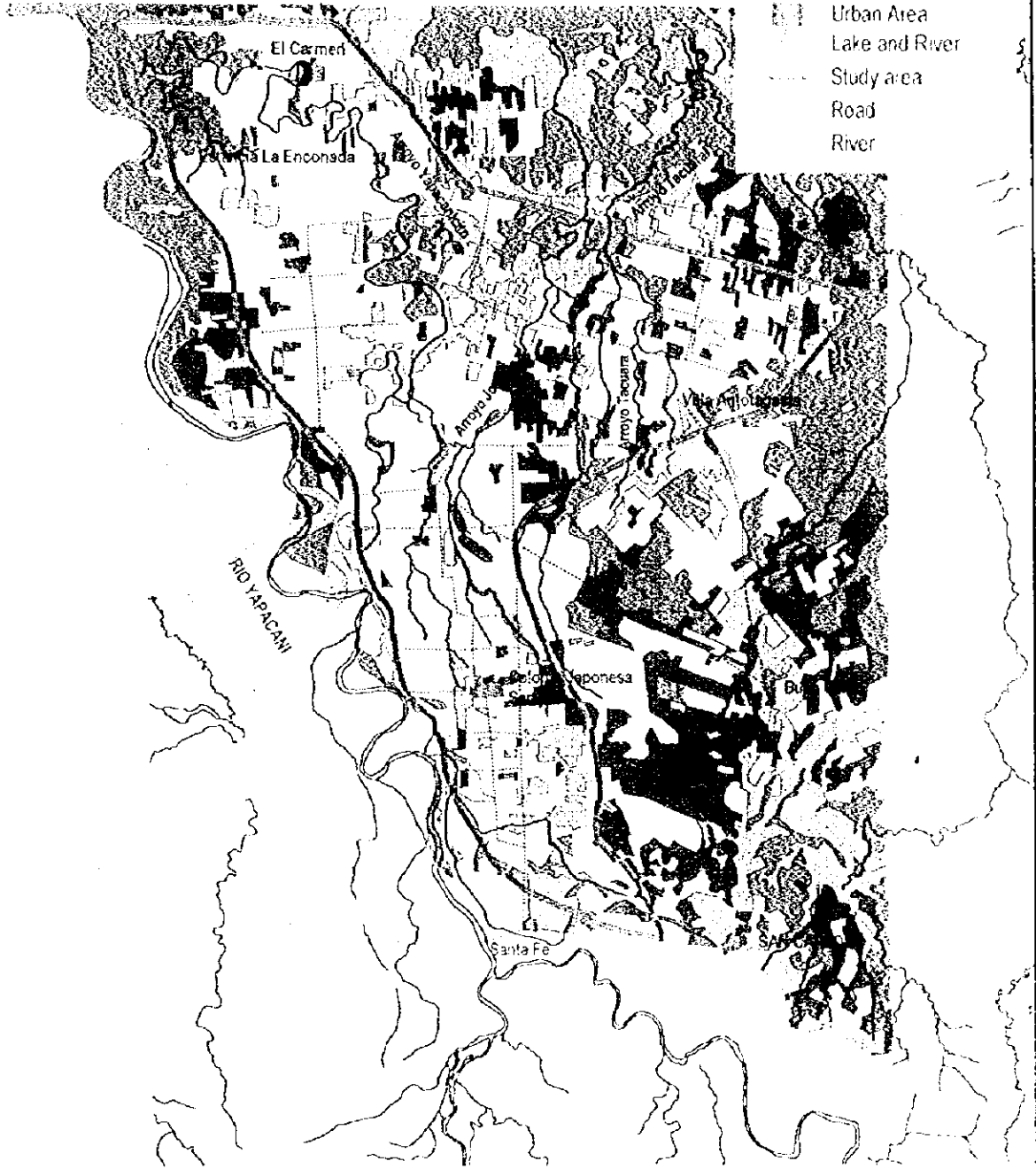


図-3 土地利用図 (サンファン-アントファガスタ地区; 1998年)



### LEGEND

- Upland Field
- Perennial Crop
- Grazing Land
- Primary Forest
- Secondary Forest
- Swamp Forest
- Idle Land
- Urban Area
- Lake and River
- Study area
- Road
- River



5 0 5 10 Kilometers

図-3 土地利用図 (サンファン・アントファガスタ地区：1998年)

FIGURE

692



5 0 5 10 Kilometers

Scale of 1:50,000

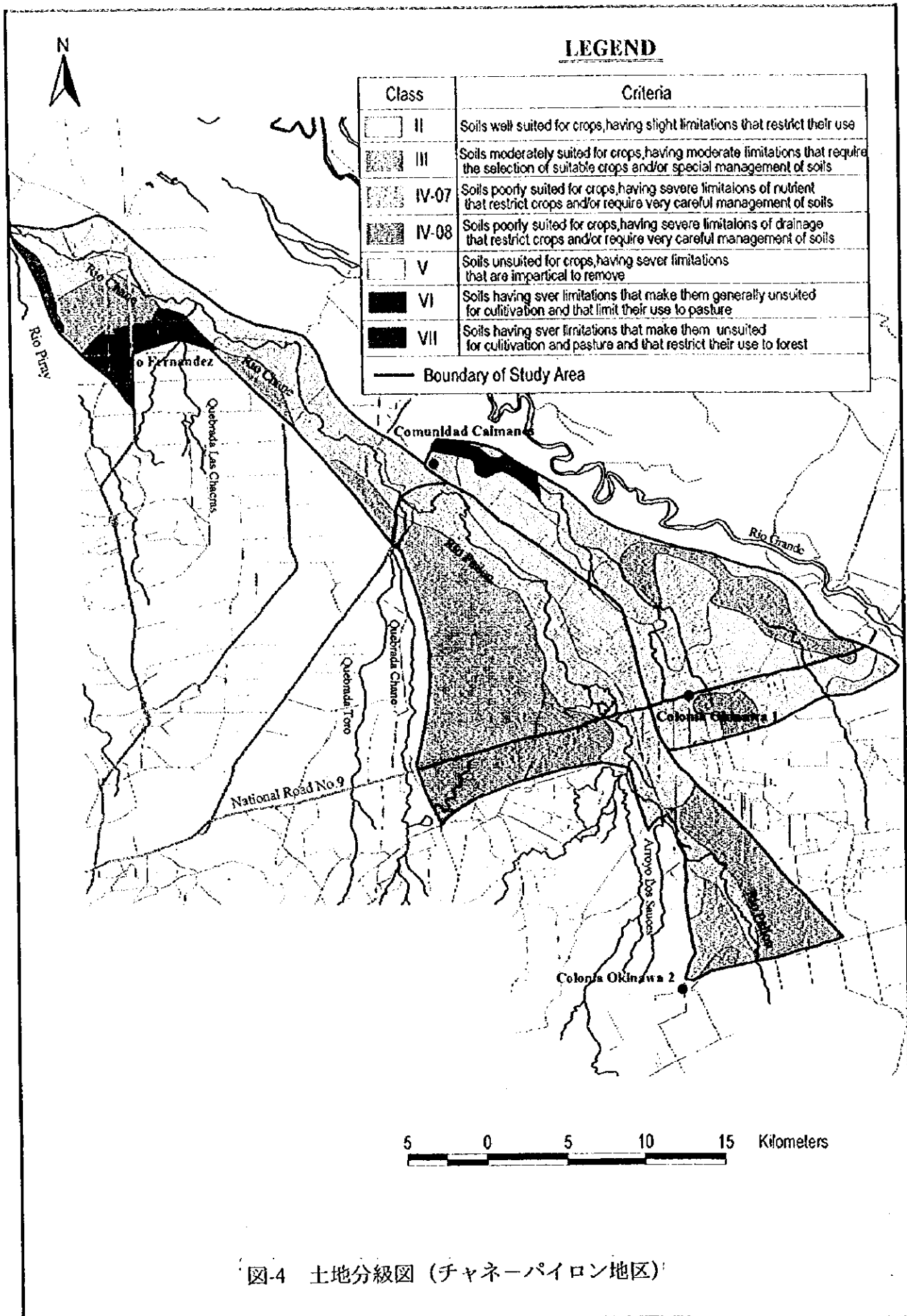


図-4 土地分級図 (チャネーパイロン地区)

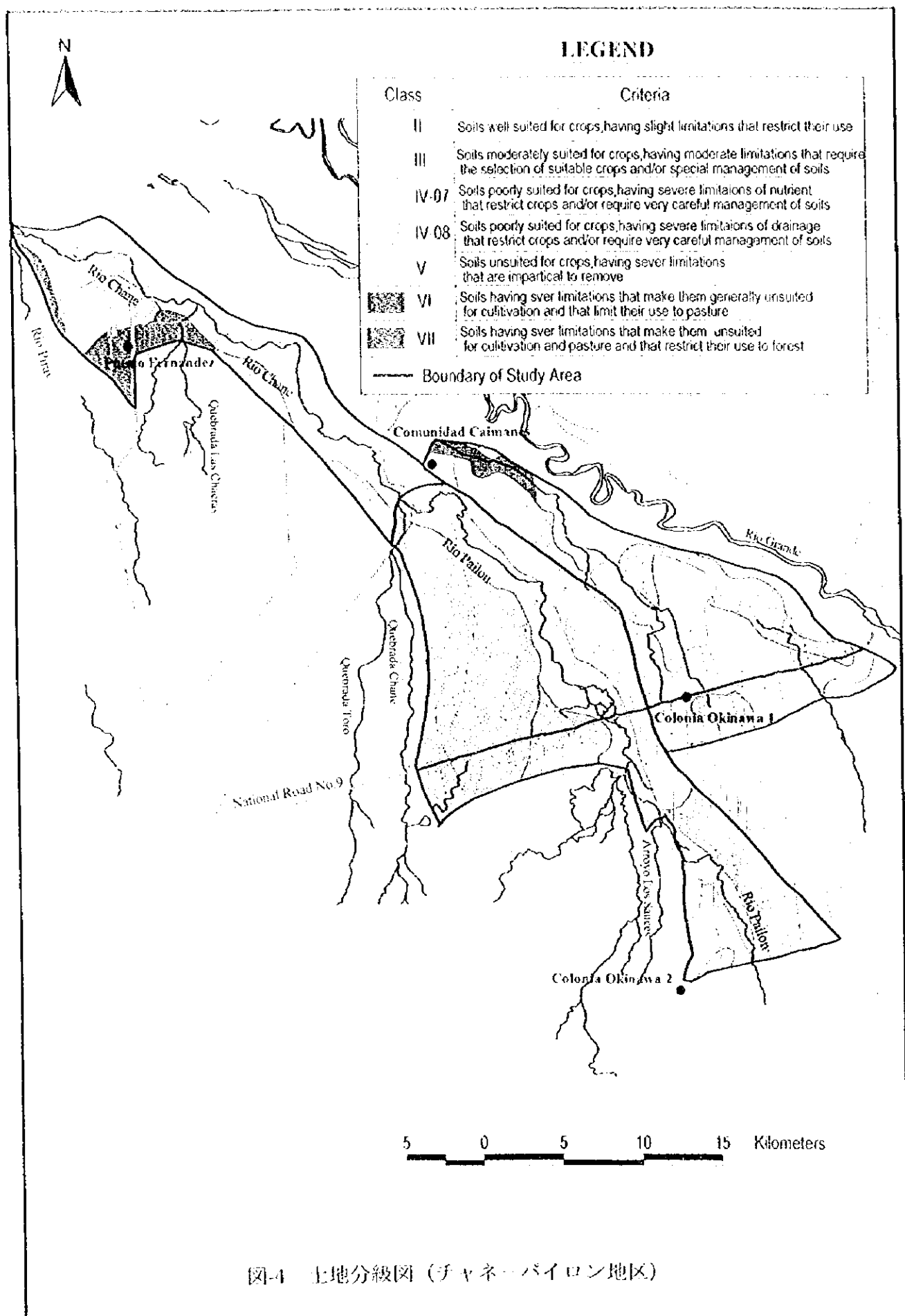


図-4 土地分級図 (チャネーパイロン地区)

## LEGEND

Class	Criteria
II	Soils well suited for crops, having slight limitations that restrict their use
III	Soils moderately suited for crops, having moderate limitations that require the selection of suitable crops and/or special management of soils
IV-07	Soils poorly suited for crops, having severe limitations of nutrient that restrict crops and/or require very careful management of soils
IV-08	Soils poorly suited for crops, having severe limitations of drainage that restrict crops and/or require very careful management of soils
V	Soils unsuited for crops, having severe limitations that are impractical to remove
VI	Soils having severe limitations that make them generally unsuited for cultivation and that limit their use to pasture
VII	Soils having severe limitations that make them unsuited for cultivation and pasture and that restrict their use to forest

— Boundary of Study Area

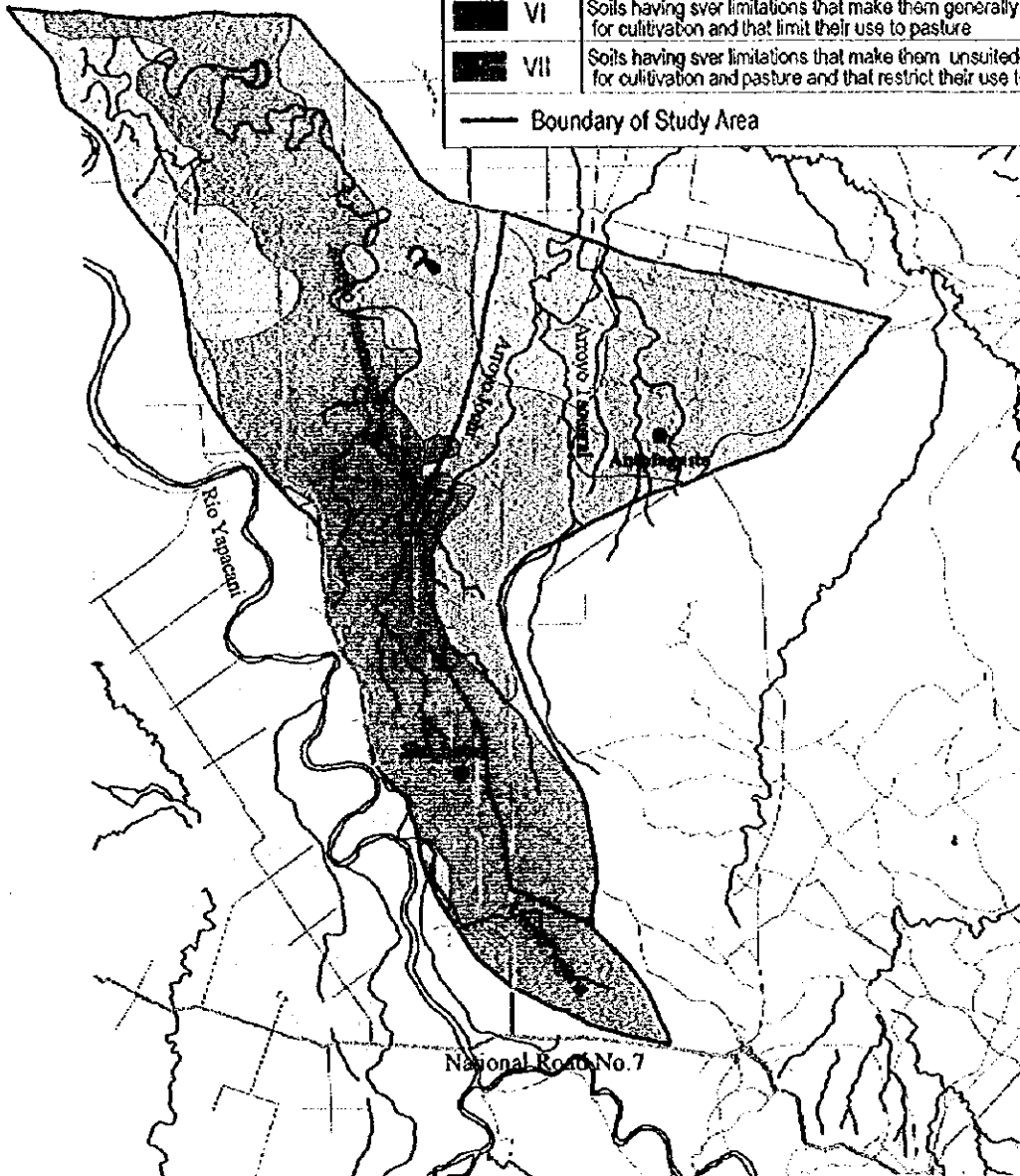
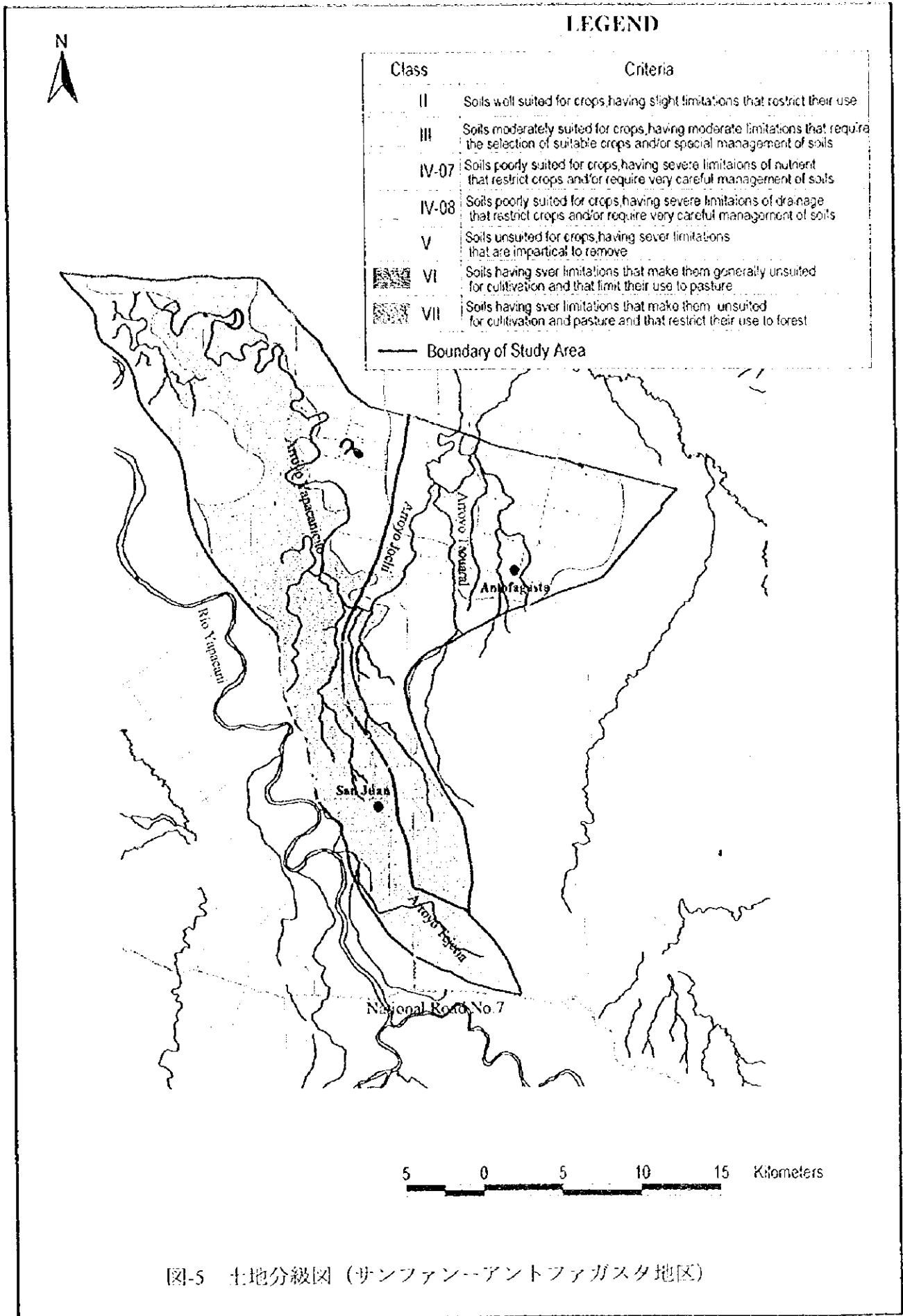


図-5 土地分級図 (サンファン-アントファガスタ地区)



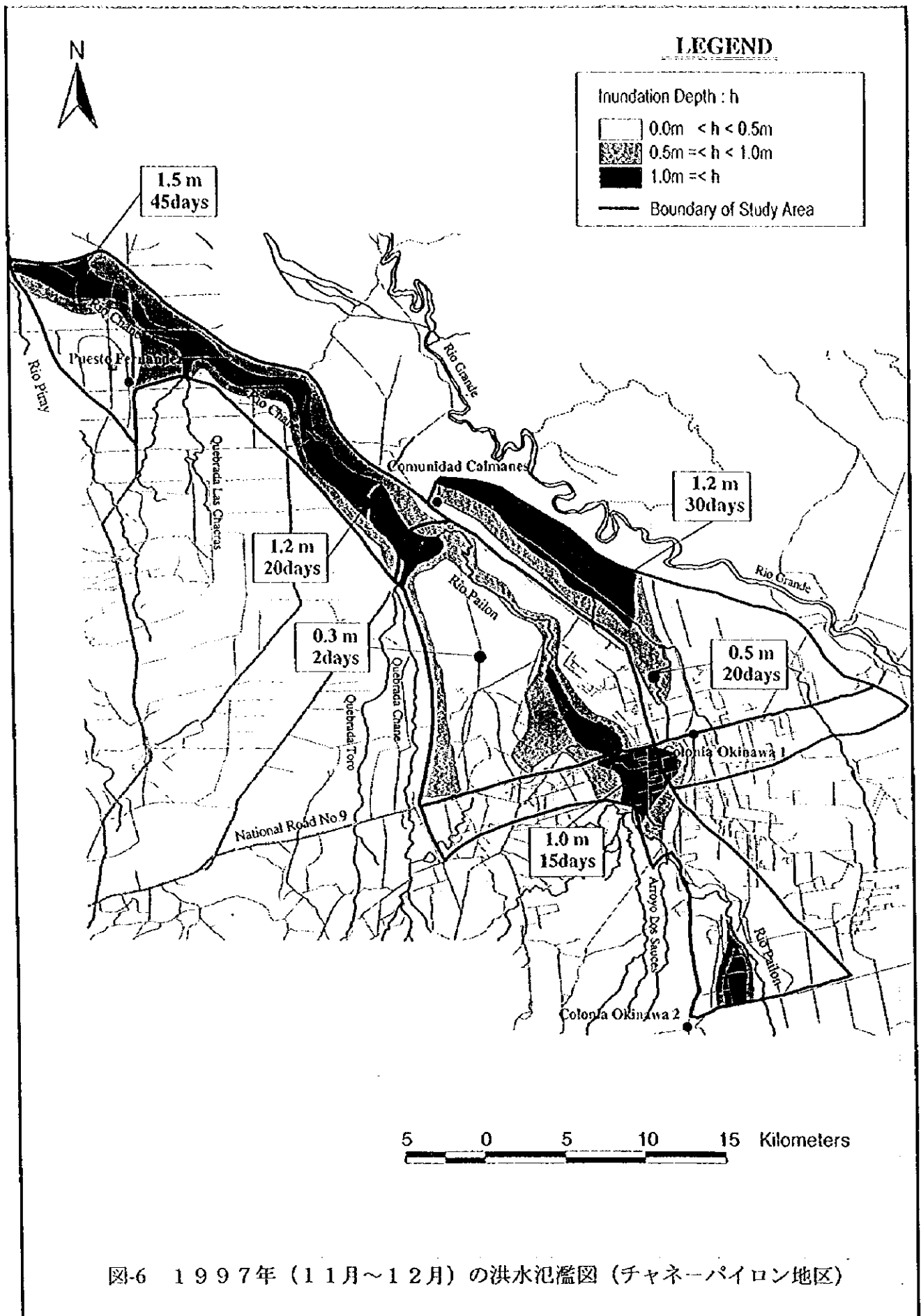


図-6 1997年(11月~12月)の洪水氾濫図(チャネーパイロン地区)



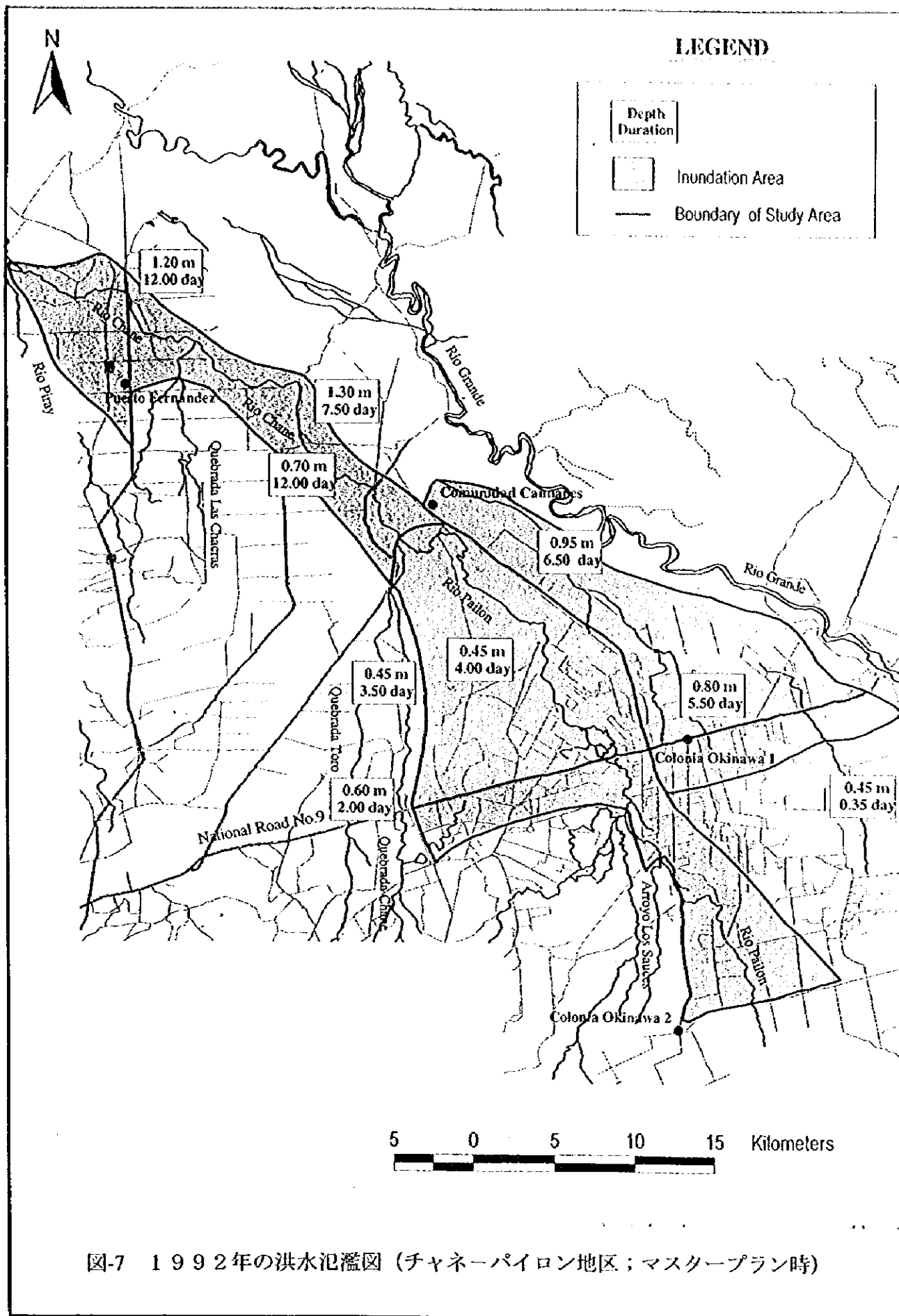


図-7 1992年の洪水氾濫図 (チャネーパイロン地区; マスタープラン時)

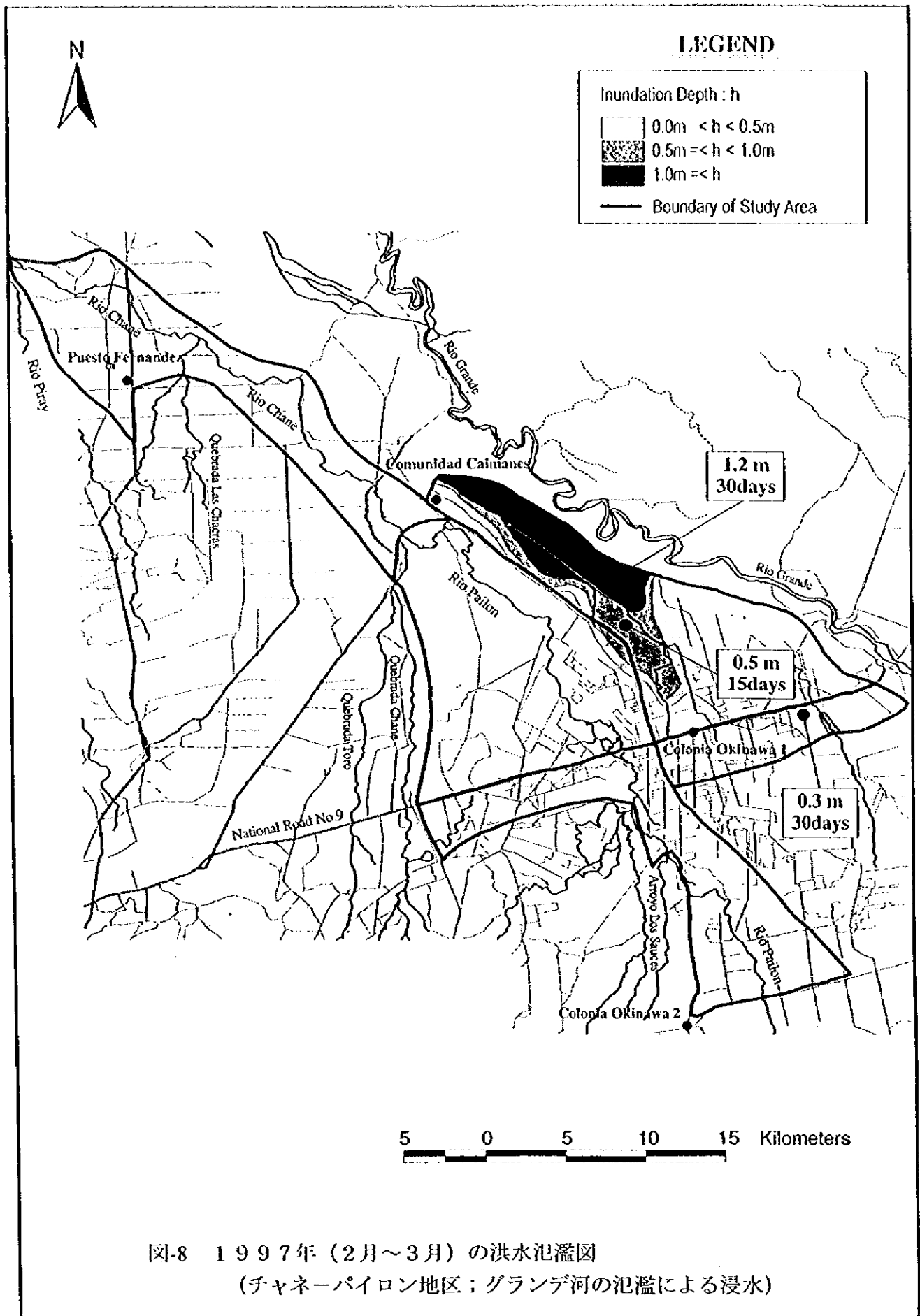


図-8 1997年(2月~3月)の洪水氾濫図  
(チャネーパイロン地区; グランデ河の氾濫による浸水)



### LEGEND

Inundation Depth : h	
	0.0m < h < 0.5m
	0.5m ≤ h < 1.0m
	1.0m ≤ h
	Boundary of Study Area

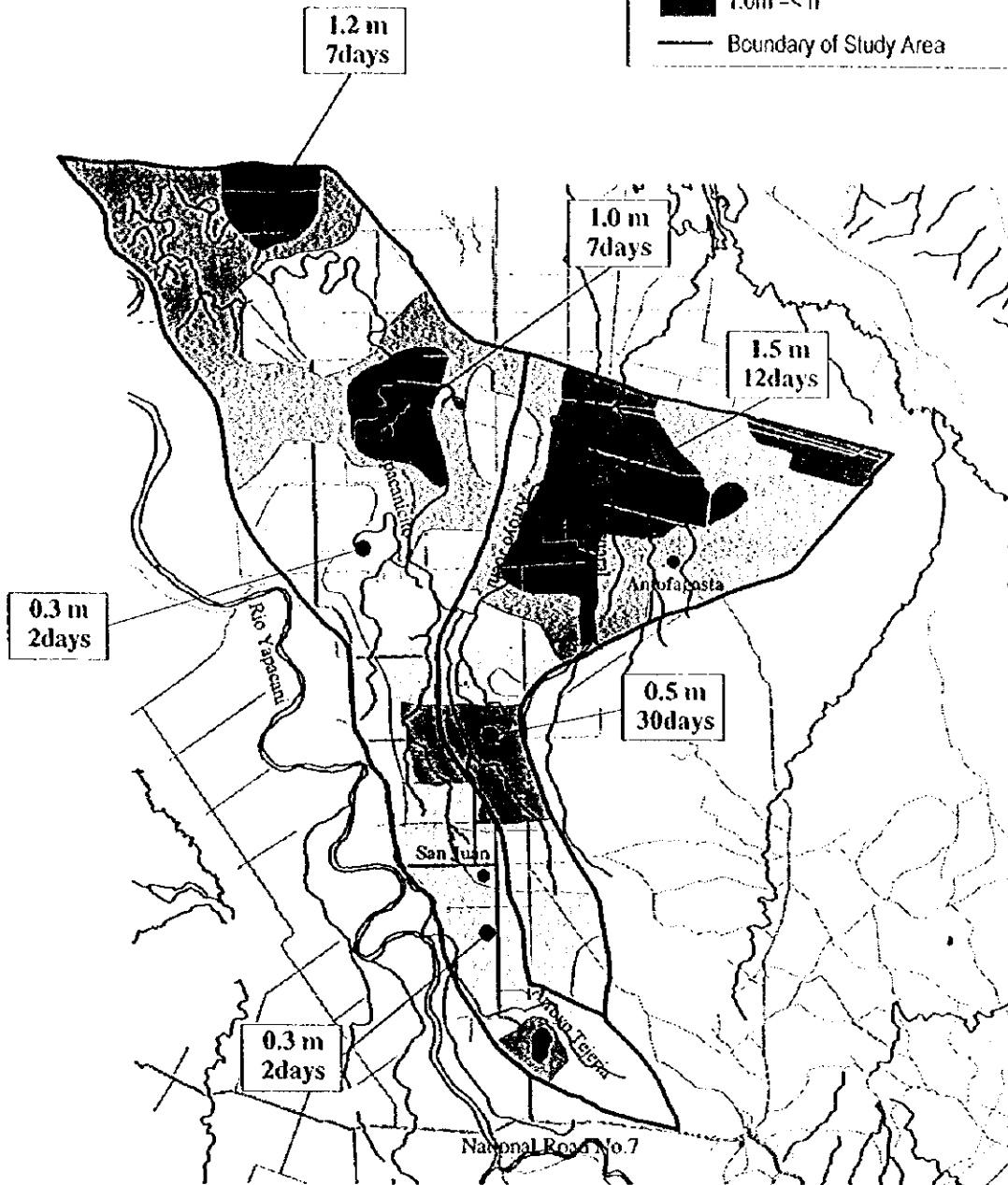




図-9 1996年12月～1997年2月の洪水氾濫図  
(サンファン-アントファガスタ地区)



### LEGEND

Depth	Duration
	Inundation Area
	Boundary of Study Area

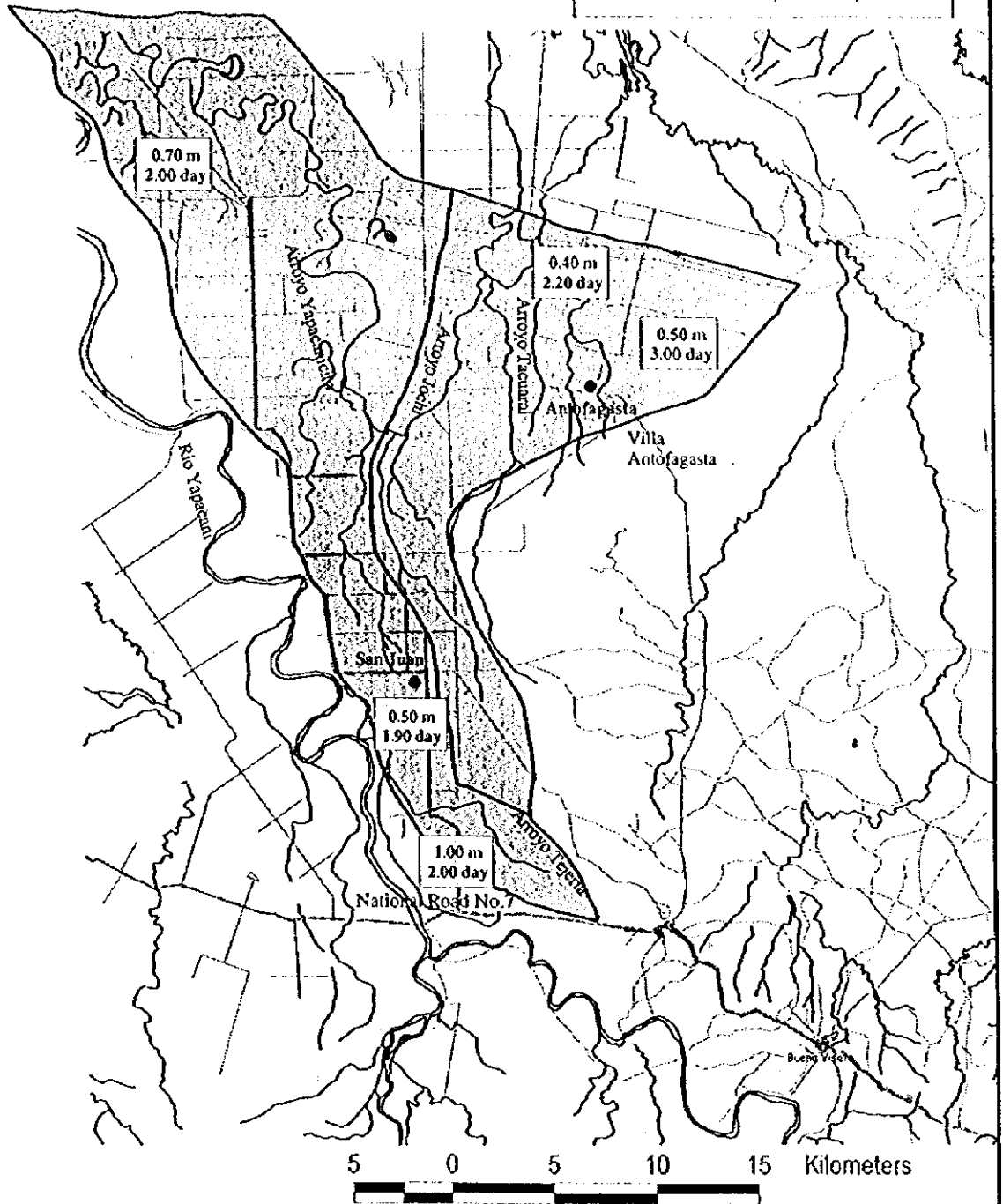


図-10 1992年の洪水氾濫図  
(サンファン-アントファガスタ地区；マスタープラン時)

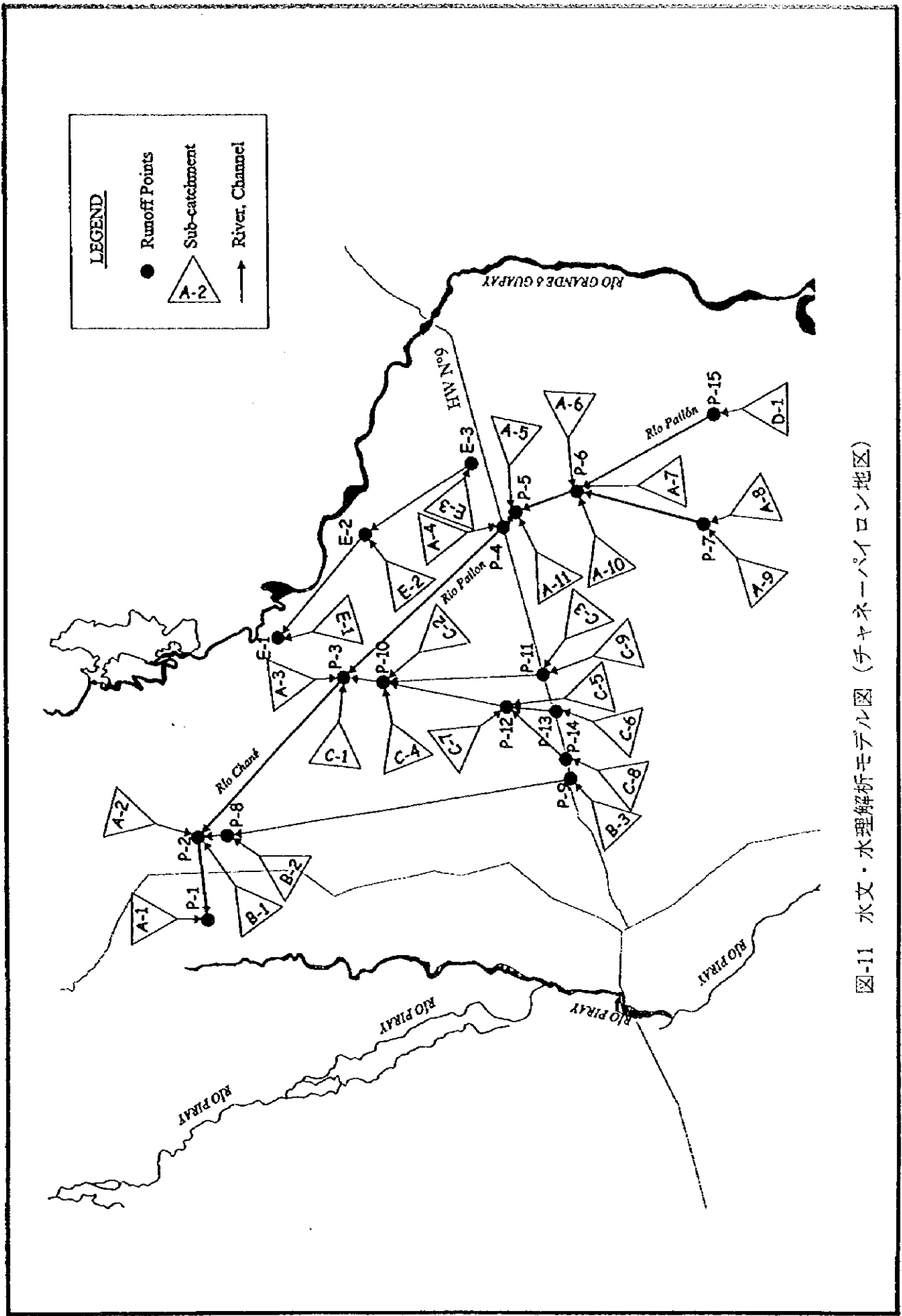


図-11 水文・水理解析モデル図 (チャネーパイロン地区)

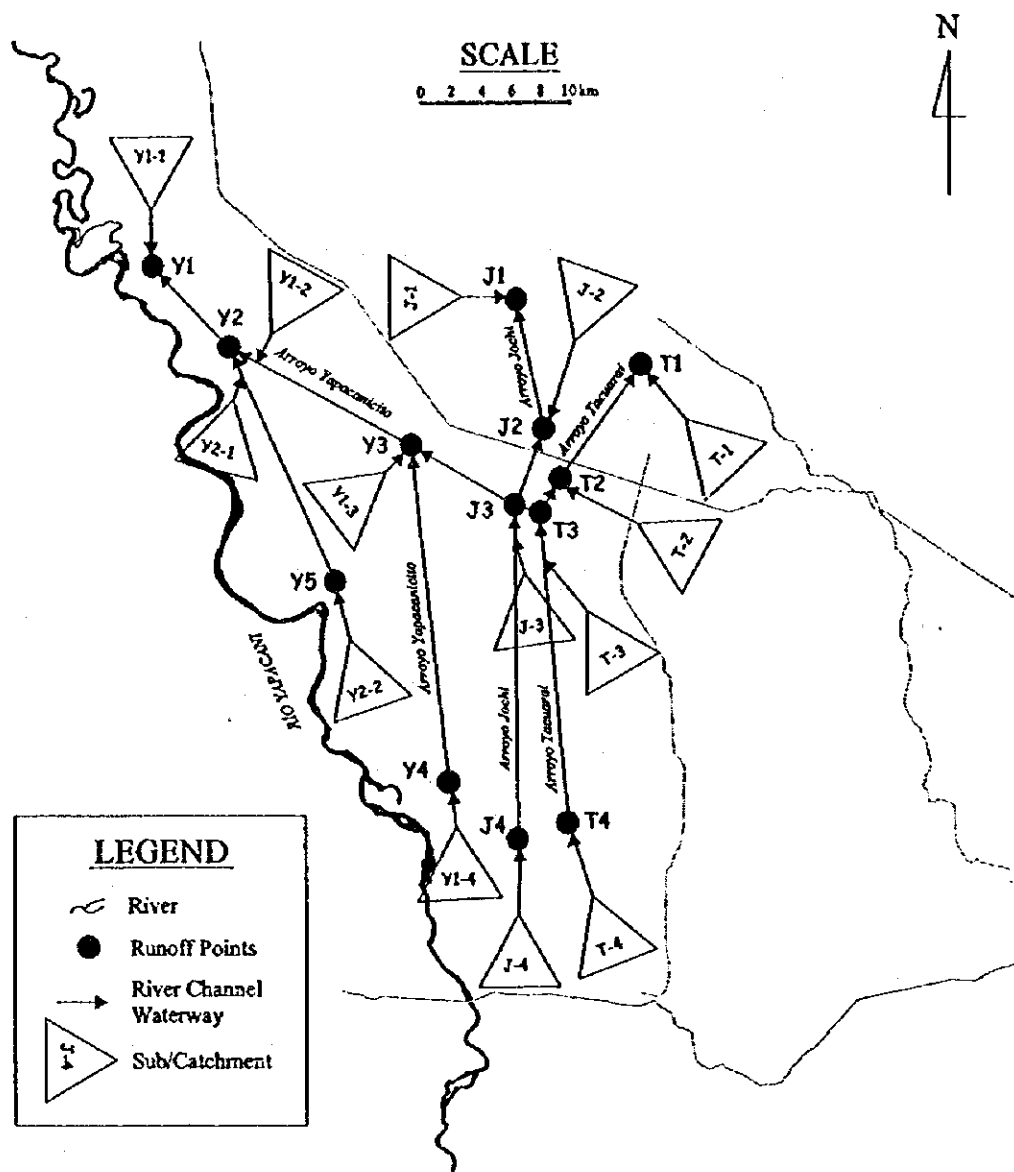


図-12 水文・水理解析モデル図 (サンファン-アントファガスタ地区)

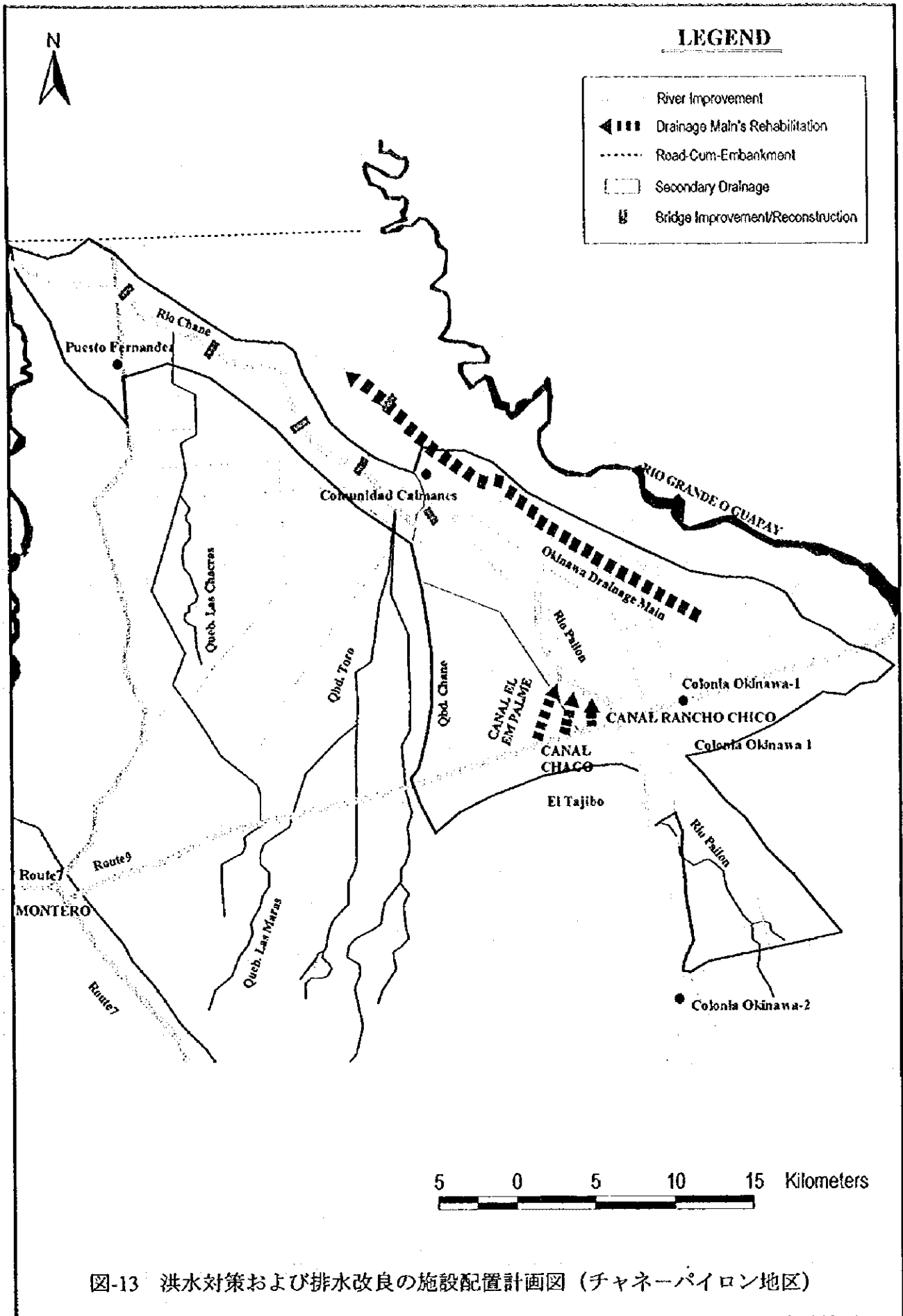


図-13 洪水対策および排水改良の施設配置計画図 (チャネーパイロン地区)

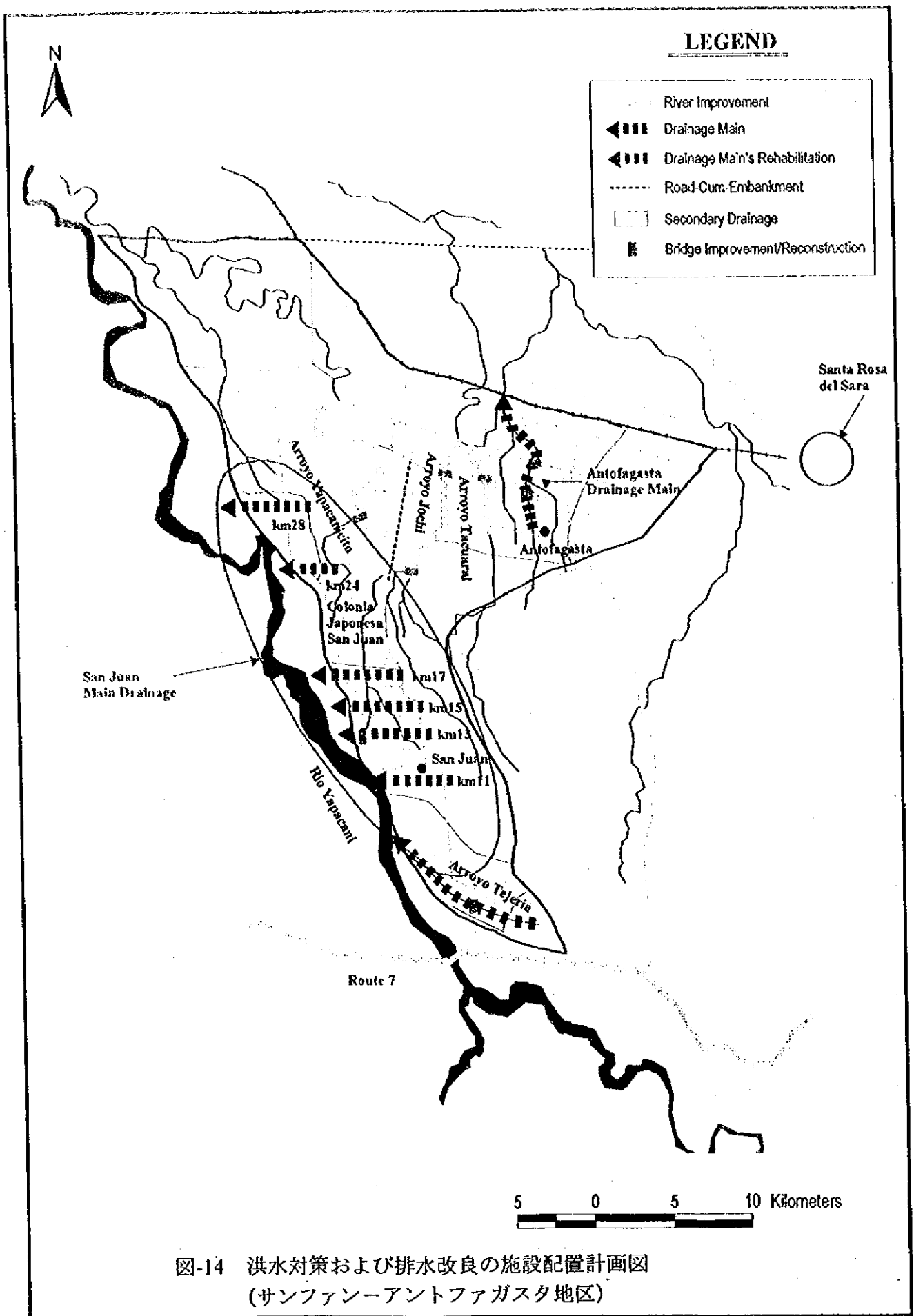
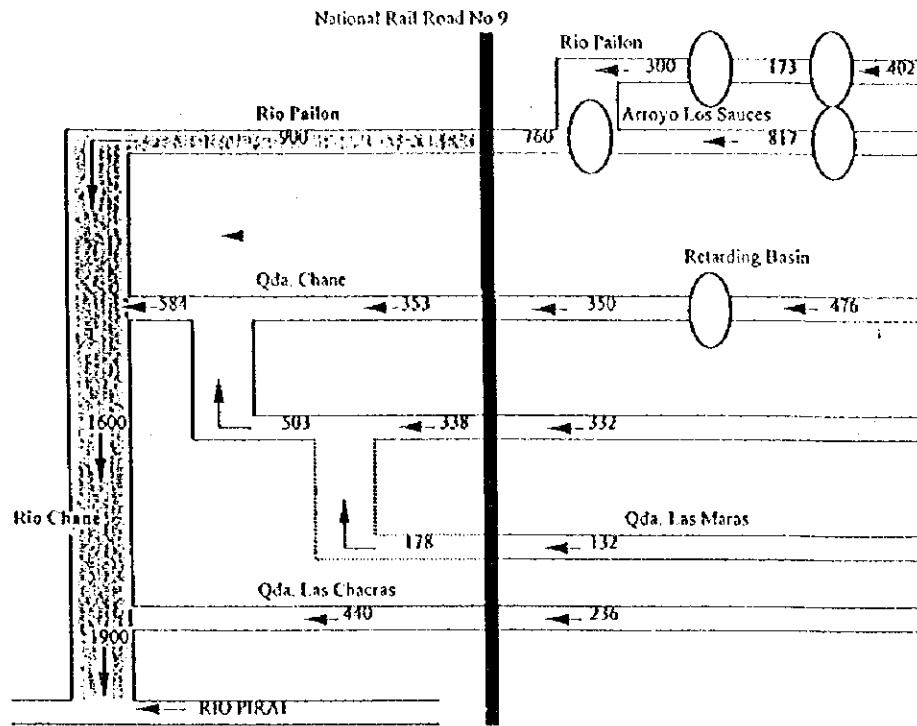
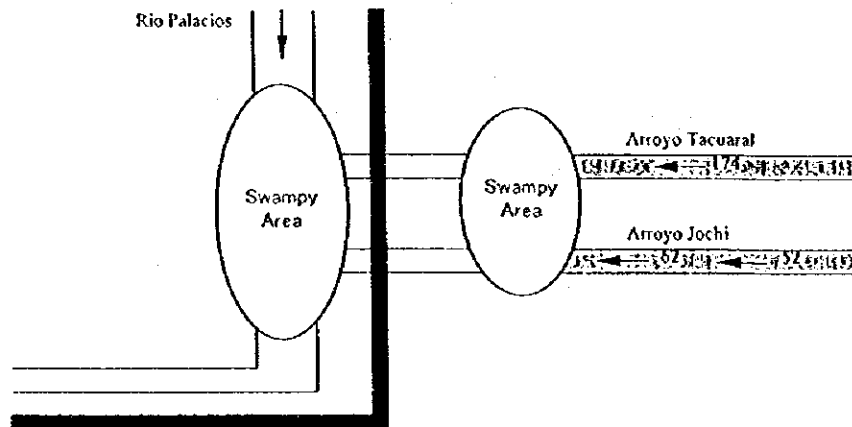


図-14 洪水対策および排水改良の施設配置計画図  
(サンファン-アントファガスタ地区)





CHIANE-PAILON SCHEME



SAN JUAN-ANTOFAGASTA SCHEME

- Legen
- ← : Design Discharge (m<sup>3</sup>/sec)
  - : With River Improvement
  - : Without River Improvement
  - : Rehabilitation of Drainage
  - ..... : With Drainage Improvement

図-15 10年確率洪水における計画流量配分図  
(サンファン-アントファガスタ地区)

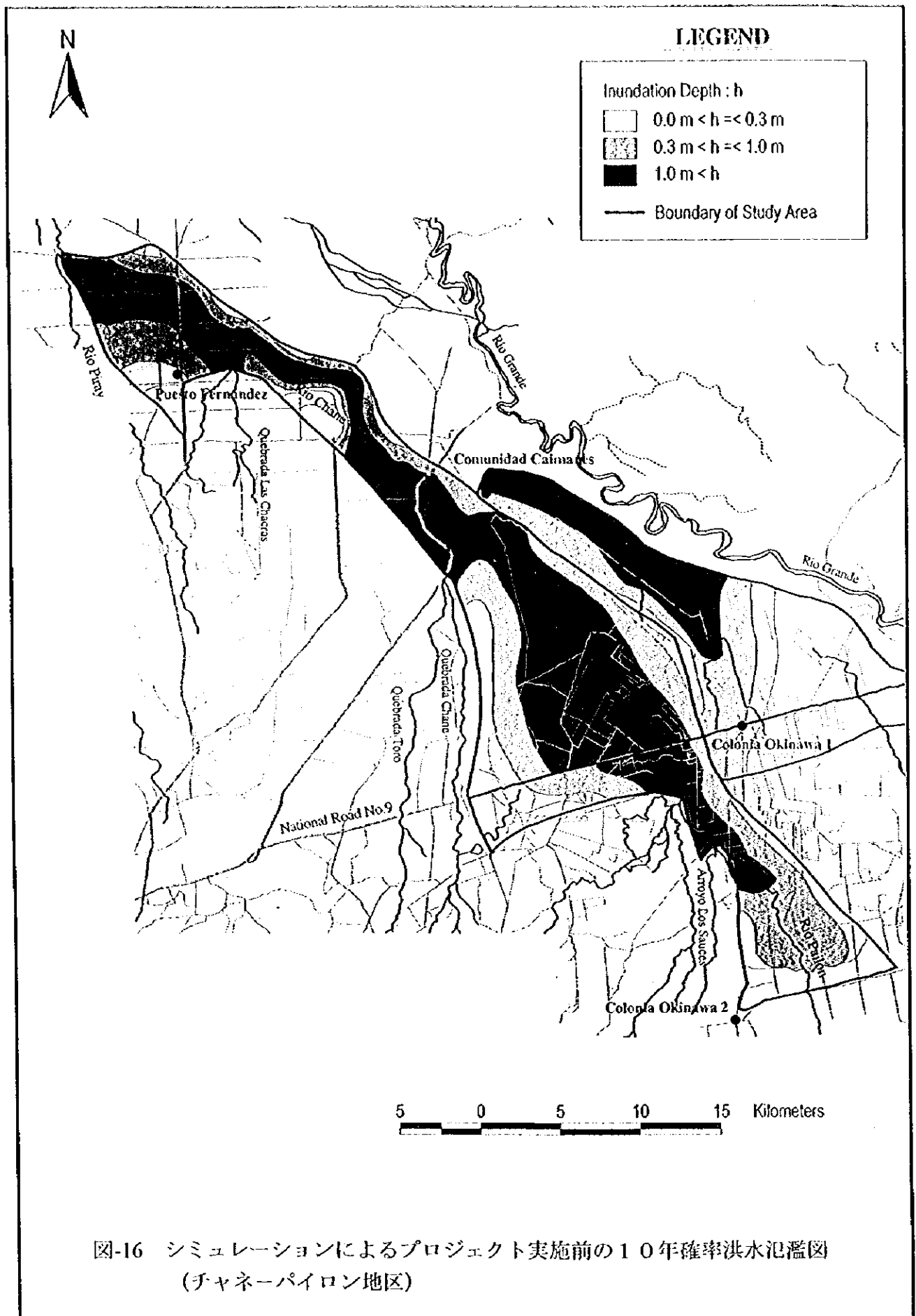
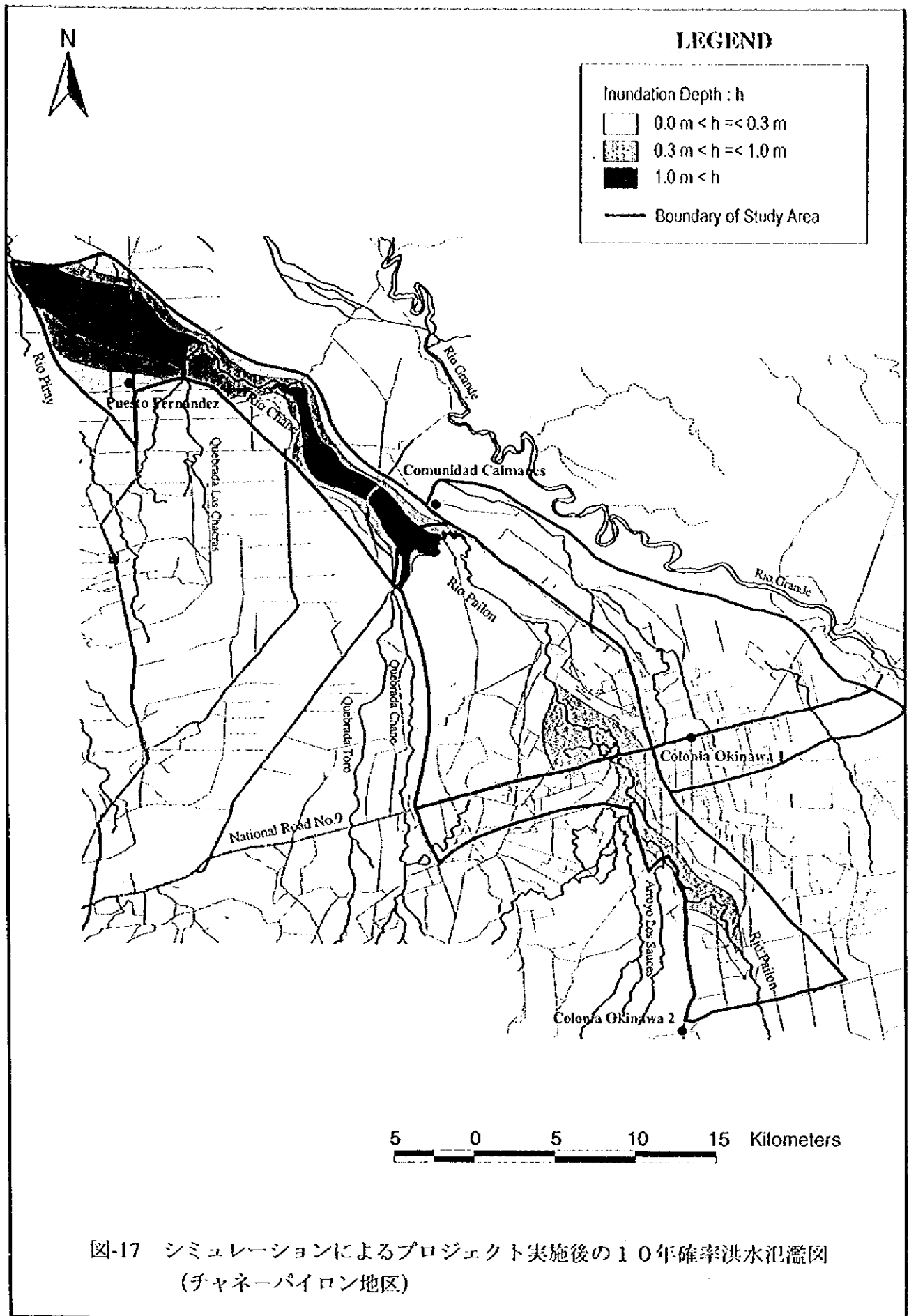


図-16 シミュレーションによるプロジェクト実施前の10年確率洪水氾濫図  
(チャーネーパイロン地区)



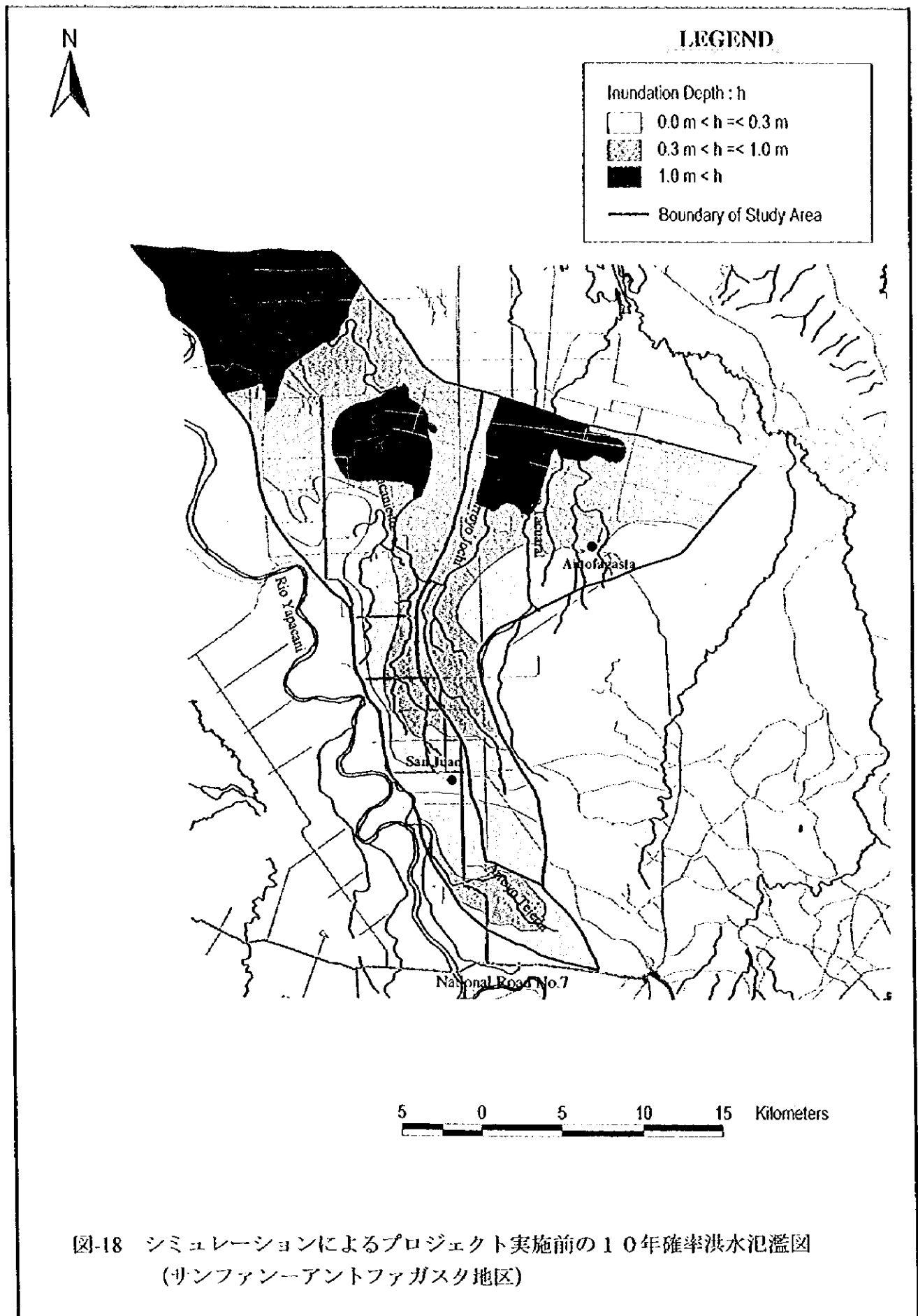




図-18 シミュレーションによるプロジェクト実施前の10年確率洪水氾濫図  
(サンファン-アントファガスタ地区)





### LEGEND

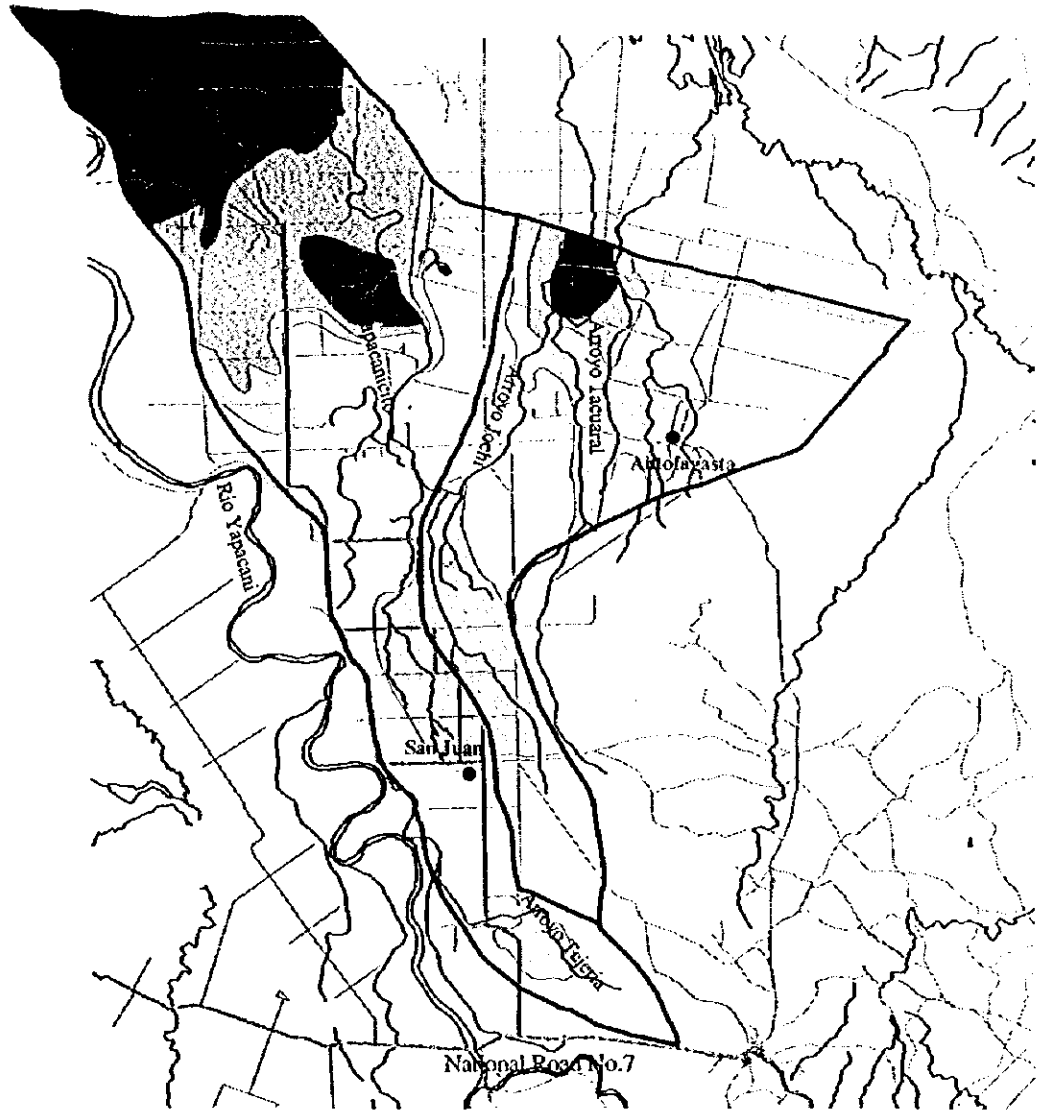
Inundation Depth :  $h$

  $0.0 \text{ m} < h \leq 0.3 \text{ m}$

  $0.3 \text{ m} < h \leq 1.0 \text{ m}$

  $1.0 \text{ m} < h$

 Boundary of Study Area



5 0 5 10 15 Kilometers



図-19 シミュレーションによるプロジェクト実施後の10年確率洪水氾濫図  
(サンファン-アントファガスタ地区)

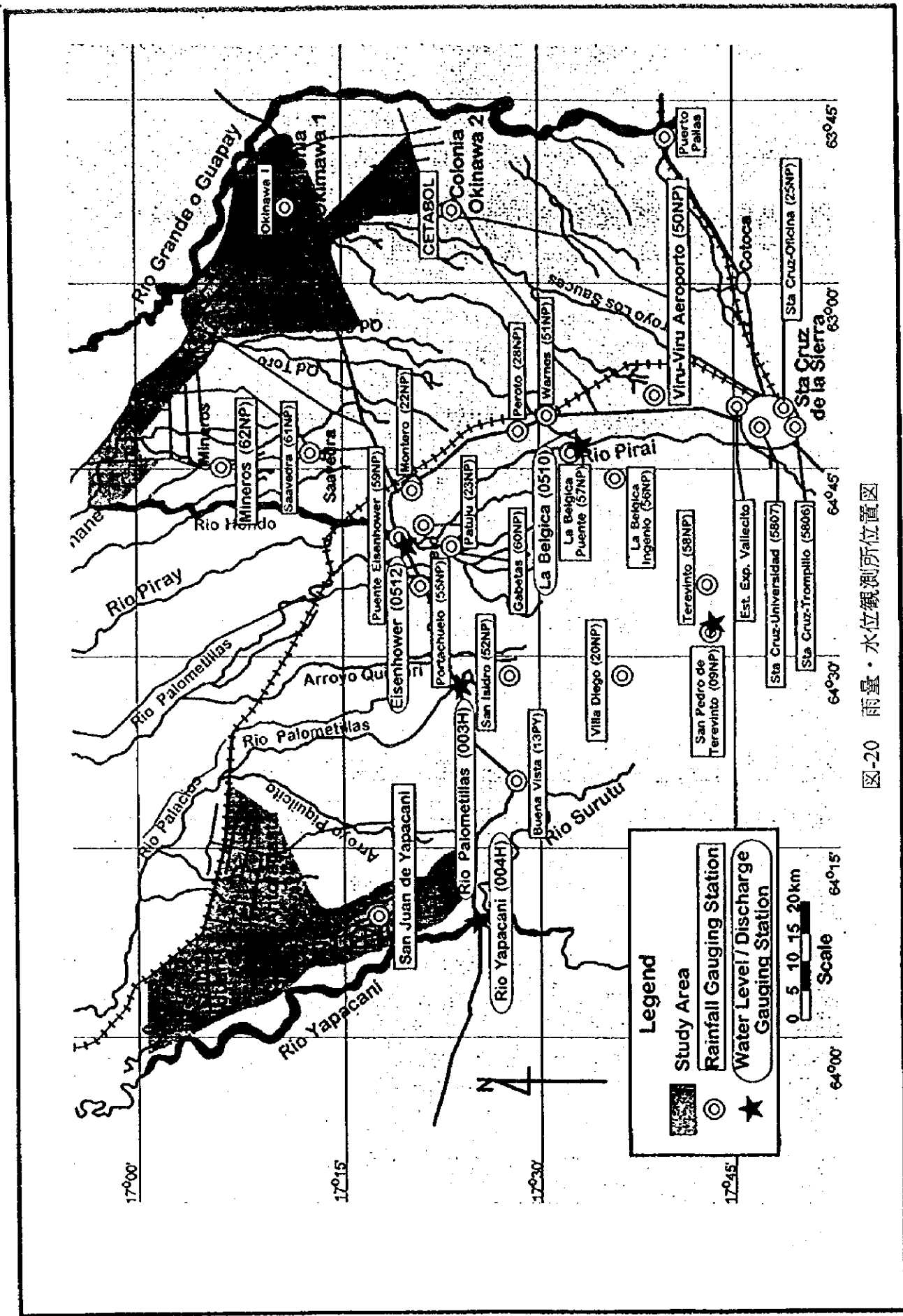


图-20 雨量·水位観測所位置图

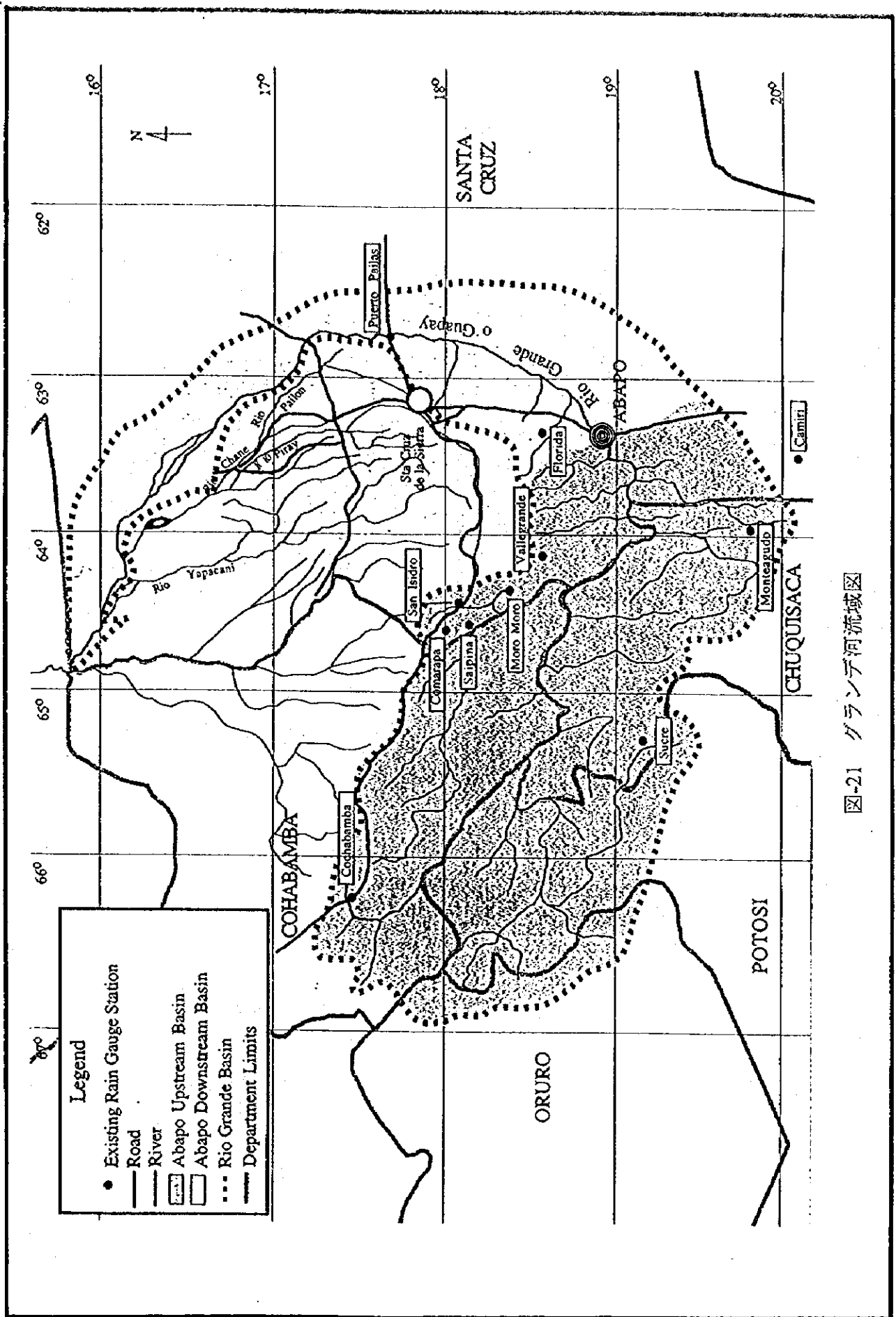


図-21 グランデ河流域図

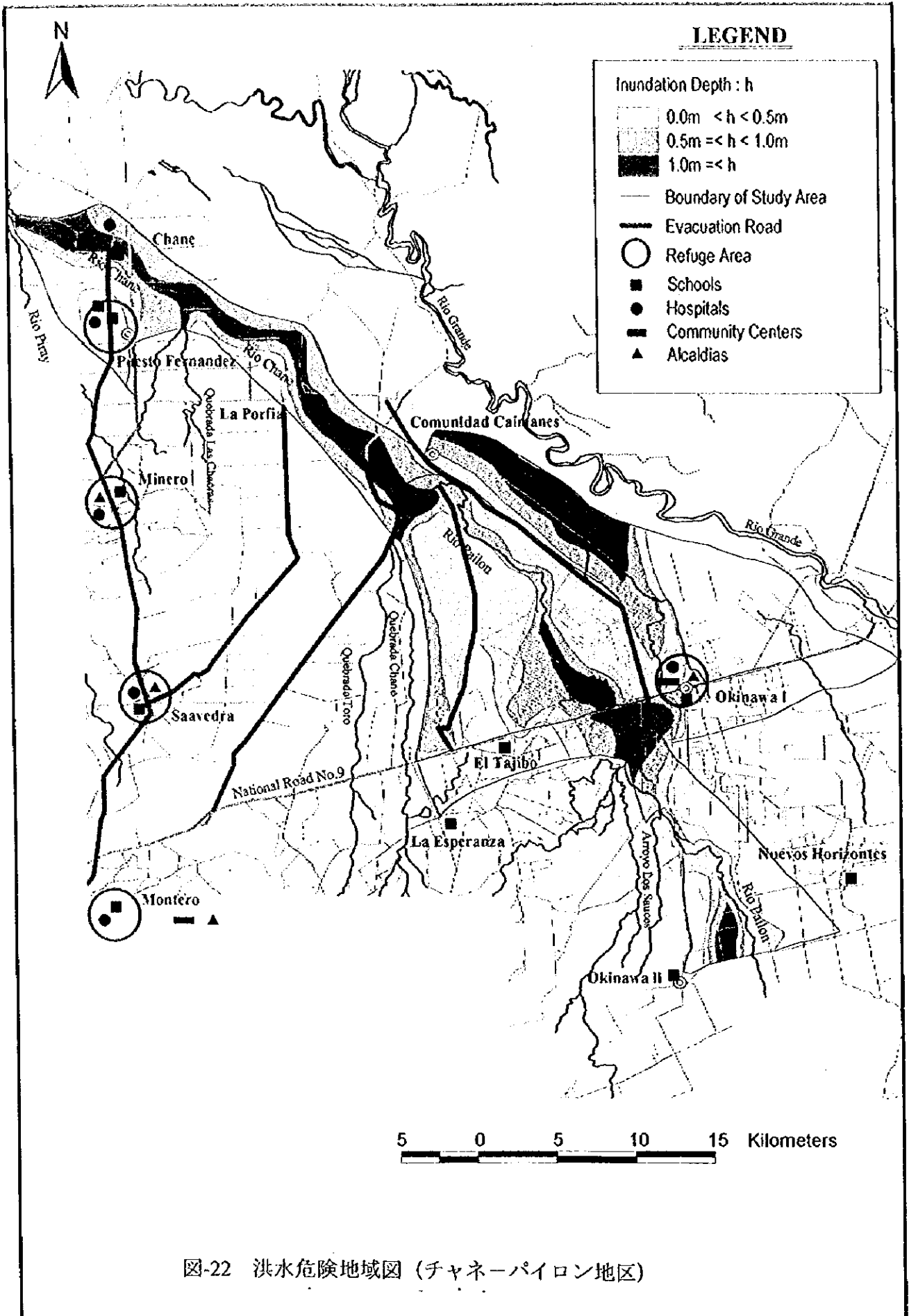
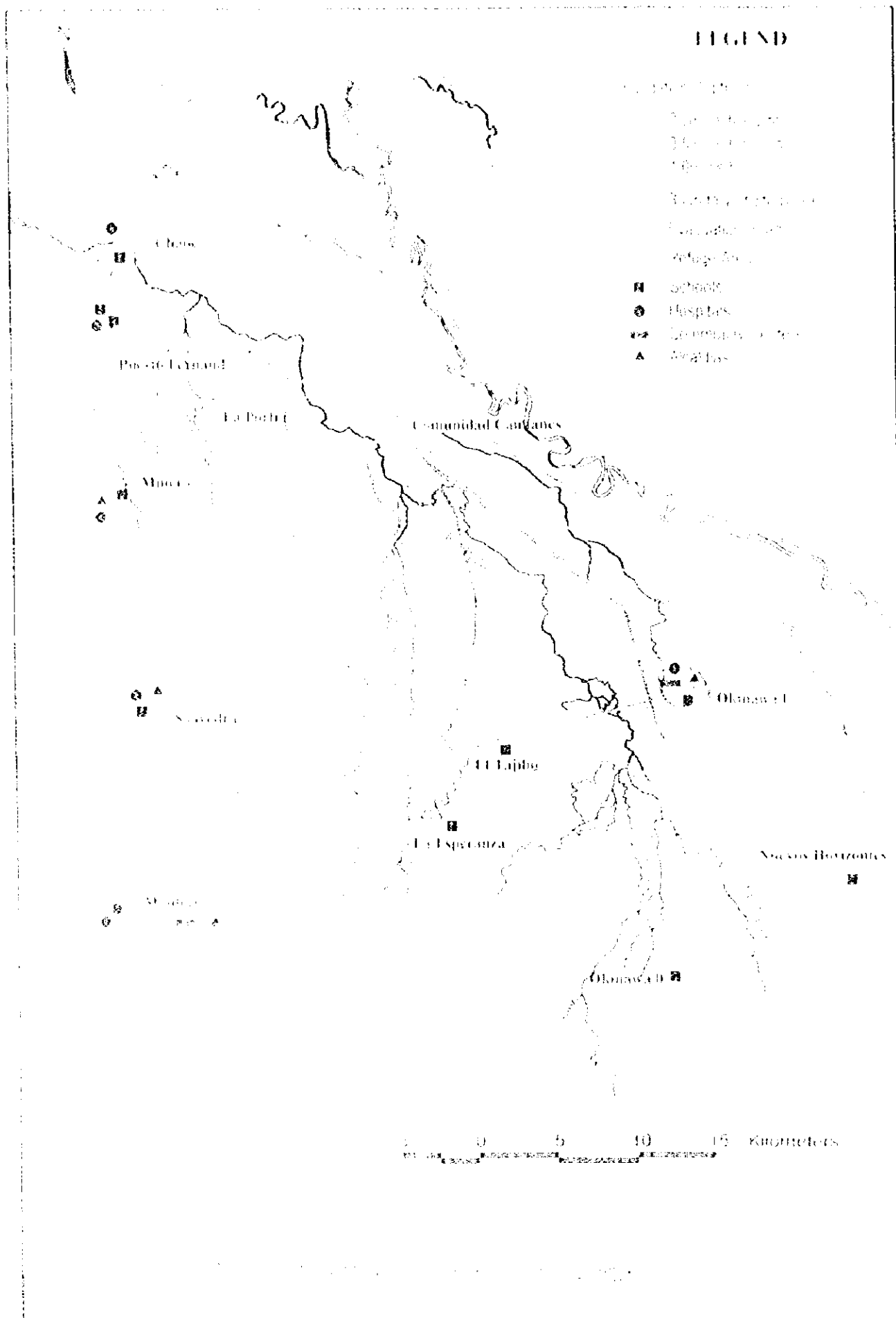


図-22 洪水危険地域図 (チャネーパイロン地区)





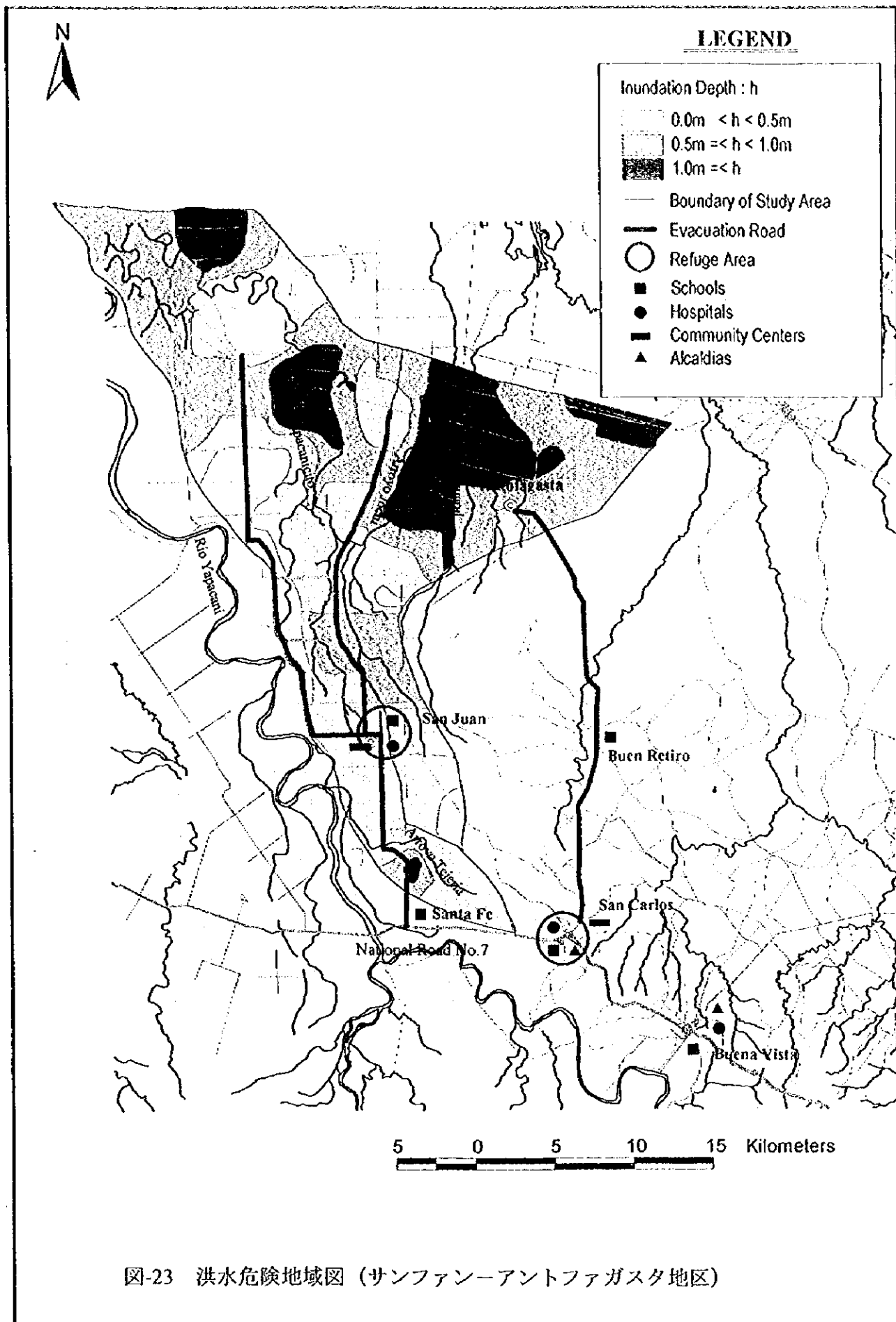


図-23 洪水危険地域図 (サンファン-アントファガスタ地区)



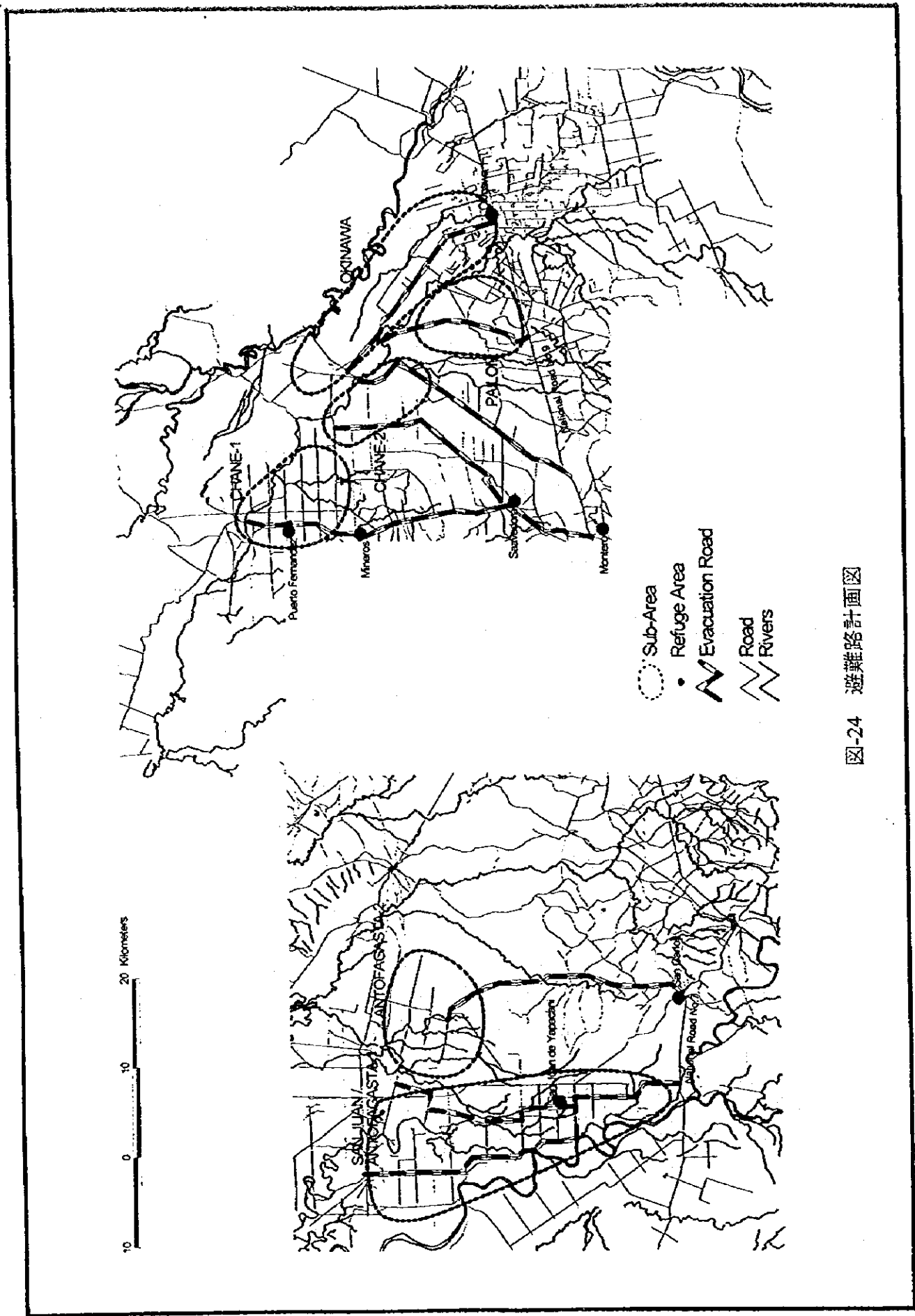


図-24 避難路計画図

5 0 5 10 15 20 Kilometers

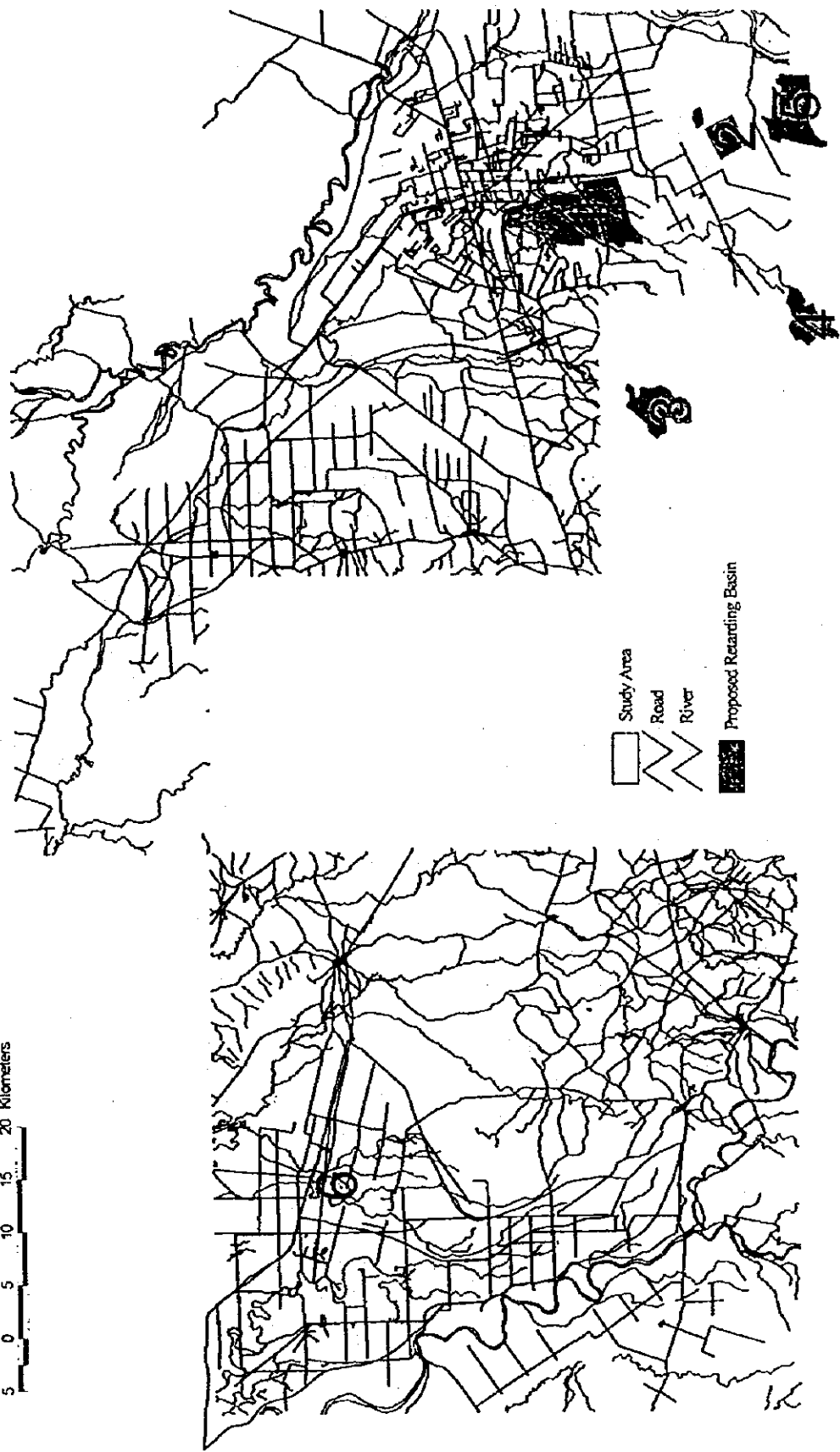


図-25 遊水池計画図

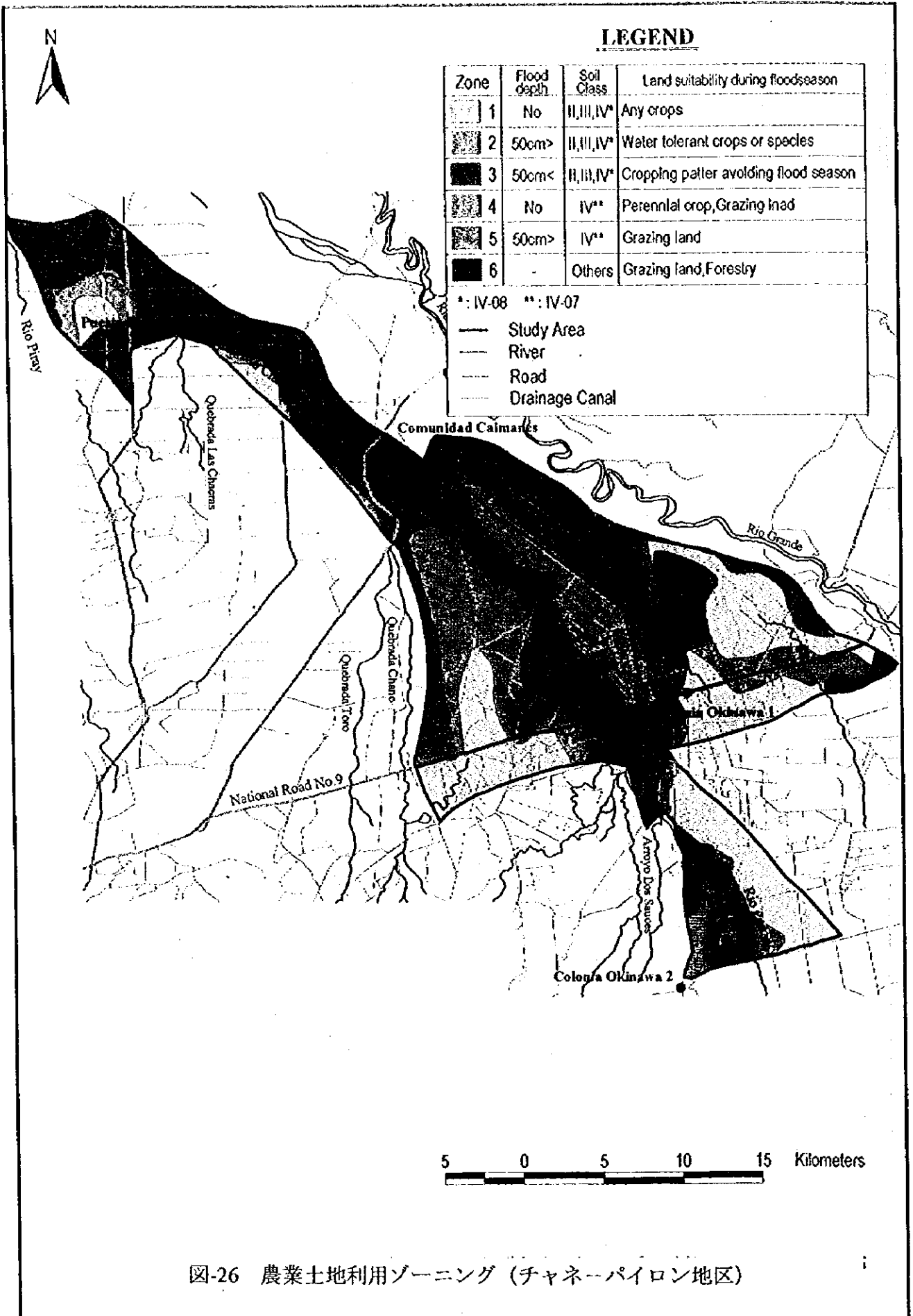


図-26 農業土地利用ゾーニング (チャネーパイロン地区)

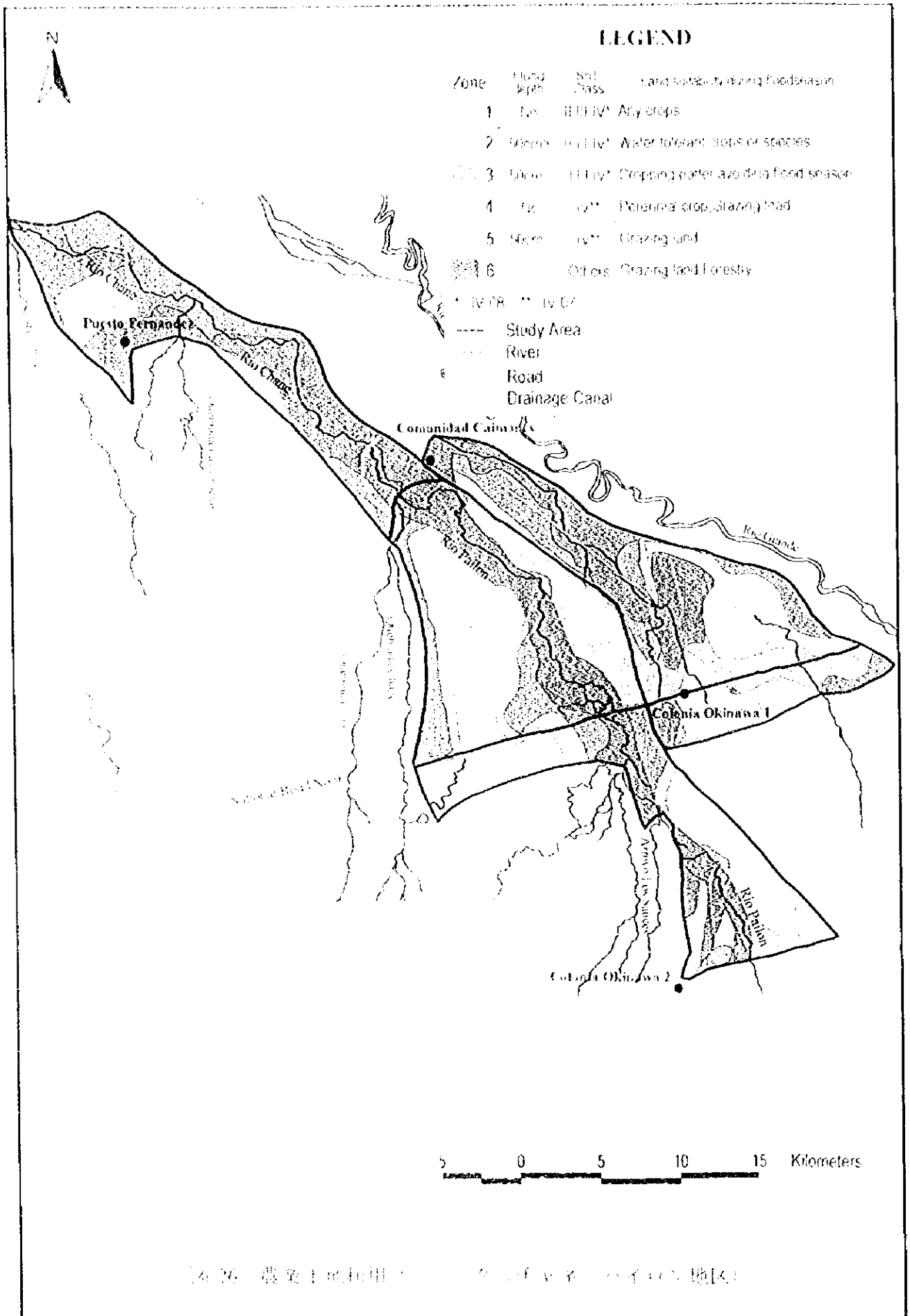


图 26 農業土地利用と洪水泛滥危険を示す地図 (地区)



### LEGEND

Zone	Flood depth	Soil Class	Land suitability during floodseason
1	No	II,III,IV*	Any crops
2	50cm>	II,III,IV*	Water tolerant crops or species
3	50cm<	II,III,IV*	Cropping patter avoiding flood season
4	No	IV**	Perennial crop,Grazing land
5	50cm>	IV**	Grazing land
6	-	Others	Grazing land,Forestry

\*: IV-08    \*\*: IV-07  
 — Study Area  
 — River  
 — Road  
 - - - Drainage Canal

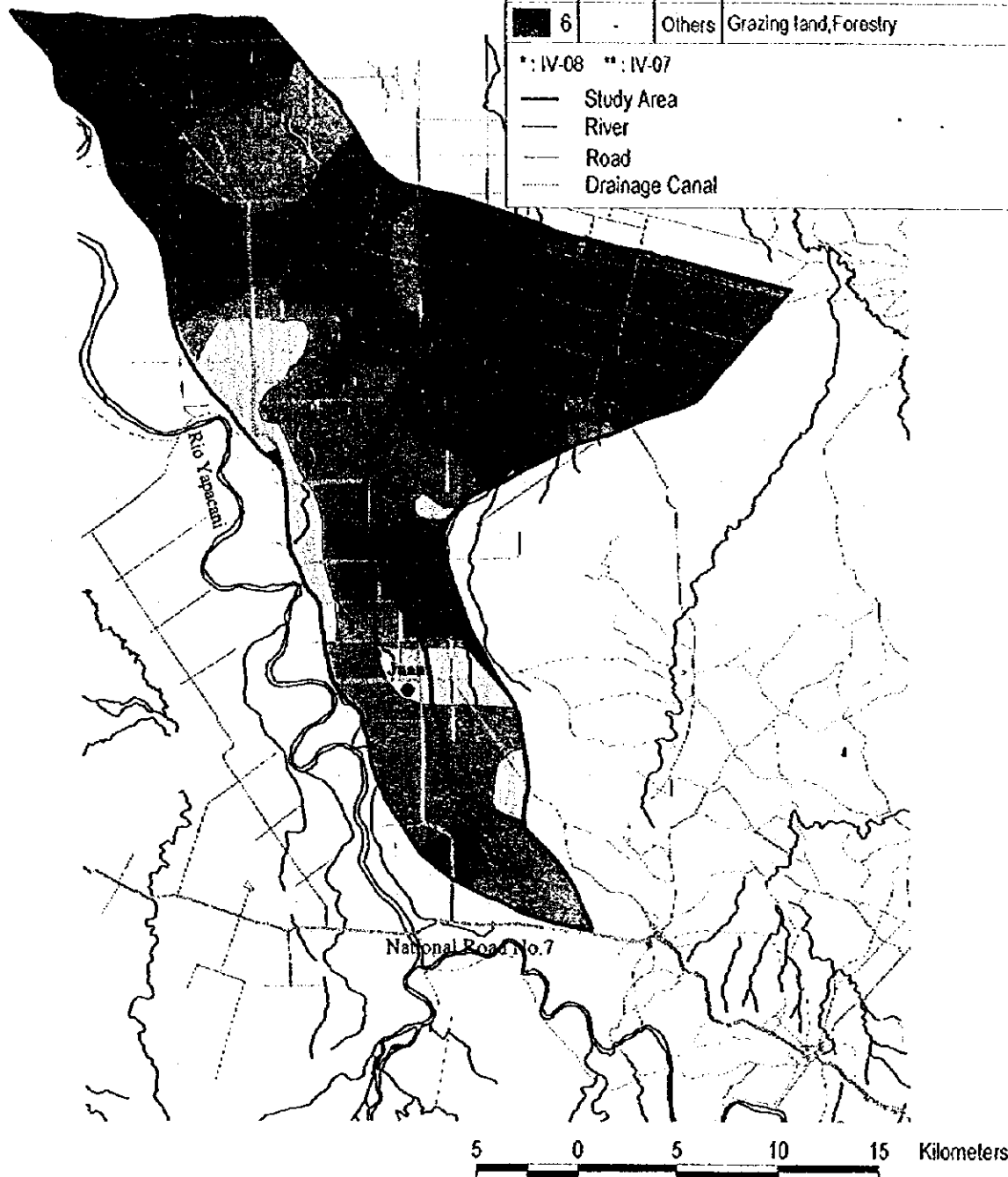


図-27 農業土地利用ゾーニング (サンファン-アントファガスタ地区)





### LEGEND

Zone	Flood depth	Soil Class	Land suitability during flood season
1	< 1.0	II-III, IV*	Any crops
2	50cm >	III-IV*	Water tolerant crops or species
3	50cm <	II, III, IV*	Cropping pattern avoiding flood season
4	< 1.0	IV**	Potential over Grazing land
5	50cm >	IV**	Grazing land
6			Others: Grazing land, Forest,

\* IV-C8 \*\* IV-C7

— Study Area

--- River

— Road

--- Drainage Canal

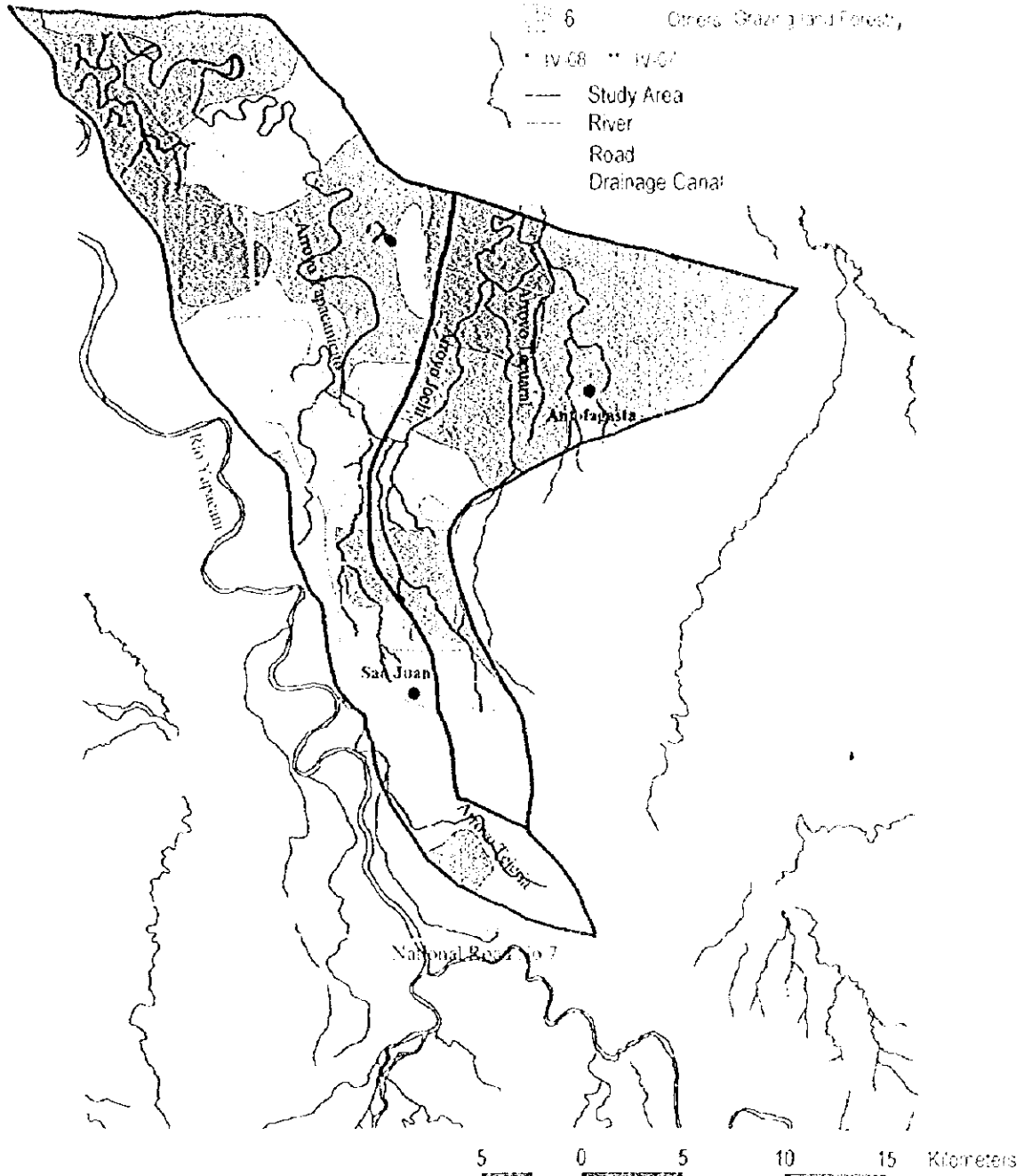


図-27 農業土地利用ゾーニング (サンファン・アントファガスタ地区)

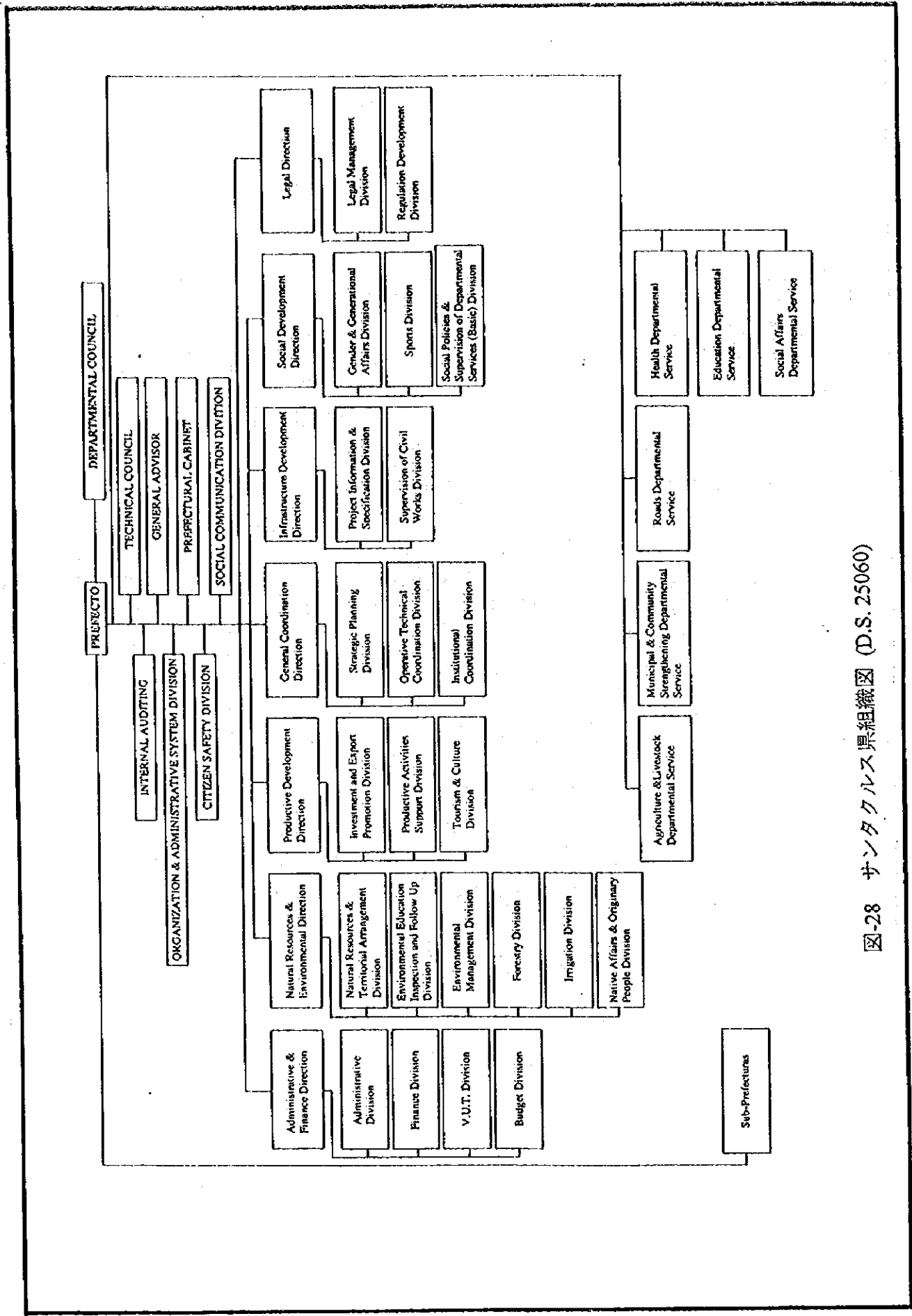


図-28 サンタルムス県組織図 (D.S. 25060)





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