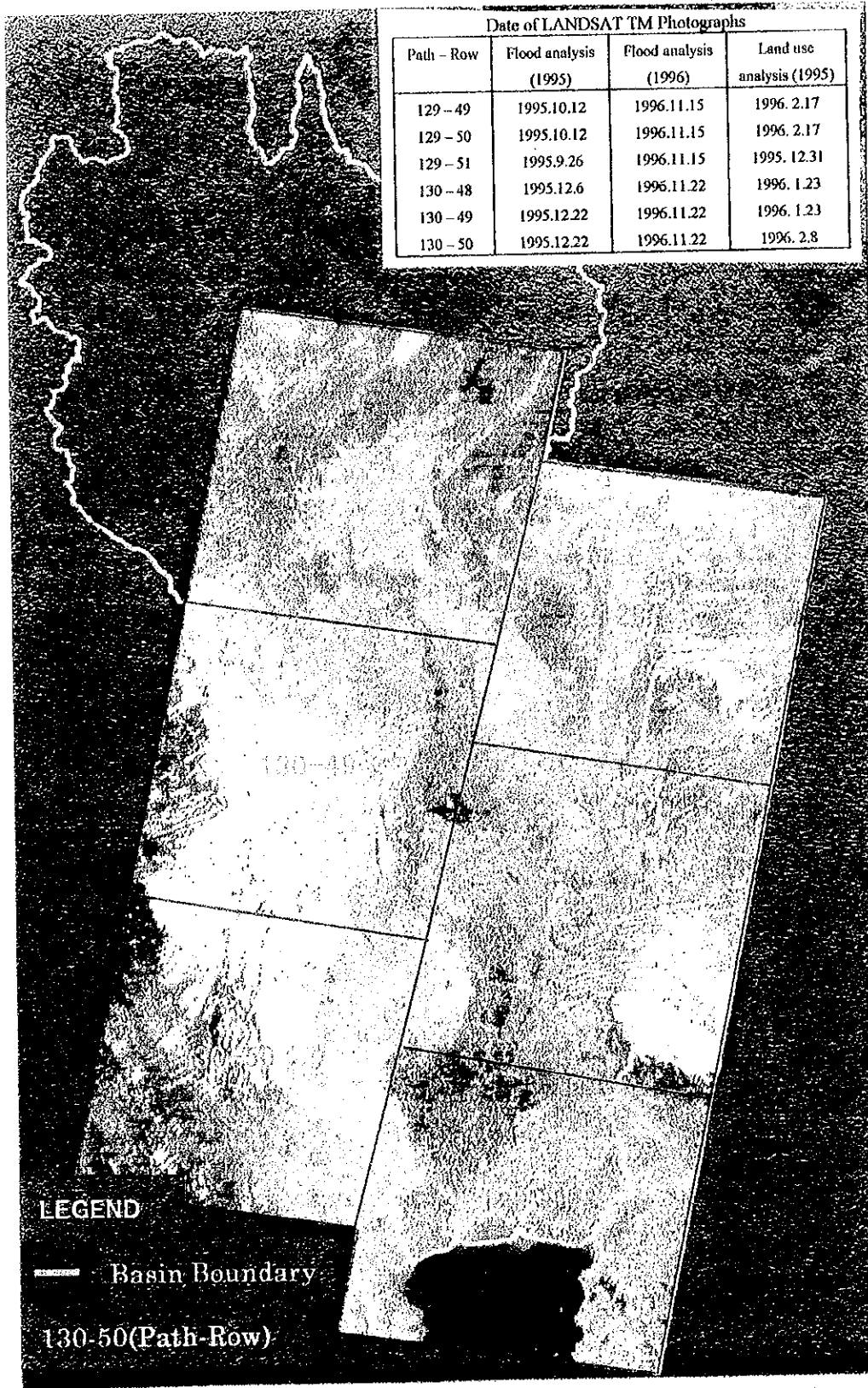


STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN

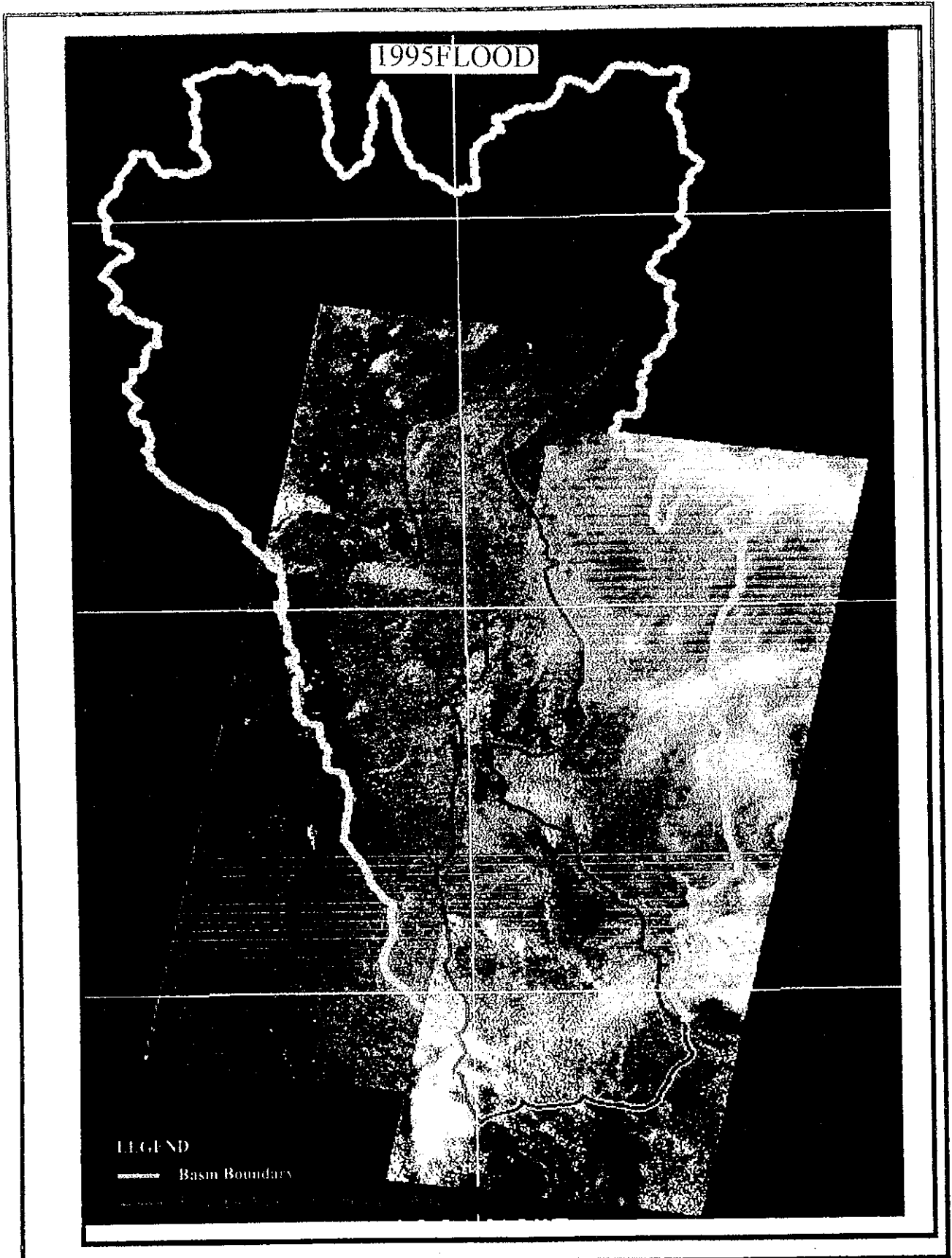
Fig. 2.11.4
RING ROAD AND TRUCK ROUTE

CTI ENGINEERING CO., LTD AND INA CORPORATION



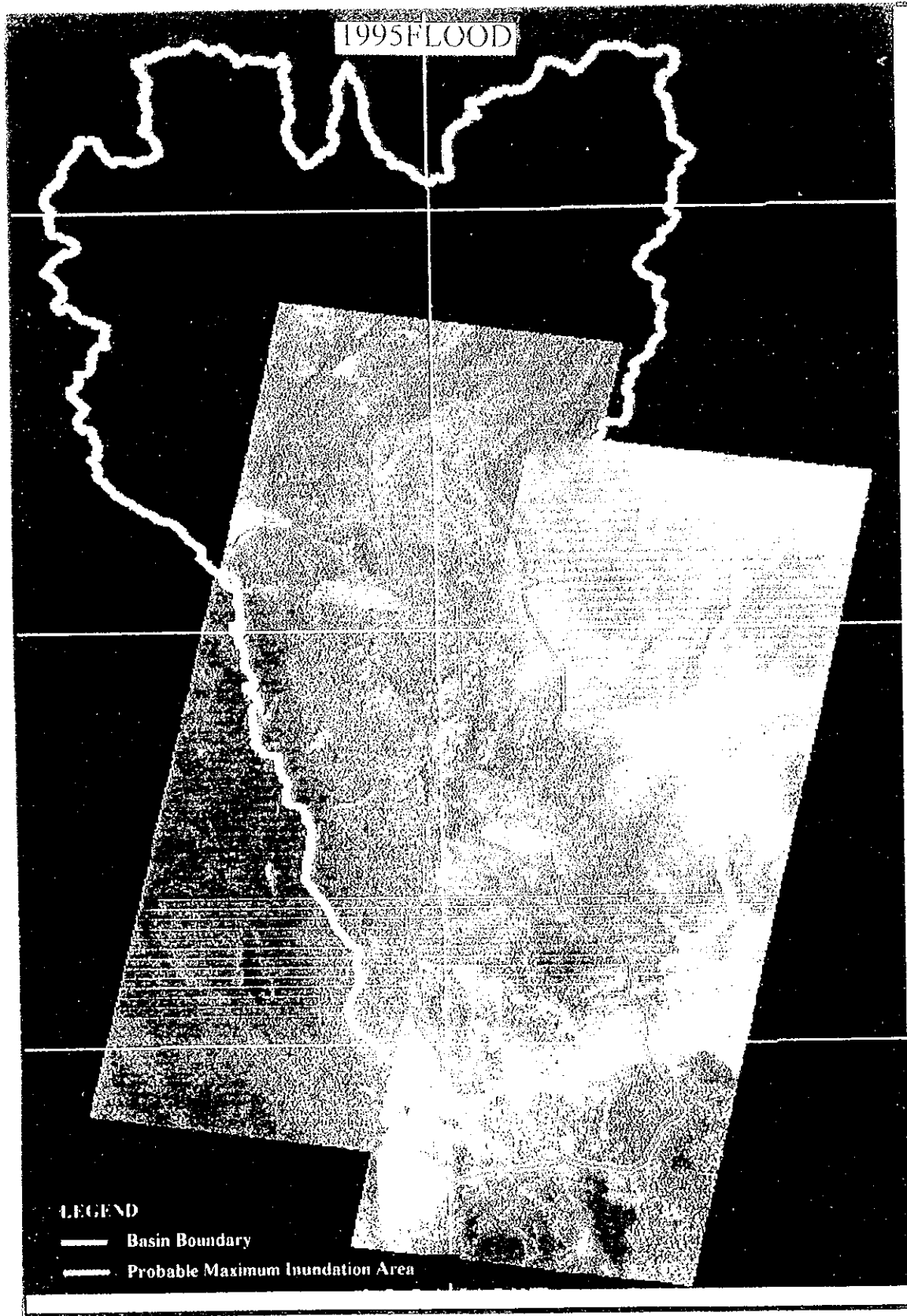
STUDY ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAO PHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD. AND INA CORPORATION

Fig.3.1.1 INDEX MAP OF LANDSAT TM DATA



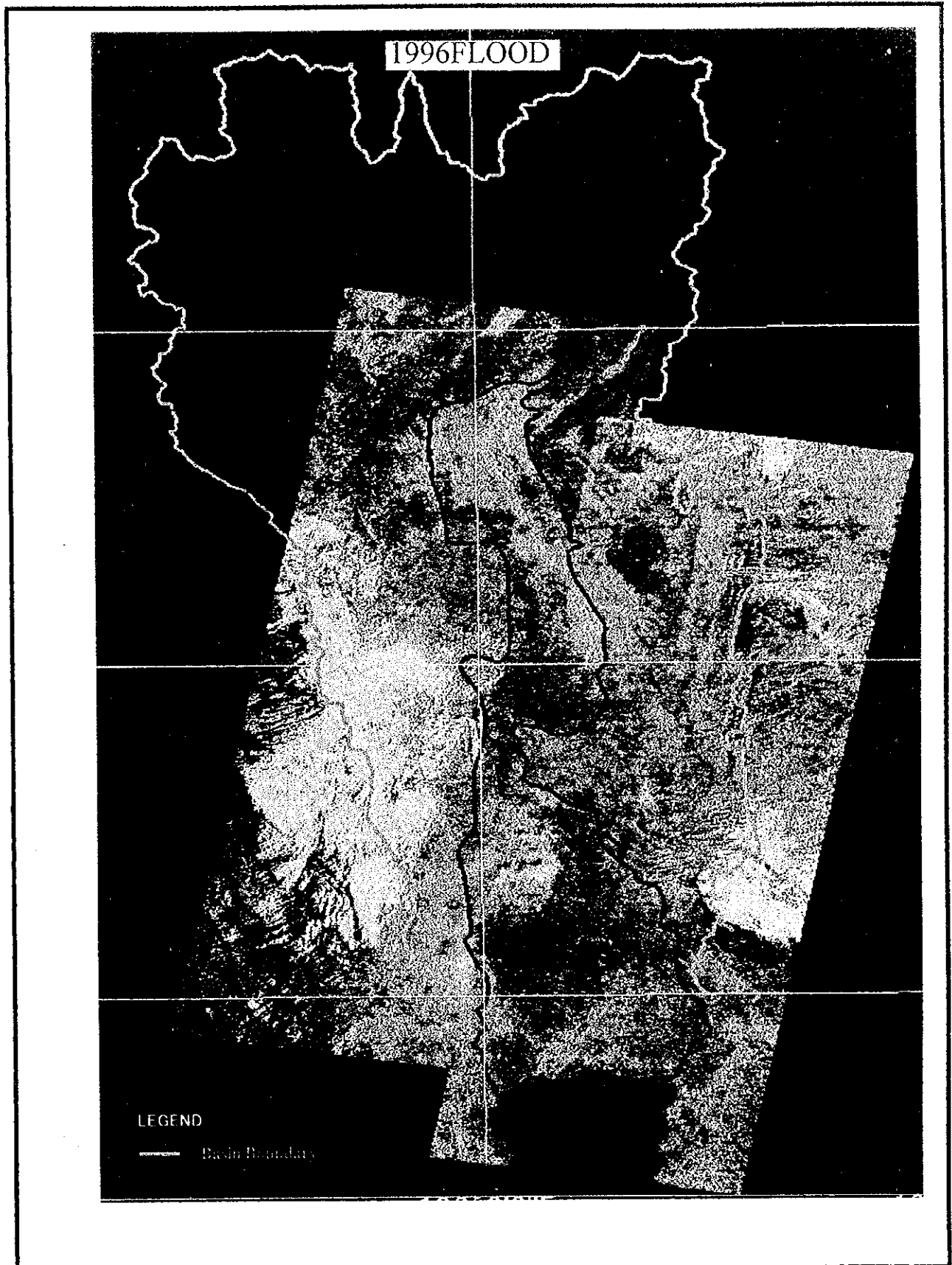
STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD AND INA CORPORATION

Fig 3.1.2 (1/2)
 PROCESSED FALSE COLOR IMAGES



STUDY ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAO PHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD AND INA CORPORATION

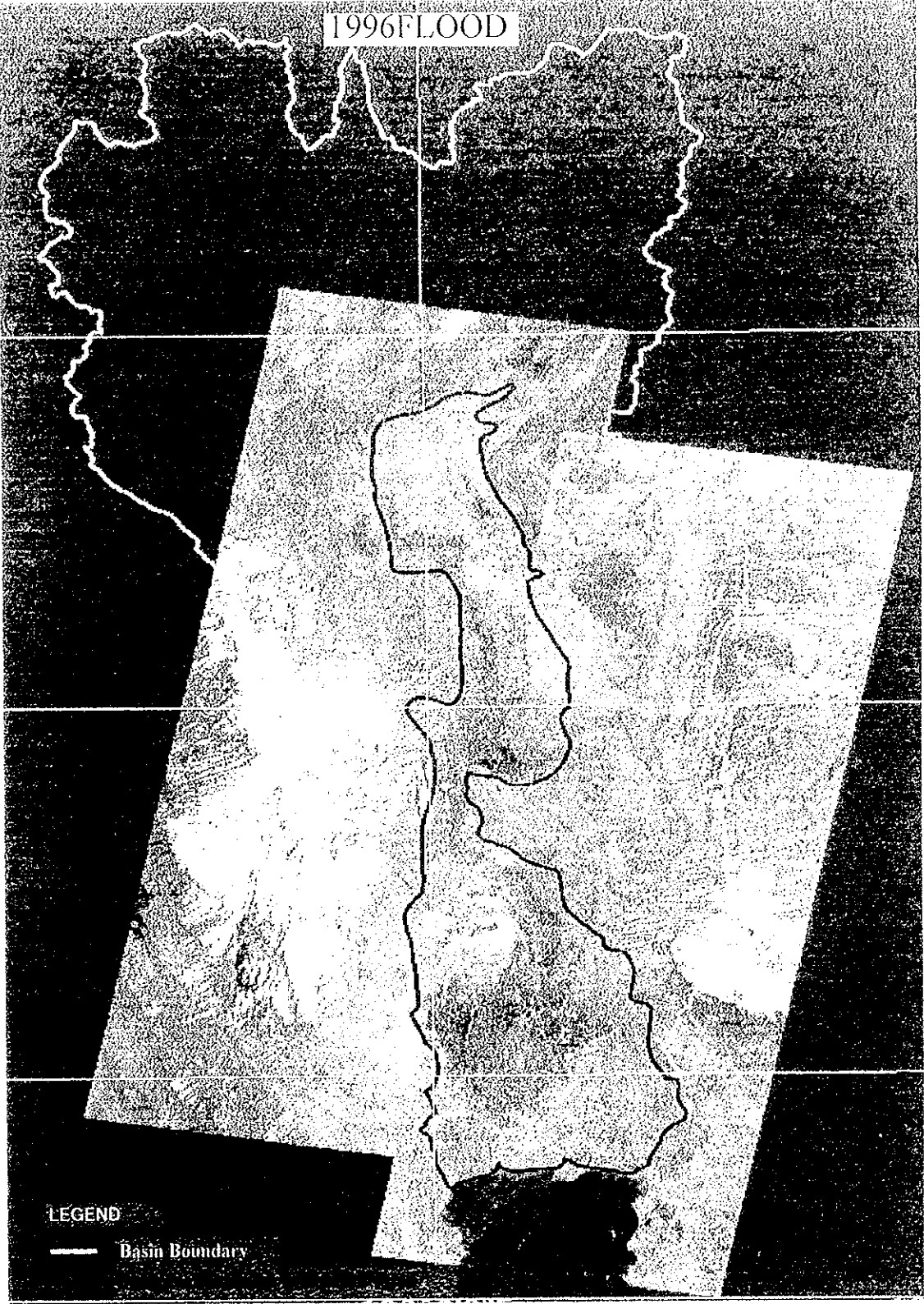
Fig.3.1.2 (1/2)
 PROCESSED FALSE COLOR IMAGES



STUDY ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAO PHRAYA RIVER BASIN

CTI ENGINEERING CO., LTD AND INA CORPORATION

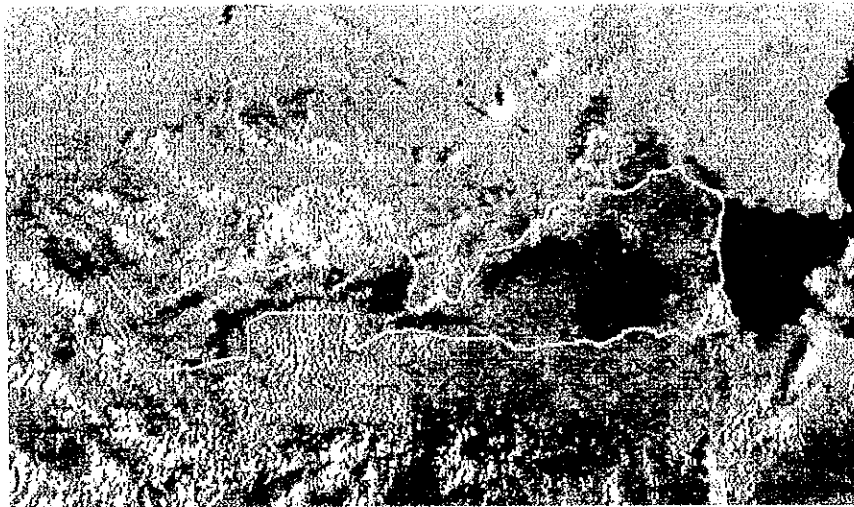
Fig.3.1.2 (2/2)
PROCESSED FALSE COLOR IMAGES



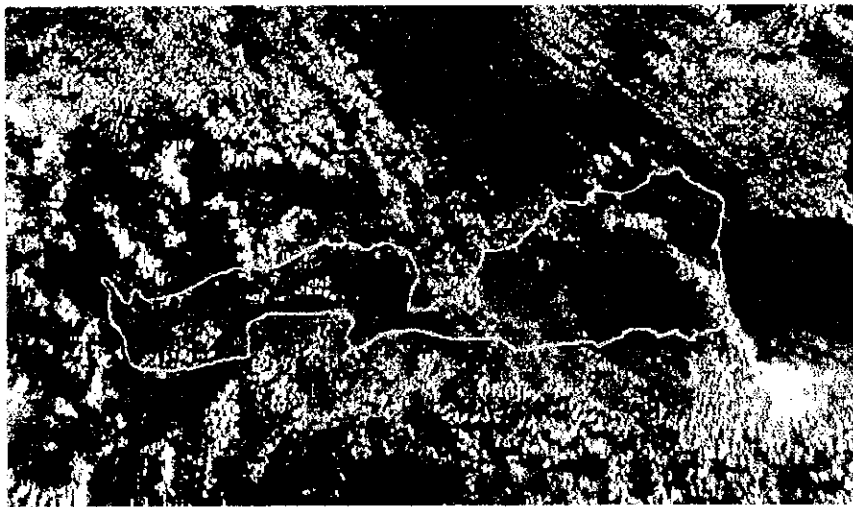
STUDY ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAO PHRAYA RIVER BASIN

Fig.3.1.2 (2/2)
 PROCESSED FALSE COLOR IMAGES

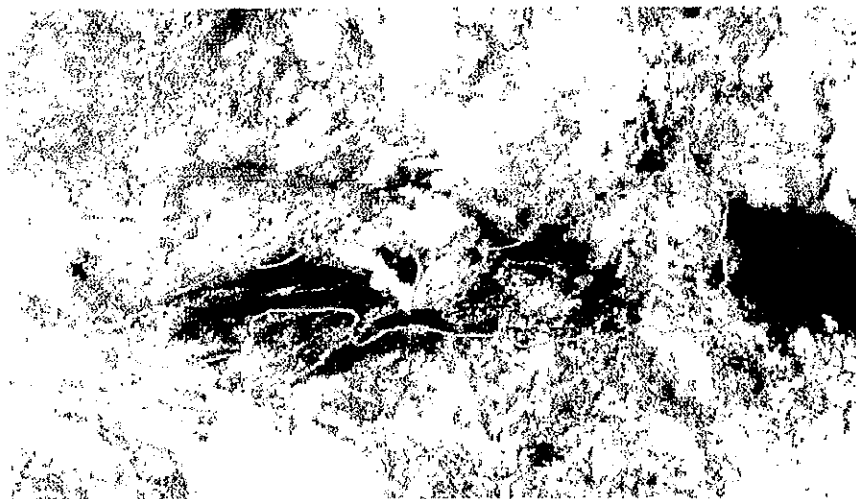
CTI ENGINEERING CO., LTD AND INA CORPORATION



6/NOV/1995



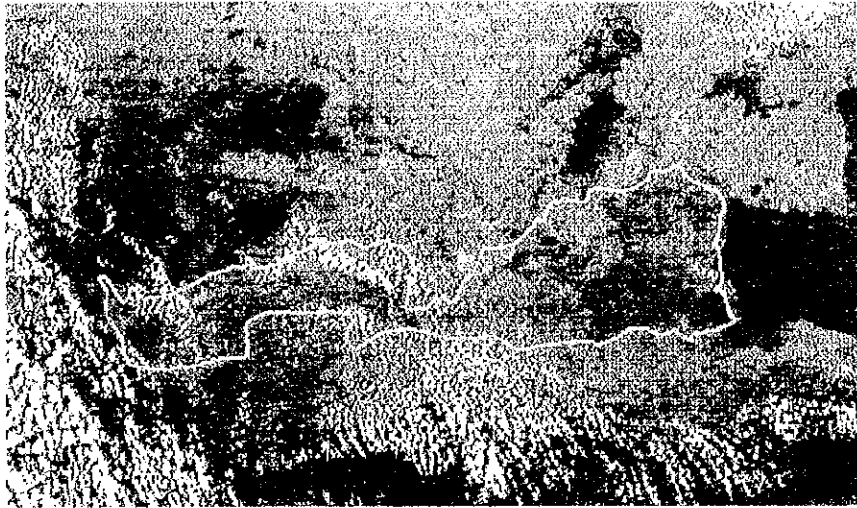
22/OCT/1995



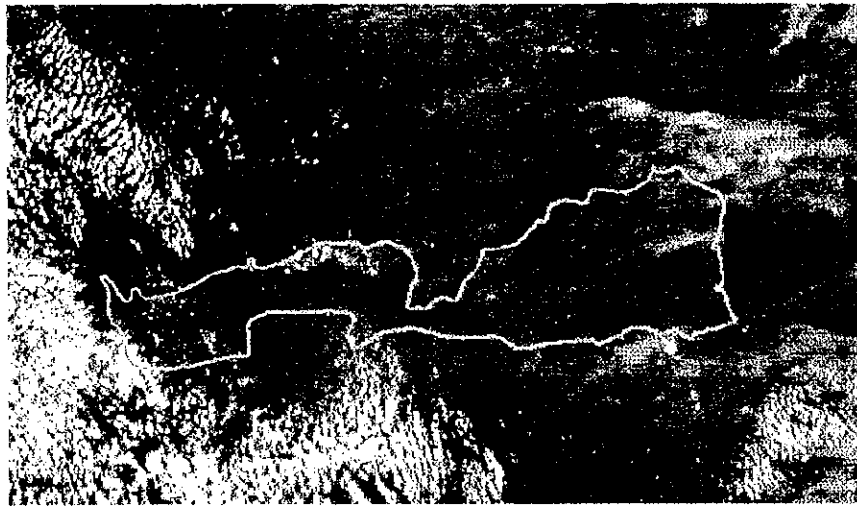
22/SEP/1995

STUDY ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAO PHRAYA RIVER BASIN
CTI ENGINEERING CO., LTD. AND INA CORPORATION

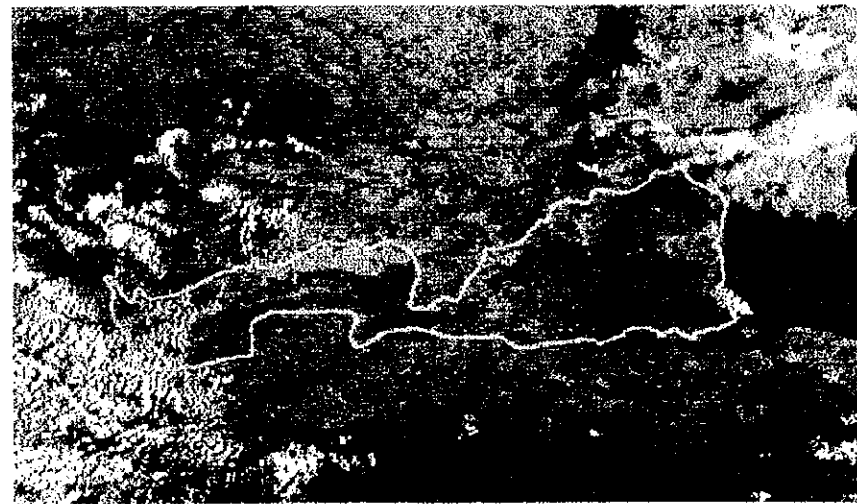
Fig.3.1.3 (1/2) TRADITION OF FLOOD
INUNDATION AREA IN 1995 BY
NOAA FALSE COLOR IMAGES



24/DEC/1995



7/DEC/1995

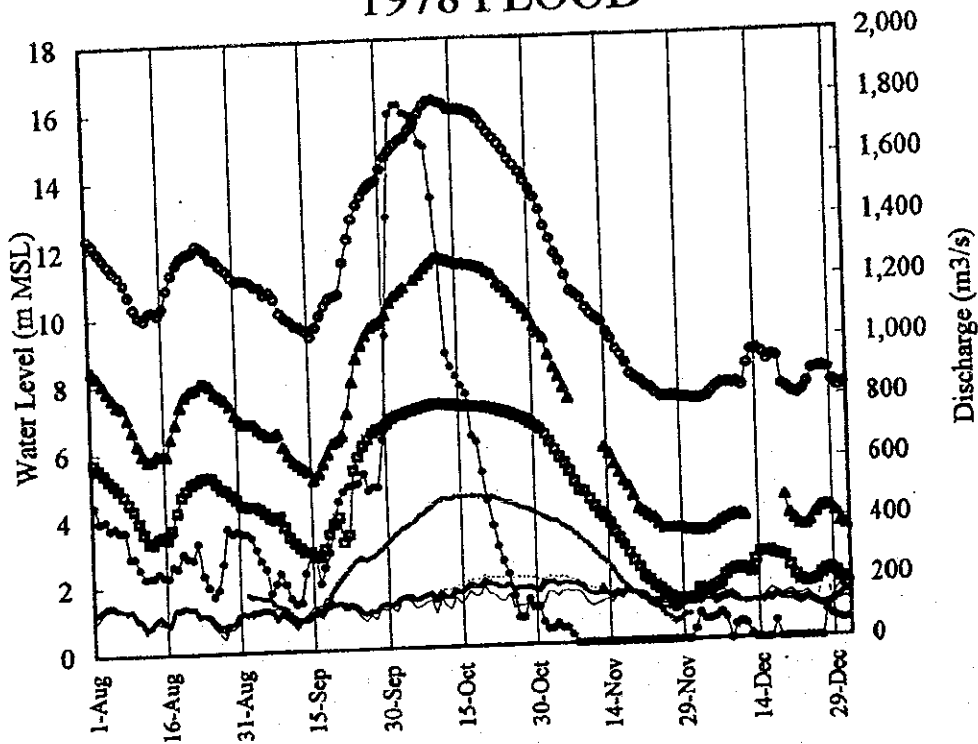


25/NOV/1995

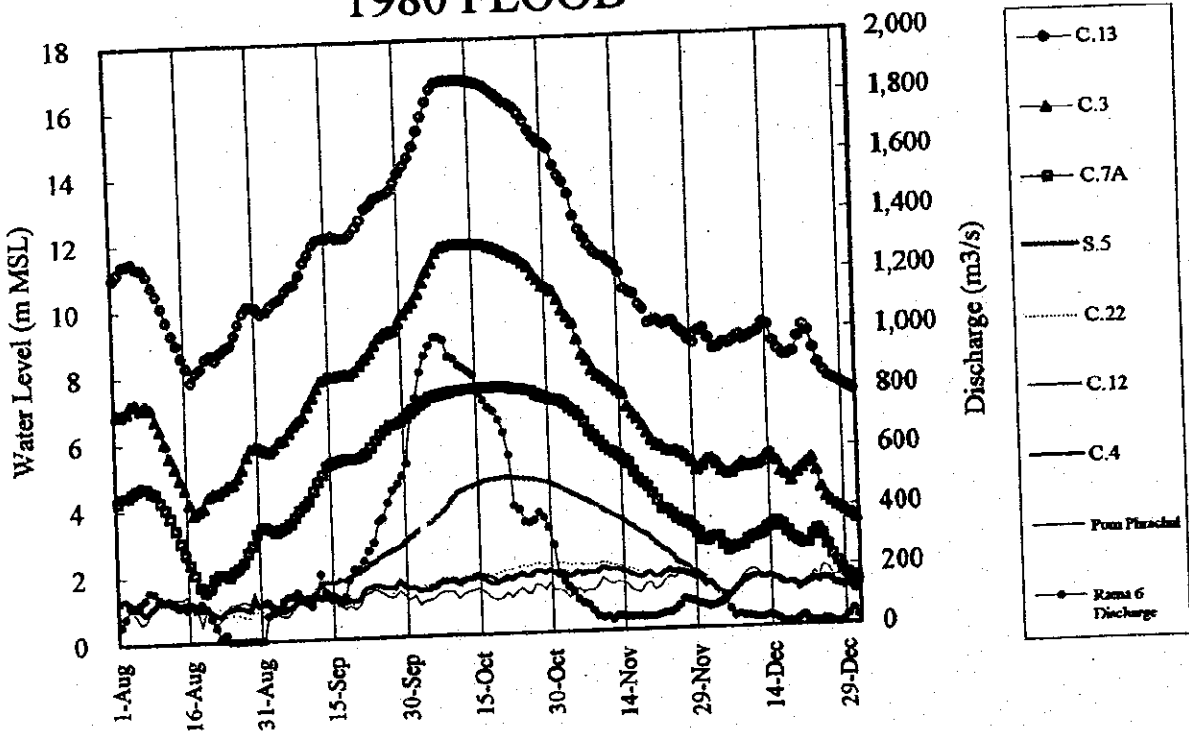
STUDY ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAO PHRAYA RIVER BASIN
CTI ENGINEERING CO., LTD. AND INA CORPORATION

Fig.3.1.3 (2/2) TRADITION OF FLOOD
INUNDATION AREA IN 1995 BY
NOAA FALSE COLOR IMAGES

1978 FLOOD



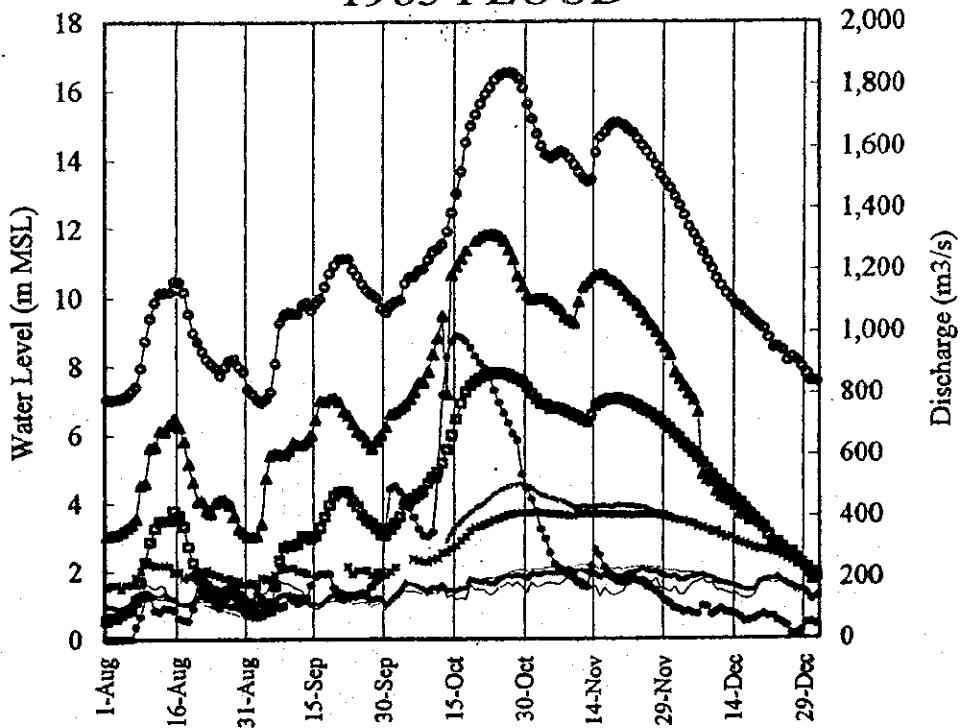
1980 FLOOD



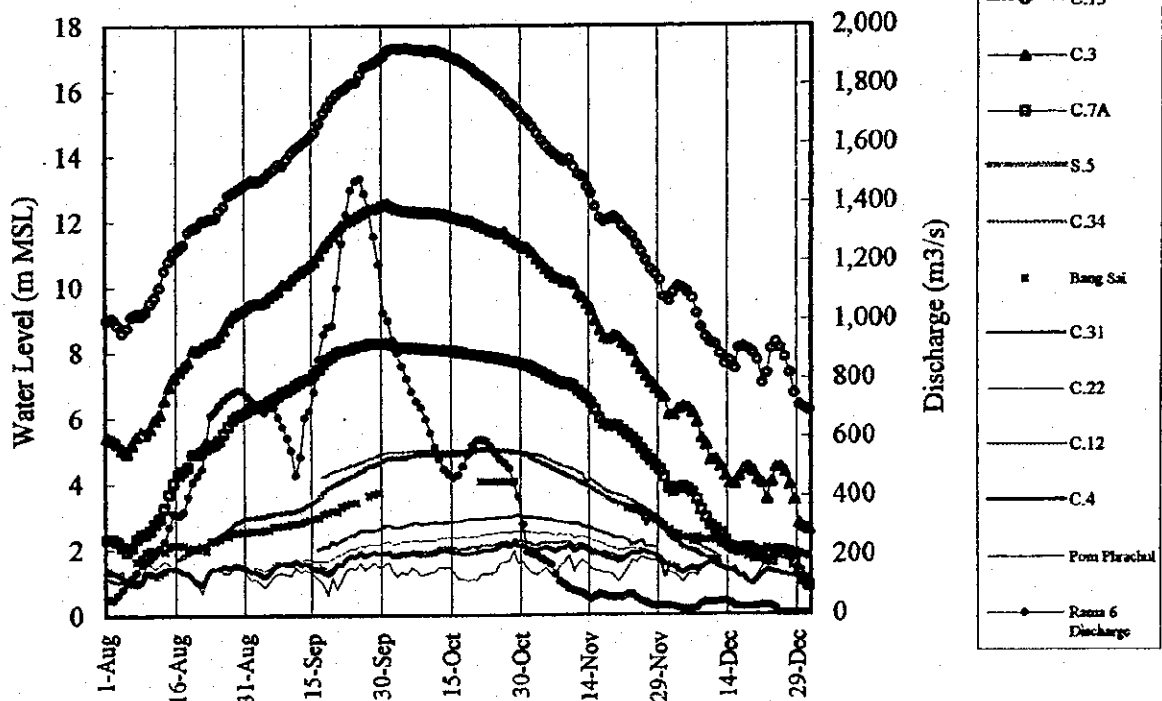
STUDY ON ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAOPHRAYA RIVER BASIN
CTI ENGINEERING CO., LTD & INA CORPORATION

Fig.3.1.4 (1/3) DAILY MAXIMUM WATER
LEVEL IN LOWER CHAO
PHRAYA RIVER

1983 FLOOD



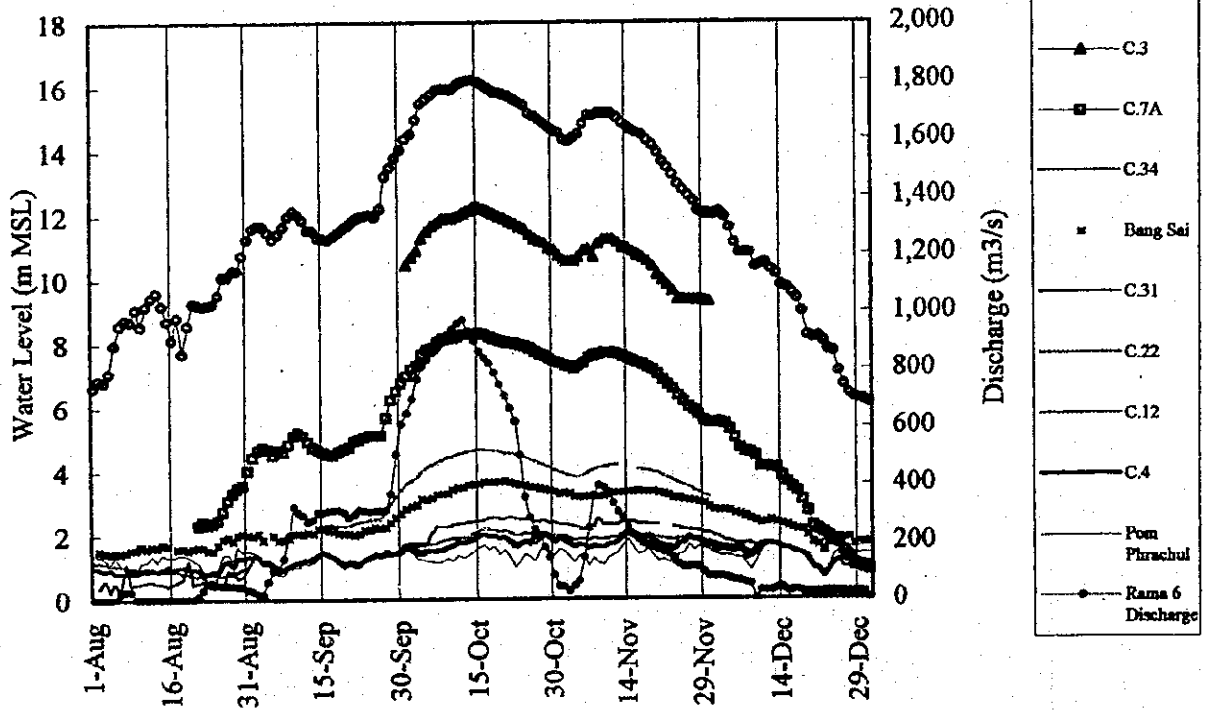
1995 FLOOD



STUDY ON ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD & INA CORPORATION

Fig.3.1.4 (2/3) DAILY MAXIMUM WATER
 LEVEL IN LOWER CHAO
 PHRAYA RIVER

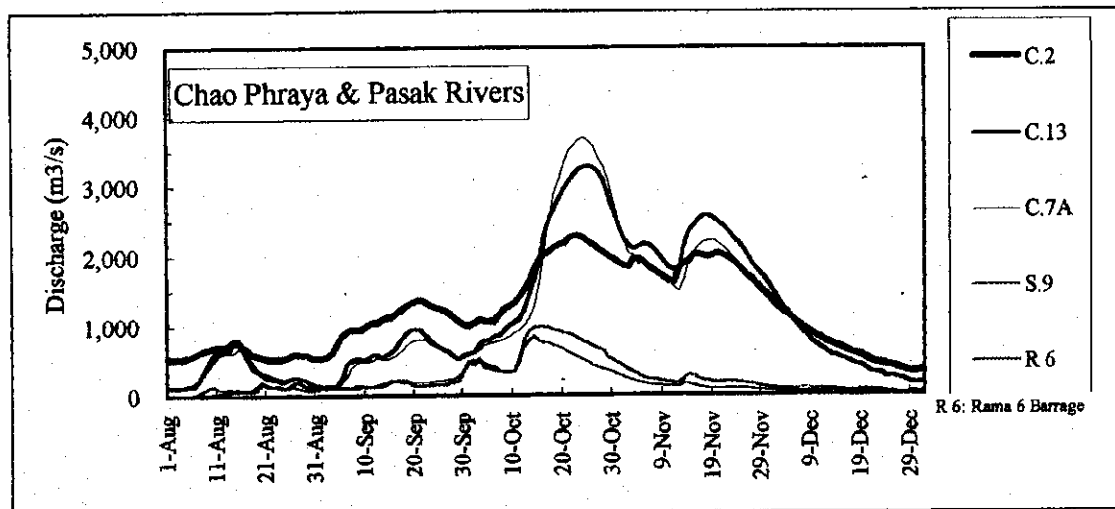
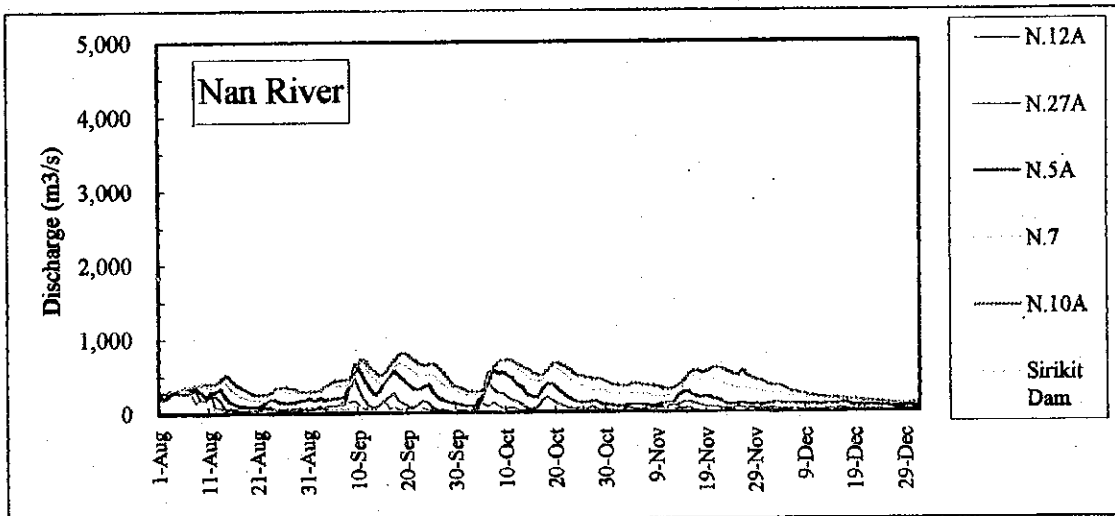
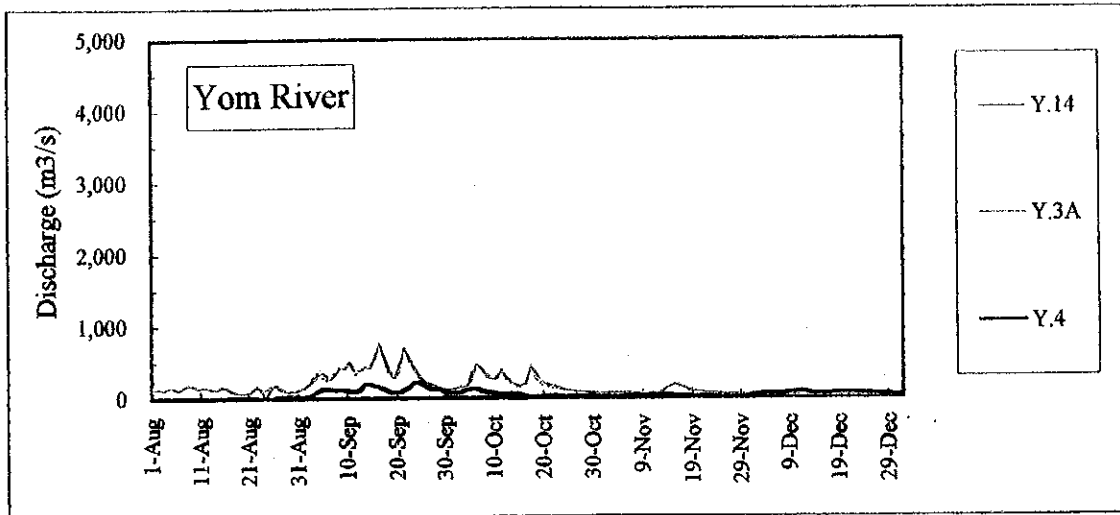
1996 FLOOD



STUDY ON ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD & INA CORPORATION

Fig.3.1.4 (3/3) DAILY MAXIMUM WATER
 LEVEL IN LOWER CHAO
 PHRAYA RIVER

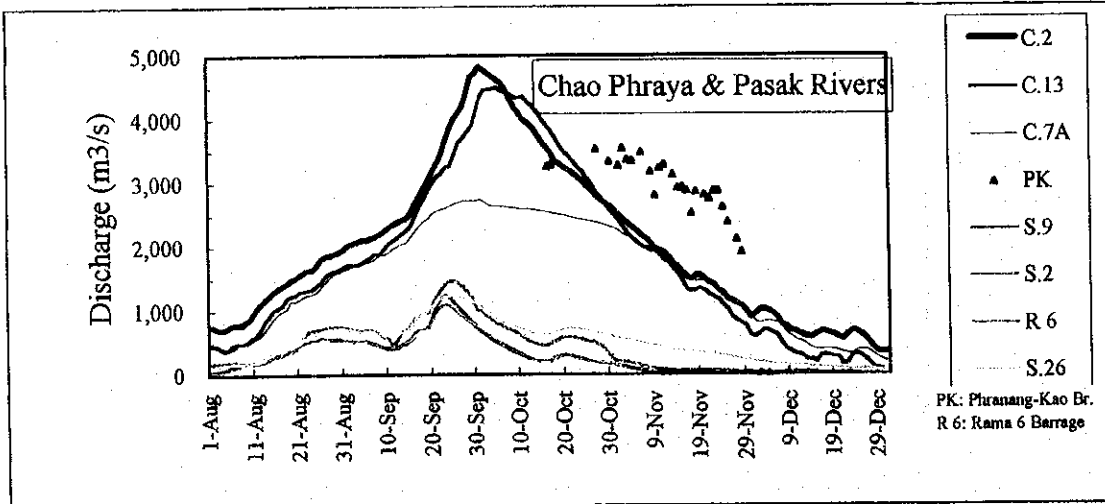
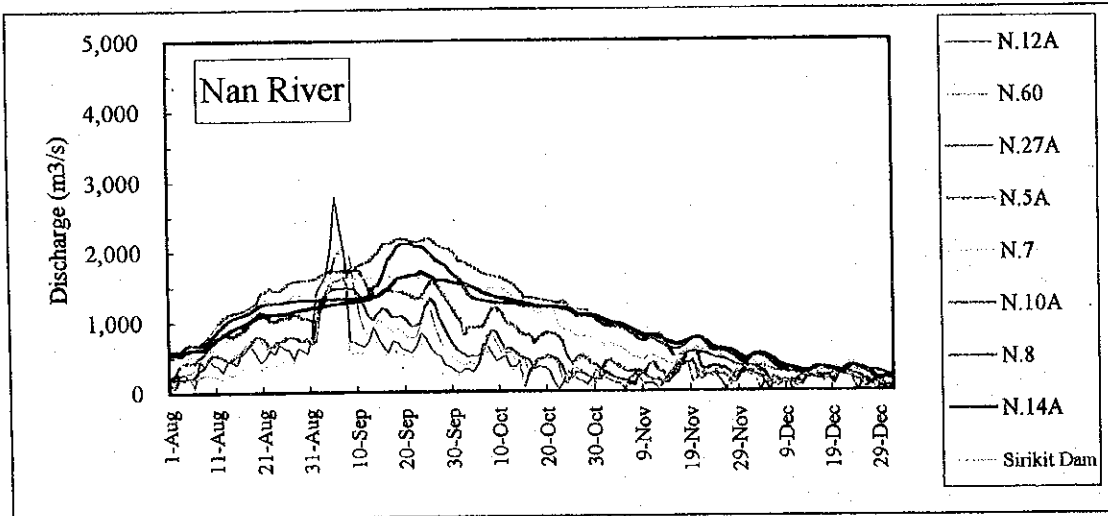
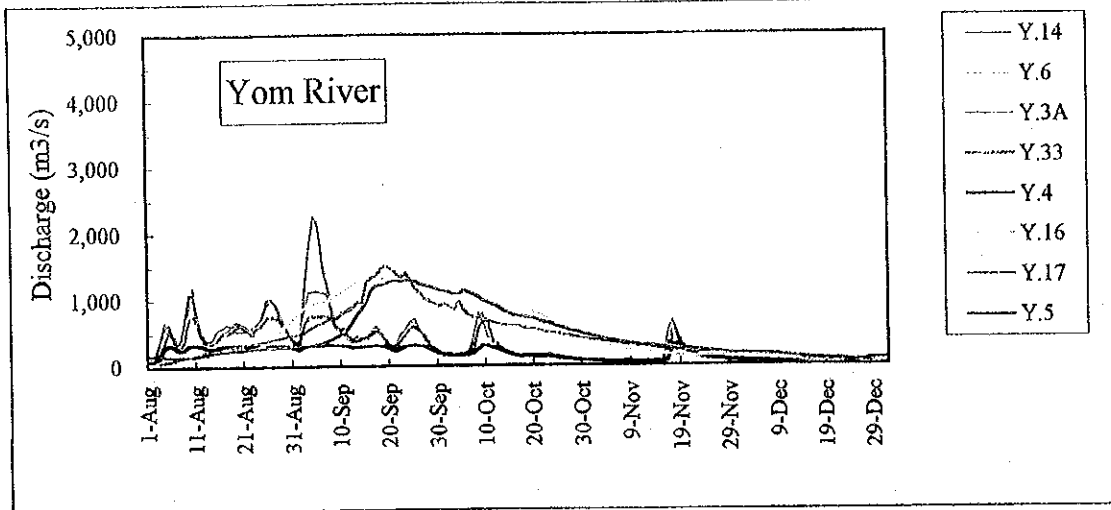
1983 FLOOD



STUDY ON ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD & INA CORPORATION

Fig.3.1.5 (1/3) FLOOD DISCHARGE
 HYDROGRAPH

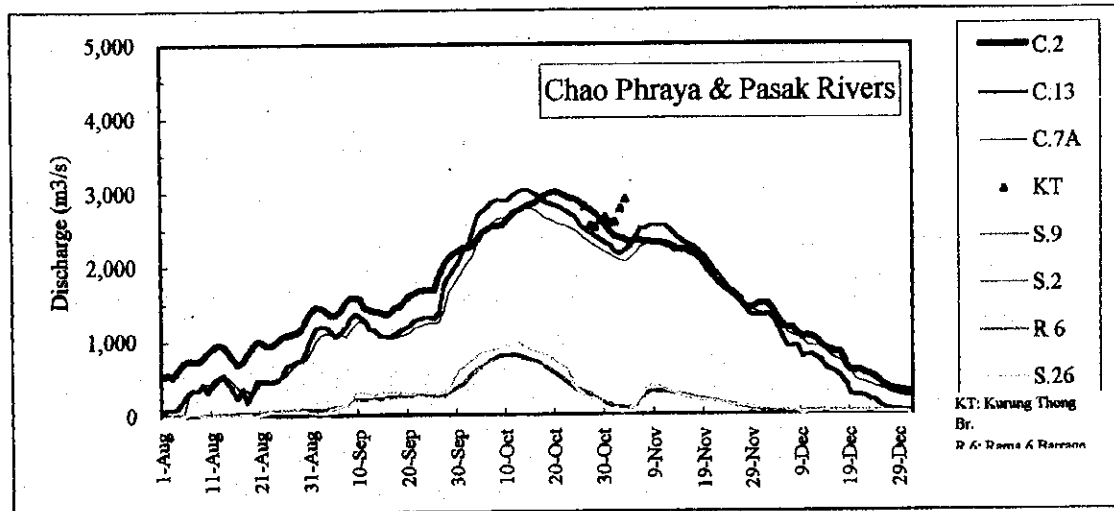
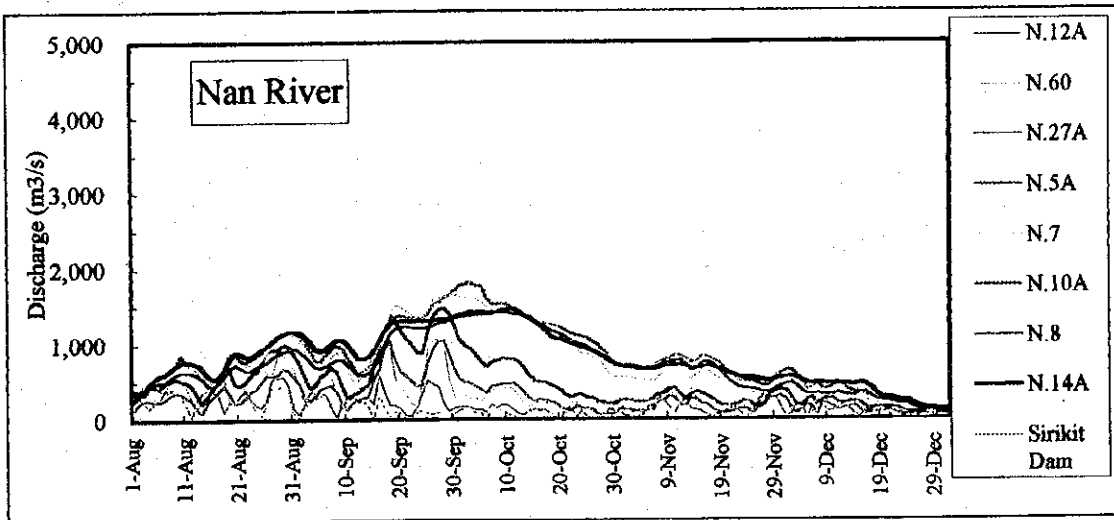
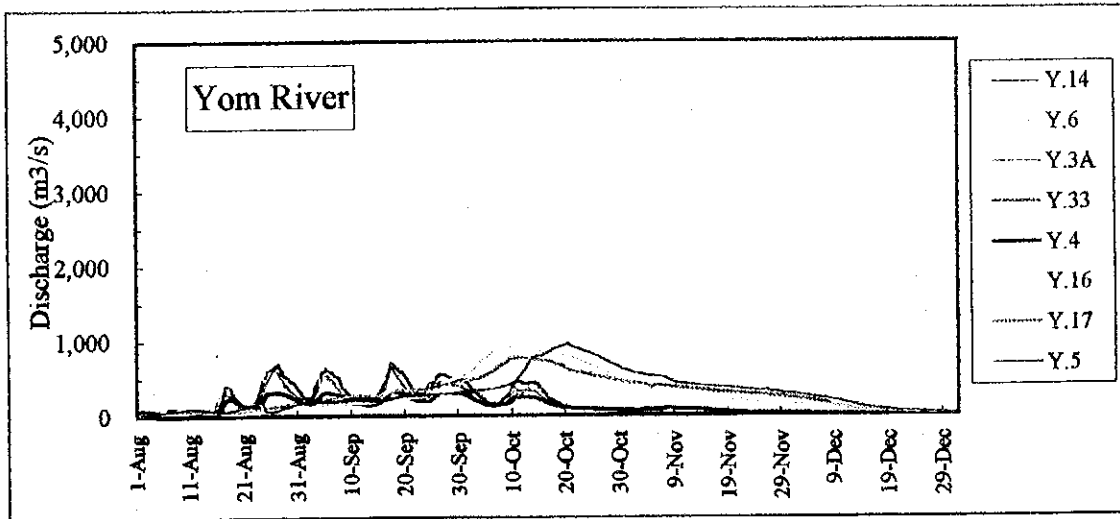
1995 FLOOD



STUDY ON ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAOPHRAYA RIVER BASIN
CTI ENGINEERING CO., LTD & INA CORPORATION

Fig.3.1.5 (2/3) FLOOD DISCHARGE
HYDROGRAPH

1996 FLOOD

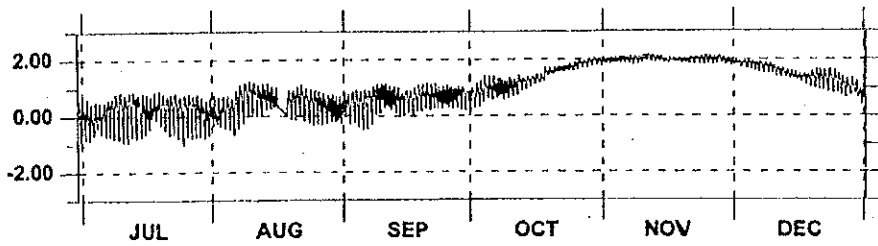


STUDY ON ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAOPHRAYA RIVER BASIN
CTI ENGINEERING CO., LTD & INA CORPORATION

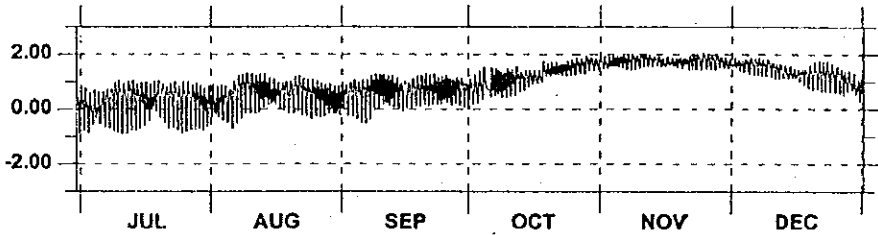
Fig.3.1.5 (3/3) FLOOD DISCHARGE
HYDROGRAPH

C.22
WATER LEVEL, METER

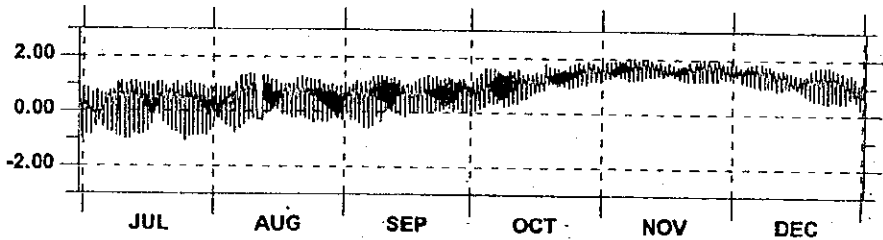
1983 FLOOD



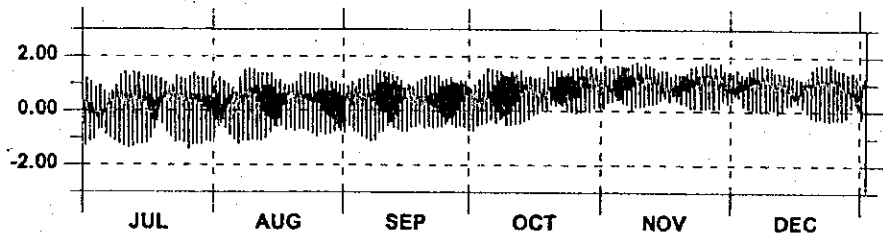
C.12
WATER LEVEL, METER



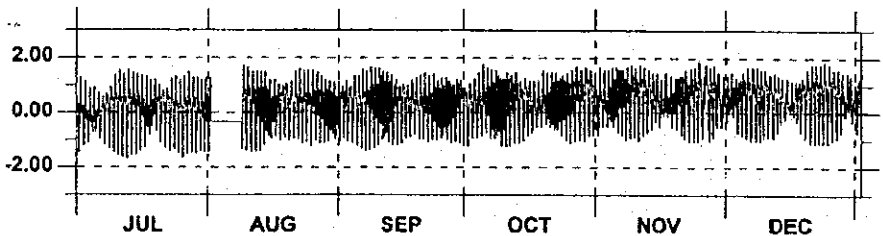
C.4
WATER LEVEL, METER



BKK PORT
WATER LEVEL, METER



POM PHRA
WATER LEVEL, METER

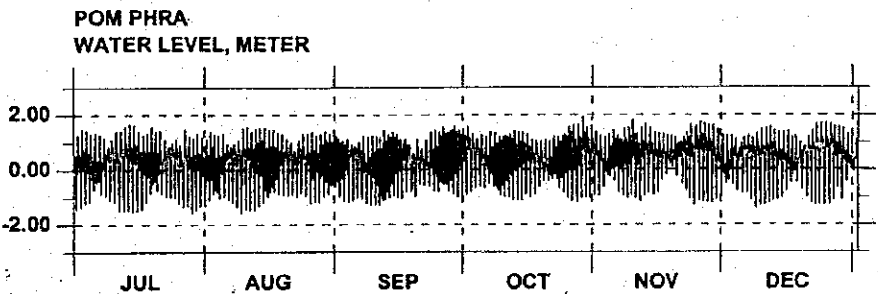
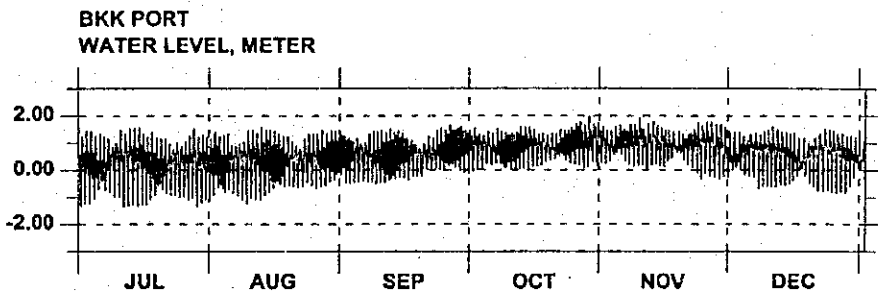
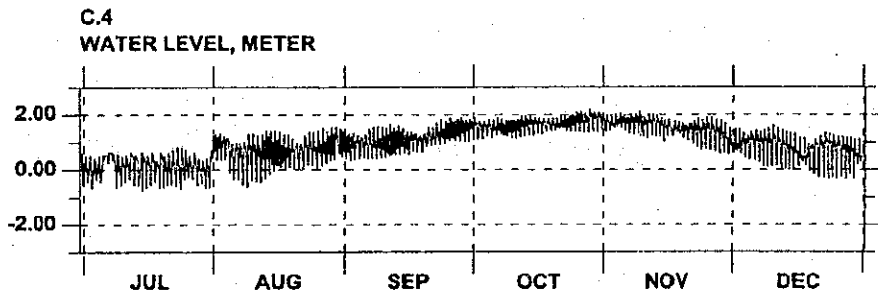
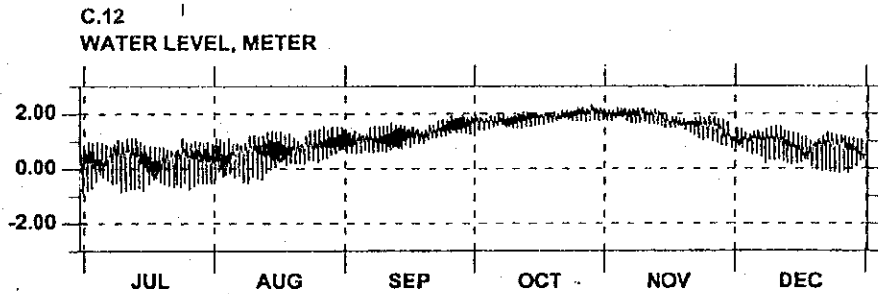
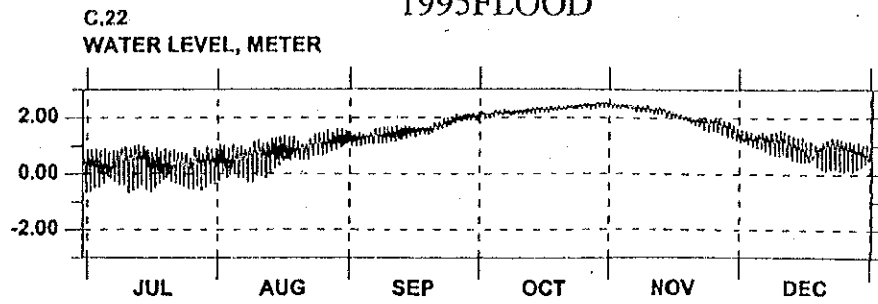


STUDY ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAO PHRAYA RIVER BASIN

CTI ENGINEERING CO., LTD. AND INA CORPORATION

Fig.3.1.6 (1/3) TIDAL HYDROGRAPH ON
LOWER CHAO PHRAYA RIVER

1995 FLOOD

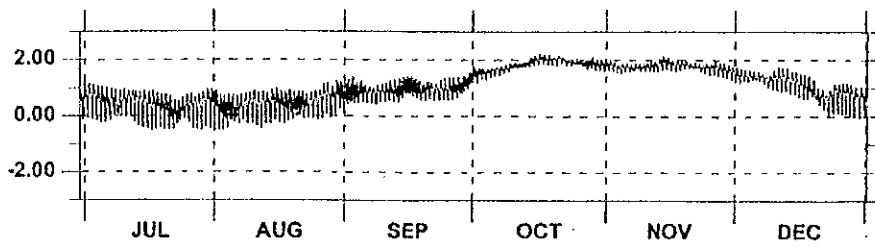


STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN

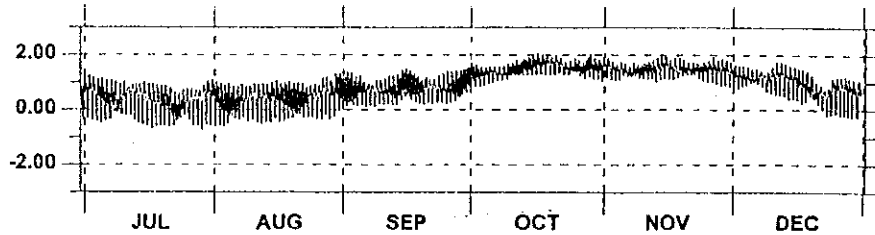
Fig.3.1.6 (2/3) TIDAL HYDROGRAPH ON LOWER CHAO PHRAYA RIVER

CTI ENGINEERING CO., LTD. AND INA CORPORATION

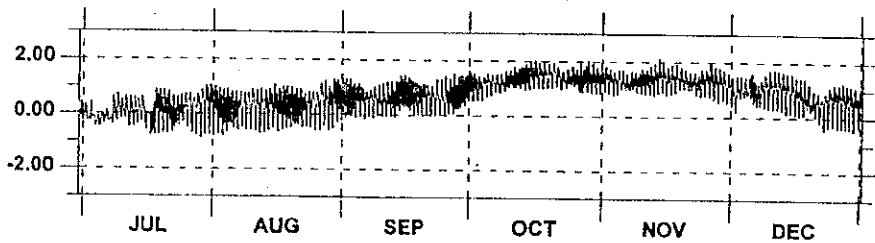
C.22 1996 FLOOD
WATER LEVEL, METER



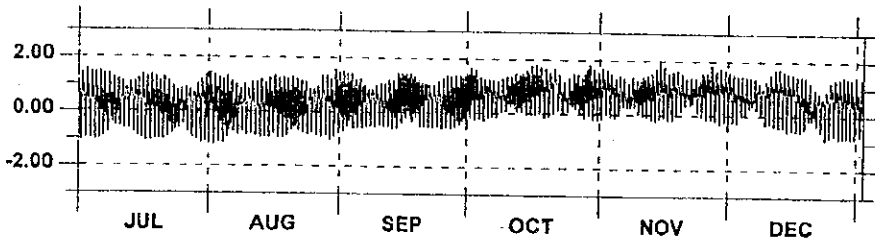
C.12 WATER LEVEL, METER



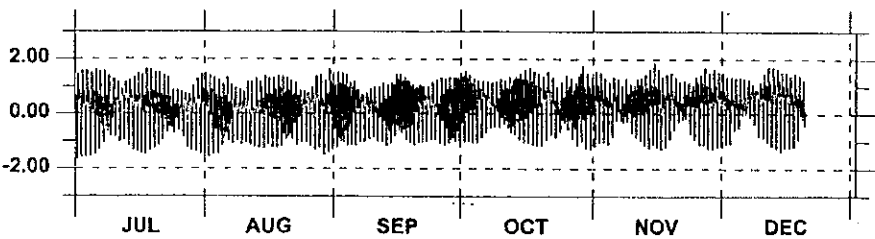
C.4 WATER LEVEL, METER



BKK PORT WATER LEVEL, METER



POM PHRA WATER LEVEL, METER

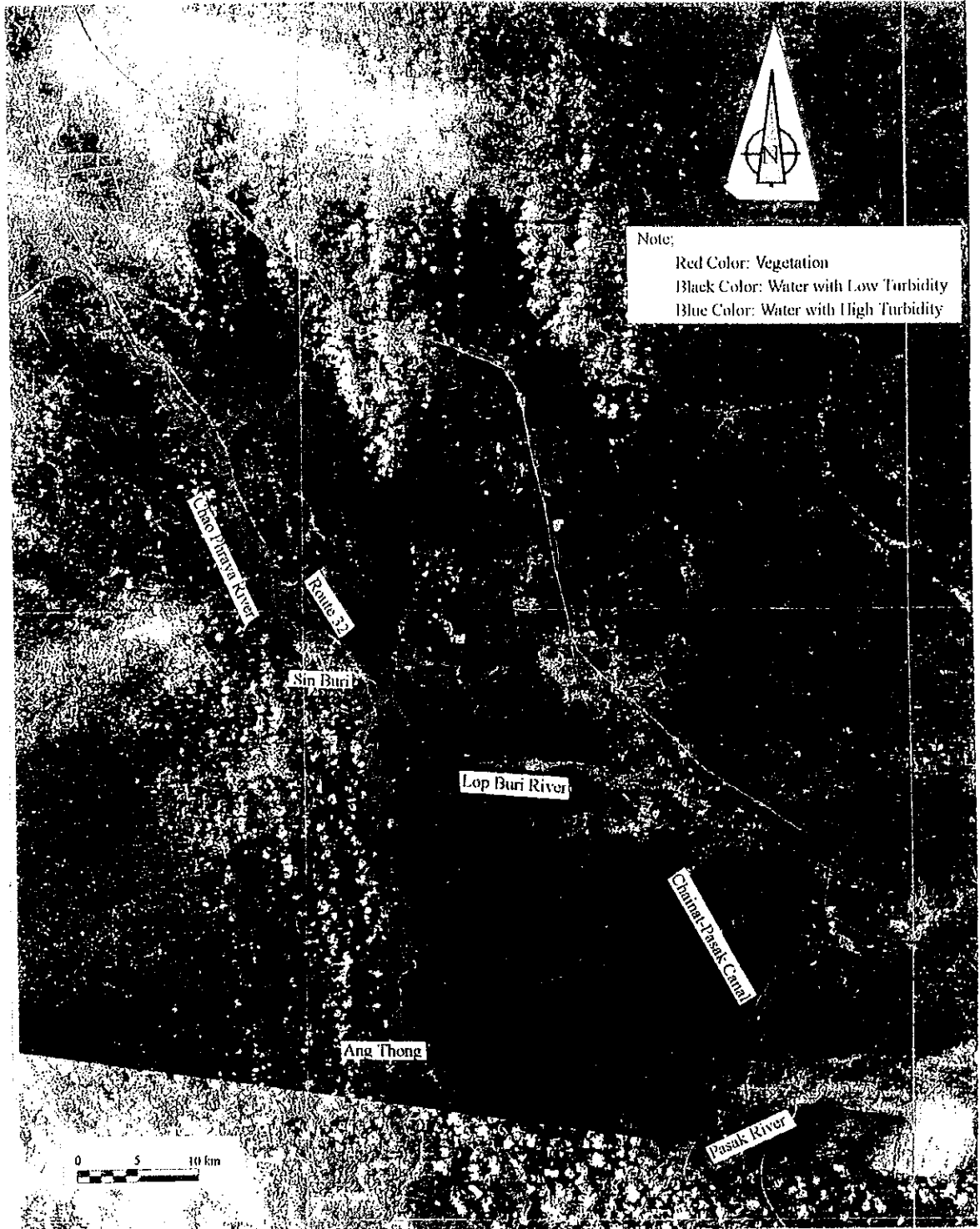


STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN

CTI ENGINEERING CO., LTD. AND INA CORPORATION

Fig.3.1.6 (3/3) TIDAL HYDROGRAPH ON LOWER CHAO PHRAYA RIVER

ROUTE 32 AND CHAINAT-PASAK CANAL



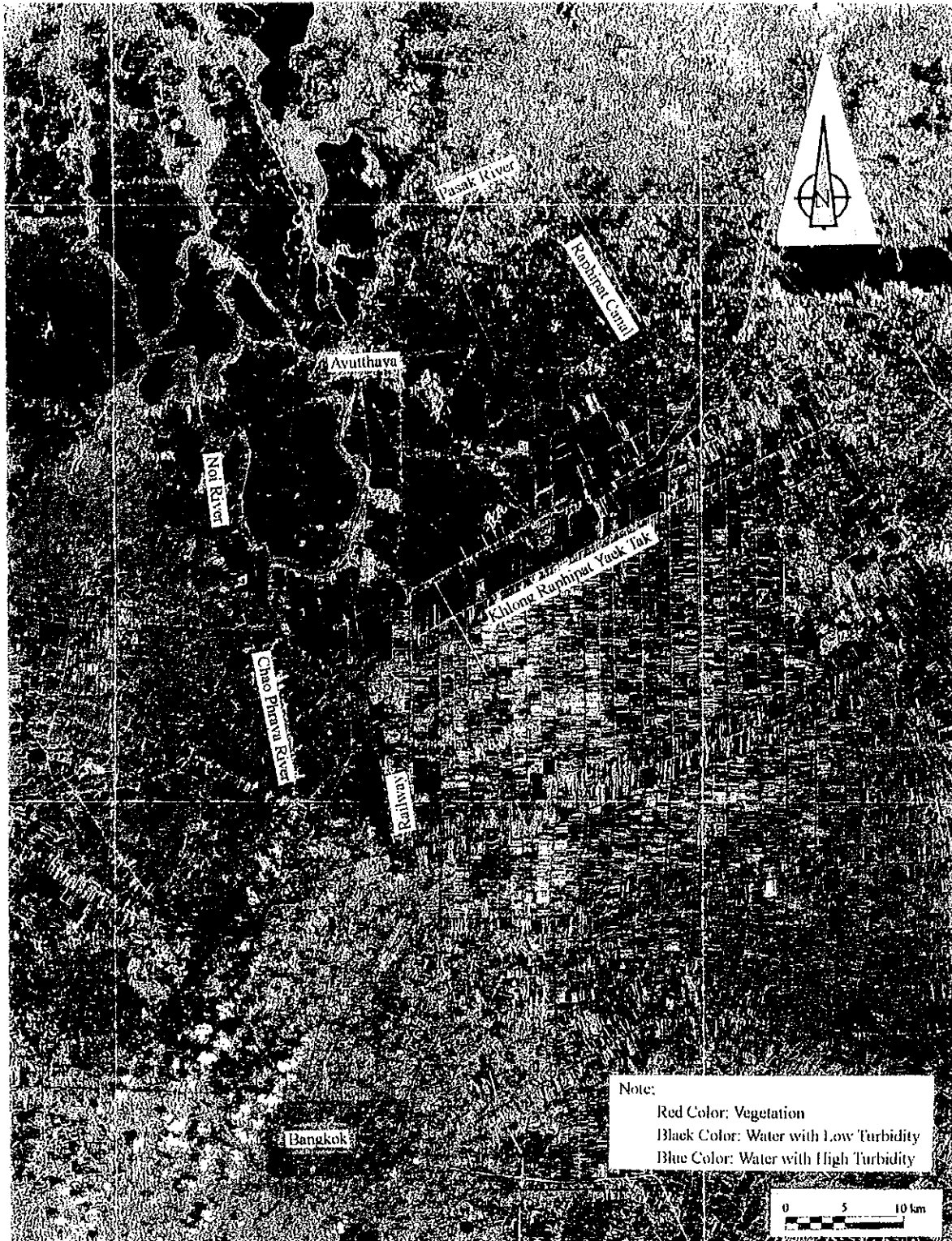
Landsat TM False Color Image (1995.Oct.12)

STUDY ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAO PHRAYA RIVER BASIN

CTI ENGINEERING CO., LTD. AND INA CORPORATION

Fig.3.1.7 (1/2) EMBANKMENT AFFECTING FLOODING
 CONDITION

K.RAPHIPAT YAEK TAK AND RAILWAY

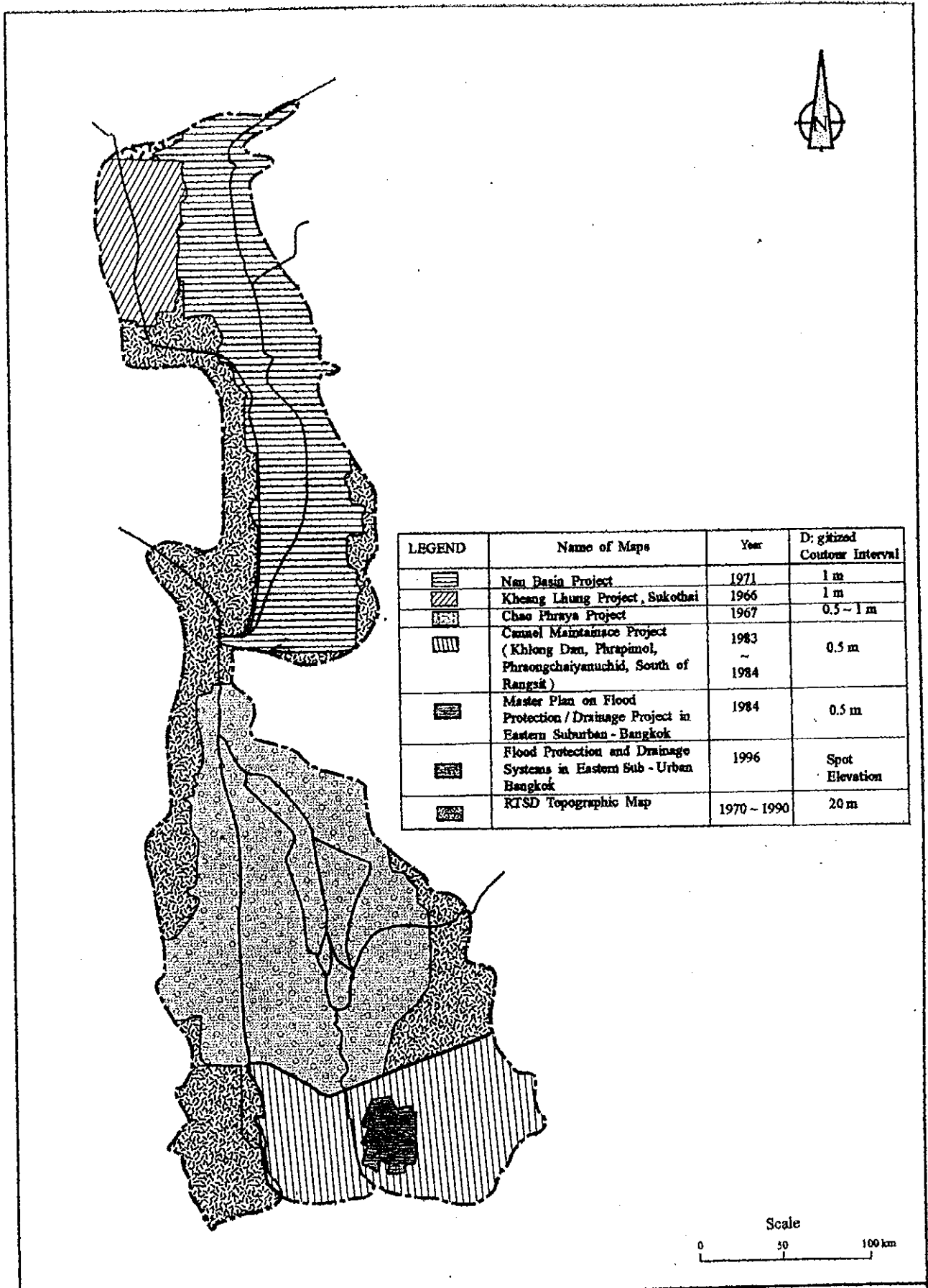


Landsat TM False Color Image (1996.Nov.15)

STUDY ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAO PHRAYA RIVER BASIN

CTI ENGINEERING CO., LTD. AND INA CORPORATION

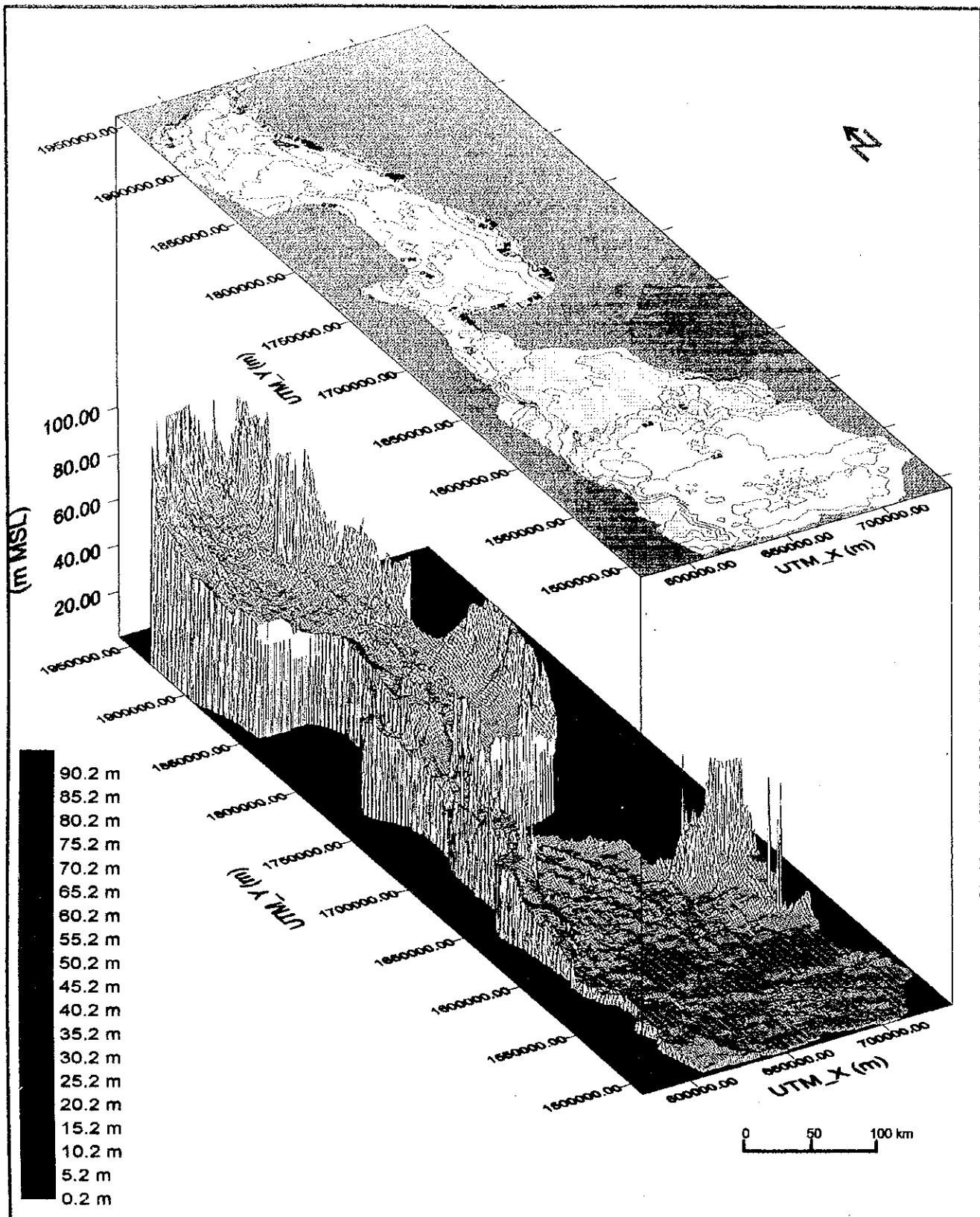
Fig.3.1.7 (2/2) EMBANKMENT AFFECTING FLOODING
CONDITION



STUDY ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAO PHRAYA RIVER BASIN

CTI ENGINEERING CO., LTD AND INA CORPORATION

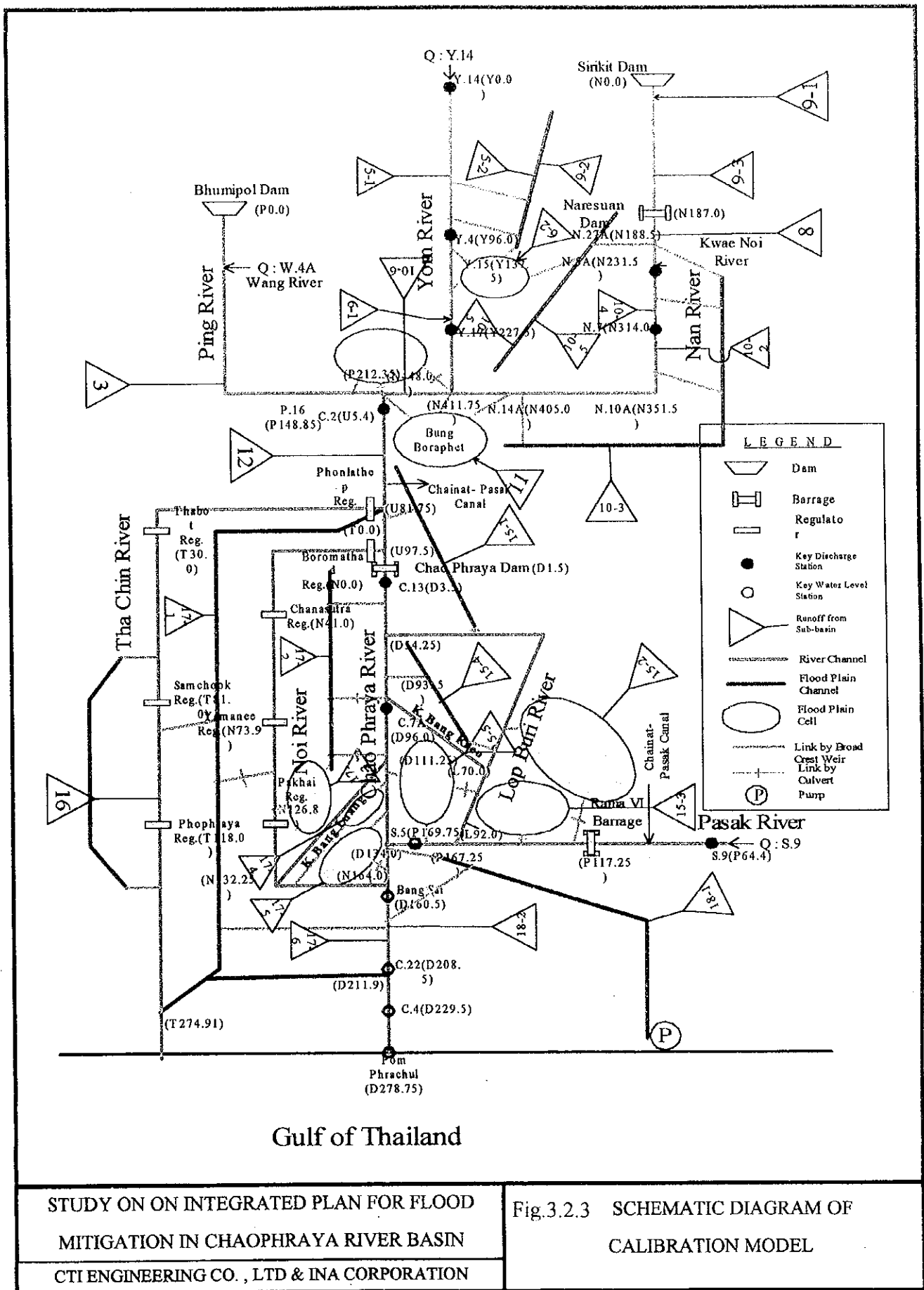
Fig.3.2.1
INDEX OF TOPOGRAPHIC MAPS

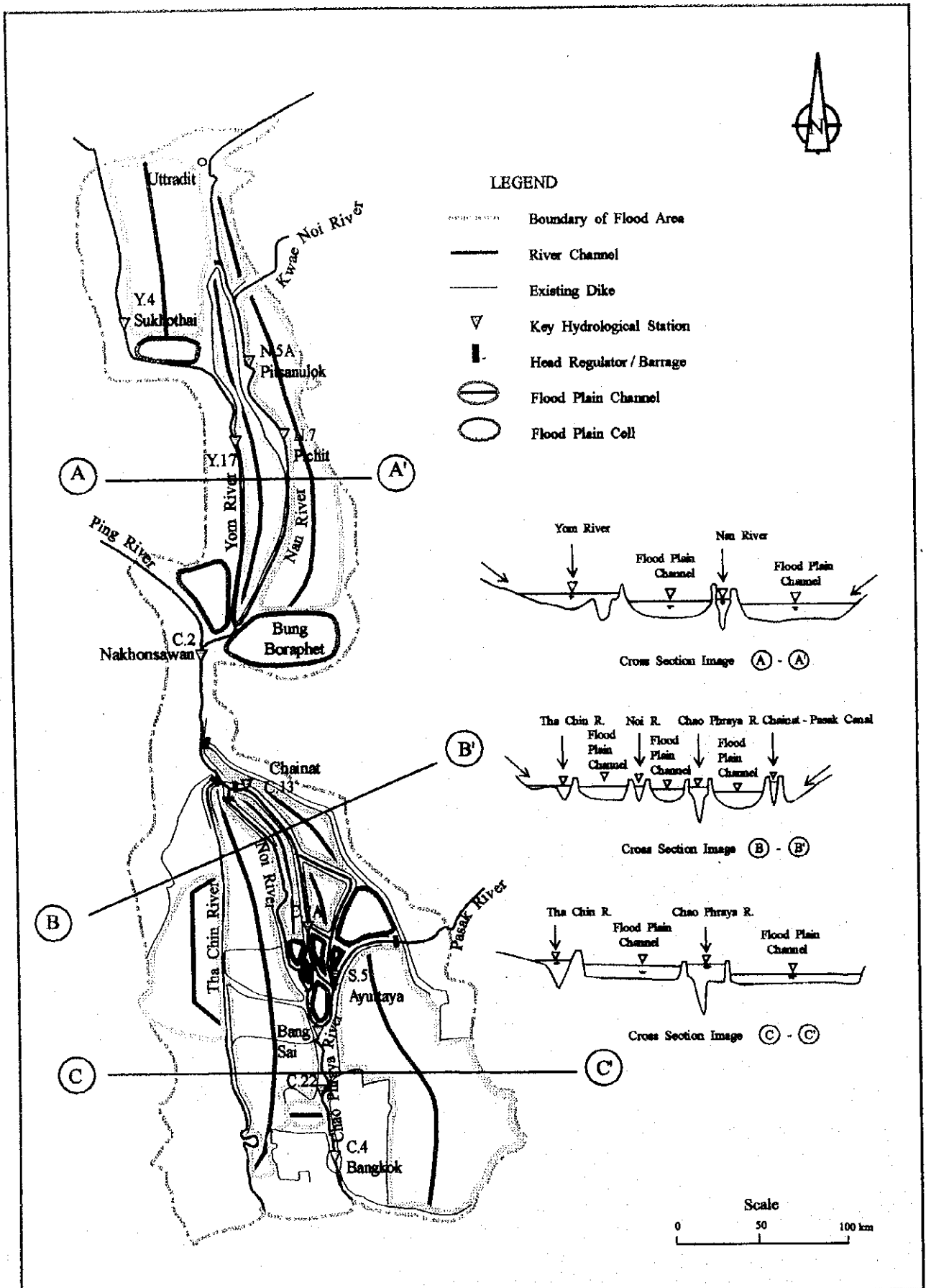


STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN

CTI ENGINEERING CO., LTD. AND INA CORPORATION

Fig.3.2.2 THREE DIMENSIONAL VIEW OF PROBABLE MAXIMUM FLOOD AREA



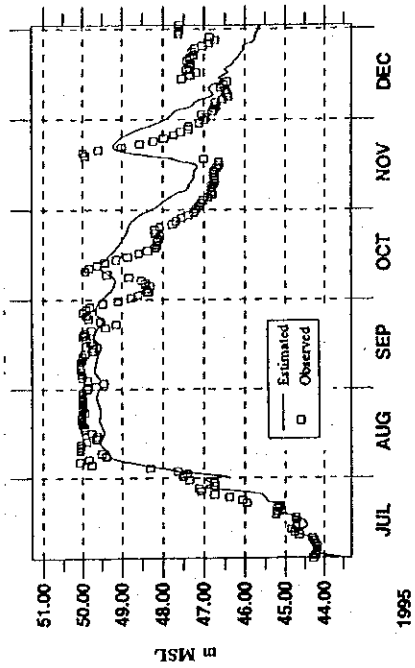


STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN

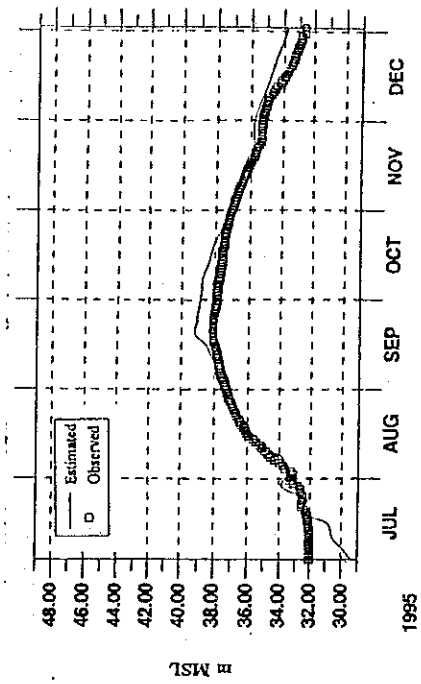
CTI ENGINEERING CO., LTD AND INA CORPORATION

Fig.3.2.4
FLOOD PLAIN DIVISION FOR MODELING

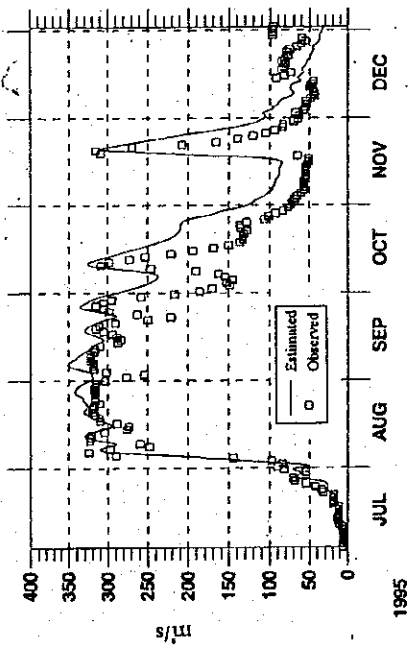
Y.4 Water Level



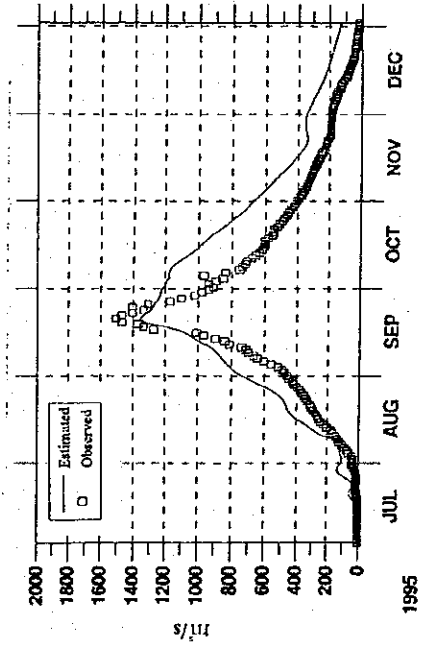
Y.17 Water Level



Y.4 Discharge



Y.17 Discharge

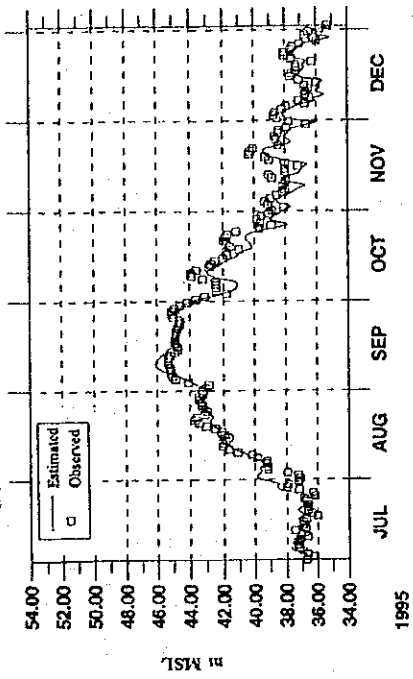


STUDY ON ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO. , LTD & INA CORPORATION

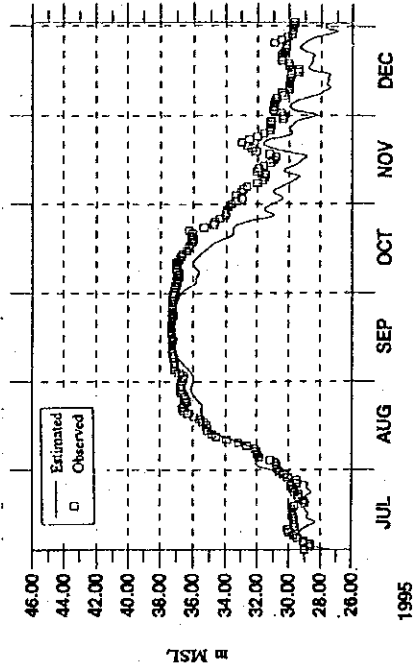
Fig.3.2.5 (1/6)

RESULT OF 1995 FLOOD SIMULATION

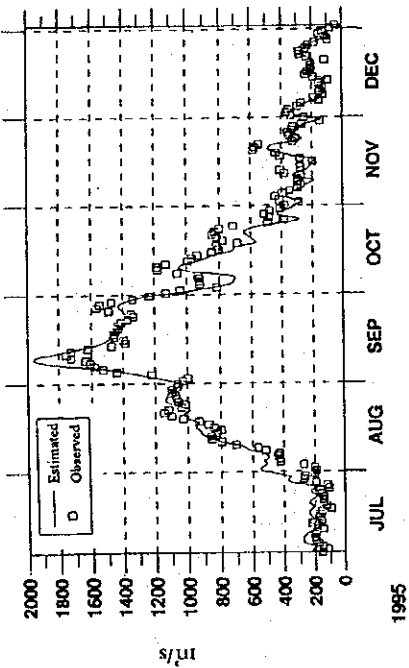
N.5A Water Level



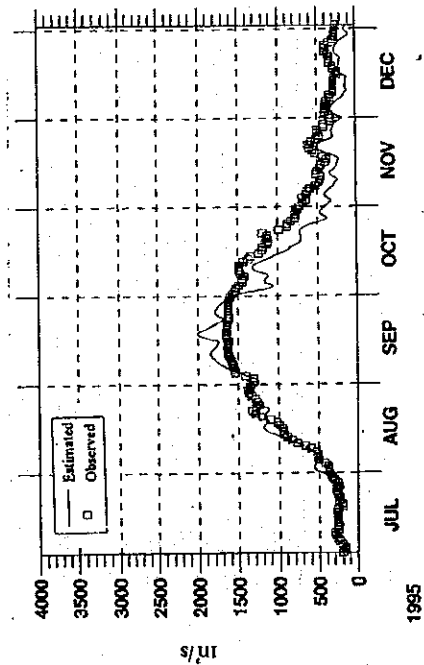
N.7 Water Level



N.5A Discharge



N.7 Discharge

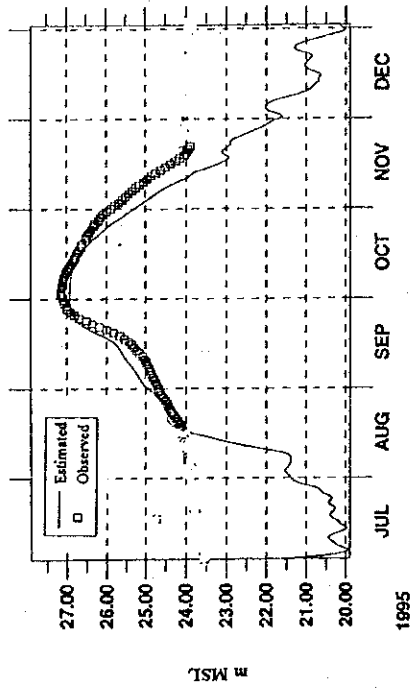


STUDY ON ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD & INA CORPORATION

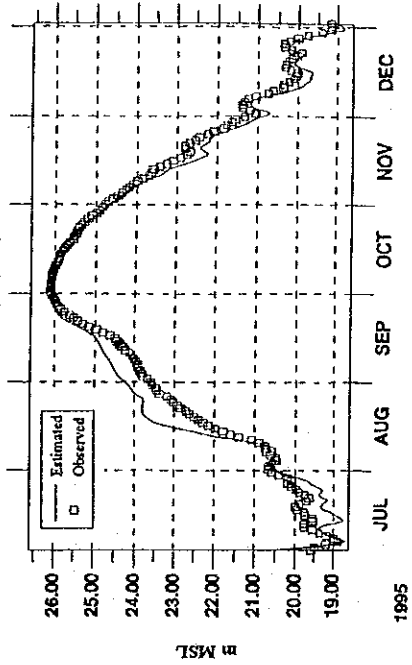
Fig.3.2.5 (2/6)

RESULT OF 1995 FLOOD SIMULATION

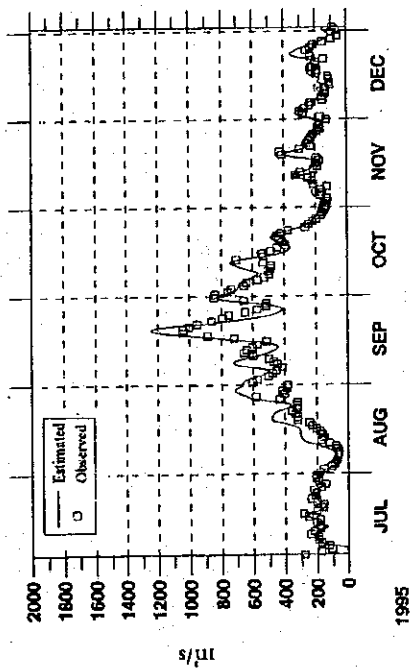
Bung Boraphet Water Level



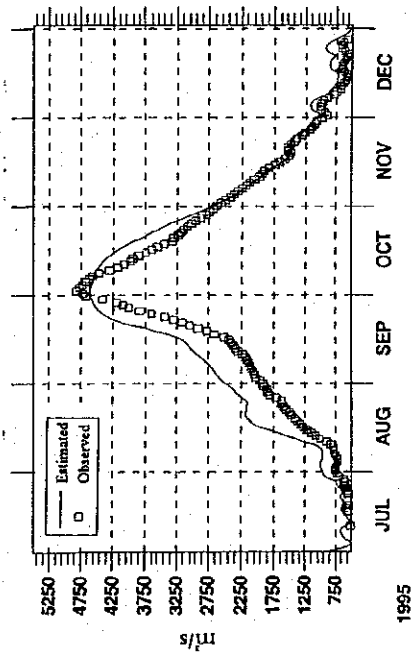
C.2 Water Level



P.17 Discharge



C.2 Discharge

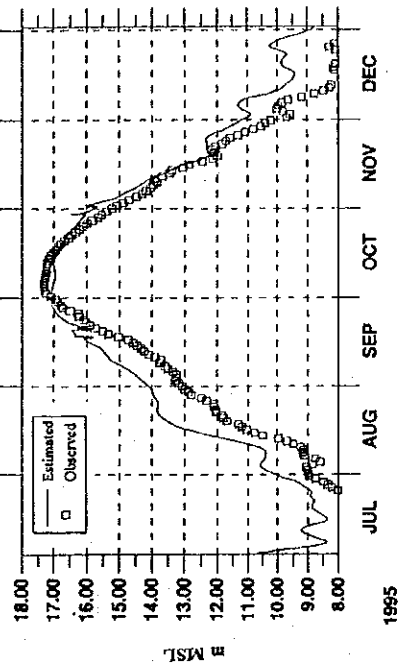


STUDY ON ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD & INA CORPORATION

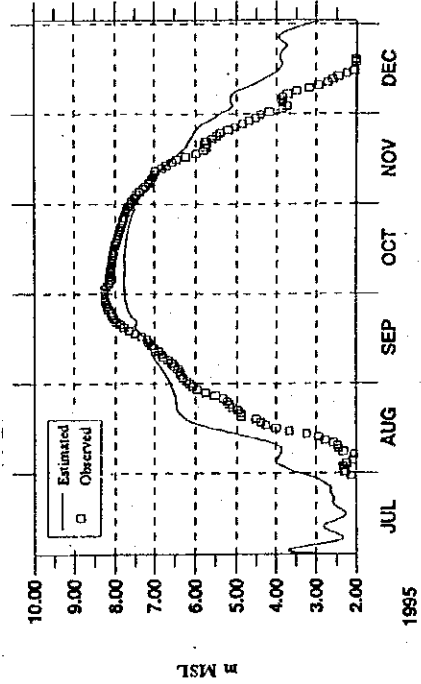
Fig.3.2.5 (3/6)

RESULT OF 1995 FLOOD SIMULATION

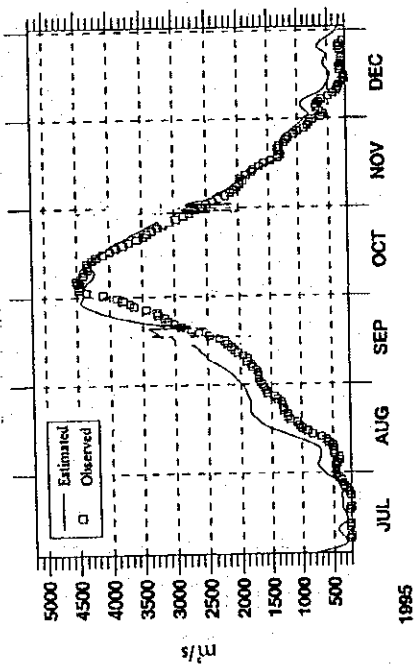
C.13 Water Level



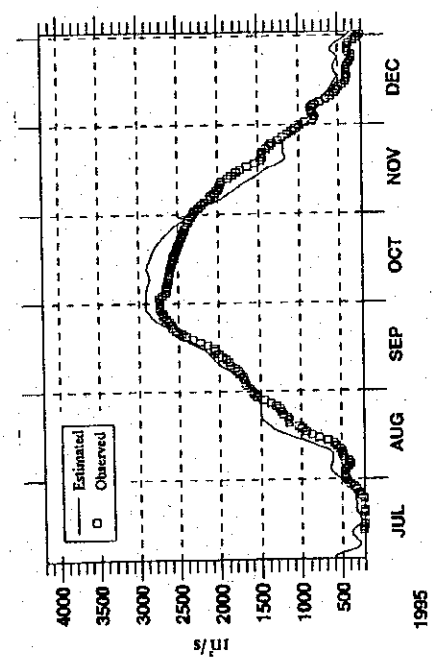
C.7A Water Level



C.13 Discharge



C.7A Discharge

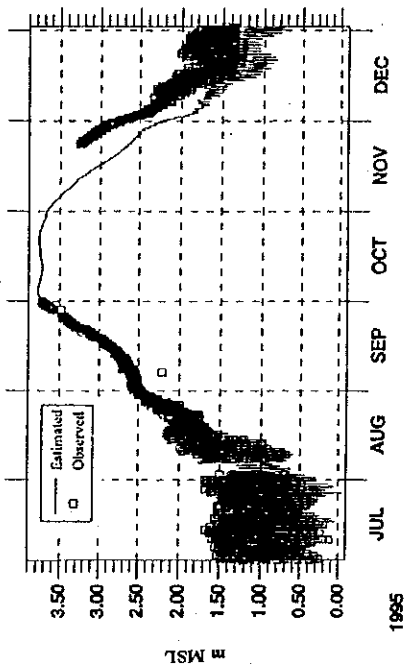


STUDY ON ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD & INA CORPORATION

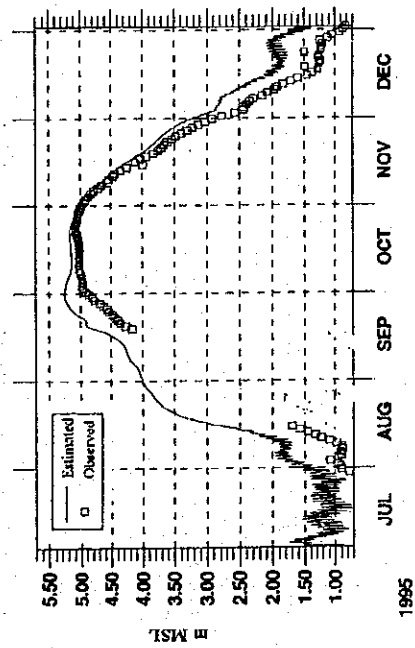
Fig 3.2.5 (4/6)

RESULT OF 1995 FLOOD SIMULATION

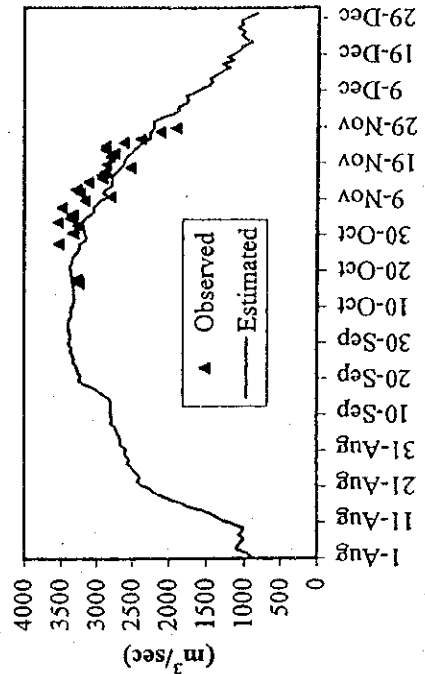
Bang Sai Water Level



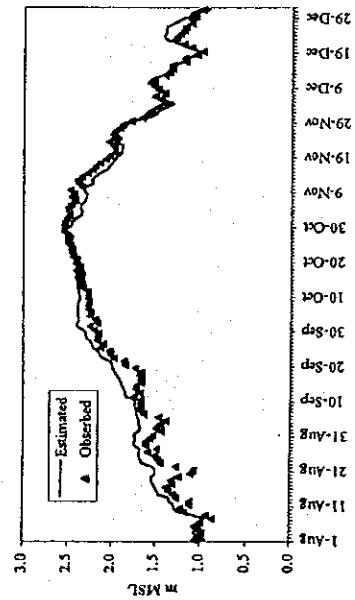
C.34 Water Level



Daily Mean Discharge at Phranang Klao Bridge



C.22 Daily Maximum Waterlevel

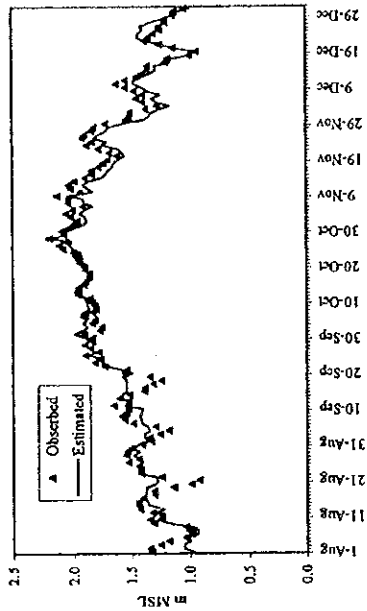


STUDY ON ON INTEGRATED PLAN FOR FLOOD
MITIGATION IN CHAOPHRAYA RIVER BASIN
CTI ENGINEERING CO., LTD & INA CORPORATION

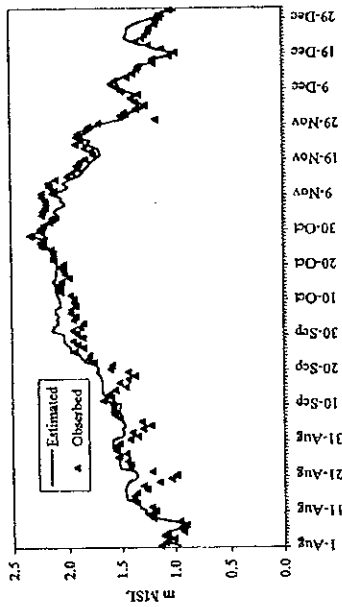
Fig.3.2.5 (5/6)

RESULT OF 1995 FLOOD SIMULATION

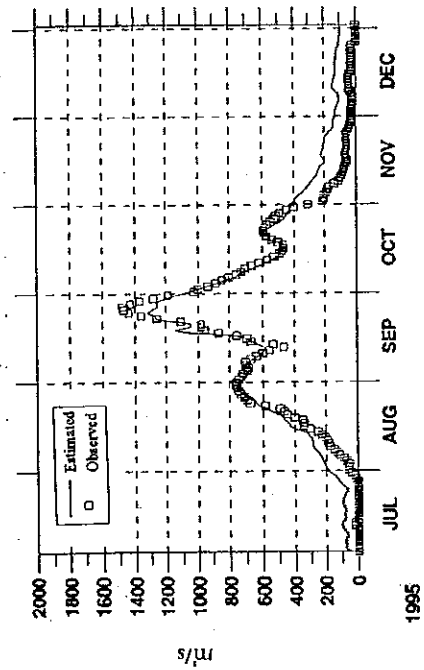
C.4 Daily Maximum Waterlevel



C.12 Daily Maximum Waterlevel



Rama VI Barrage Discharge

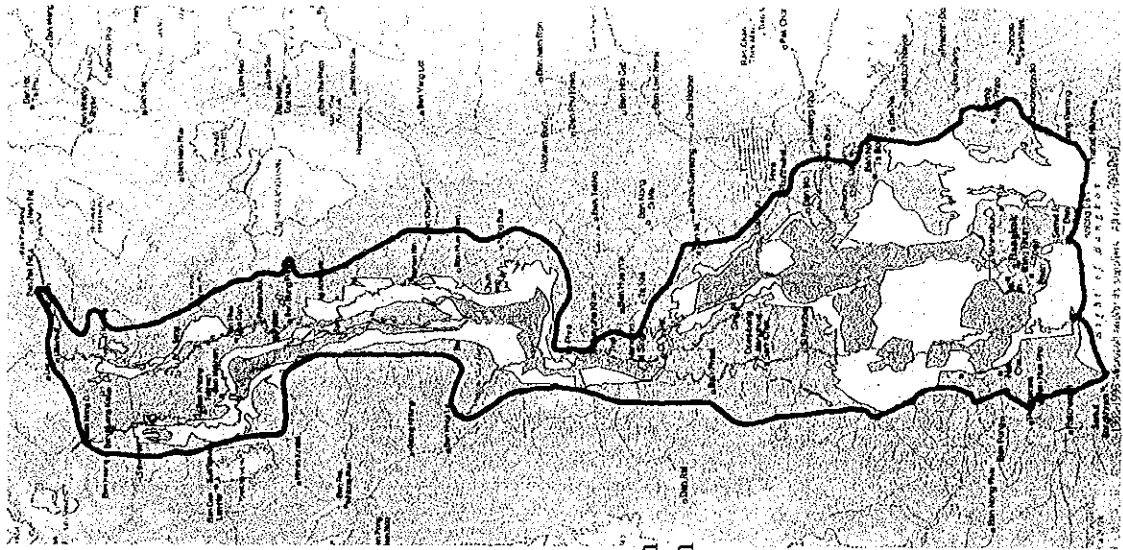


STUDY ON ON INTEGRATED PLAN FOR FLOOD
 MITIGATION IN CHAOPHRAYA RIVER BASIN
 CTI ENGINEERING CO., LTD & INA CORPORATION

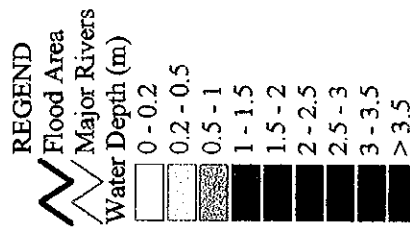
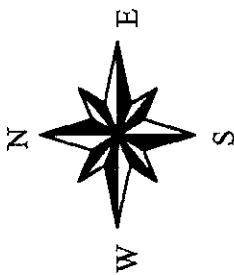
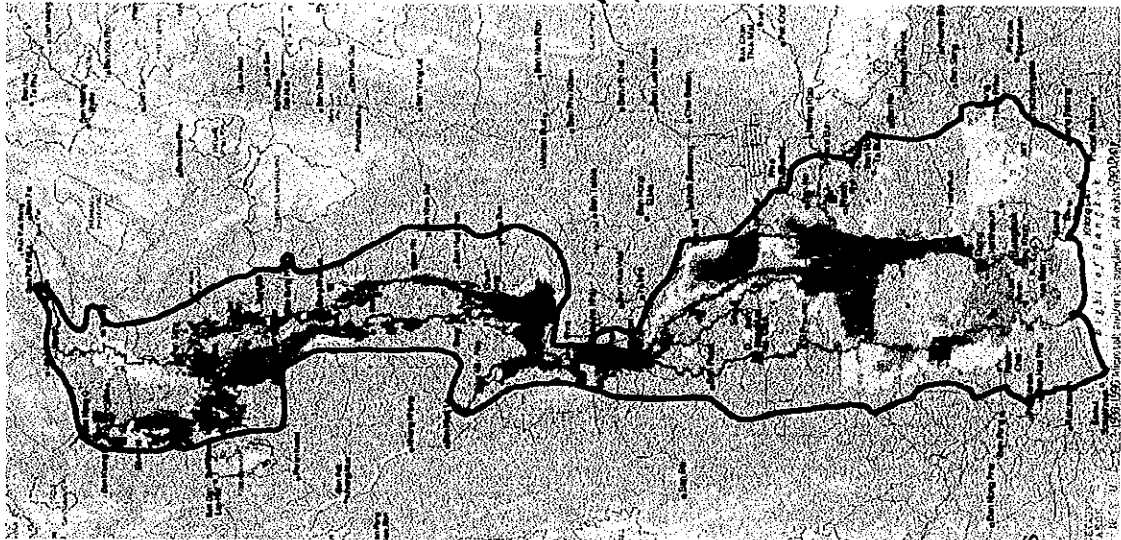
Fig.3.2.5 (6/6)

RESULT OF 1995 FLOOD SIMULATION

FLOOD MAP BASED ON SATELLITE IMAGES AND INTERVIEW SURVEY



SIMULATED FLOOD MAP - 1995



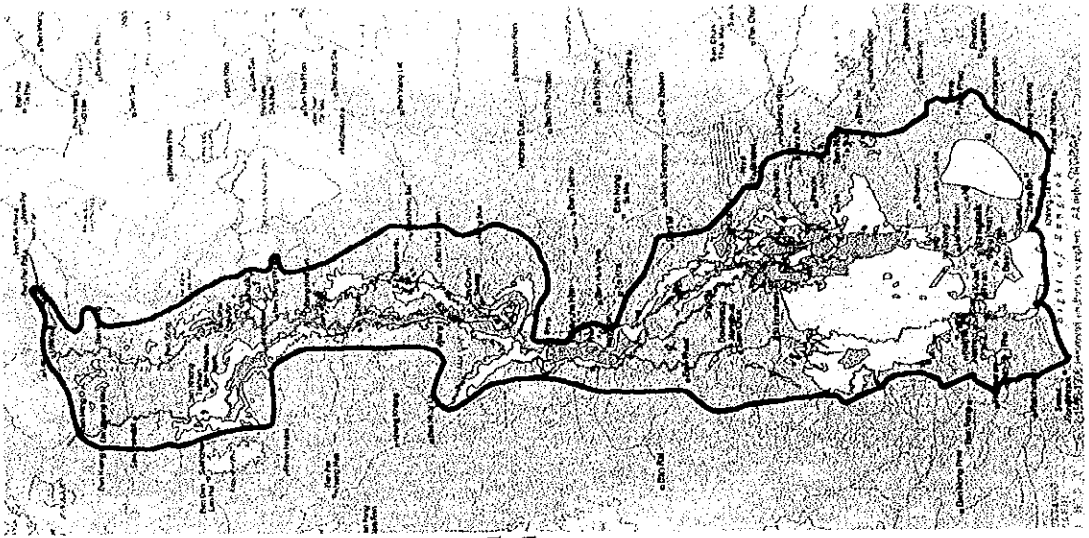
STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN

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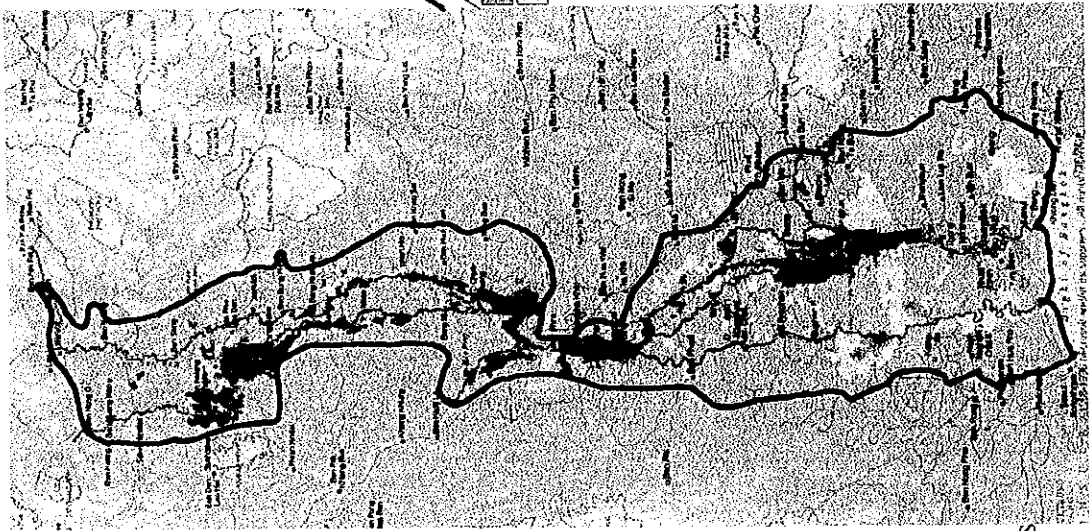
Fig.3.2.6 (1/3)

ESTIMATED FLOOD INUNDATION MAP

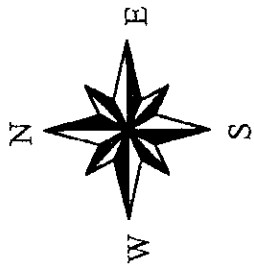
FLOOD MAP BASED ON SATELLITE IMAGES AND INTERVIEW SURVEY



SIMULATED FLOOD MAP - 1996



REGEND
 Flood Area
 Major Rivers
 Water Depth $\geq 1m$
 Water Depth $< 1m$



REGEND
 Flood Area
 Major Rivers
 Water Depth (m)
 0 - 0.2
 0.2 - 0.5
 0.5 - 1
 1 - 1.5
 1.5 - 2
 2 - 2.5
 2.5 - 3
 3 - 3.5
 > 3.5



STUDY ON INTEGRATED PLAN FOR FLOOD MITIGATION IN CHAO PHRAYA RIVER BASIN
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Fig.3.2.6 (2/3)
 ESTIMATED FLOOD INUNDATION MAP

