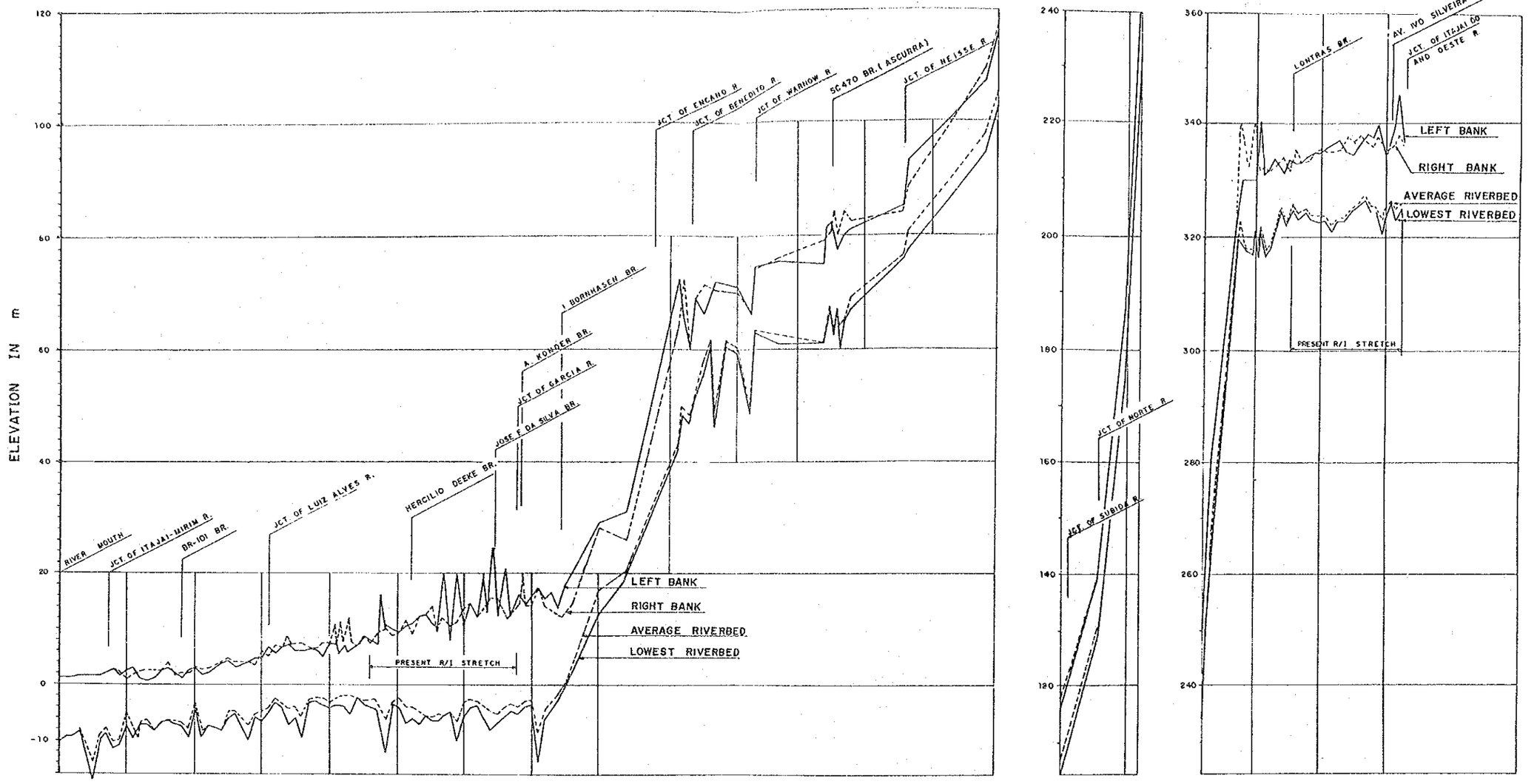
Longitudinal Profile of Itajai River



River Width

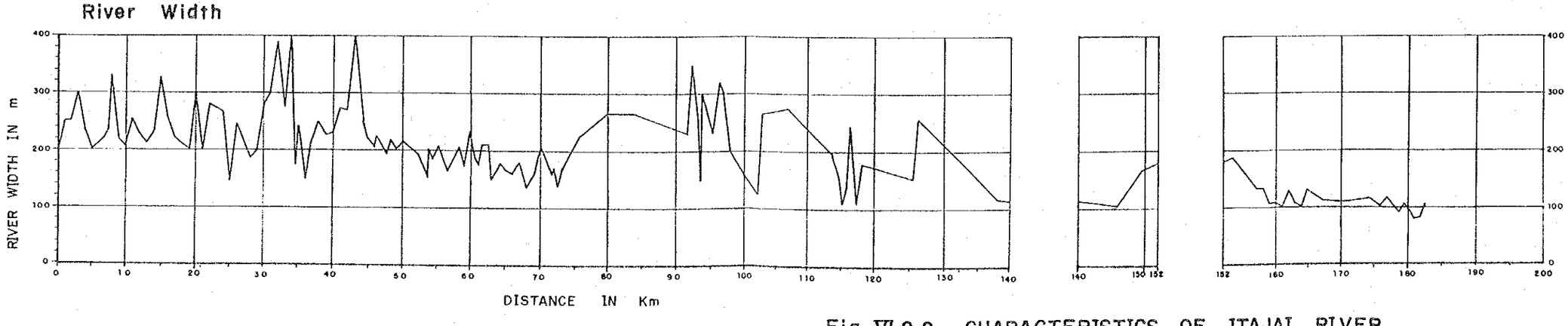


Fig. VI.2.2 CHARACTERISTICS OF ITAJAI RIVER

Longitudinal Profile of Tributaries

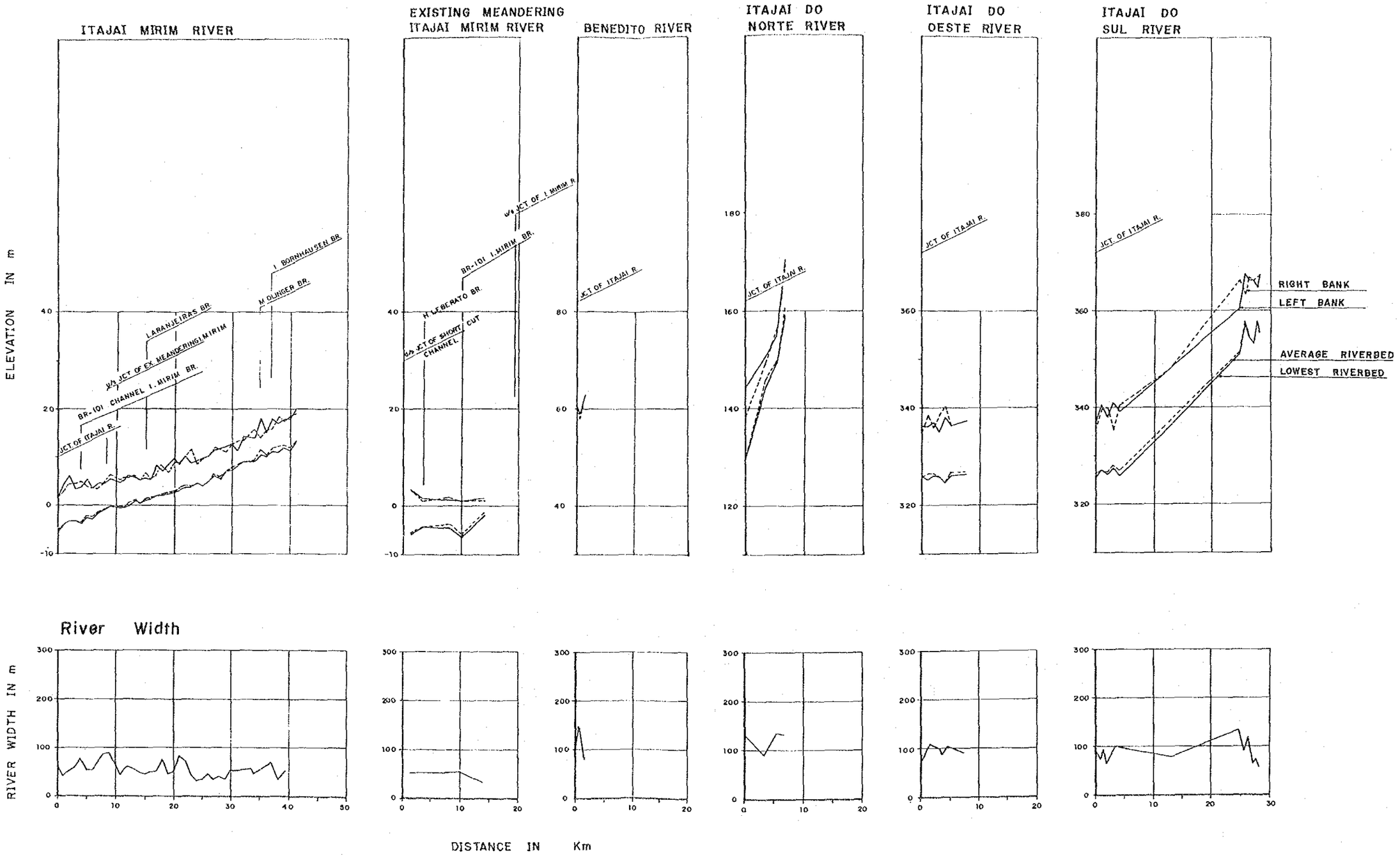


Fig. VI.2.3 CHARACTERISTICS OF TRIBUTARIES

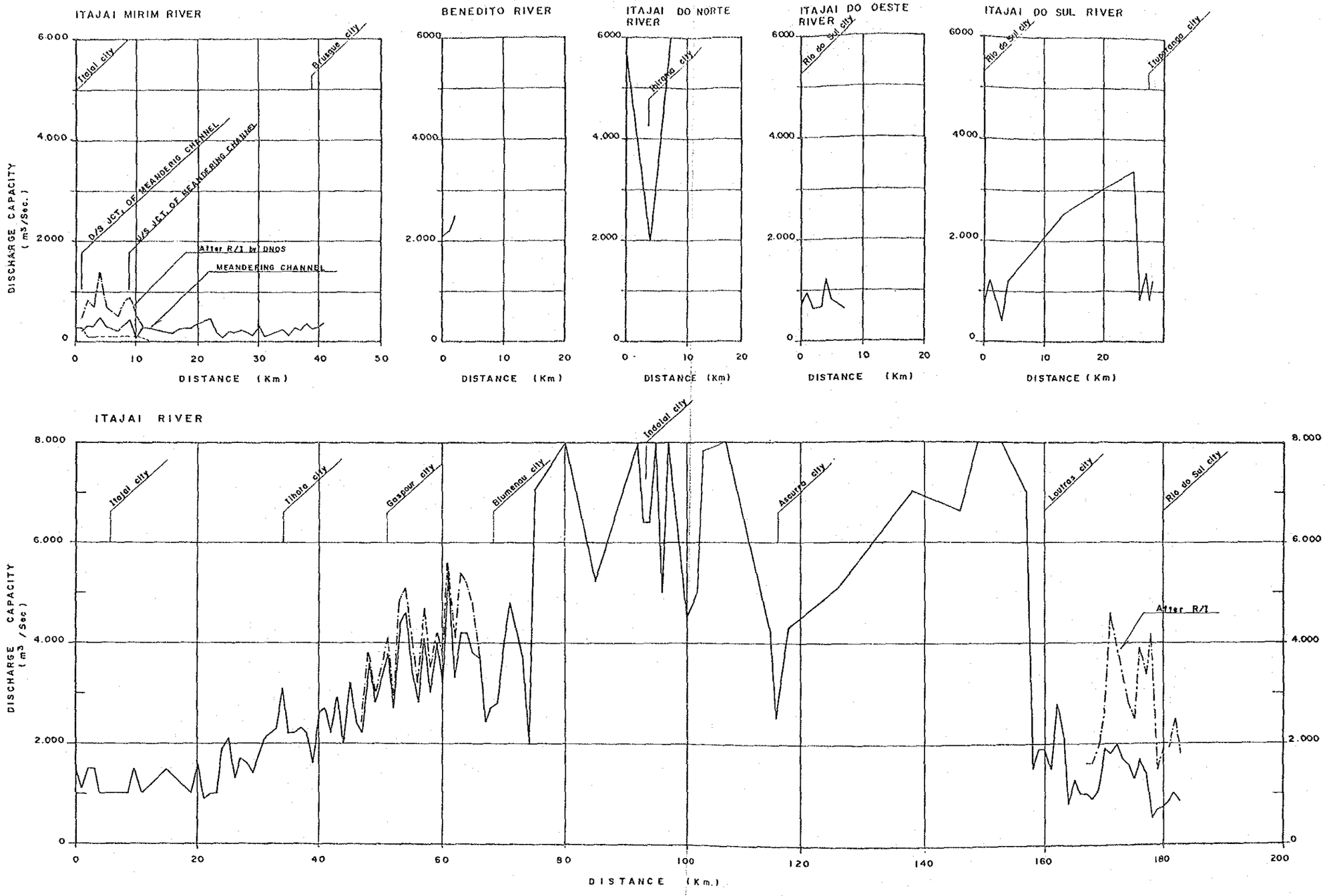


Fig.VI.2.4 DISCHARGE CAPACITY OF ITAJAI RIVER AND MAIN TRIBUTARIES

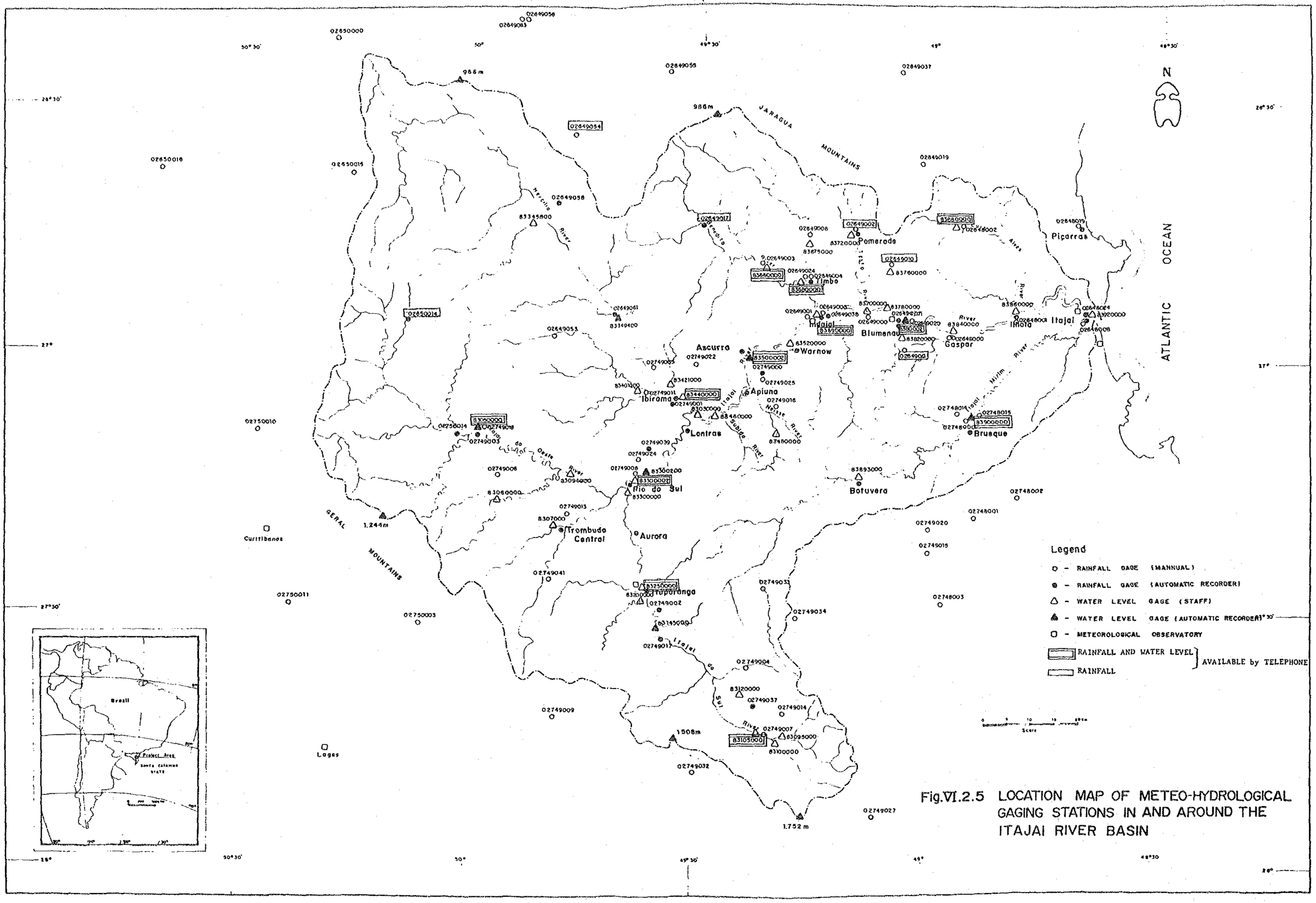
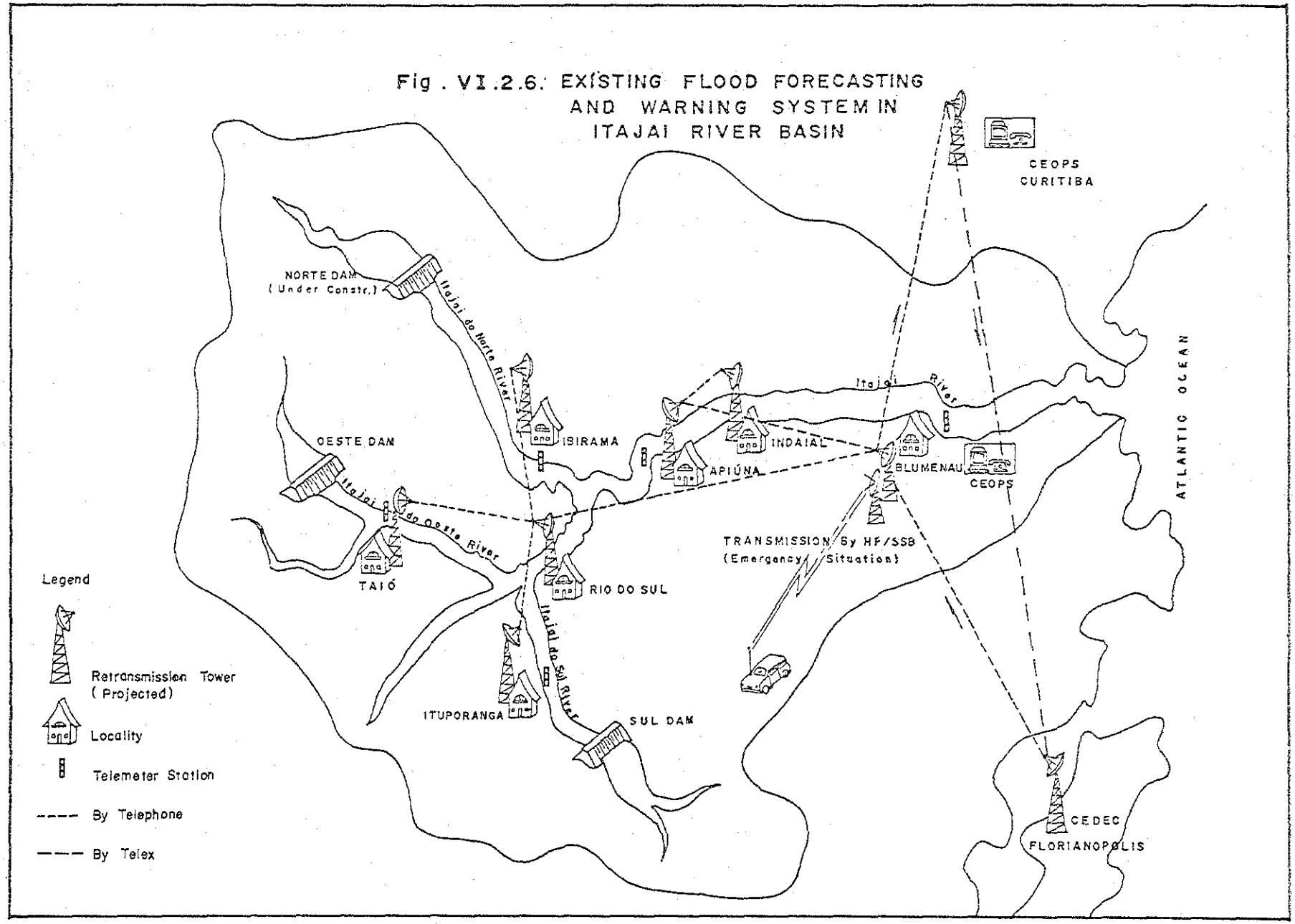


Fig.VI.2.5 LOCATION MAP OF METEO-HYDROLOGICAL GAGING STATIONS IN AND AROUND THE ITAJAI RIVER BASIN

Fig . VI.2.6: EXISTING FLOOD FORECASTING AND WARNING SYSTEM IN ITAJAI RIVER BASIN



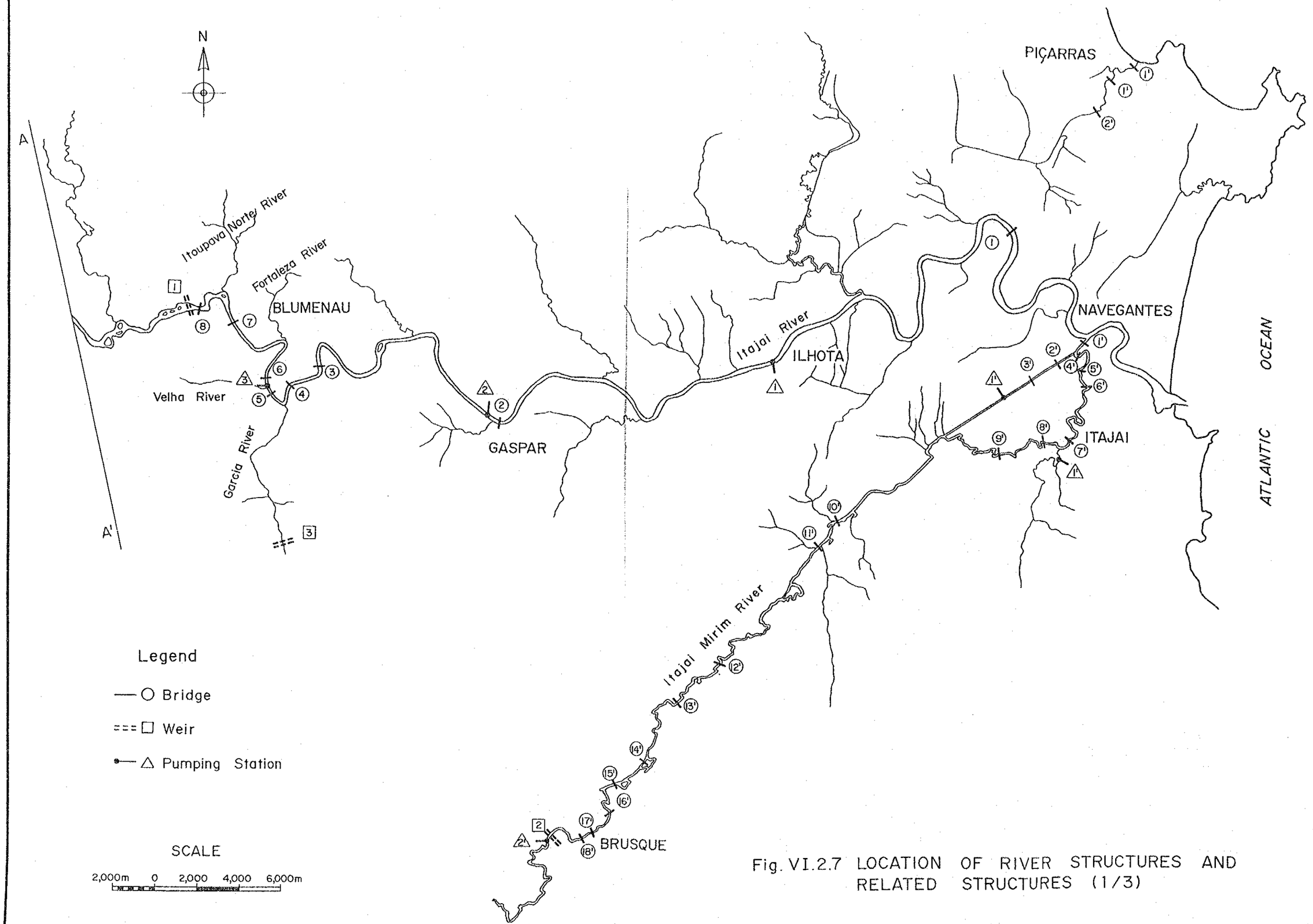


Fig. VI.2.7 LOCATION OF RIVER STRUCTURES AND RELATED STRUCTURES (1/3)

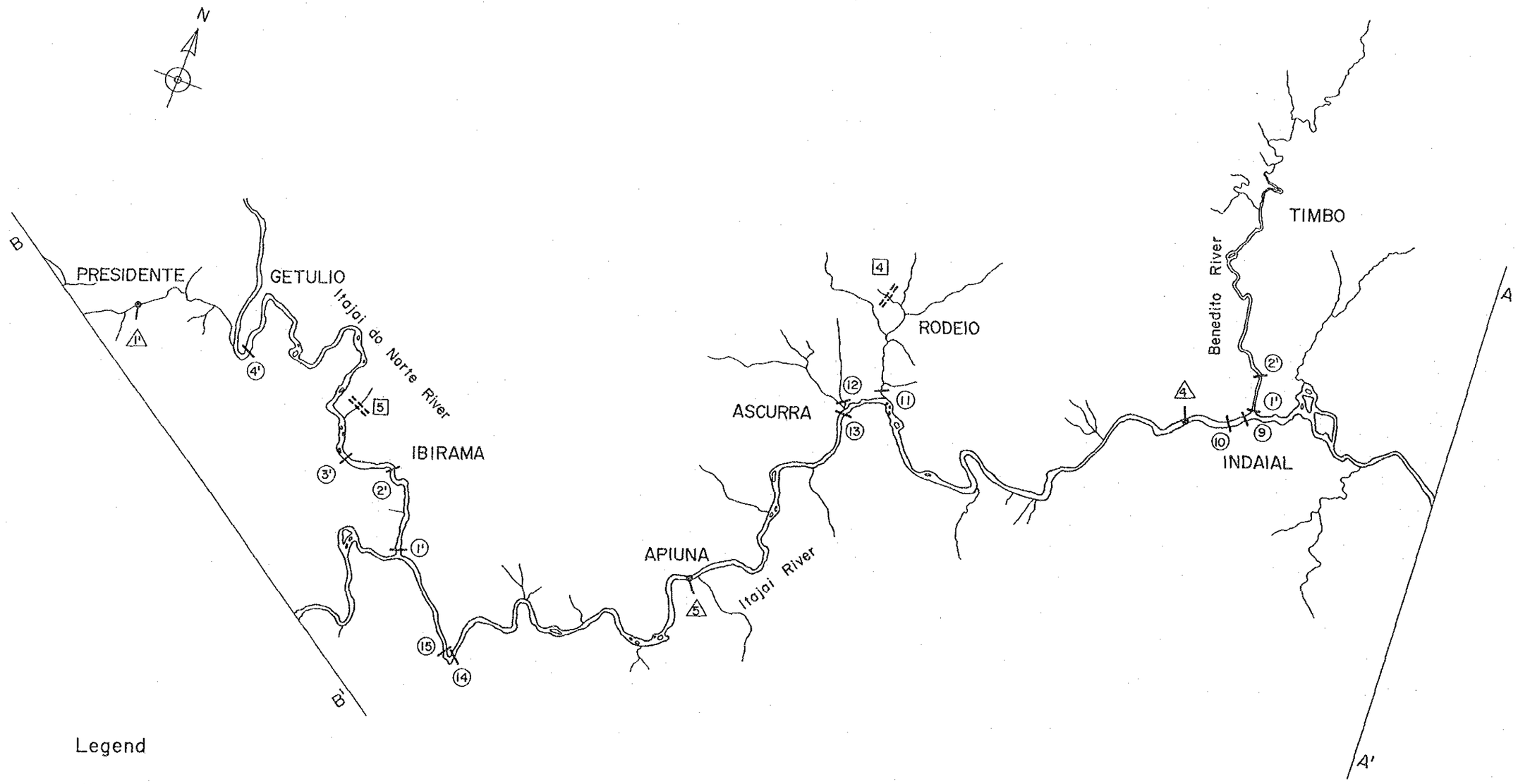


Fig. VI.2.7 LOCATION OF RIVER STRUCTURES AND RELATED STRUCTURES (2/3)

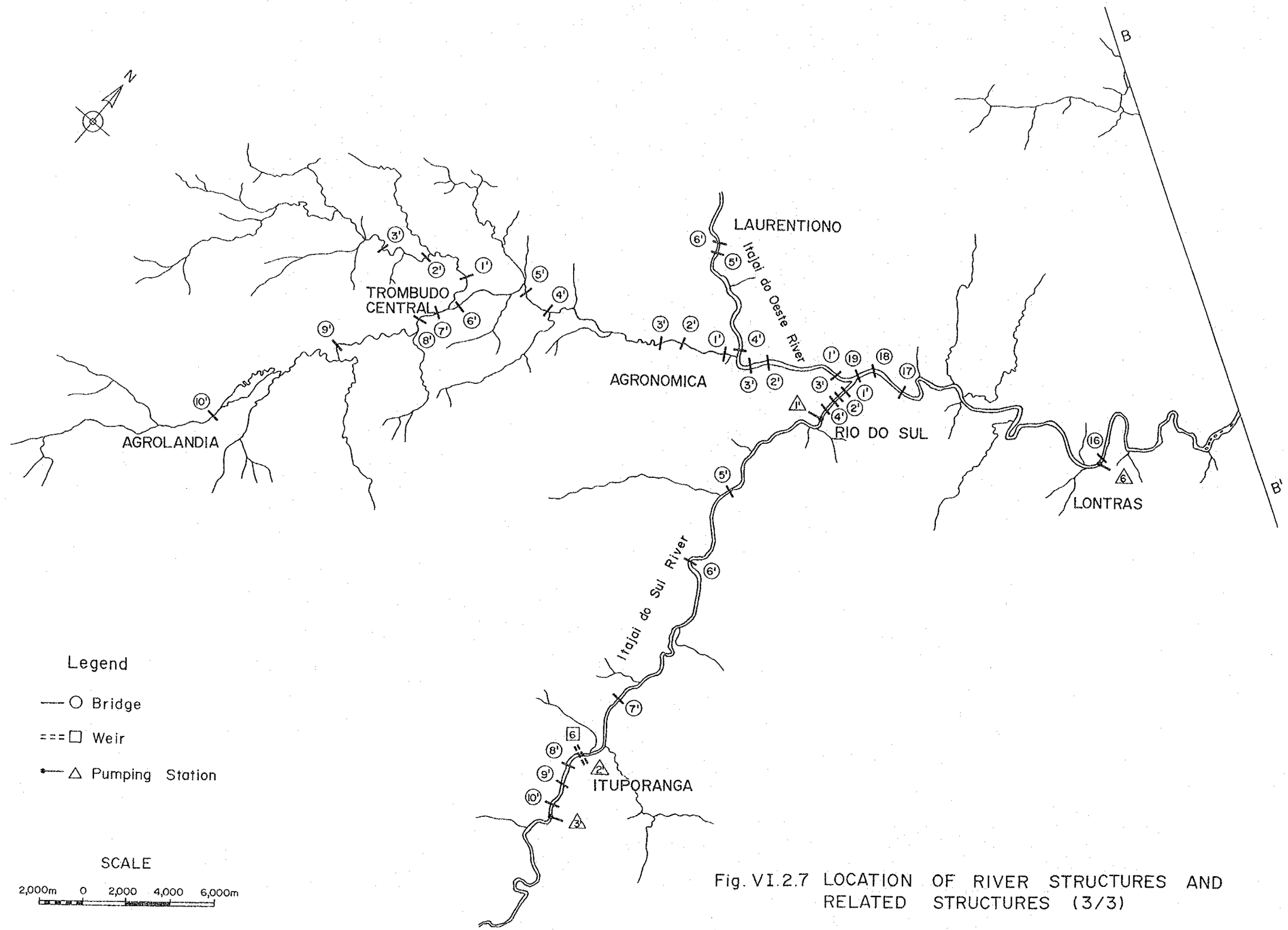


Fig. VI.2.7 LOCATION OF RIVER STRUCTURES AND RELATED STRUCTURES (3/3)

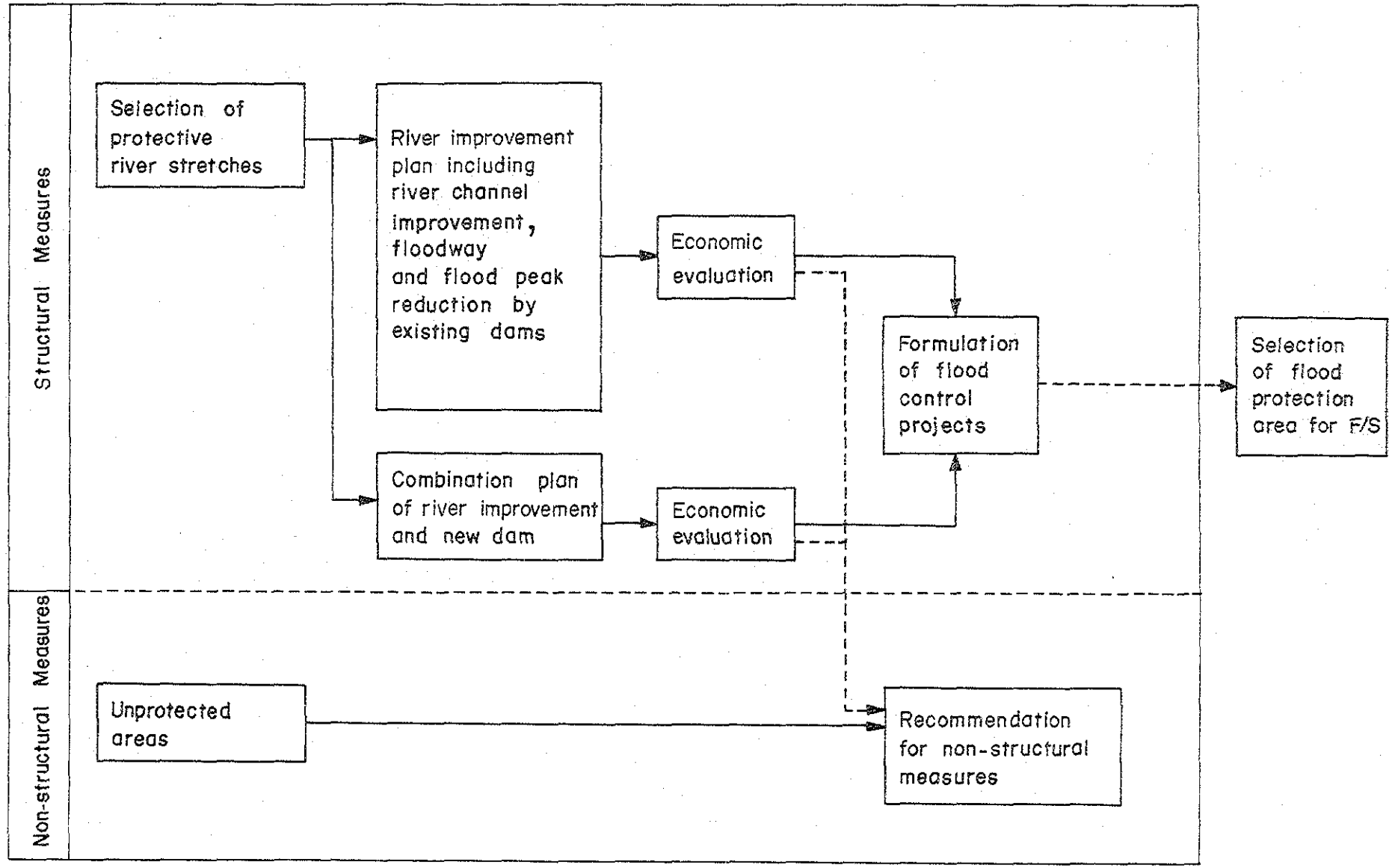


Fig. VI .3.1 DIAGRAM FOR FORMULATION OF MASTER PLAN

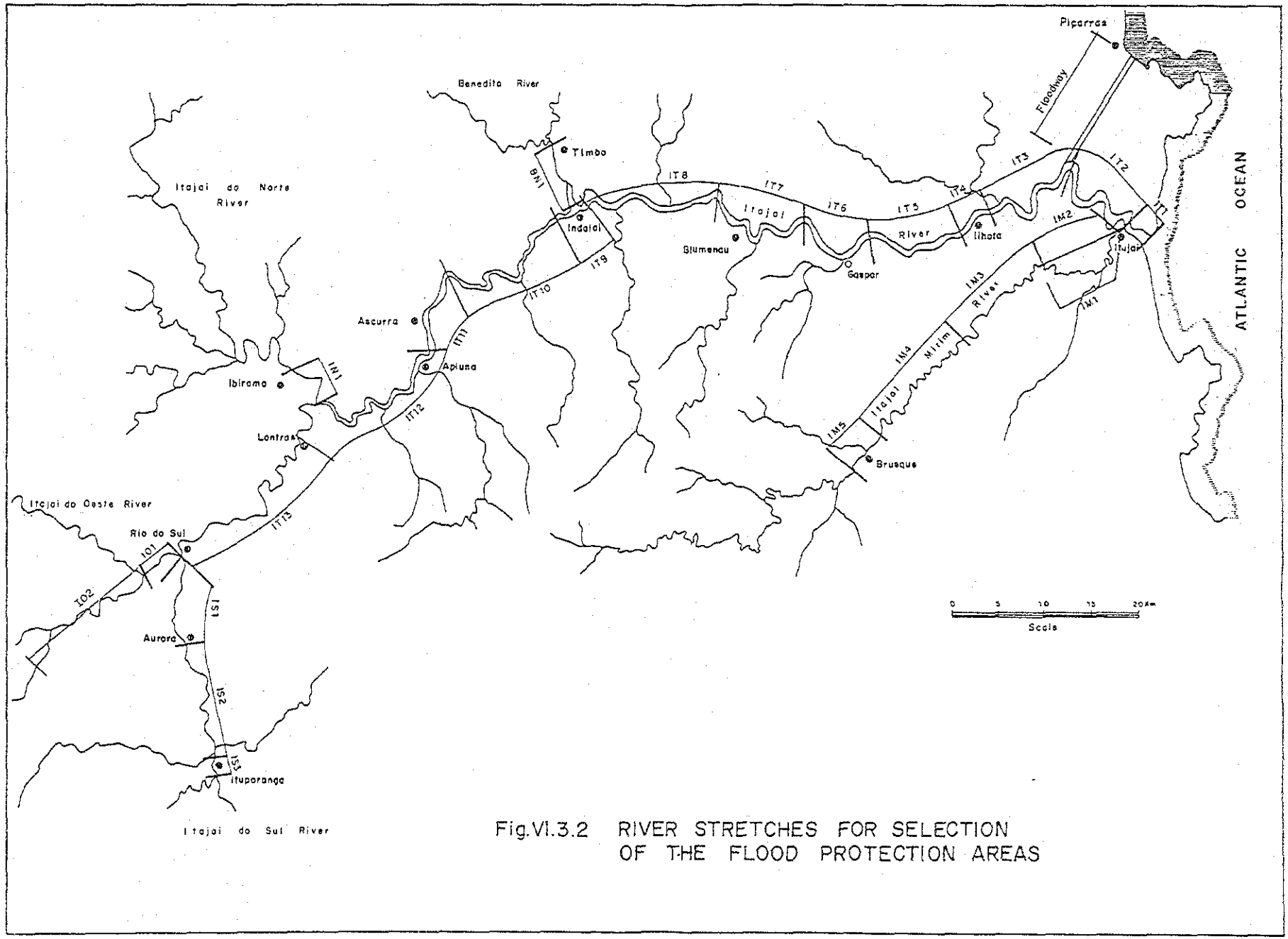


Fig.VI.3.2 RIVER STRETCHES FOR SELECTION OF THE FLOOD PROTECTION AREAS

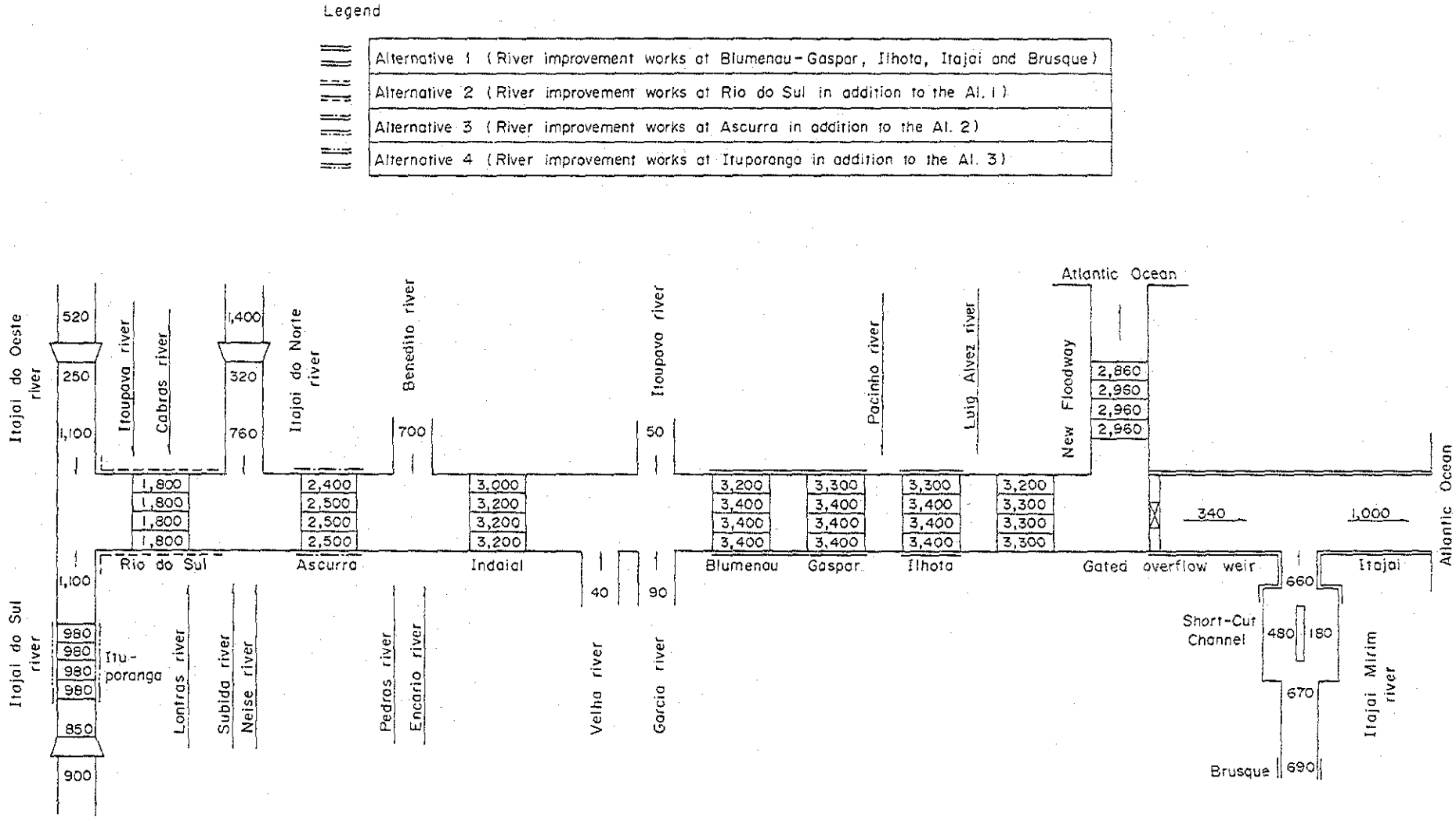


Fig. VI.4.1 10-YEAR PROBABLE FLOOD PEAK DISCHARGES FOR RIVER IMPROVEMENT SCHEMES

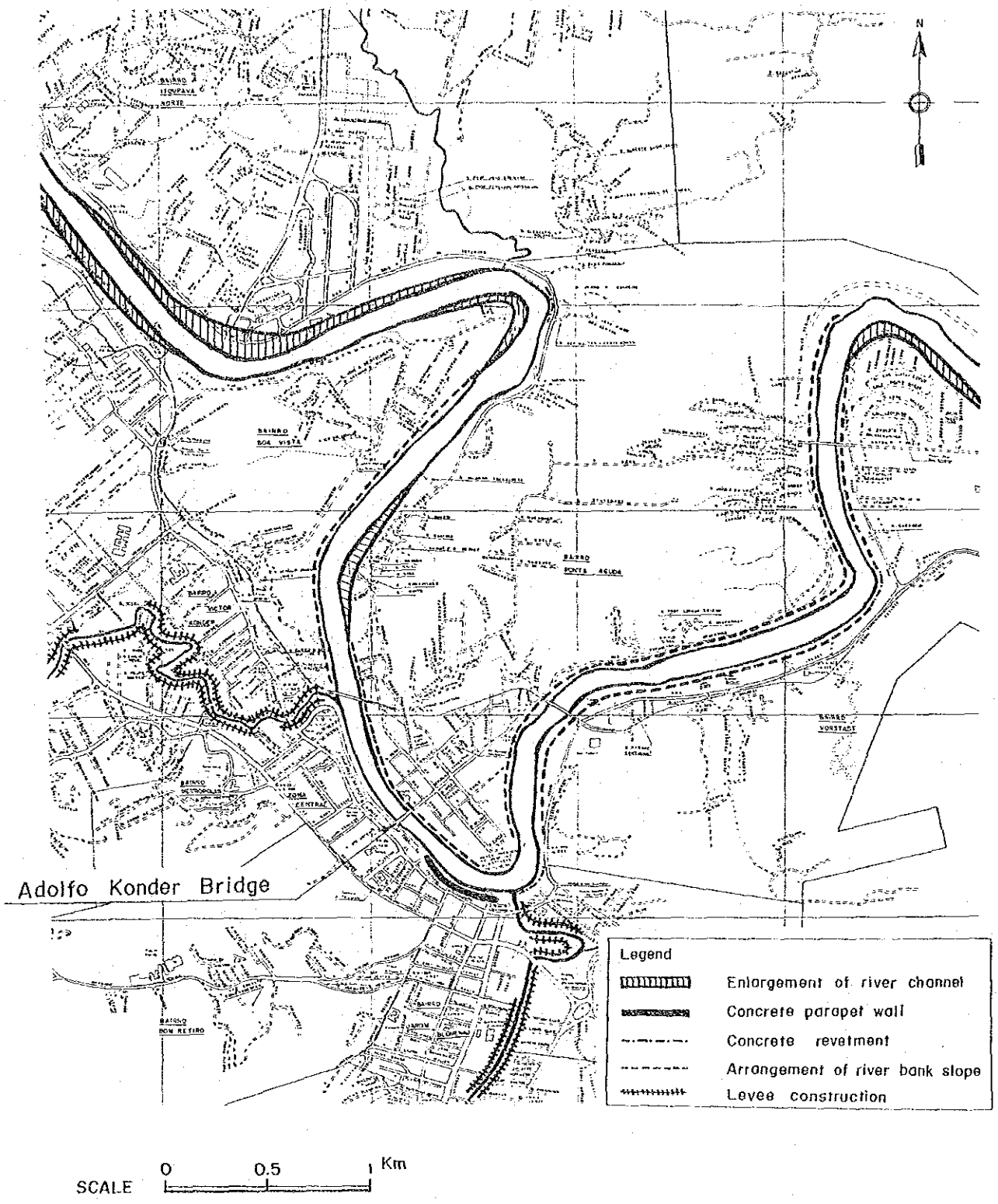
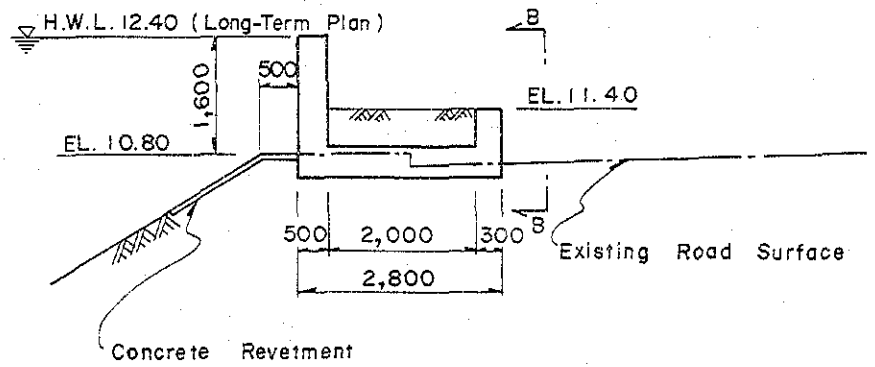
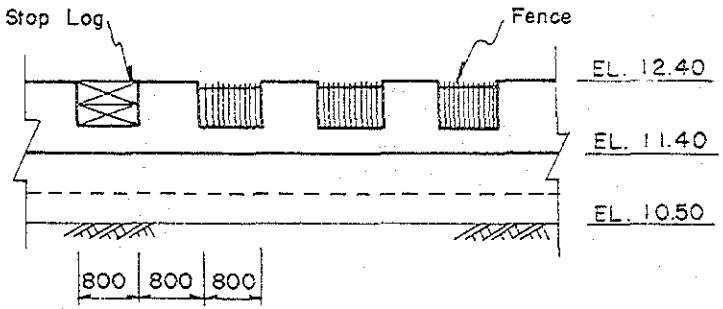


Fig.VI.4.2 RIVER IMPROVEMENT PLAN IN BLUMENAU CITY

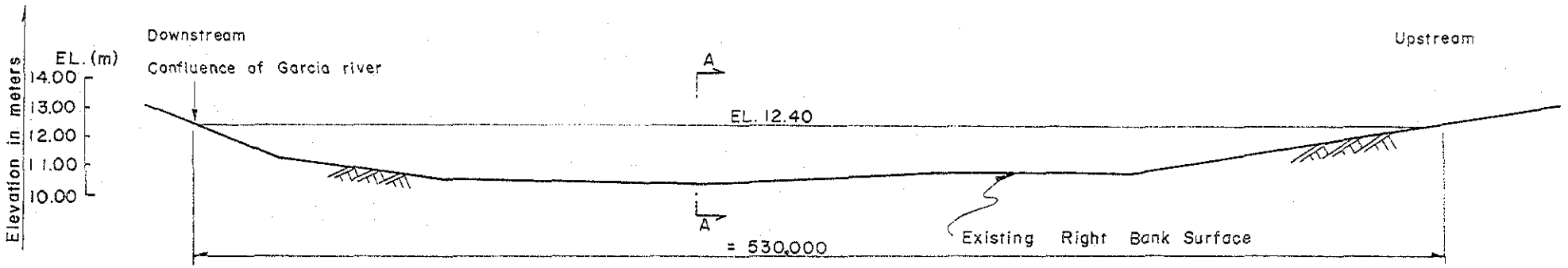


SECTION A-A SCALE A



Note; Stop Logs for closing in flood time.

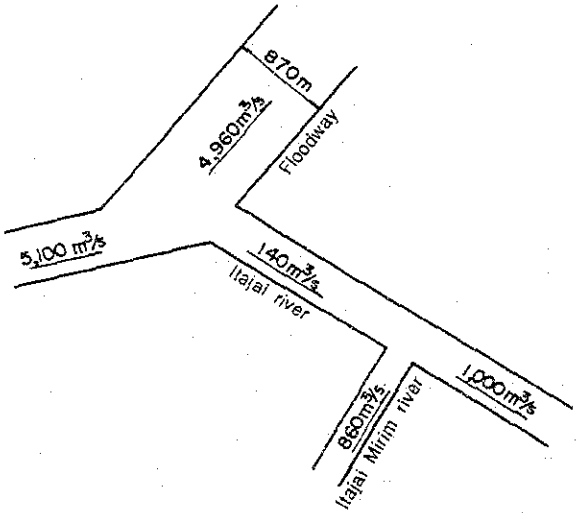
SECTION B-B SCALE B



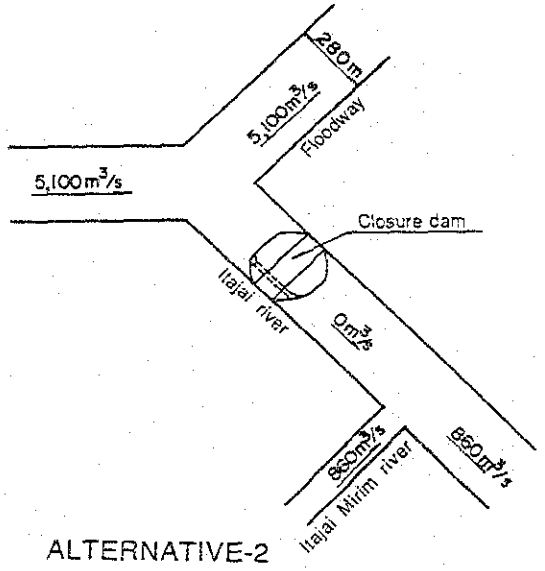
PROFILE SCALE B:H
SCALE C:V

SCALE A 0 1 2 3 m
SCALE B 0 25 50 75
SCALE C 0 2 4 6

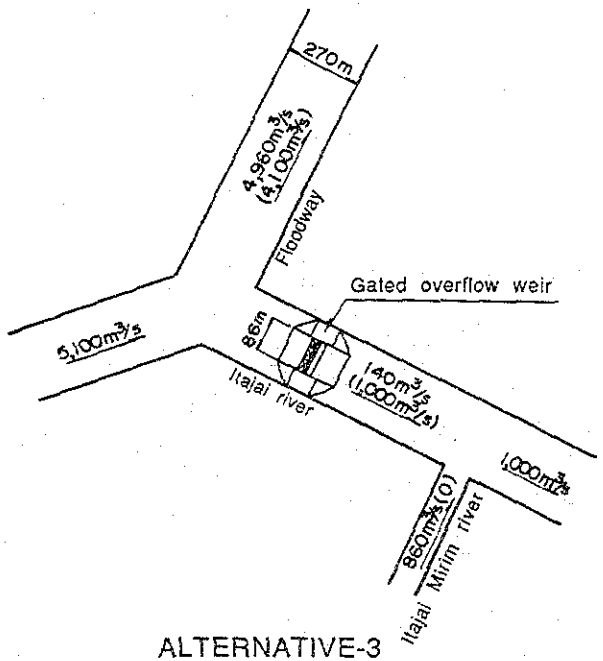
Fig. VI.4.3 CONCRETE PARAPET WALL IN BLUMENAU CITY



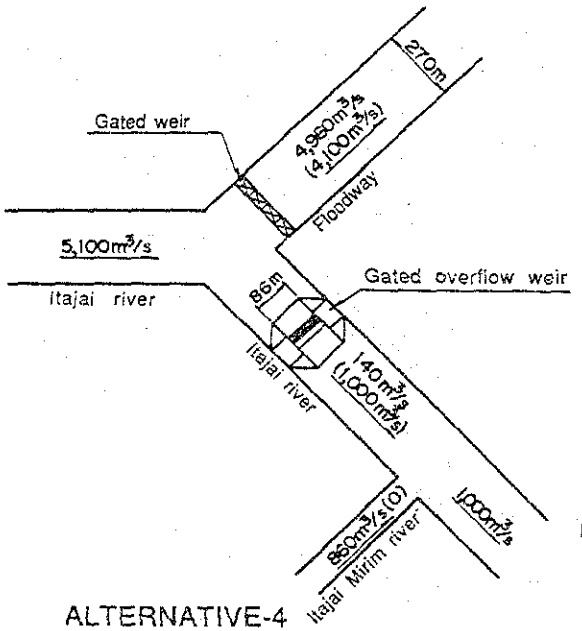
ALTERNATIVE-1



ALTERNATIVE-2



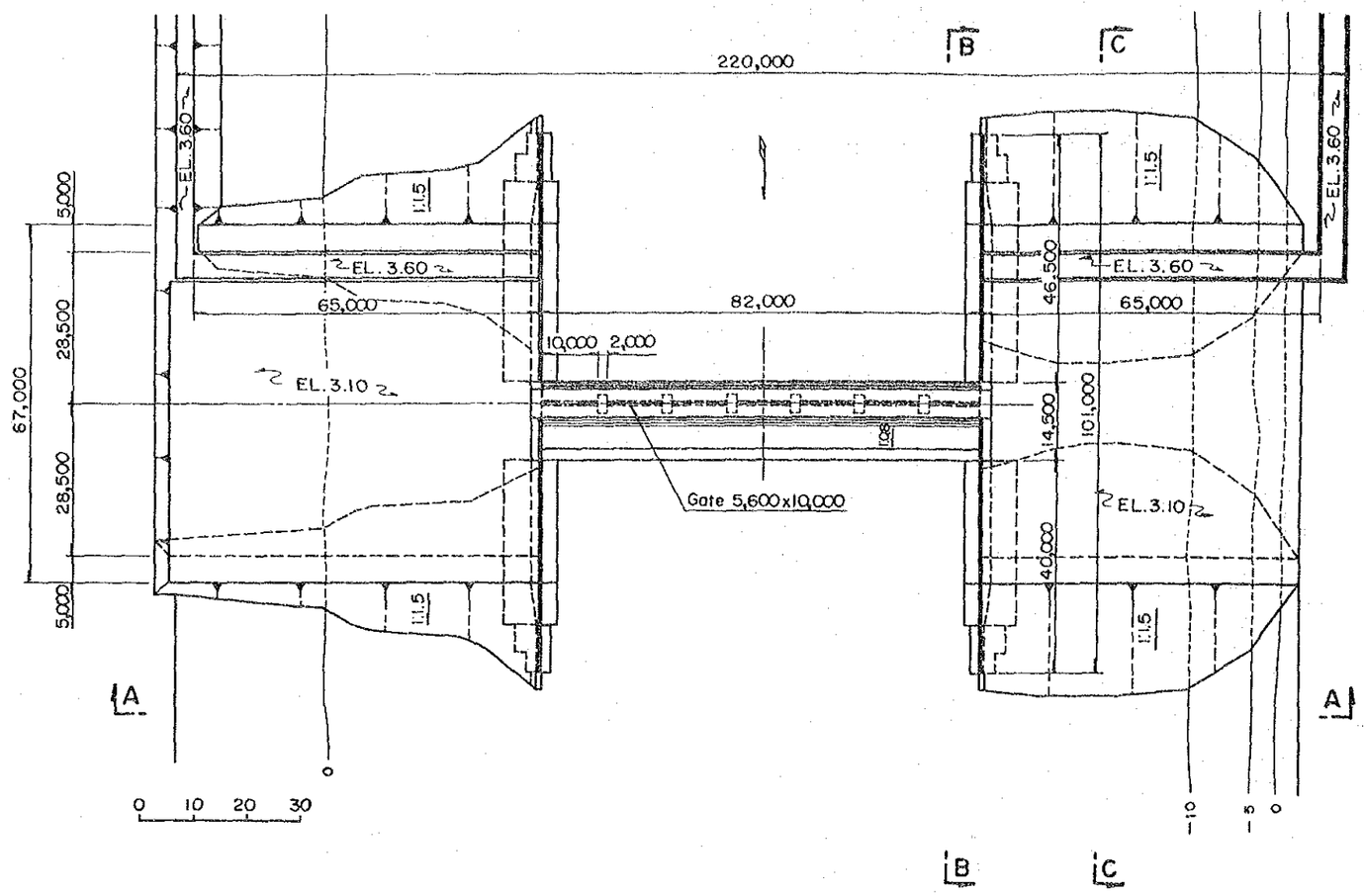
ALTERNATIVE-3

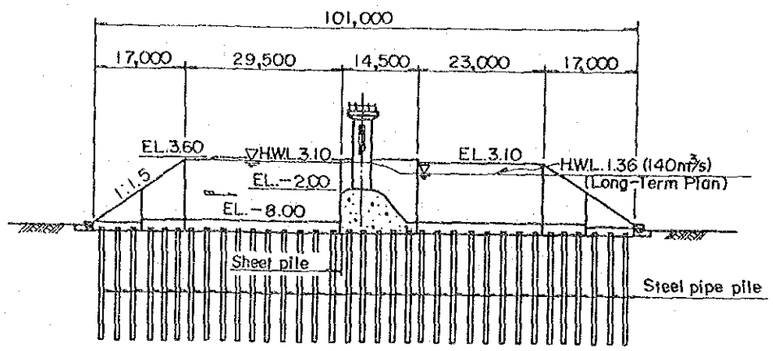


ALTERNATIVE-4

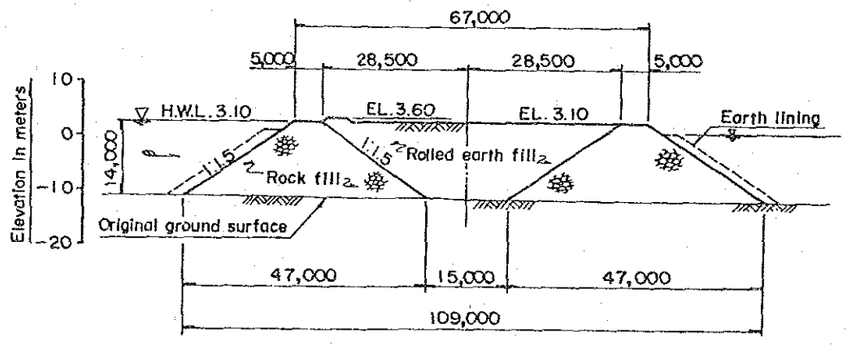
Note; Figure in bracket means the flood discharge in case that the flood from Itajai Mirim river become zero.

Fig.VI.4.4 ALTERNATIVE PLANS FOR FLOODWAY

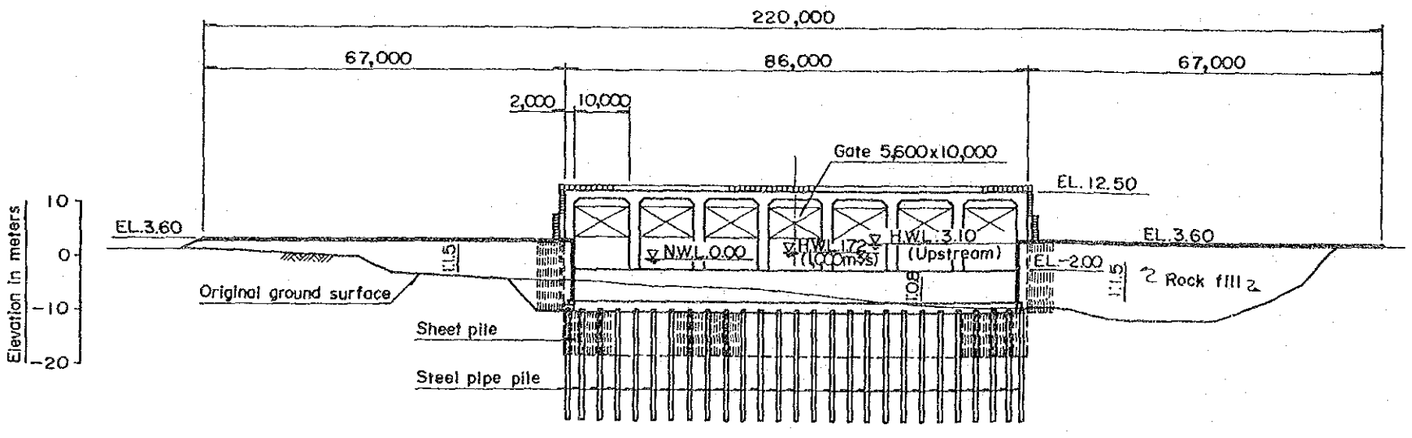




B — B



C — C



A — A

Fig.VI.4.5 GATED OVERFLOW WEIR

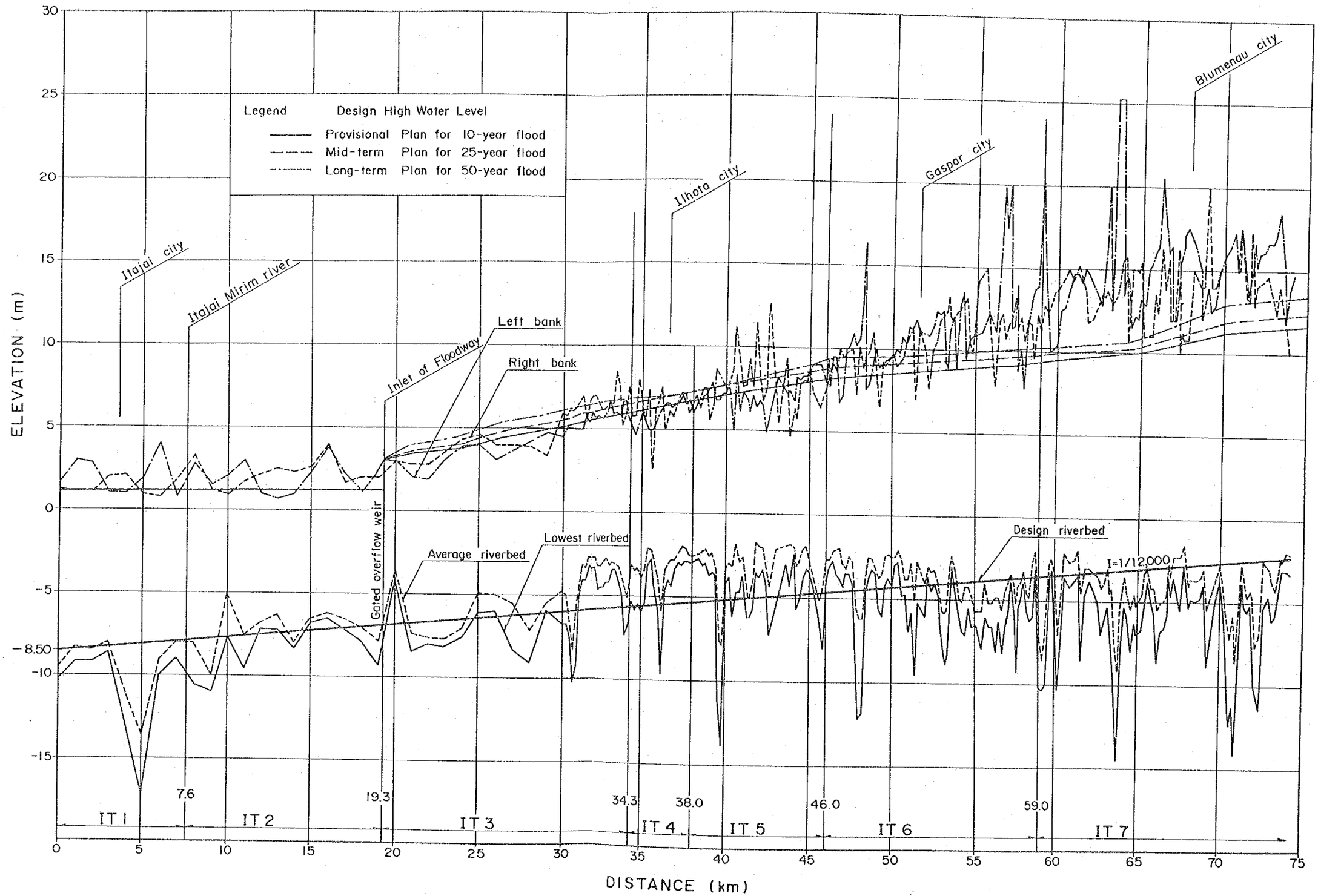


Fig.VI.4.6 LONGITUDINAL PROFILE (1/4)

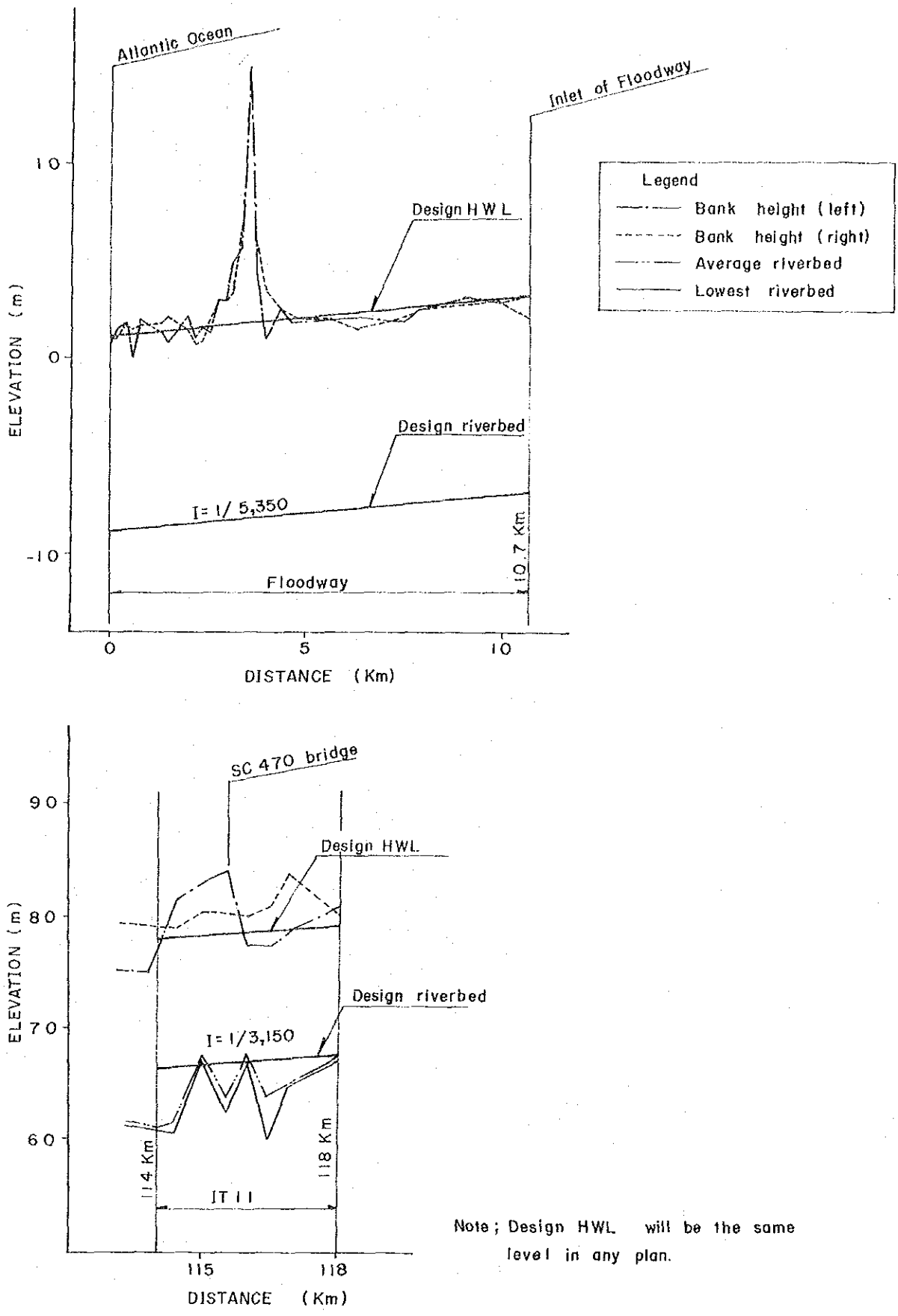


Fig.VI.4.6 LONGITUDINAL PROFILE (2/4)

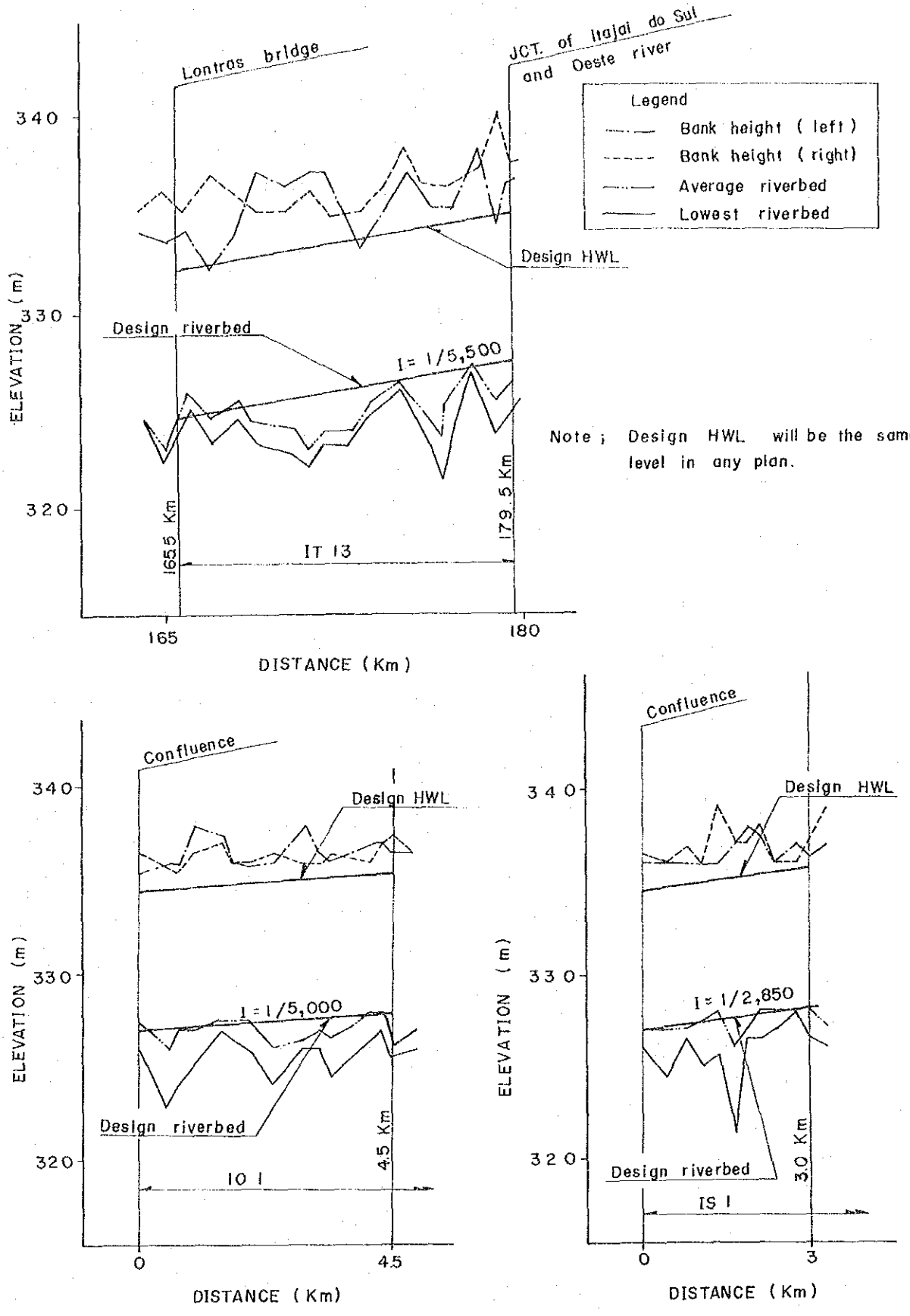


Fig.VI.4.6 LONGITUDINAL PROFILE (3/4)

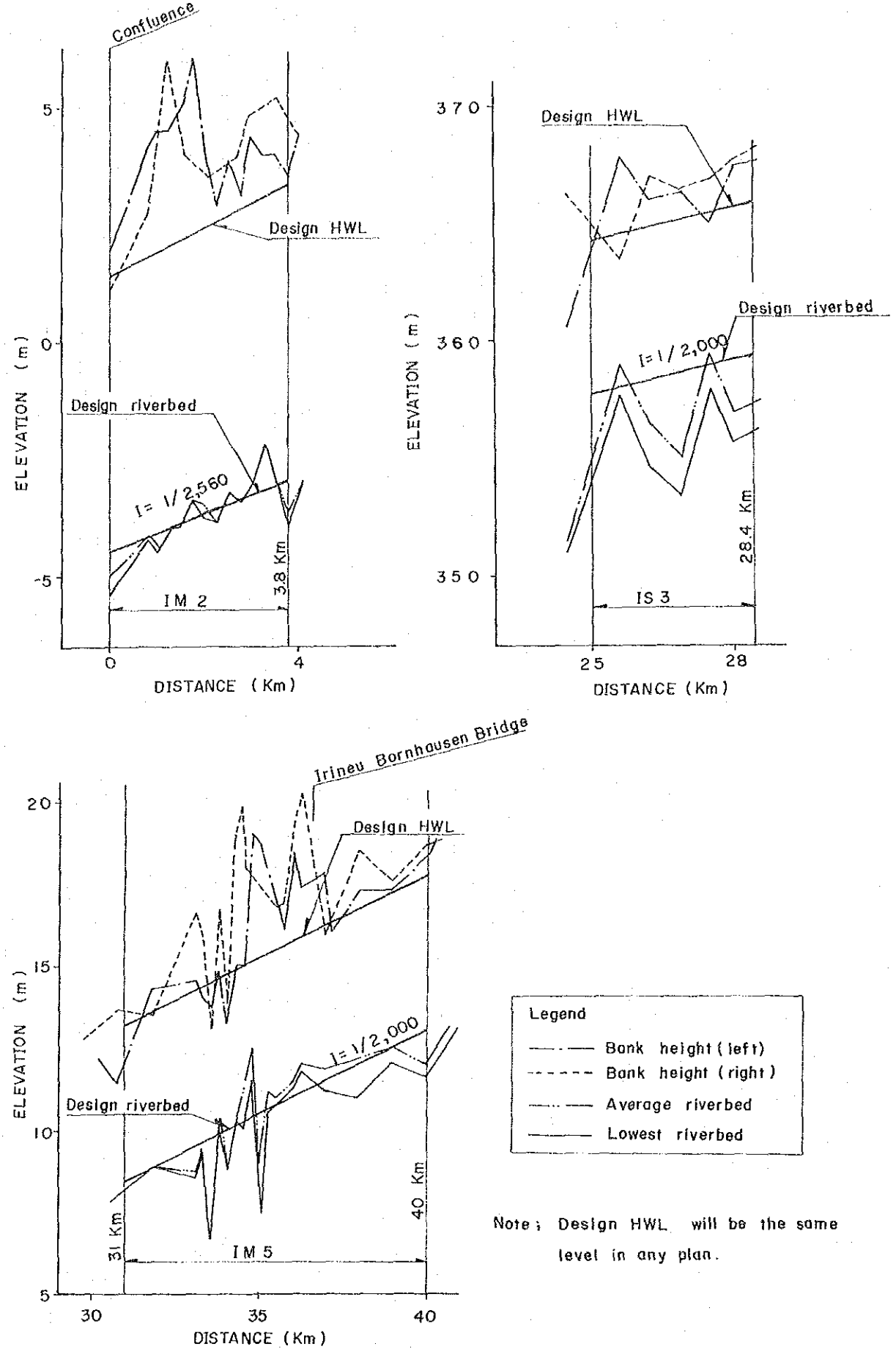


Fig.VI.4.6 LONGITUDINAL PROFILE (4/4)

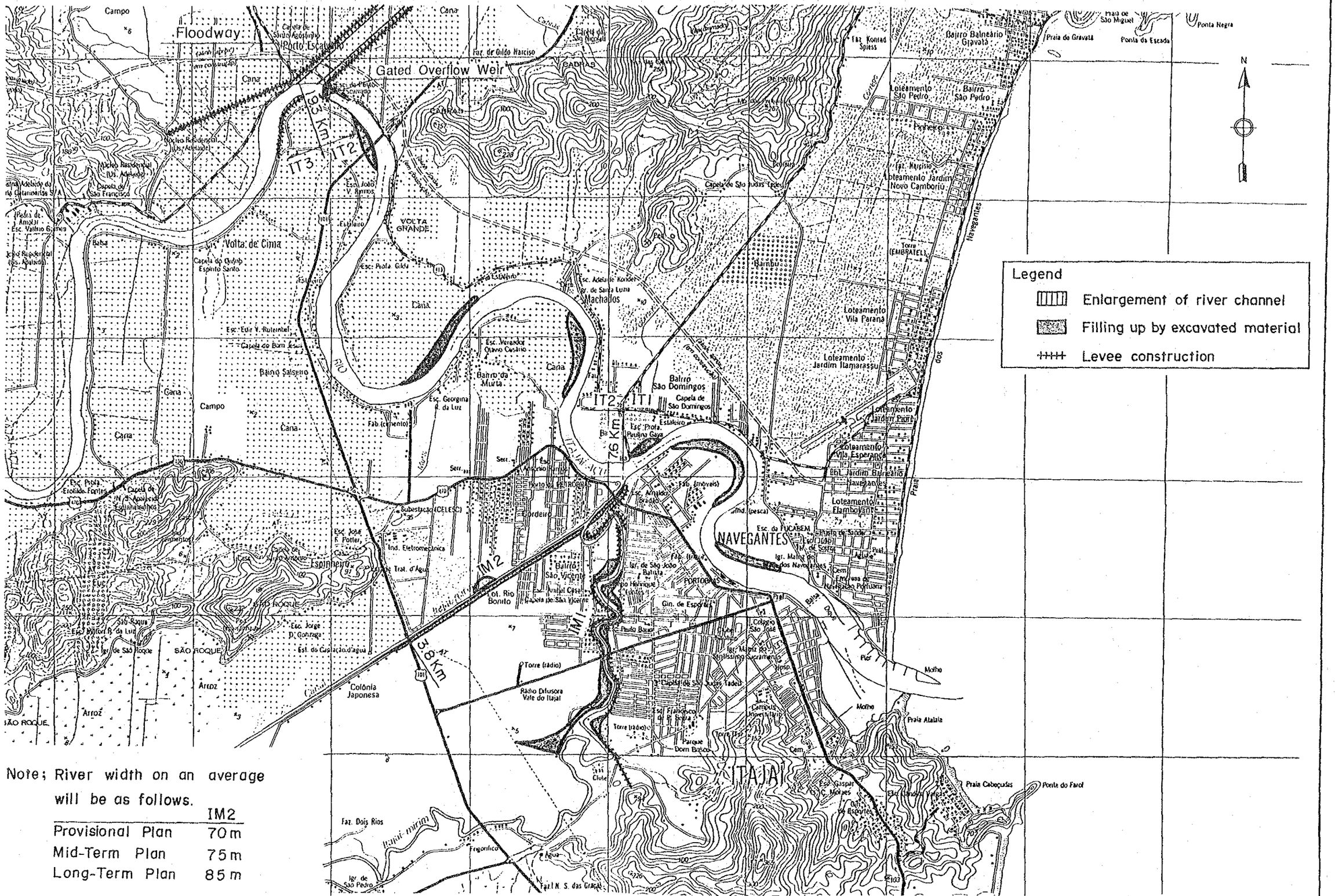


Fig.VI.4.7 RIVER IMPROVEMENT PLAN IN DOWNSTREAM OF ITAJAI AND ITAJAI MIRIM RIVER

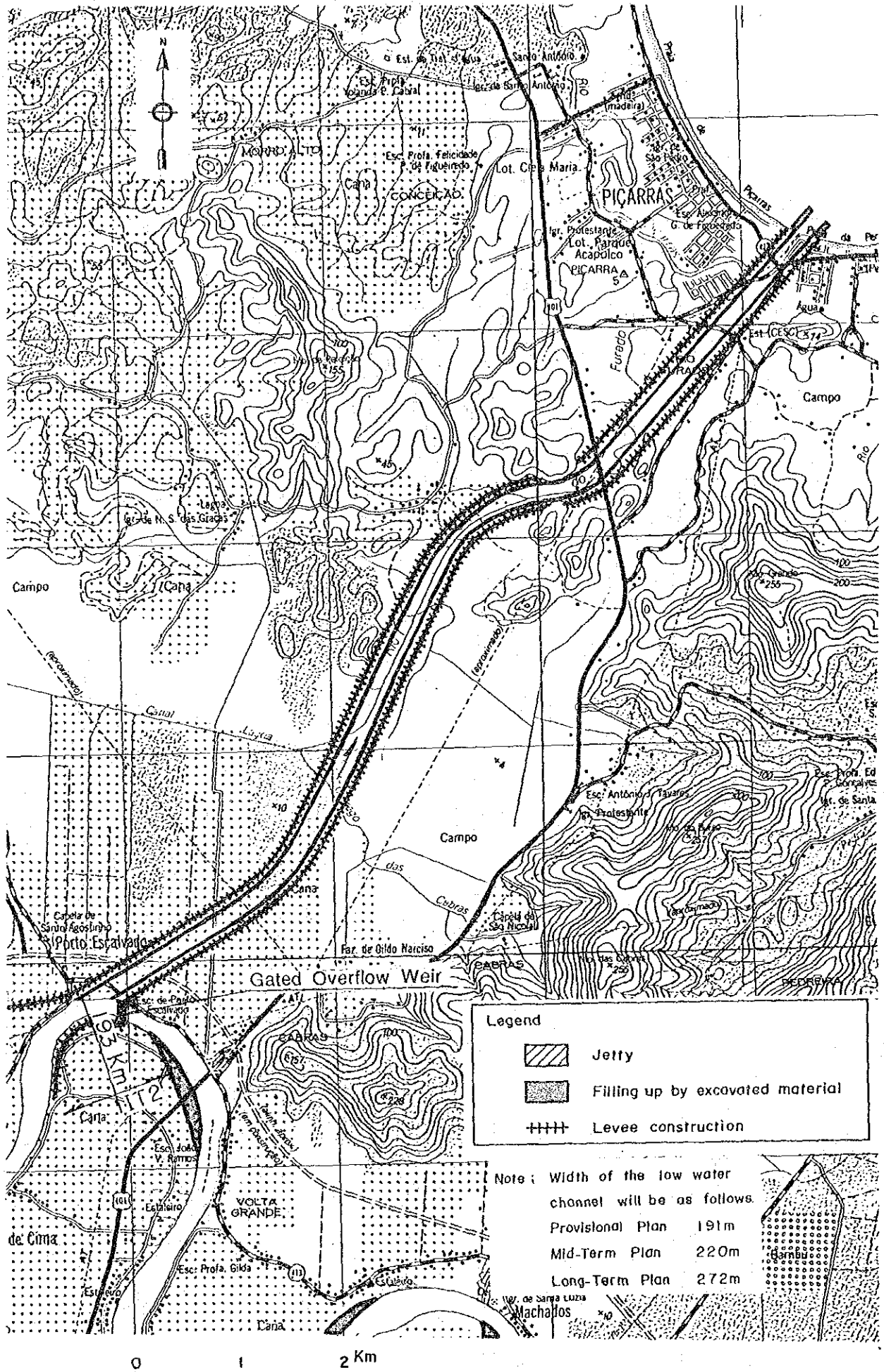


Fig.VI.4.8 ROUTE OF FLOODWAY

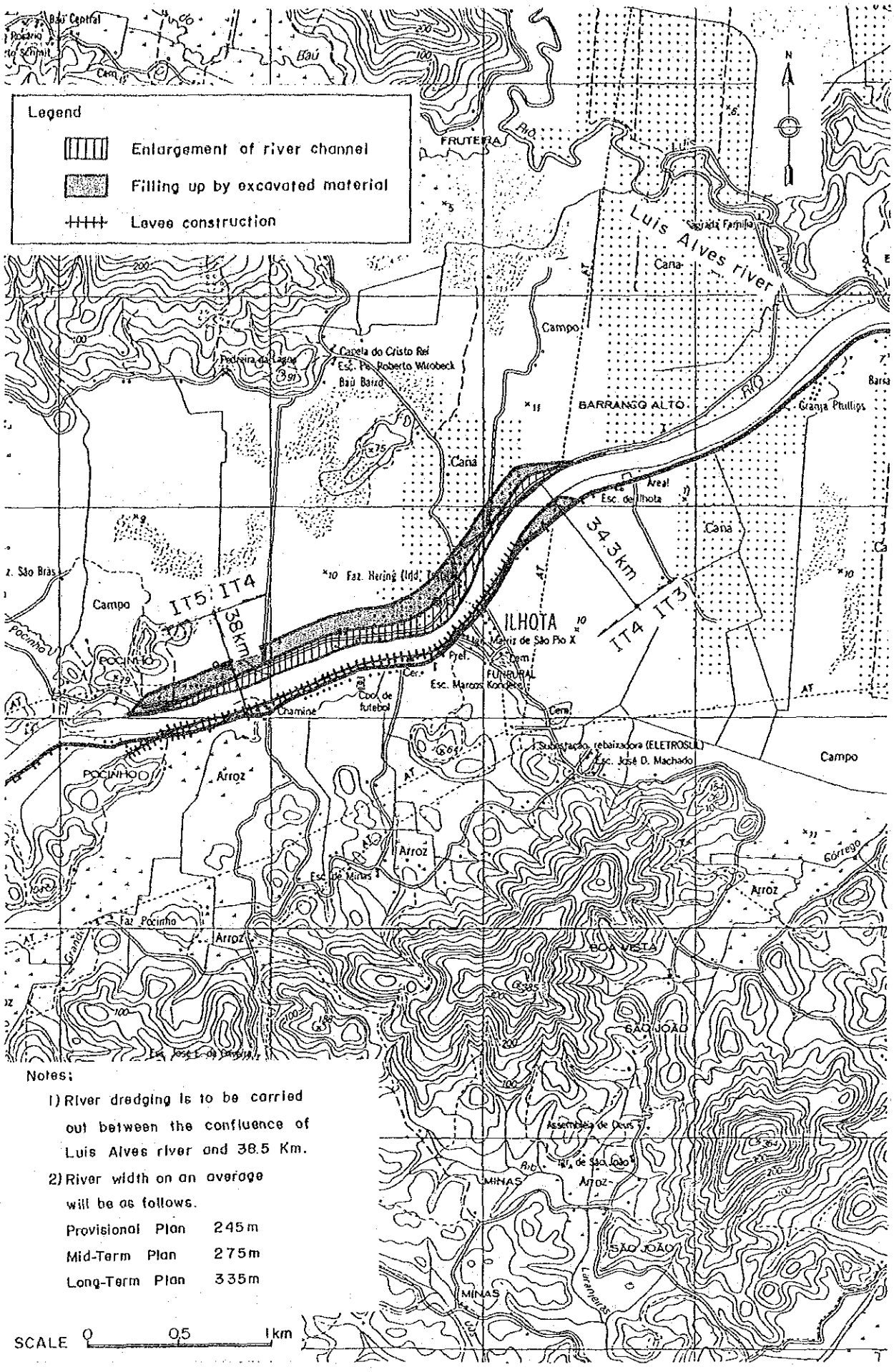


Fig.VI.4.9 RIVER IMPROVEMENT PLAN IN ILHOTA STRETCH

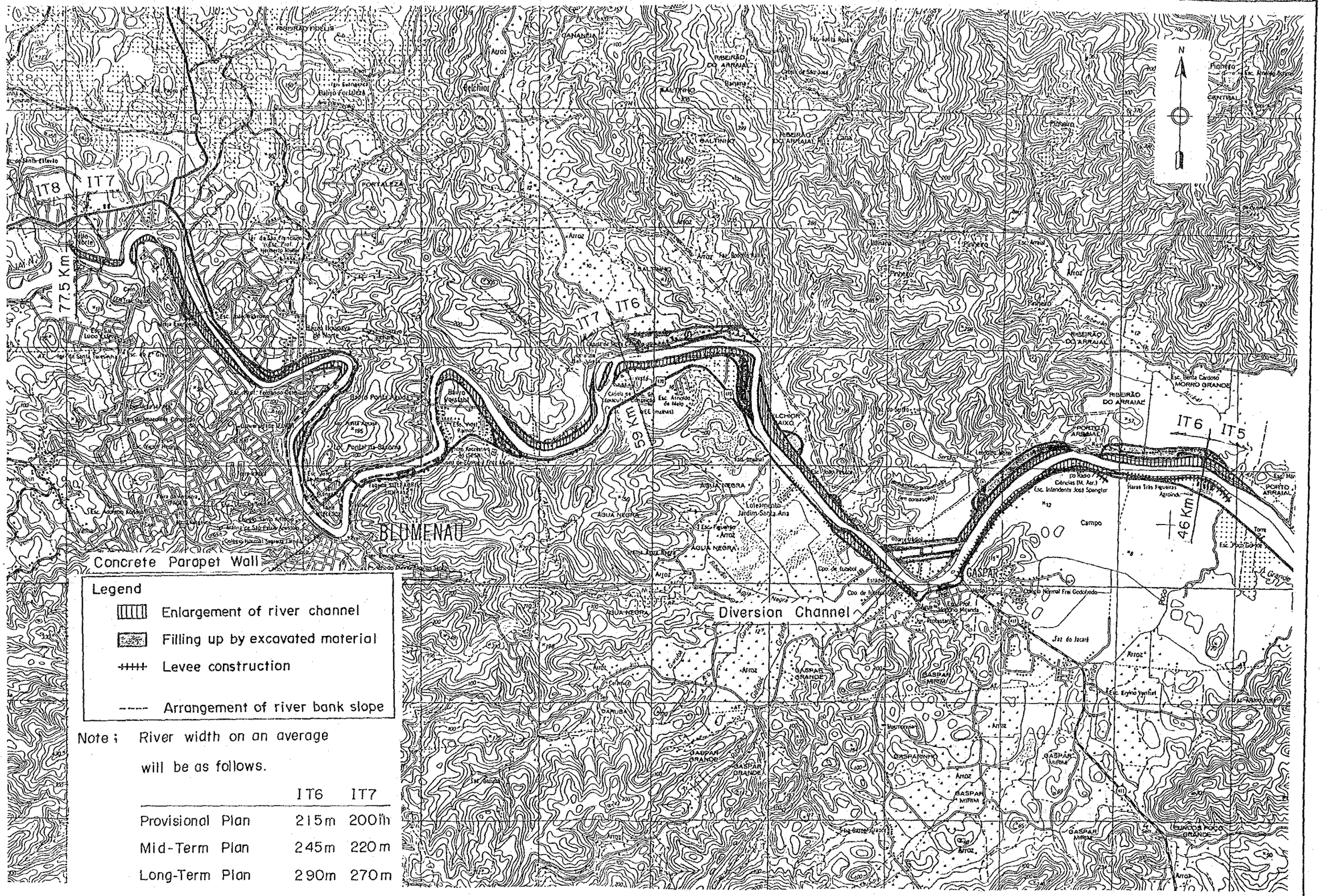


Fig.VI.4.10 RIVER IMPROVEMENT PLAN IN BLUMENAU-GASPAR STRETCH

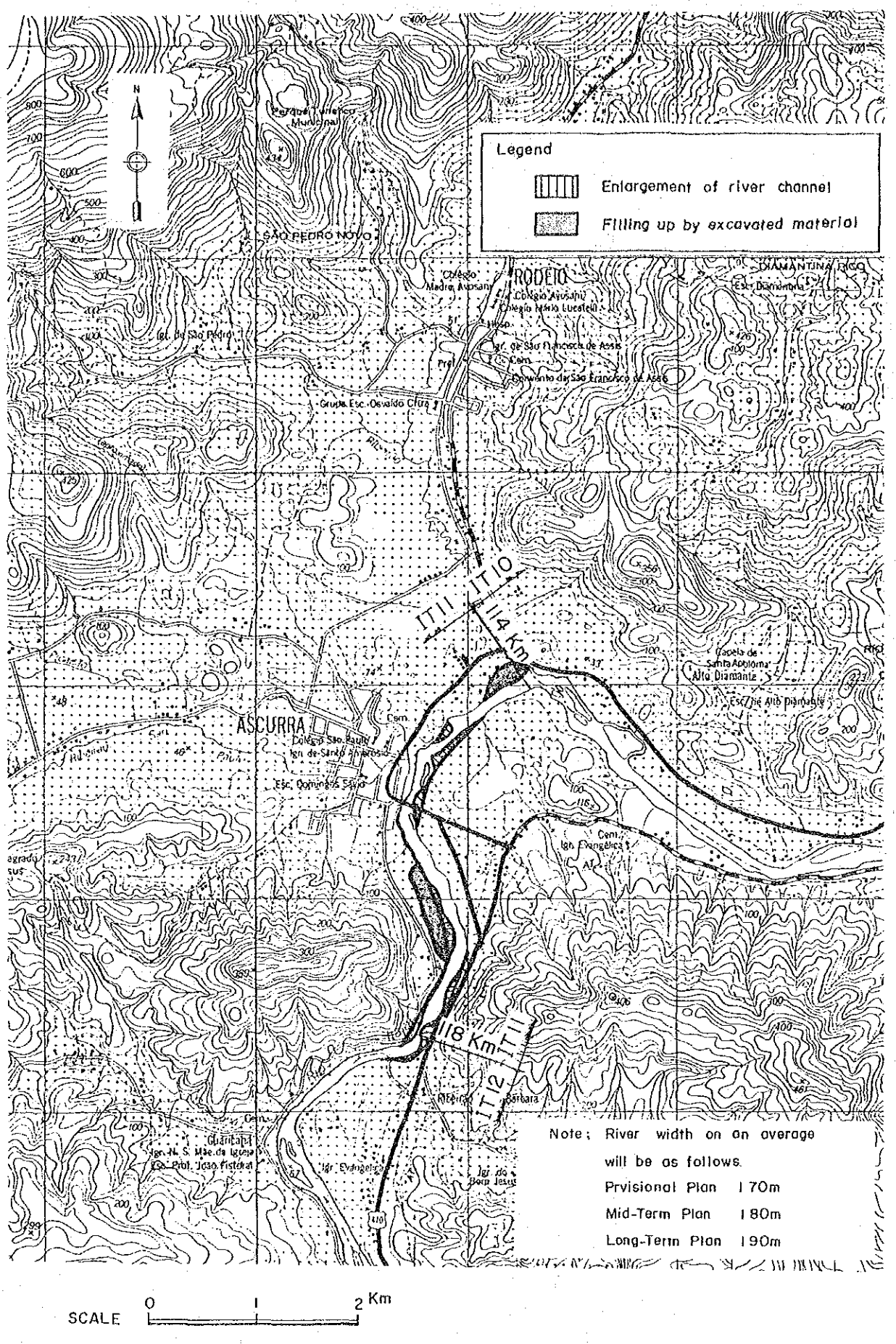


Fig. VI.4.11 RIVER IMPROVEMENT PLAN IN ASCURRA STRETCH

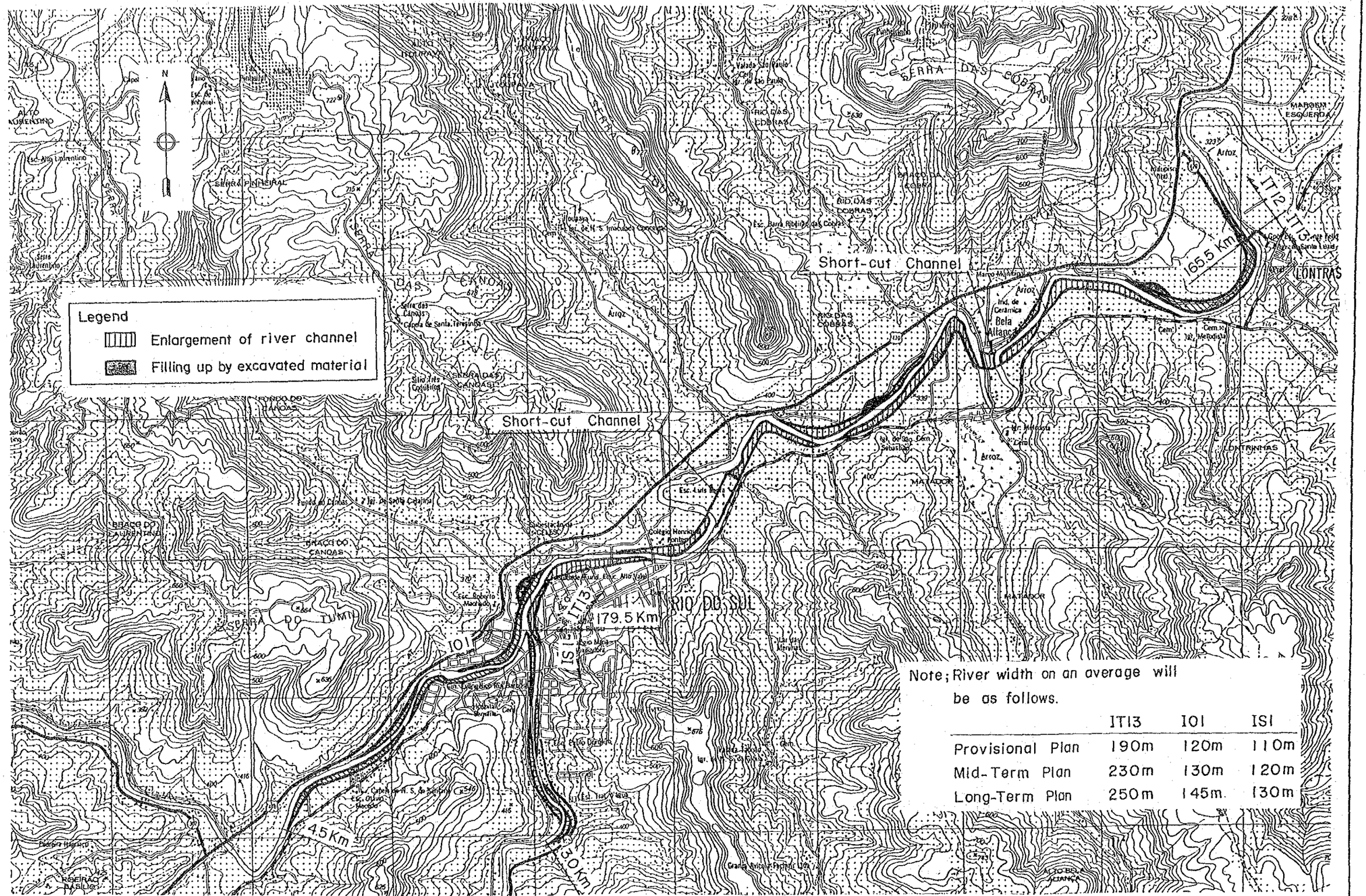


Fig. VI.4.12 RIVER IMPROVEMENT PLAN IN RIO DO SUL-LONTRAS STRETCH

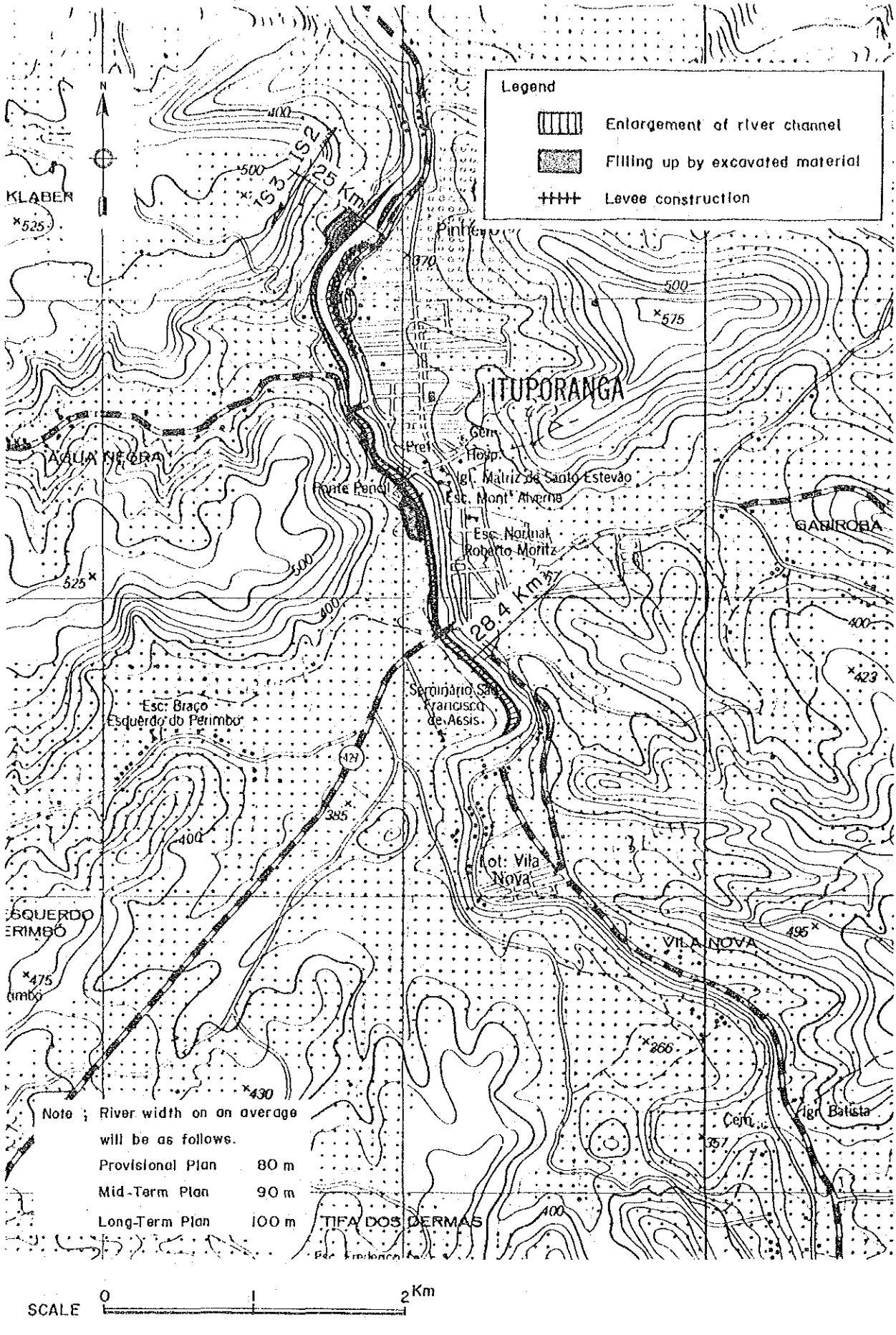


Fig.VI.4.13 RIVER IMPROVEMENT PLAN IN ITUPORANGA STRETCH

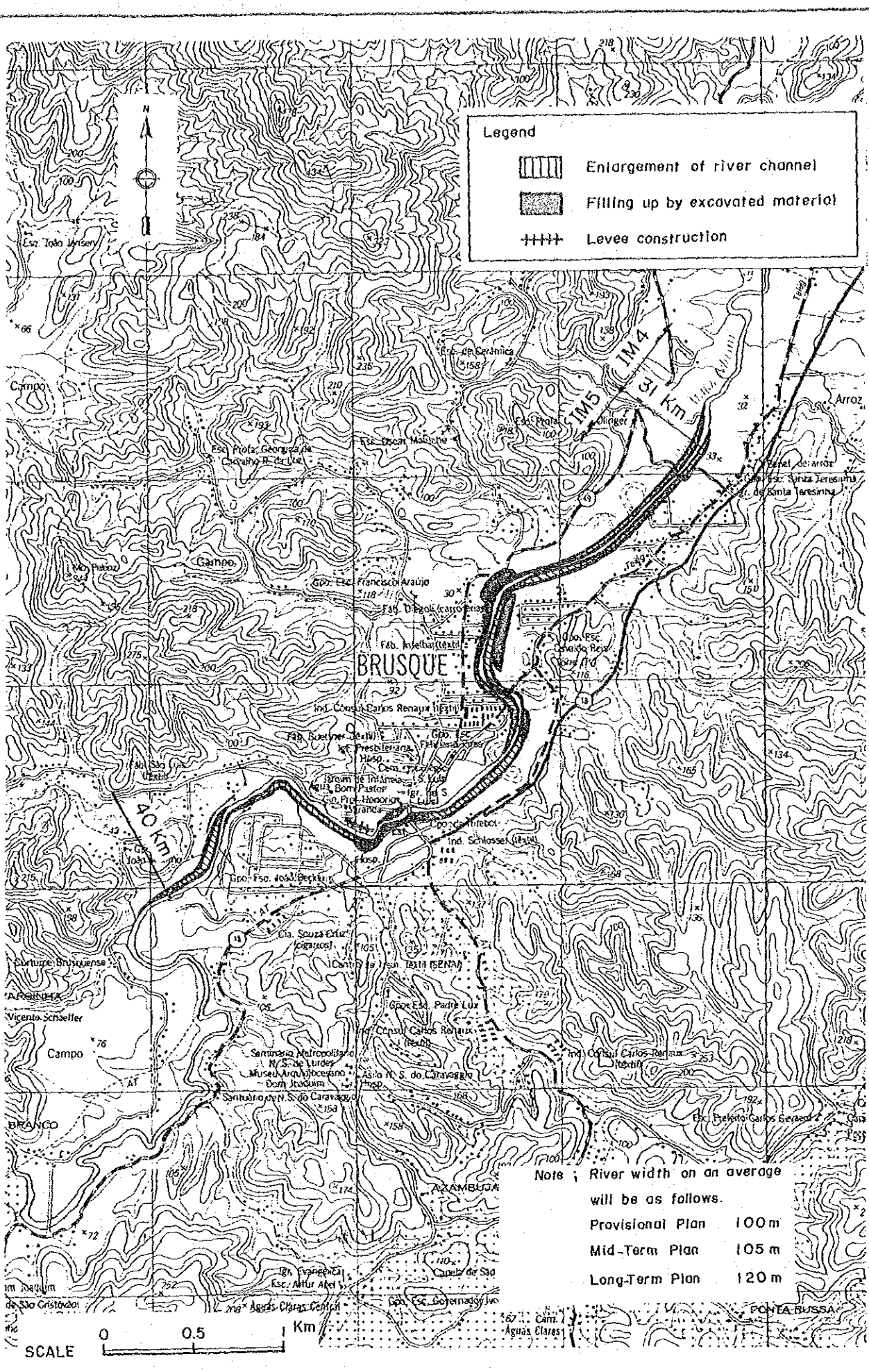
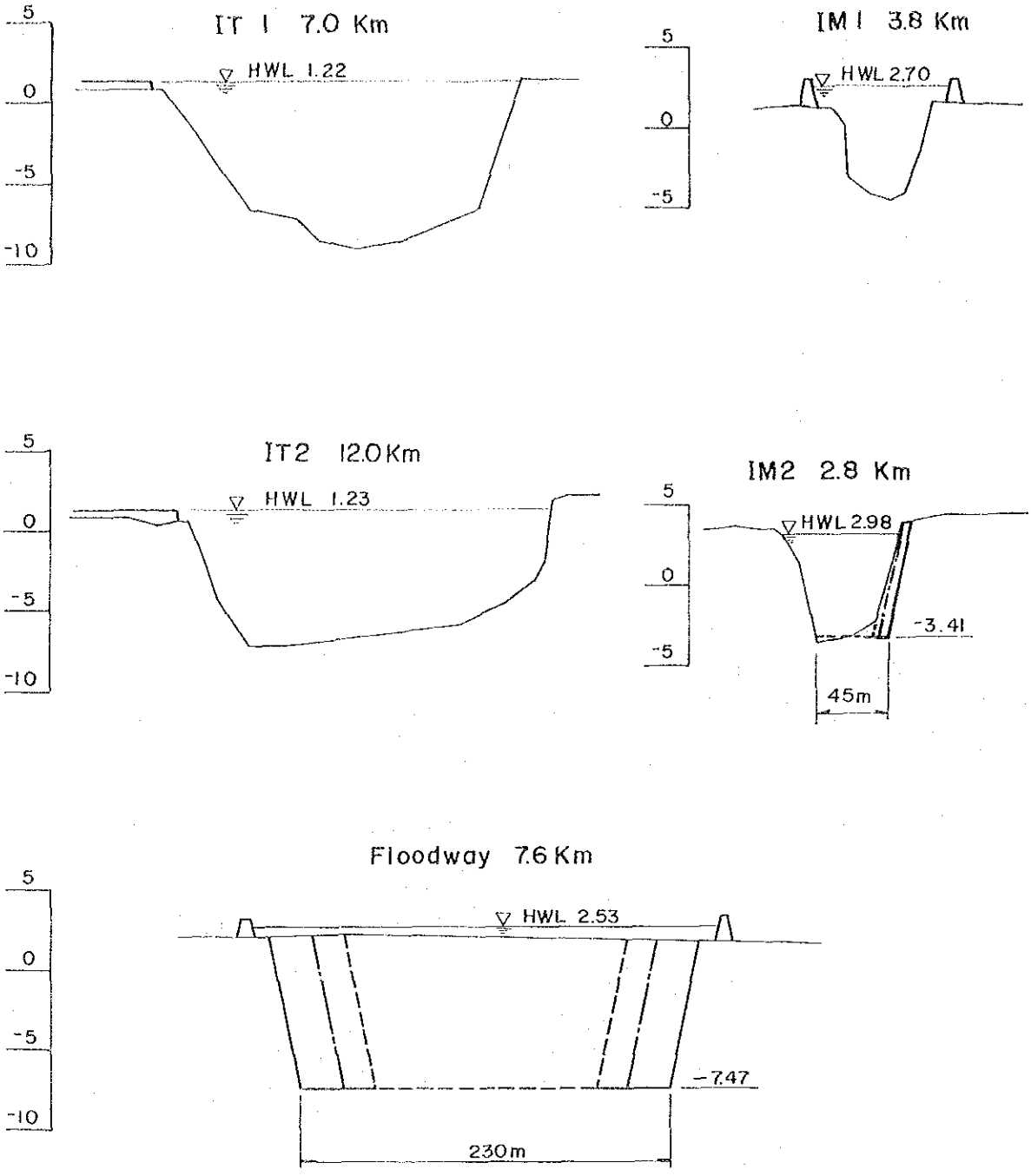


Fig. VI.4.14 RIVER IMPROVEMENT PLAN IN BRUSQUE STRETCH



Legend

- Provisional Plan
- Mid-Term Plan
- Long-Term Plan

Note; HWL means design high water level for Long-Term Plan. HWL for floodway will be the same level in any case.

Fig. VI.4.15 TYPICAL CROSS SECTION (1/4)

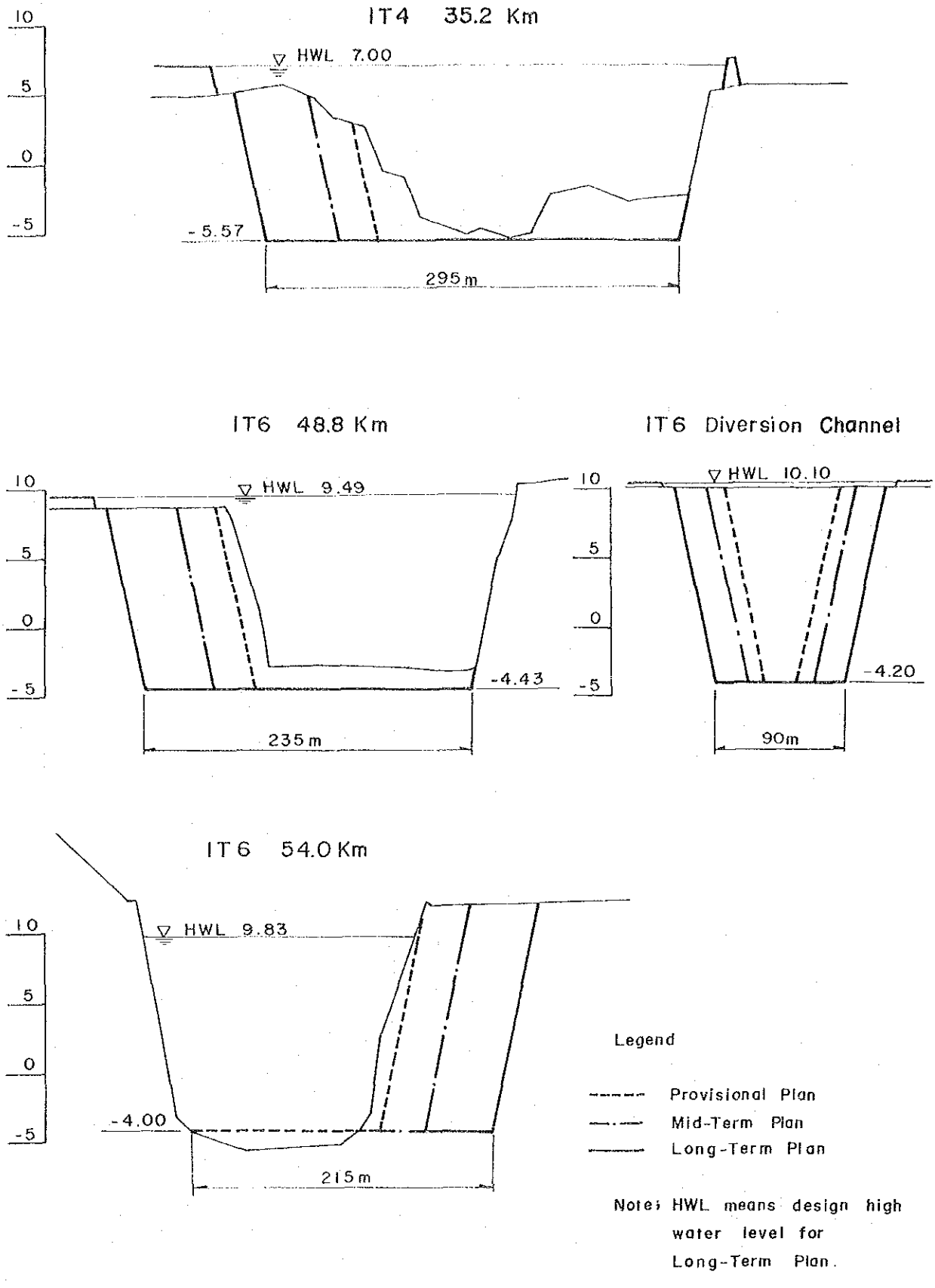


Fig. VI.4.15 TYPICAL CROSS SECTION (2/4)

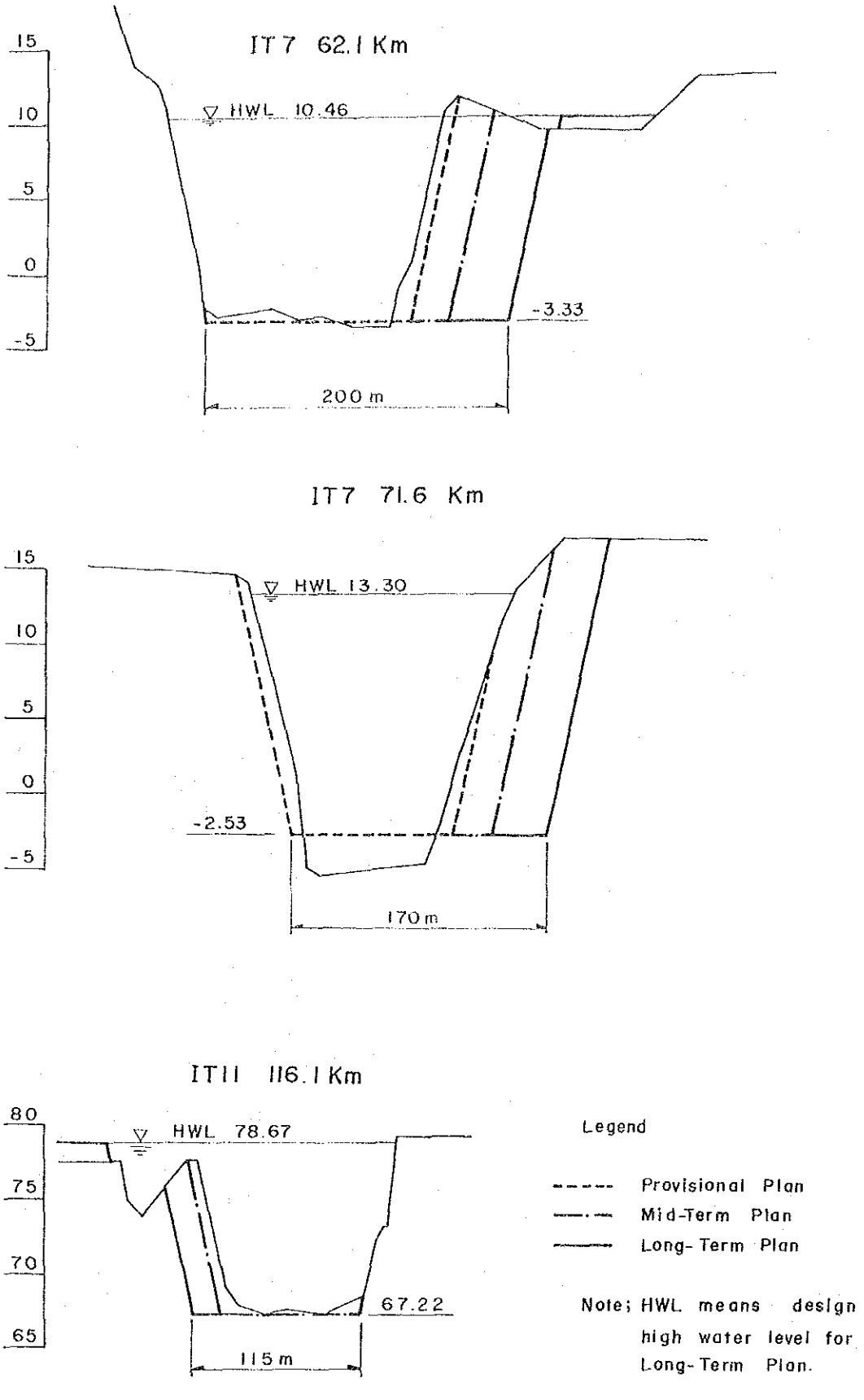


Fig.VI.4.15 TYPICAL CROSS SECTION (3/4)

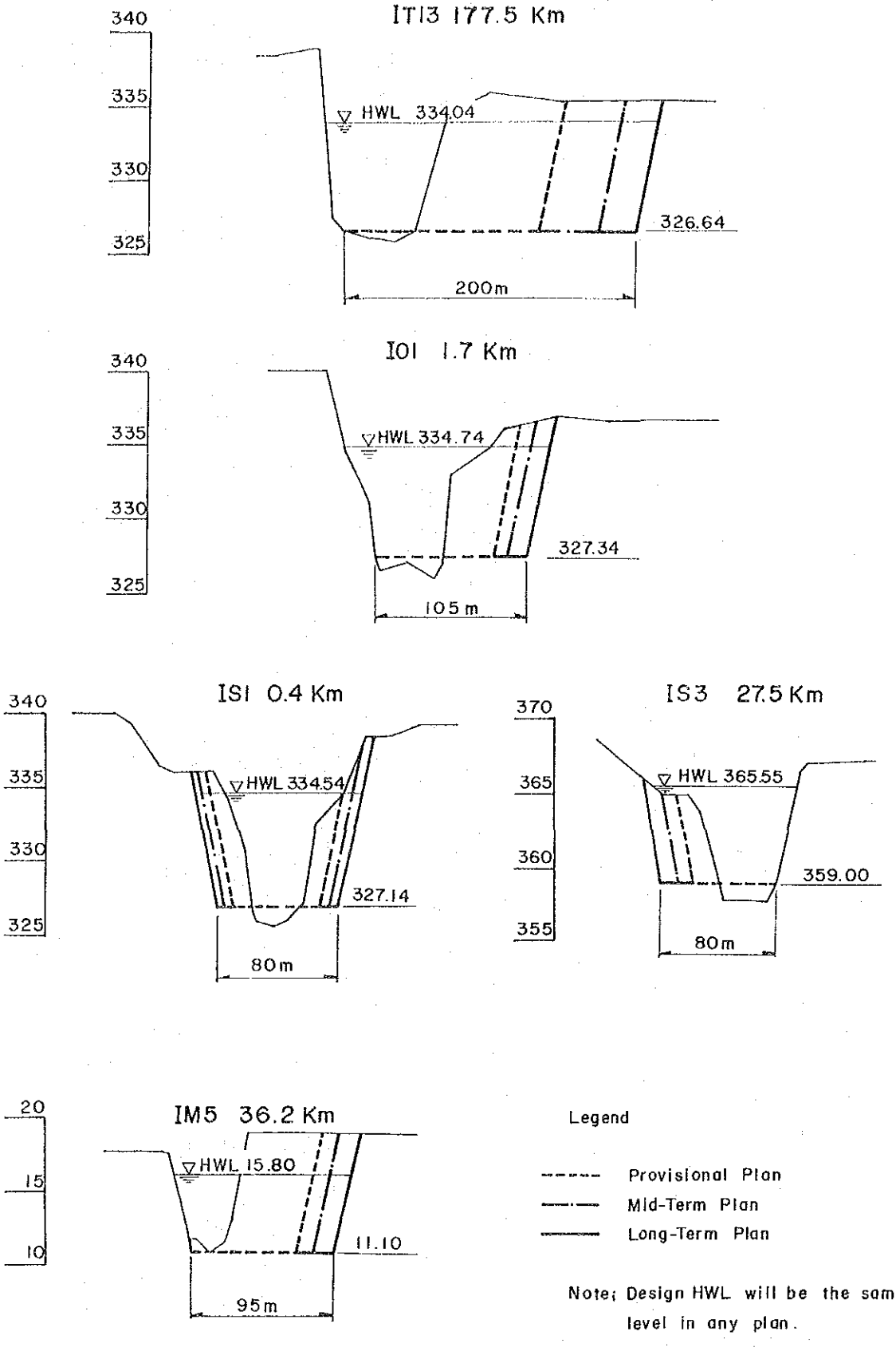


Fig.VI.4.15 TYPICAL CROSS SECTION (4/4)

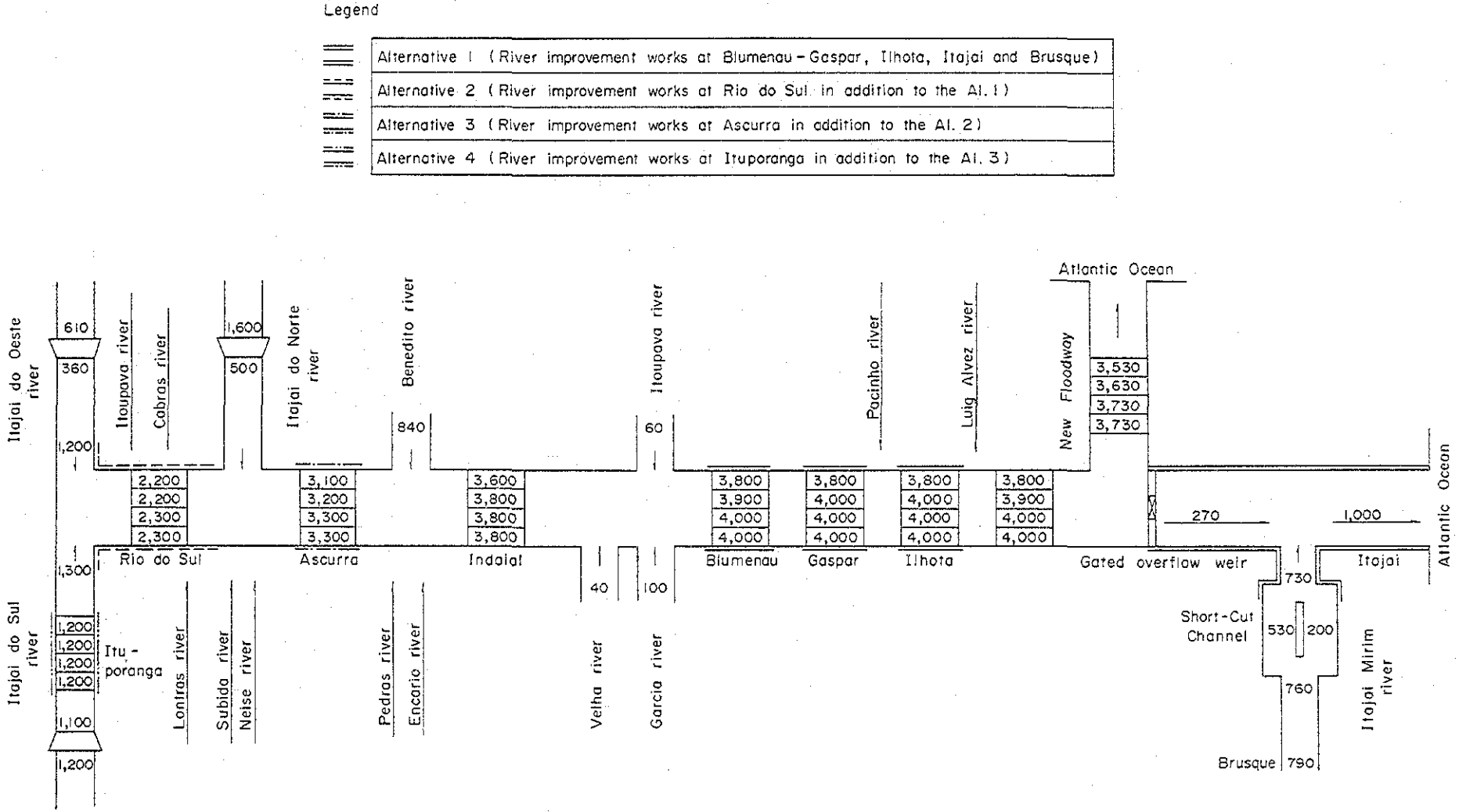


Fig. VI. 5.1 25-YEAR PROBABLE FLOOD PEAK DISCHARGES FOR RIVER IMPROVEMENT SCHEMES

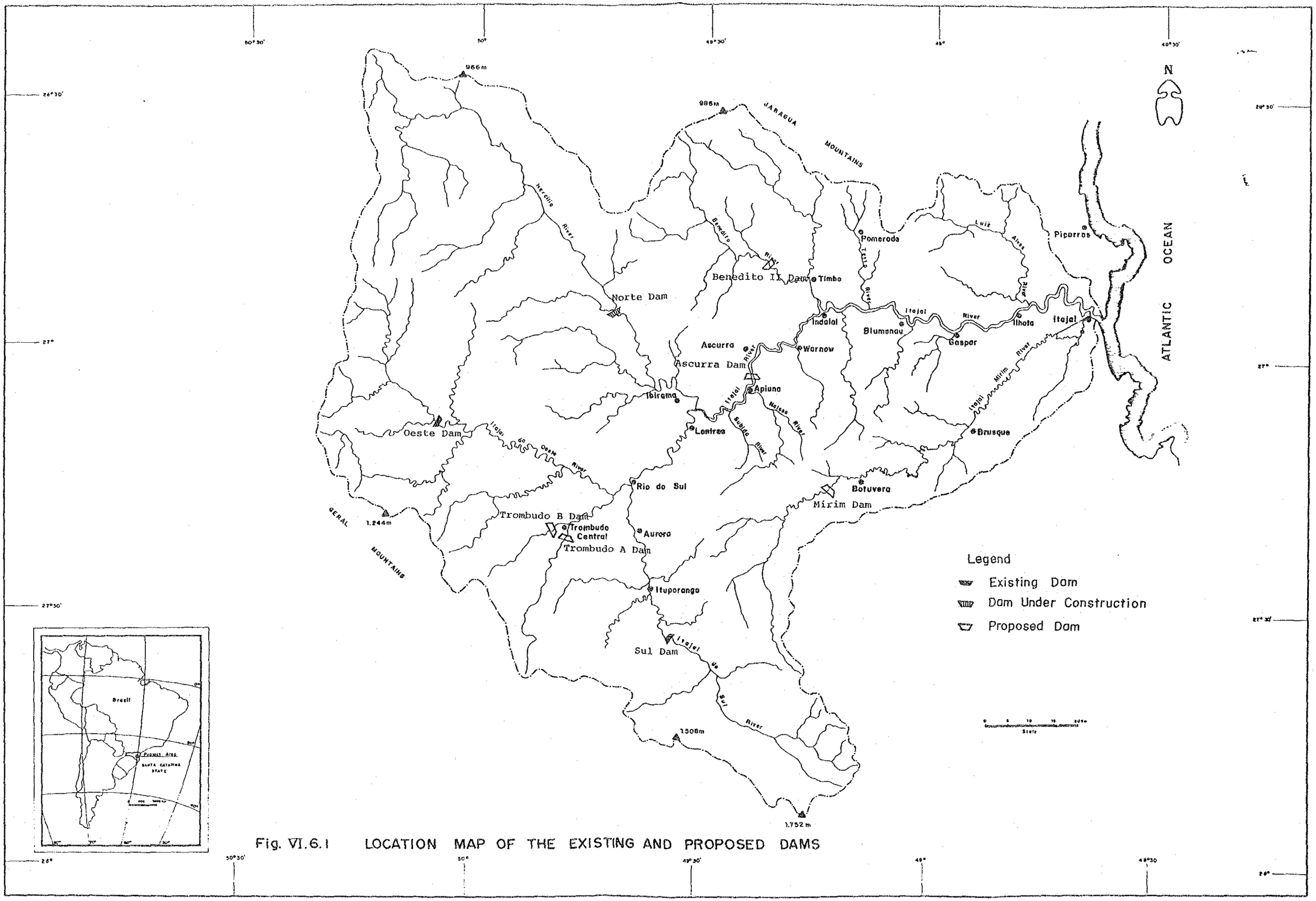


Fig. VI.6.1 LOCATION MAP OF THE EXISTING AND PROPOSED DAMS

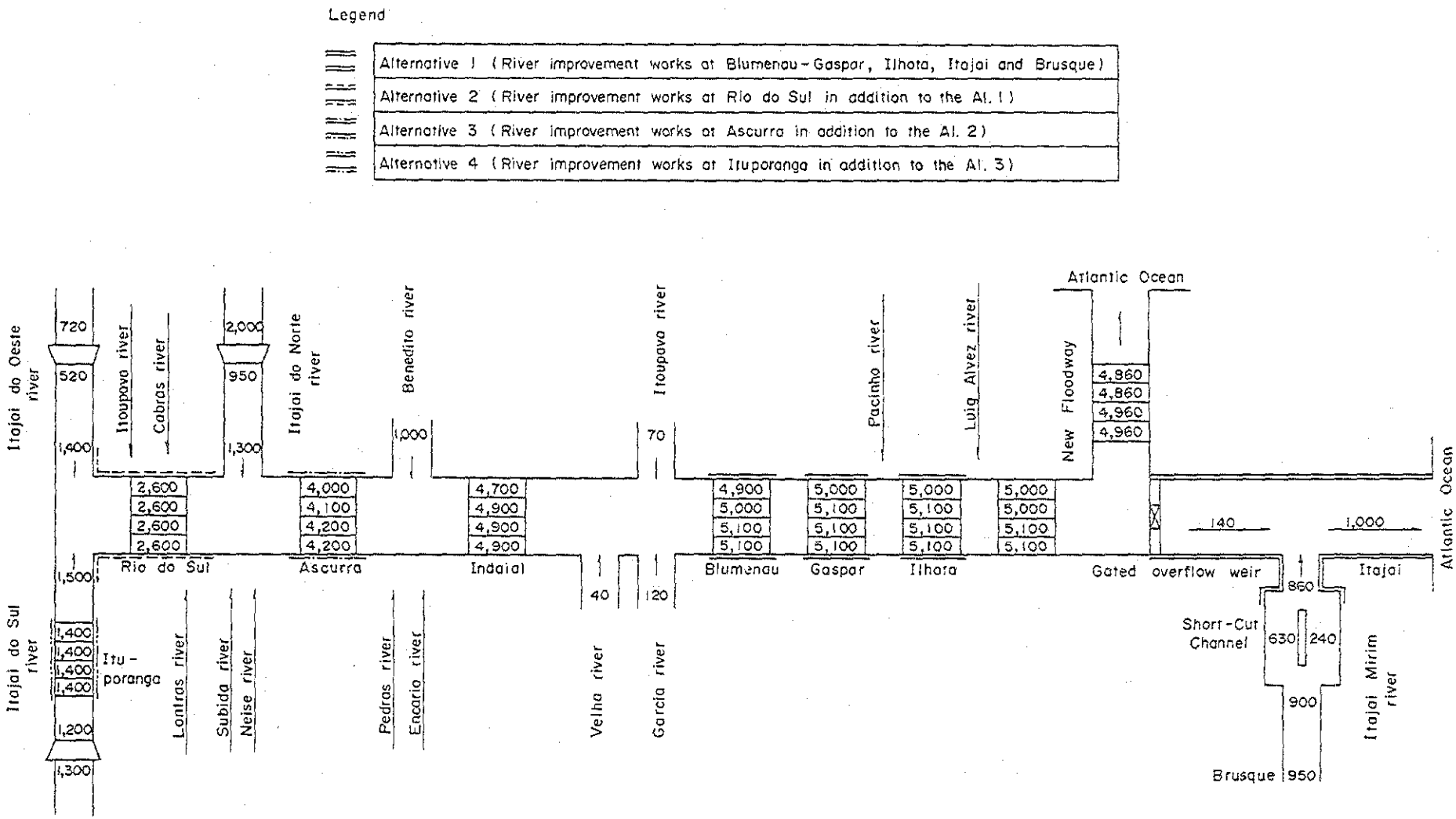


Fig. VI.6.2 50-YEAR PROBABLE FLOOD PEAK DISCHARGES FOR RIVER IMPROVEMENT SCHEMES

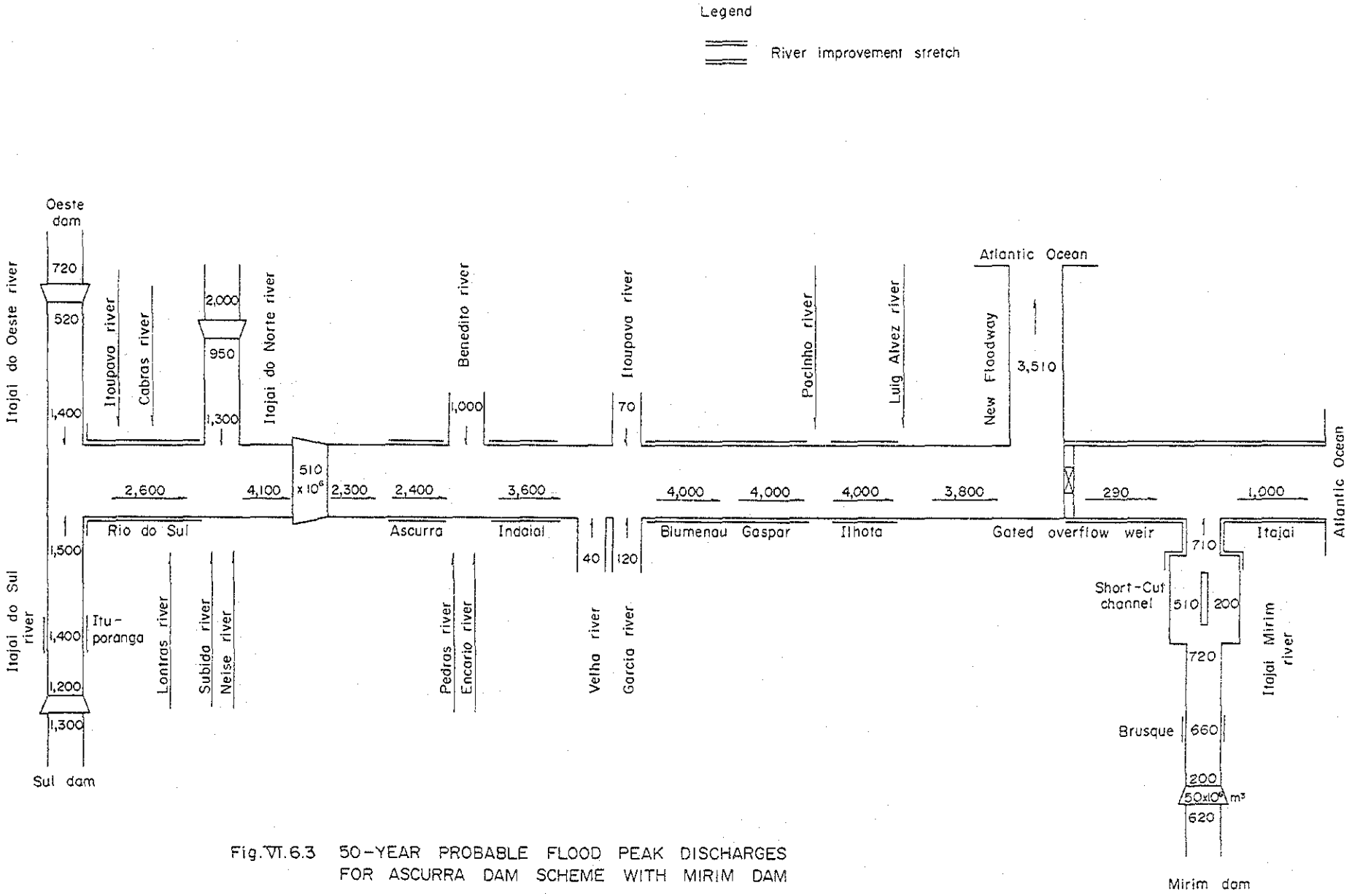


Fig. VI.6.3 50-YEAR PROBABLE FLOOD PEAK DISCHARGES FOR ASCURRA DAM SCHEME WITH MIRIM DAM

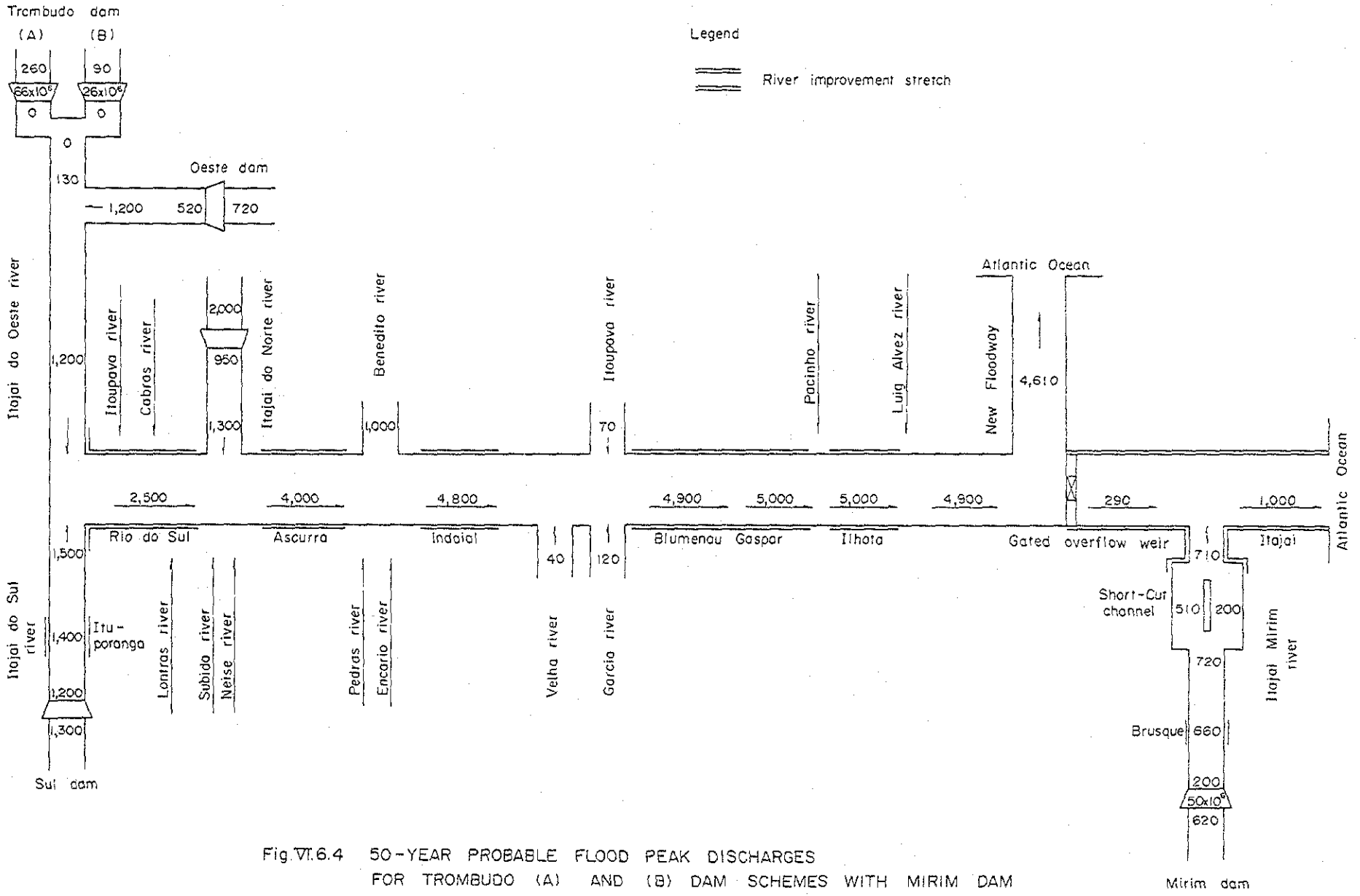


Fig. VI.6.4 50-YEAR PROBABLE FLOOD PEAK DISCHARGES FOR TROMBUDO (A) AND (B) DAM SCHEMES WITH MIRIM DAM

Fig. VI. 7. 1 IMPLEMENTATION SCHEDULE OF PROPOSED FLOOD CONTROL PROJECTS

Project	Const. Cost (10^6 Cz $)	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	2001	2002	2003	2004	2005
Provisional Plan																				
River improvement																				
Blumenau-Gaspar stretch	501		FN		T.C.															
Floodway and downstream of Itajai Mirim	737				FN		T.C.													
Rio do Sul-Lontras and Ituporanga stretches	879			FN		T.C.														
Brusque stretch	105				FN		T.C.													
Sub total	2,222																			
Mid-Term Plan																				
River improvement																				
Blumenau-Gaspar stretch	261							FN	T.C.											
Floodway and downstream of Itajai Milim	119										FN	T.C.								
Rio do Sul-Lontras and Ituporanga stretches	378									FN	T.C.									
Brusque stretch	13										FN	T.C.								
Sub total	771																			
Long-Term Plan																				
River improvement																				
Blumenau-Gaspar stretch	391												FN	T.C.						
Floodway and downstream of Itajai Mirim	197																FN	T.C.		
Rio do Sul-Lontras and Ituporanga stretches	283																FN	T.C.		
Brusque stretches	22																	FN	T.C.	
Ilhota stretch	237													FN		T.C.				
Ascurra stretch	95														FN		T.C.			
Sub total	1,225																			
Total	4,218																			

Note: ▬ Feasibility study ▭ Detailed design ▭ Construction
FN ; Financing T.C. ; Tendering and Contract

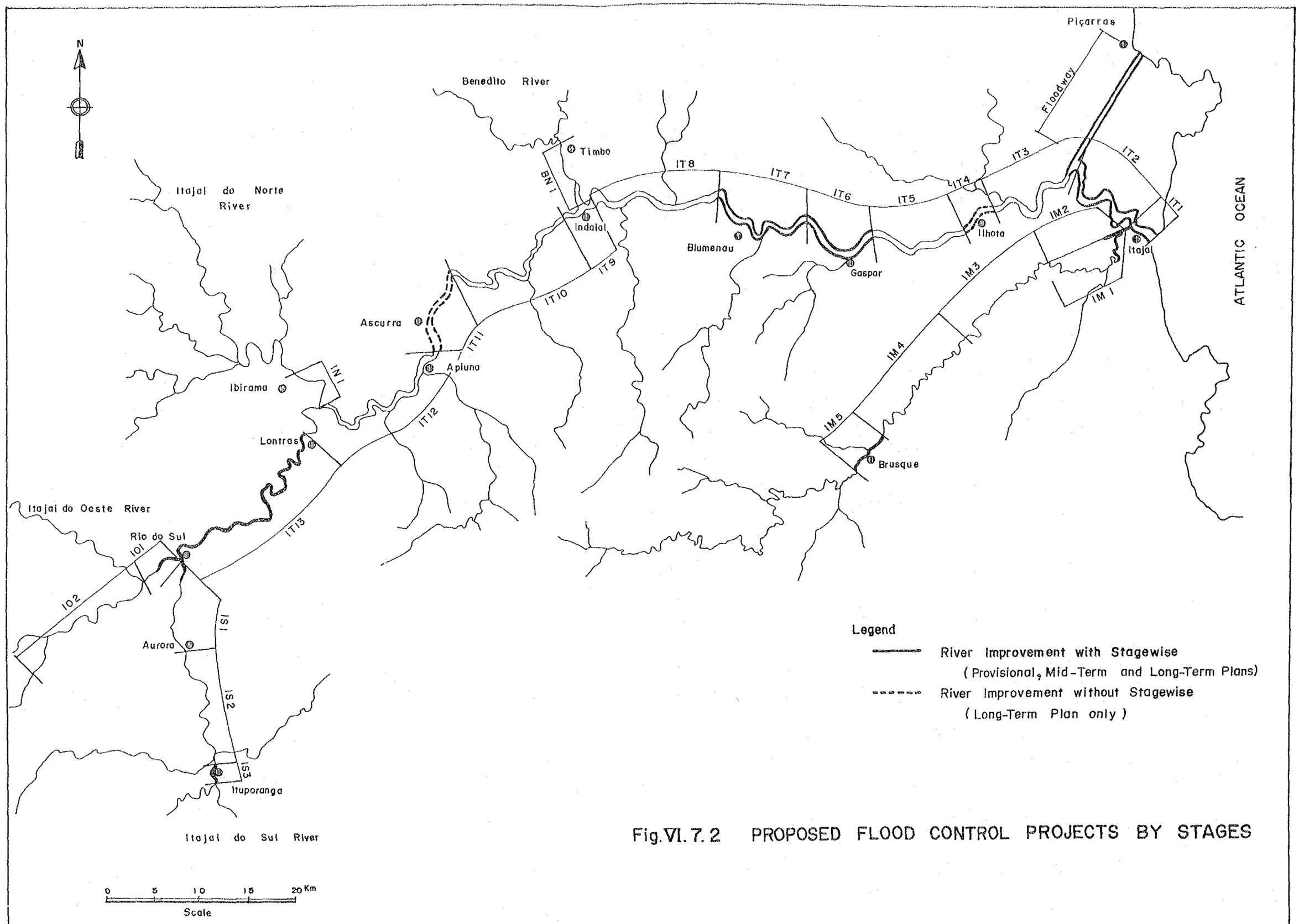


Fig. VI. 7. 2 PROPOSED FLOOD CONTROL PROJECTS BY STAGES

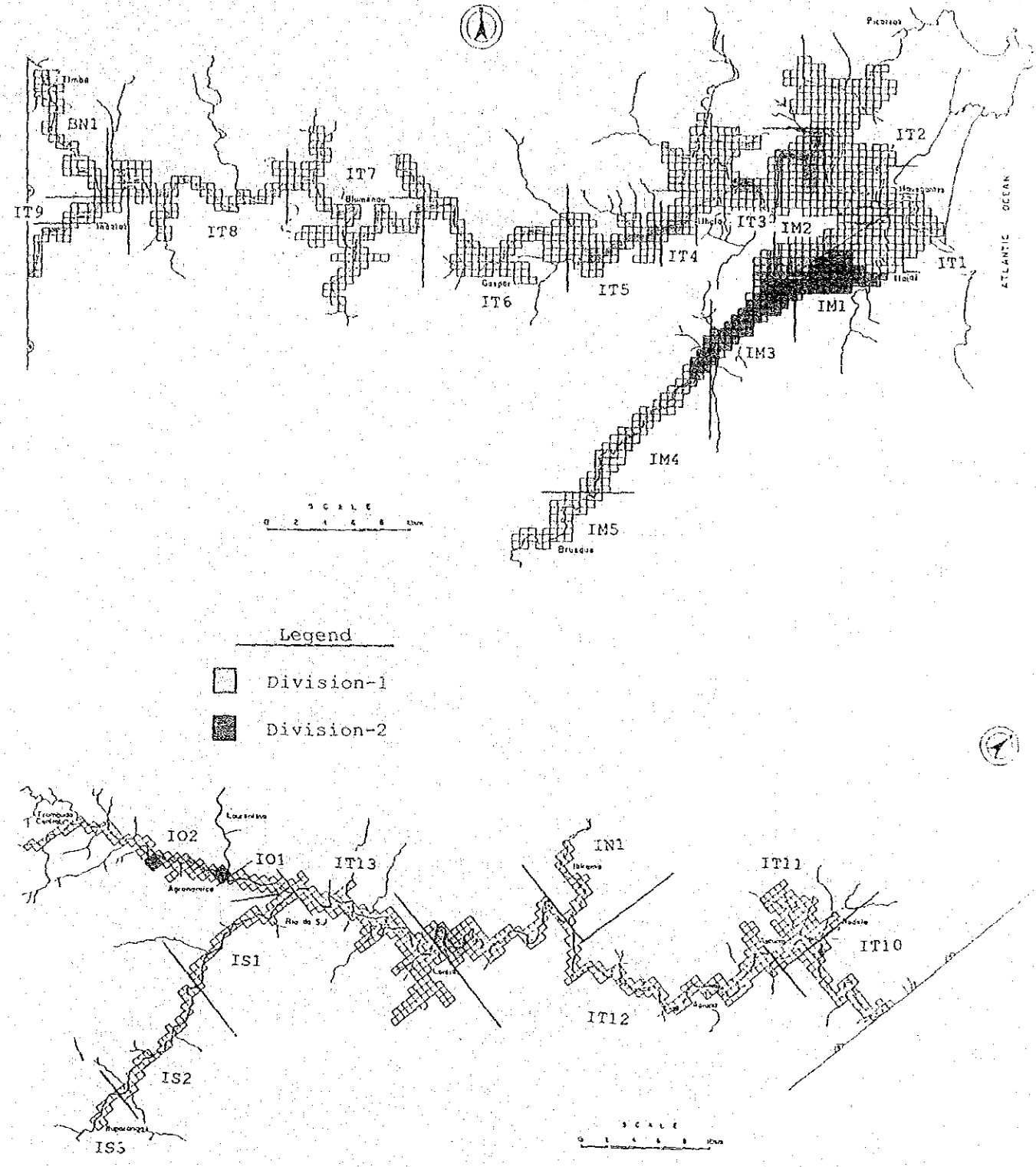


Fig. VI-8.1 ZONING MAP OF EACH STRETCH

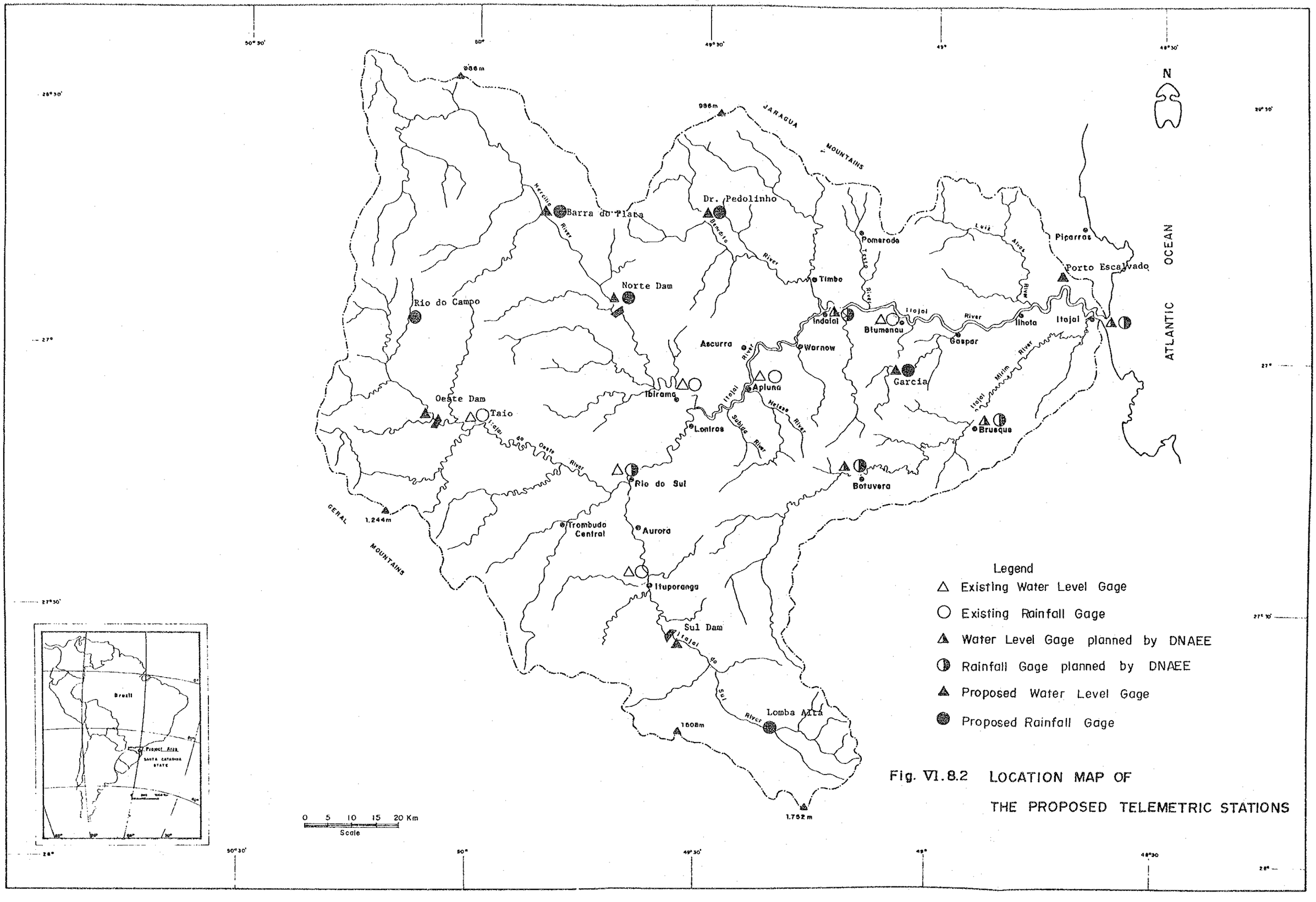


Fig. VI.8.2 LOCATION MAP OF THE PROPOSED TELEMETRIC STATIONS