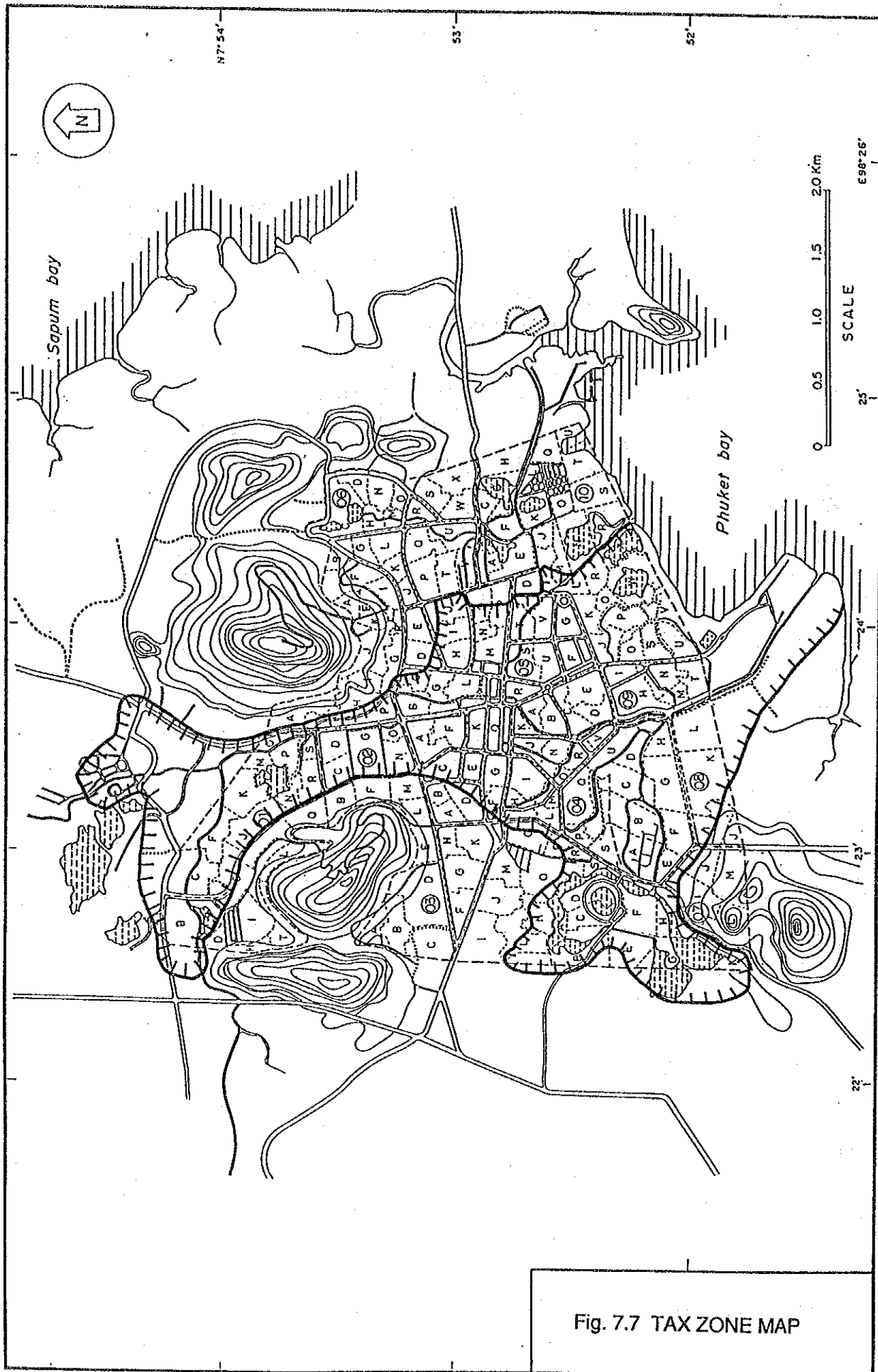


Fig. 7.7 TAX ZONE MAP

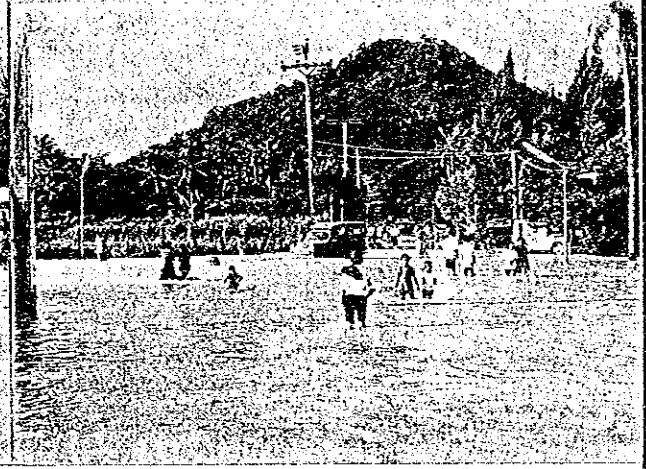
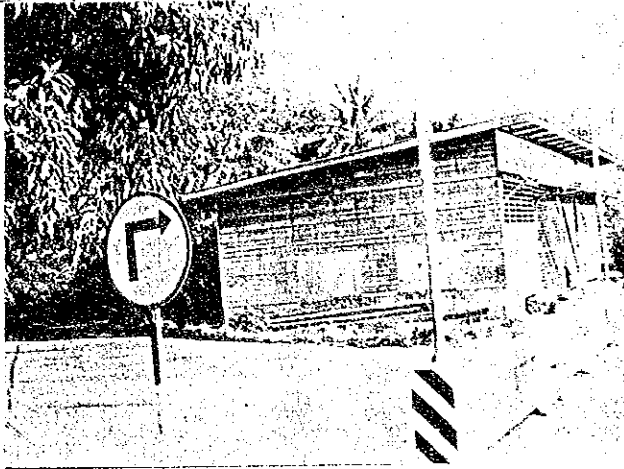


Fig. 7.8
FLOODING SCENE IN 1975



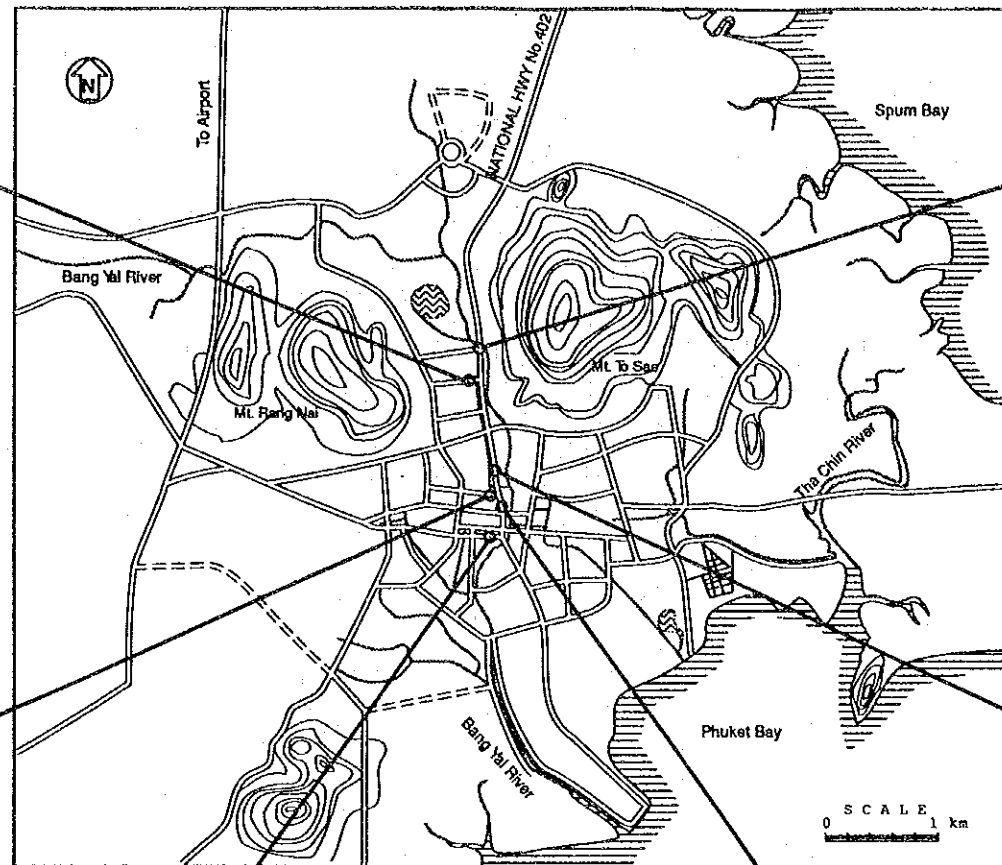
Nakorn Road



Dee Buk Road



Rasda Road



Cross at Thepkrasattri Road & Komarapat Road



Thepkrasattri Road



Thepkrasattri Road

Fig. 7.9 FLOODING SCENE IN 1983



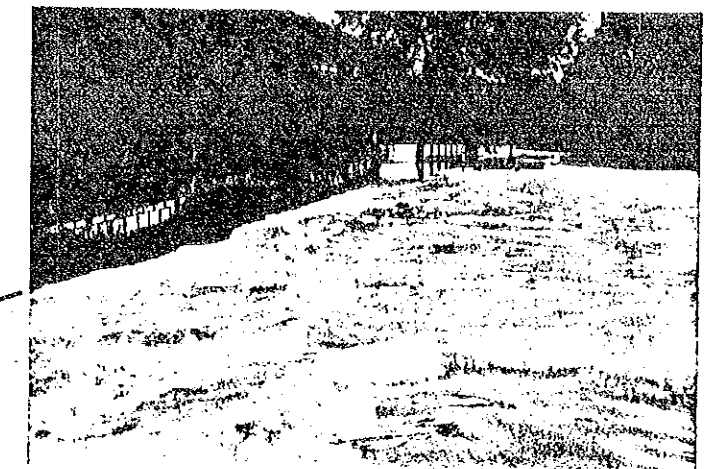
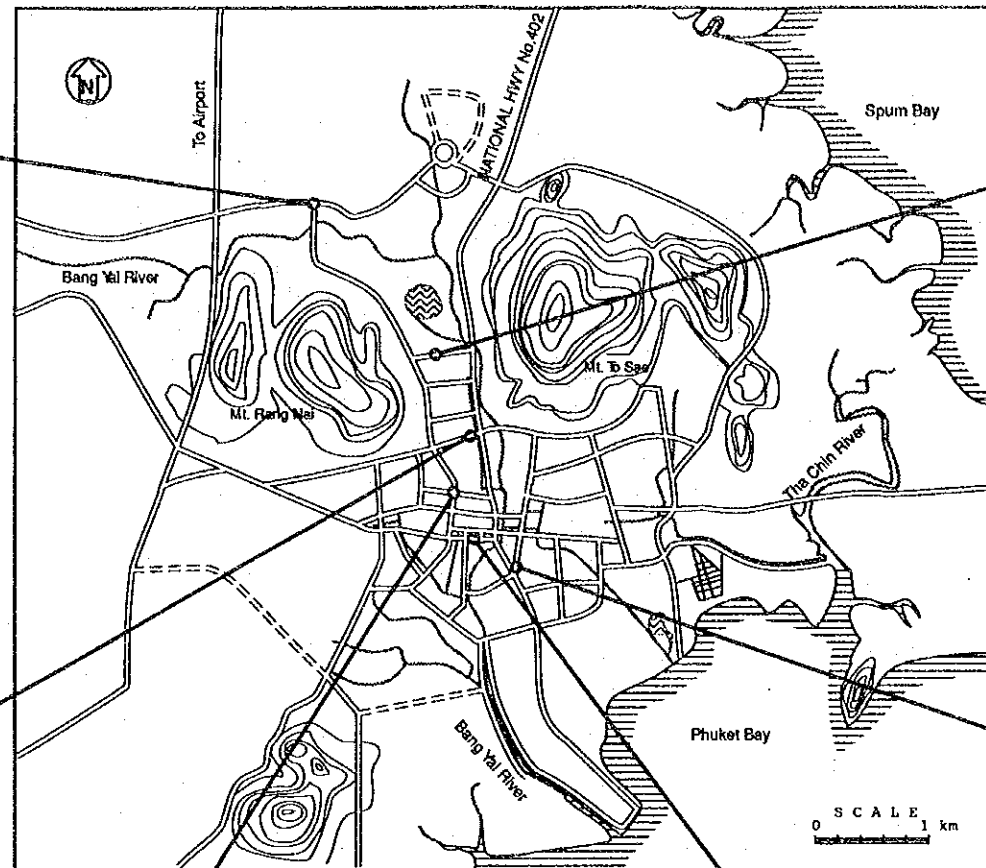
Sam Kong Road



Thoong Kha Road



Dee Buk Road



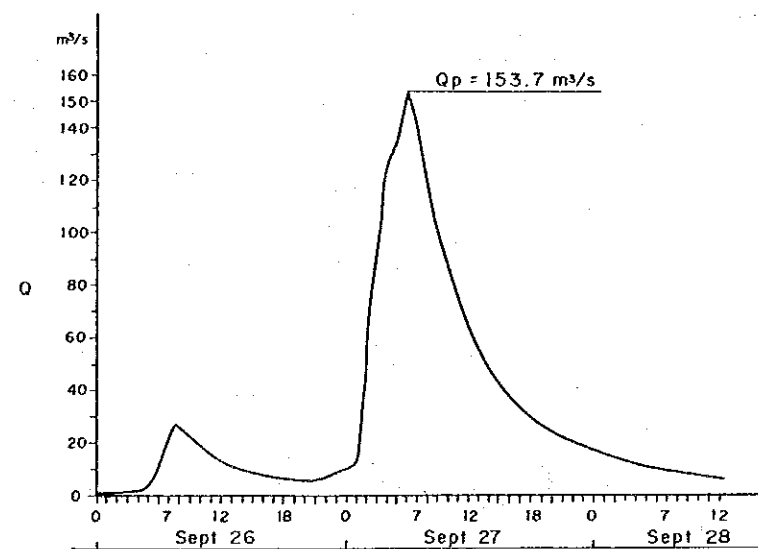
Komarapat Road



Montri Road

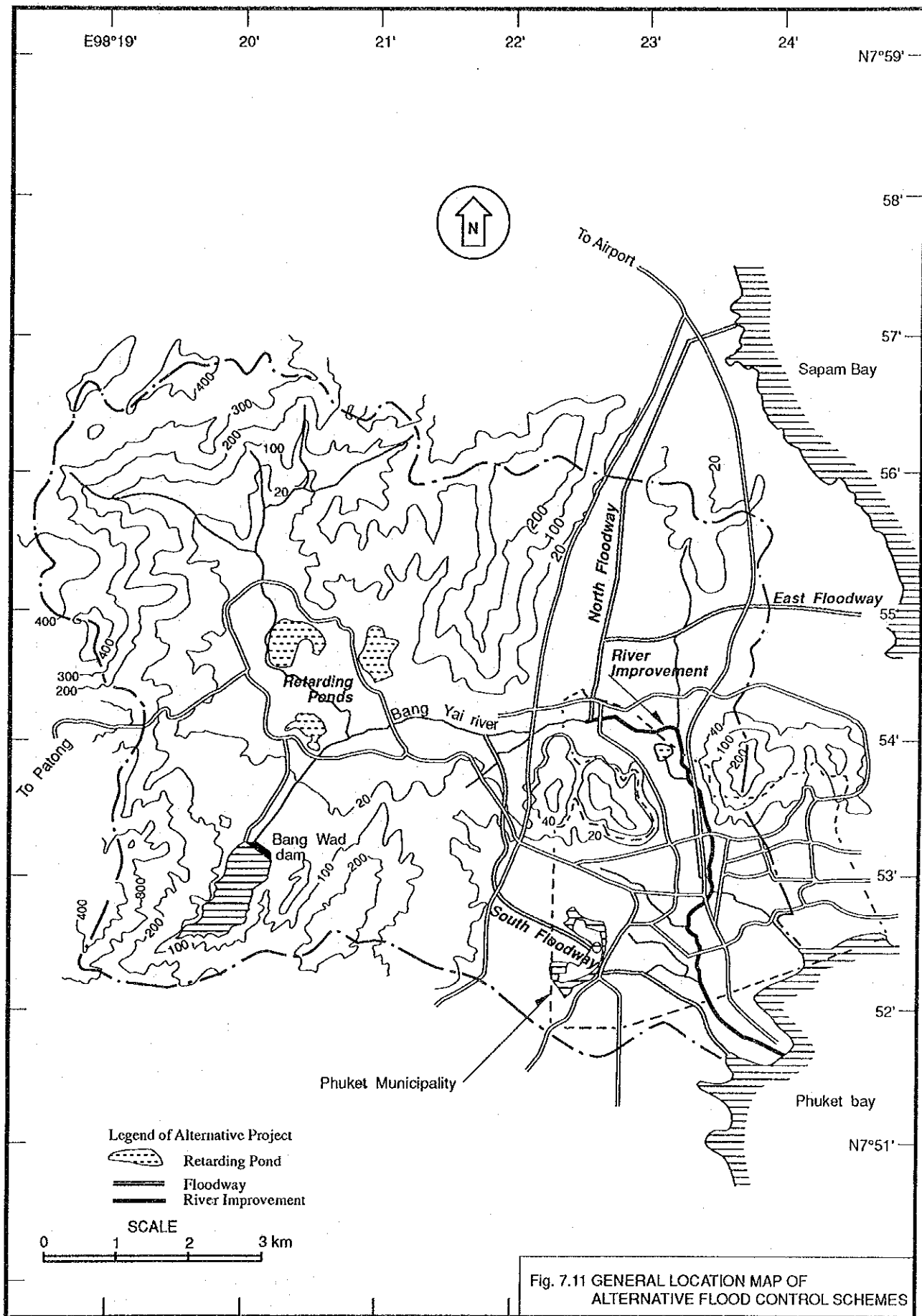


Rasda Road



1986

Fig. 7.10 FLOODING SCENE IN 1986



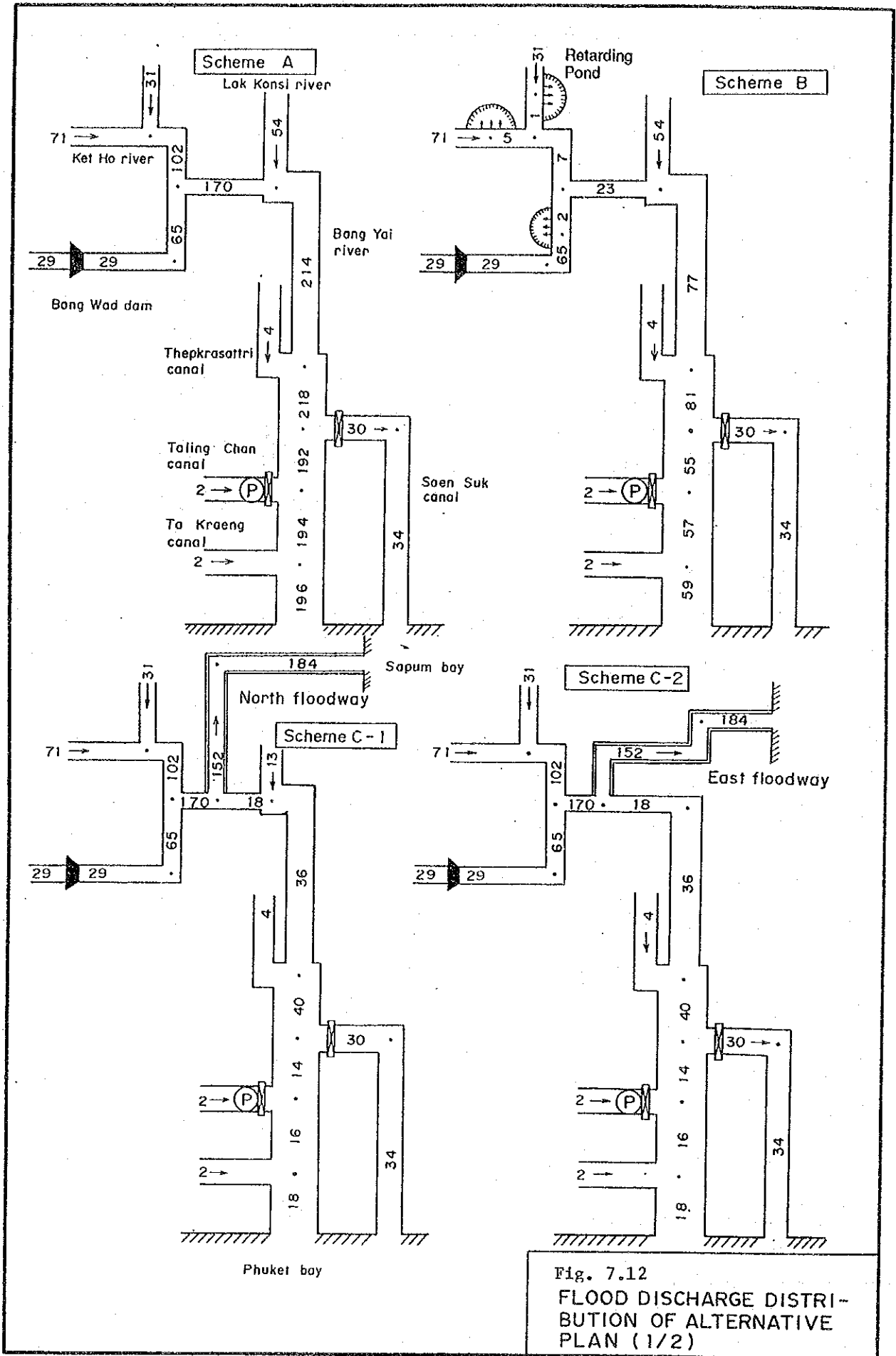
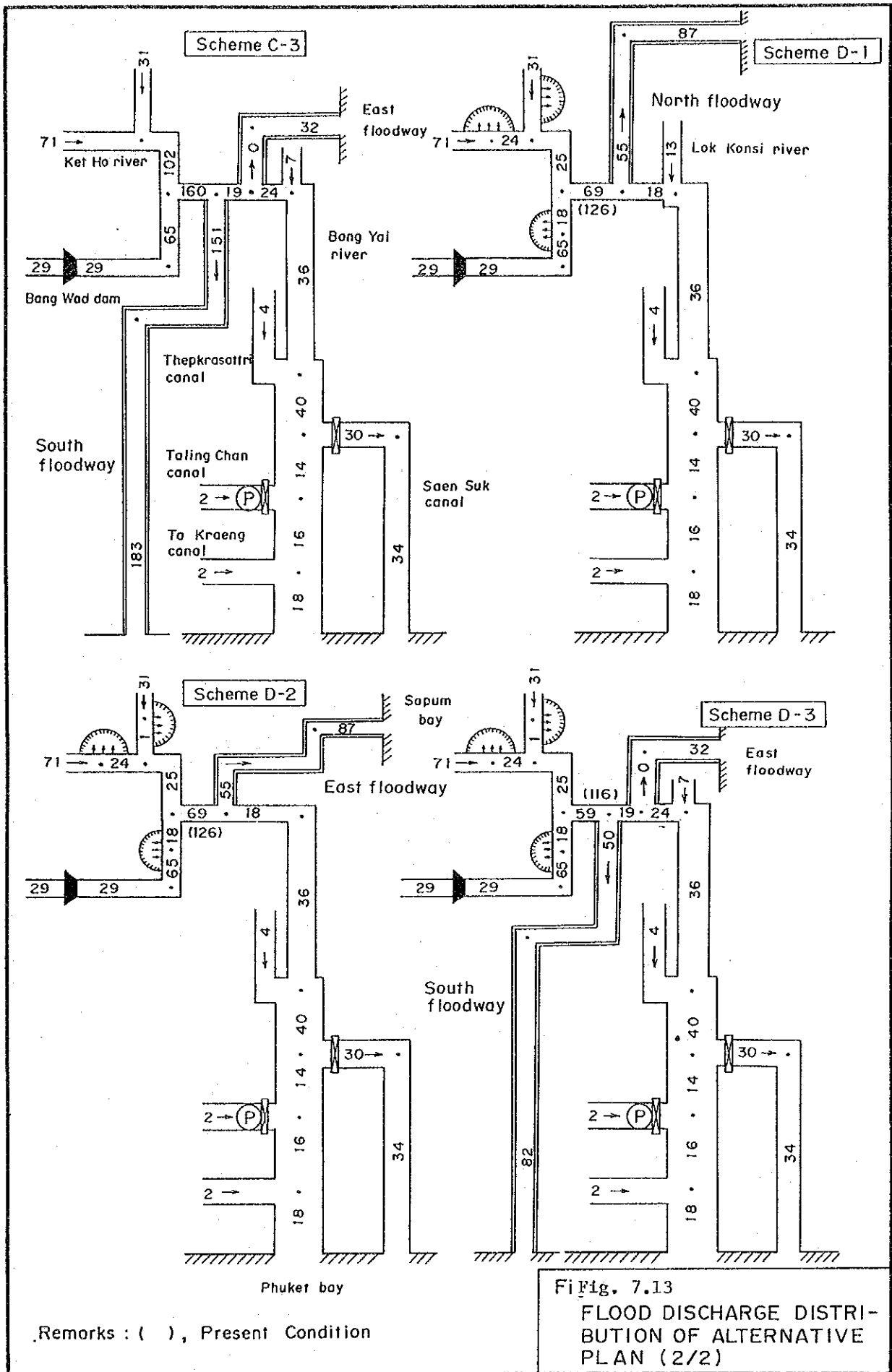


Fig. 7.12
FLOOD DISCHARGE DISTRIBUTION OF ALTERNATIVE PLAN (1/2)



Remarks : (), Present Condition

Fi Fig. 7.13
FLOOD DISCHARGE DISTRIBUTION OF ALTERNATIVE PLAN (2/2)

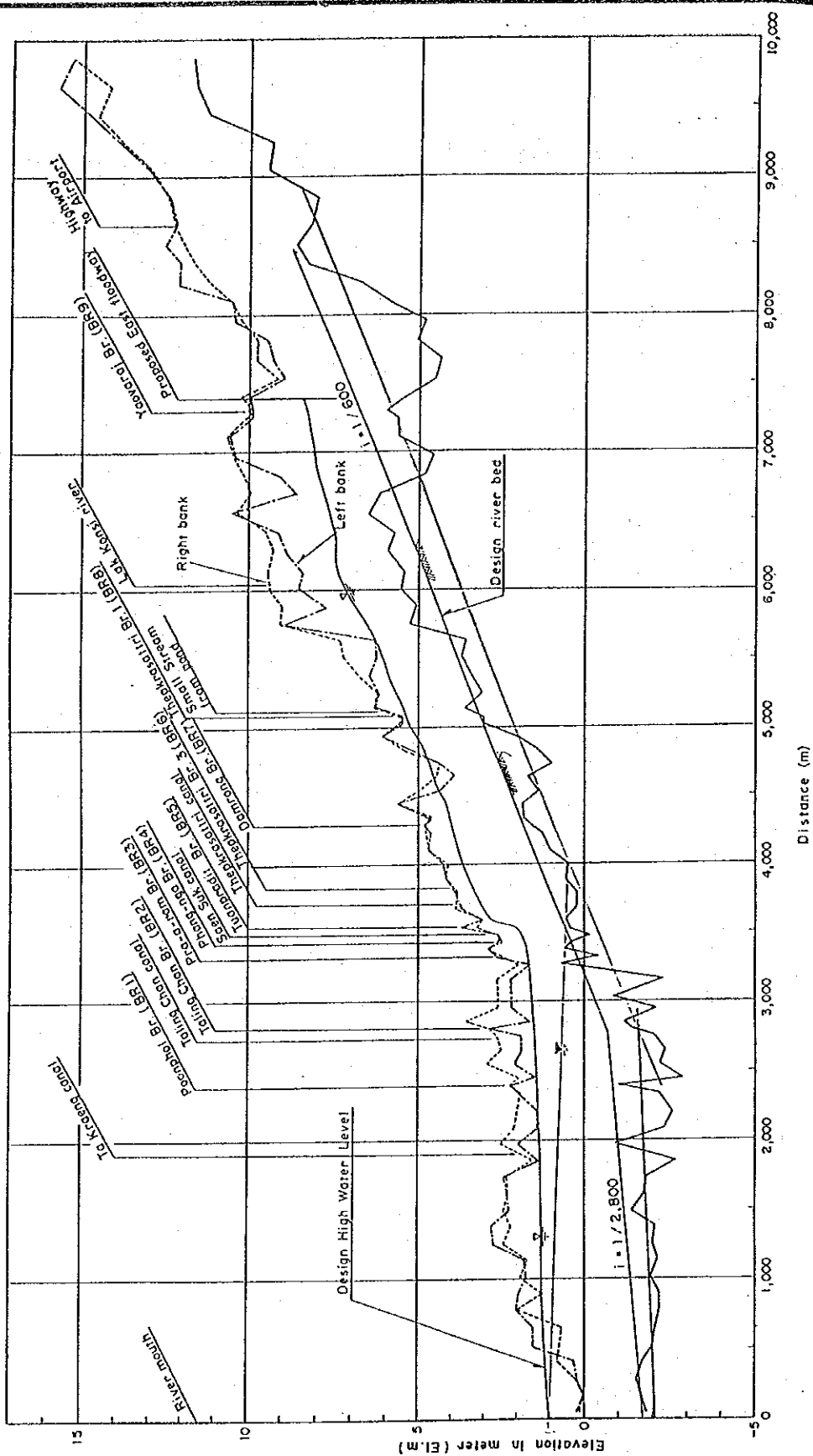


Fig. 7.14
 DESIGN HIGH WATER LEVEL
 AND RIVER BED OF BANG
 YAI RIVER

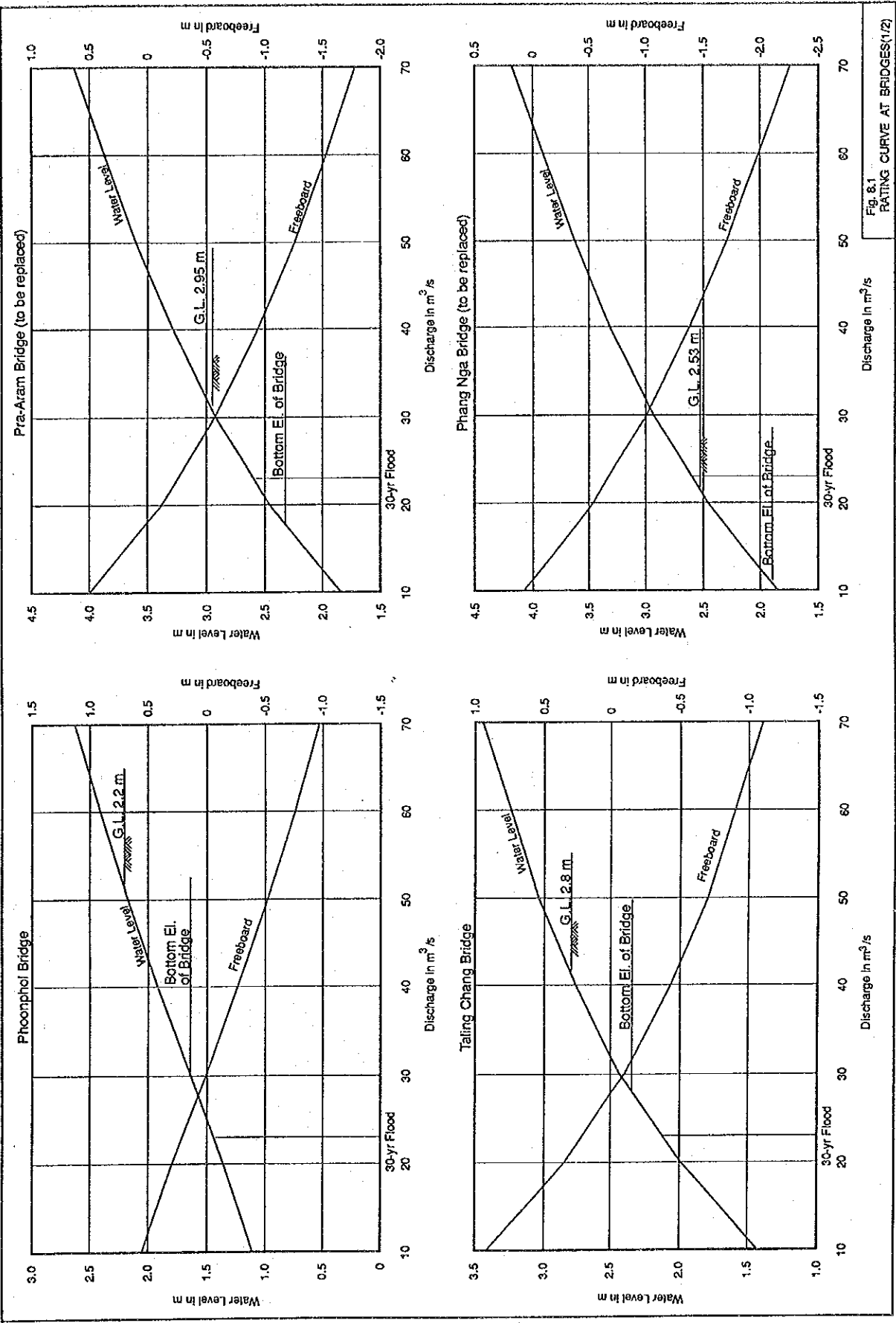


Fig. 8.1
RATING CURVE AT BRIDGES(1/2)

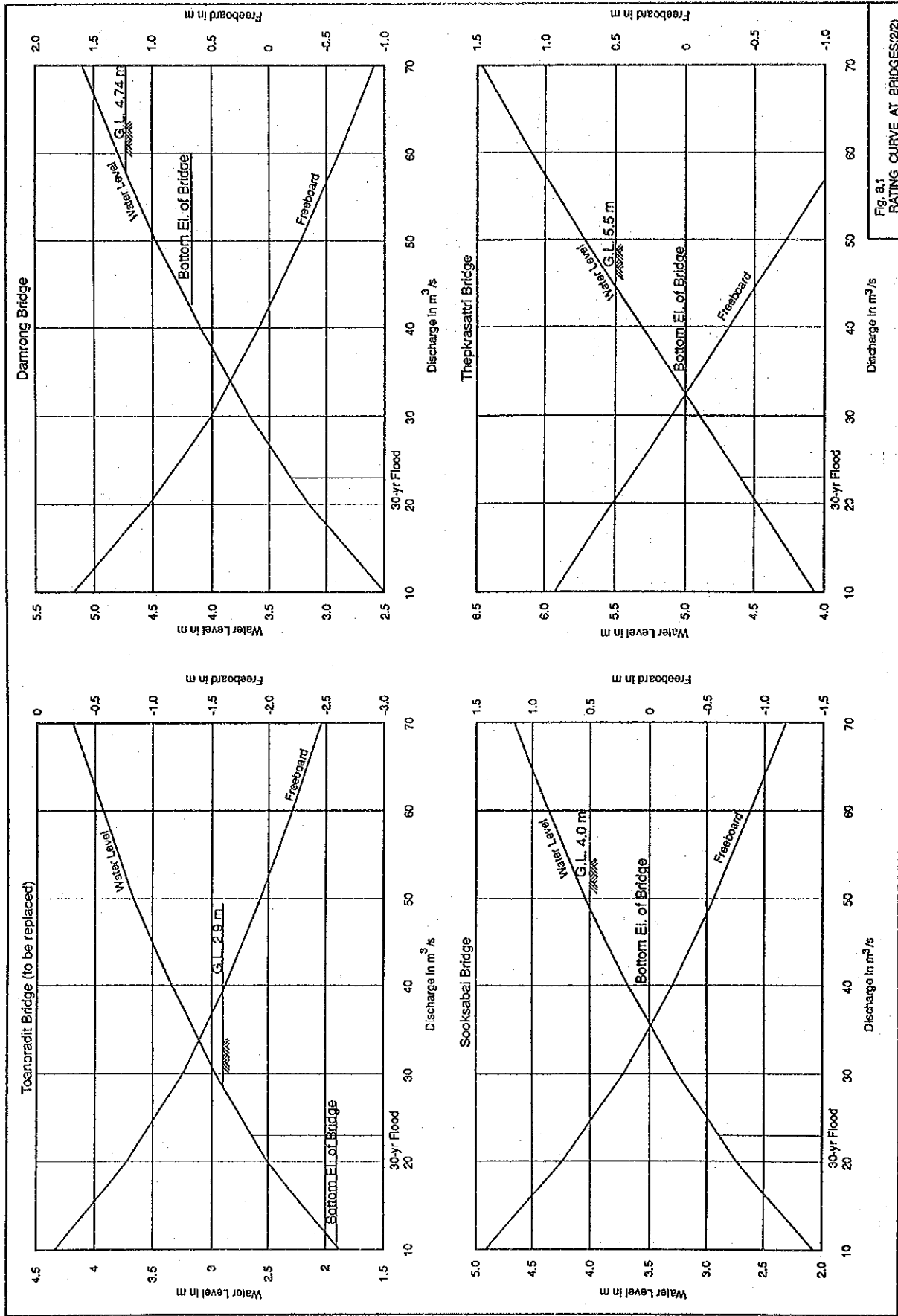


Fig. 8.1
RATING CURVE AT BRIDGES(22)

PREFACE

In response to a request from the Government of the Kingdom of Thailand, the Japanese Government decided to conduct a study on the Sewerage and Drainage Improvement Project for Phuket Municipality and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA sent to Thailand a survey team headed by Mr. Kenji Hori, Nippon Jogesuido Sekkei Co., Ltd. composed of members from the above company and Nippon Koei Co., Ltd. from July to October, 1989 and from January to February, 1990.

The team held discussions with concerned officials of the Government of Thailand, and conducted field surveys. After the team returned to Japan, further studies were made and the present report was prepared.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Kingdom of Thailand for their close cooperation extended to the team.

August, 1990



Kensuke Yanagiya
President

Japan International Cooperation Agency

JICA